



## **Cisco ONS SONET TL1 Command Guide**

Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15600

Product and Documentation Release 6.0  
May 2010

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<b>About this Guide</b>	<b>xxix</b>
Revision History	xxix
Document Objectives	xxx
Audience	xxx
Document Organization	xxx
Related Documentation	xxx
Document Conventions	xxx
Obtaining Optical Networking Information	xxxviii
Where to Find Safety and Warning Information	xxxviii
Cisco Optical Networking Product Documentation CD-ROM	xxxviii
Obtaining Documentation and Submitting a Service Request	xxxix

---

**CHAPTER 1****ACT Commands** 1-1

## 1.1 ACT-USER 1-1

---

**CHAPTER 2****ALW Commands** 2-1

## 2.1 ALW-CONSOLE-PORT 2-1

## 2.2 ALW-MSG-ALL 2-2

## 2.3 ALW-MSG-DBCHG 2-3

## 2.4 ALW-MSG-SECU 2-4

## 2.5 ALW-PMREPT-ALL 2-5

## 2.6 ALW-SWDX-EQPT 2-5

## 2.7 ALW-SWTOPTN-EQPT 2-7

## 2.8 ALW-SWTOWKG-EQPT 2-8

## 2.9 ALW-USER-SECU 2-10

---

**CHAPTER 3****APPLY Commands** 3-1

## 3.1 APPLY 3-1

---

**CHAPTER 4****CANC Commands** 4-1

## 4.1 CANC 4-1

## 4.2 CANC-USER 4-2

4.3 CANC-USER-SECU 4-3

**CHAPTER 5**

**CHG Commands 5-1**

5.1 CHG-ACCMD-<MOD\_TACC> 5-1

5.2 CHG-EQPT 5-3

**CHAPTER 6**

**CLR Commands 6-1**

6.1 CLR-COND-SECU 6-1

**CHAPTER 7**

**CONN Commands 7-1**

7.1 CONN-TACC-<MOD\_TACC> 7-1

**CHAPTER 8**

**COPY Commands 8-1**

8.1 COPY-IOSCFG 8-1

8.2 COPY-RFILE 8-3

Prerequisite 8-3

**CHAPTER 9**

**DISC Commands 9-1**

9.1 DISC-TACC 9-1

**CHAPTER 10**

**DLT Commands 10-1**

10.1 DLT-<MOD1PAYLOAD> 10-1

10.2 DLT-<MOD\_RING> 10-3

10.3 DLT-BULKROLL<OCN\_TYPE> 10-4

10.4 DLT-CRS-<PATH> 10-6

10.5 DLT-EQPT 10-9

10.6 DLT-FFP-<MOD2DWDMPAYLOAD> 10-10

10.7 DLT-FFP-<OCN\_TYPE> 10-11

10.8 DLT-LNK-<MOD20> 10-12

10.9 DLT-LNKTERM 10-13

10.10 DLT-OSC 10-14

10.11 DLT-RMONTH-<MOD2\_RMON> 10-15

10.12 DLT-ROLL-<MOD\_PATH> 10-21

10.13 DLT-ROUTE 10-22

10.14 DLT-ROUTE-GRE 10-23

10.15 DLT-TADRMAP 10-25

10.16	DLT-TRAPTABLE	10-26
10.17	DLT-TUNNEL-FIREWALL	10-26
10.18	DLT-TUNNEL-PROXY	10-28
10.19	DLT-USER-SECU	10-29
10.20	DLT-VCG	10-29
10.21	DLT-WLEN	10-31

**CHAPTER 11****ED Commands 11-1**

11.1	ED-<GIGE_TYPE>	11-1
11.2	ED-<MOD1FCPAYLOAD>	11-5
11.3	ED-<MOD1FICONPAYLOAD>	11-11
11.4	ED-<MOD2DWDMPAYLOAD>	11-16
11.5	ED-<MOD_PATH>	11-20
11.6	ED-<MOD_RING>	11-26
11.7	ED-<OCN_TYPE>	11-28
11.8	ED-ALS	11-35
11.9	ED-APC	11-38
11.10	ED-BITS	11-39
11.11	ED-BULKROLL-<OCN_TYPE>	11-42
11.12	ED-CMD-SECU	11-45
11.13	ED-CRS-<PATH>	11-46
11.14	ED-DAT	11-48
11.15	ED-DS1	11-49
11.16	ED-EC1	11-51
11.17	ED-EQPT	11-54
11.18	ED-FAC	11-59
11.19	ED-FFP-<MOD2DWDMPAYLOAD>	11-63
11.20	ED-FFP-<OCN_TYPE>	11-65
11.21	ED-FFP-OCH	11-68
11.22	ED-FSTE	11-69
11.23	ED-G1000	11-73
11.24	ED-GFP	11-75
11.25	ED-HDLC	11-77
11.26	ED-LNK-<MOD20>	11-78
11.27	ED-LNKTERM	11-80
11.28	ED-NE-GEN	11-81

11.29	ED-NE-PATH	11-83
11.30	ED-NE-SYCN	11-84
11.31	ED-OCH	11-86
11.32	ED-OMS	11-93
11.33	ED-OSC	11-95
11.34	ED-OTS	11-96
11.35	ED-PID	11-98
11.36	ED-POS	11-100
11.37	ED-PROTOCOL	11-103
11.38	ED-ROLL-<MOD_PATH>	11-104
11.39	ED-SLV-WDMANS	11-106
11.40	ED-SYCN	11-107
11.41	ED-T1	11-108
11.42	ED-T3	11-114
11.43	ED-TRAPTABLE	11-119
11.44	ED-TRC-OCH	11-120
11.45	ED-USER-SECU	11-122
11.46	ED-VCG	11-124
11.47	ED-WDMANS	11-125
11.48	ED-WLEN	11-126

**CHAPTER 12**

**ENT Commands 12-1**

12.1	ENT-<MOD1PAYLOAD>	12-1
12.2	ENT-<MOD_RING>	12-3
12.3	ENT-BULKROLL-<OCN_TYPE>	12-6
12.4	ENT-CRS-<PATH>	12-8
12.5	ENT-EQPT	12-12
12.6	ENT-FFP-<MOD2DWDMPAYLOAD>	12-20
12.7	ENT-FFP-<OCN_TYPE>	12-23
12.8	ENT-LNK-<MOD20>	12-27
12.9	ENT-LNKTERM	12-28
12.10	ENT-OSC	12-31
12.11	ENT-RMONTH-<MOD2_RMON>	12-32
12.12	ENT-ROLL-<MOD_PATH>	12-39
12.13	ENT-ROUTE	12-40
12.14	ENT-ROUTE-GRE	12-41

12.15	ENT-TADRMAP	12-42
12.16	ENT-TRAPTABLE	12-43
12.17	ENT-TUNNEL-FIREWALL	12-44
12.18	ENT-TUNNEL-PROXY	12-45
12.19	ENT-USER-SECU	12-46
12.20	ENT-VCG	12-48
12.21	ENT-WLEN	12-51

**CHAPTER 13****EX Commands 13-1**

13.1	EX-SW-<OCN_BLSR>	13-1
------	------------------	------

**CHAPTER 14****INH Commands 14-1**

14.1	INH-CONSOLE-PORT	14-1
14.2	INH-MSG-ALL	14-2
14.3	INH-MSG-DBCHG	14-3
14.4	INH-MSG-SECU	14-4
14.5	INH-PMREPT-ALL	14-4
14.6	INH-SWDX-EQPT	14-5
14.7	INH-SWTOPROTN-EQPT	14-6
14.8	INH-SWTOWKG-EQPT	14-8
14.9	INH-USER-SECU	14-10

**CHAPTER 15****INIT Commands 15-1**

15.1	INIT-REG-<MOD2>	15-1
15.2	INIT-SYS	15-8

**CHAPTER 16****OPR Commands 16-1**

16.1	OPR-ACO-ALL	16-1
16.2	OPR-ALS	16-2
16.3	OPR-APC	16-5
16.4	OPR-EXT-CONT	16-6
16.5	OPR-LASER-OTS	16-7
16.6	OPR-LNK	16-8
16.7	OPR-LPBK-<MOD2>	16-9
16.8	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	16-12
16.9	OPR-PROTNSW-<OCN_TYPE>	16-15

16.10	OPR-PROTNSW-<PATH>	16-19
16.11	OPR-PROTNSW-OCH	16-21
16.12	OPR-SLV-WDMANS	16-22
16.13	OPR-SYNCNSW	16-23
16.14	OPR-WDMANS	16-25

**CHAPTER 17**

**REPT Messages 17-1**

17.1	REPT ALM <MOD2ALM>	17-1
17.2	REPT ALM BITS	17-7
17.3	REPT ALM COM	17-8
17.4	REPT ALM ENV	17-10
17.5	REPT ALM EQPT	17-13
17.6	REPT ALM SECU	17-18
17.7	REPT ALM SYNCN	17-20
17.8	REPT DBCHG	17-22
17.9	REPT EVT <MOD2ALM>	17-23
17.10	REPT EVT BITS	17-29
17.11	REPT EVT COM	17-30
17.12	REPT EVT ENV	17-32
17.13	REPT EVT EQPT	17-35
17.14	REPT EVT FXFR	17-39
17.15	REPT EVT IOSCFG	17-41
17.16	REPT EVT SECU	17-43
17.17	REPT EVT SESSION	17-44
17.18	REPT EVT SYNCN	17-46
17.19	REPT PM <MOD2>	17-52
17.20	REPT SW	17-60

**CHAPTER 18**

**RLS Commands 18-1**

18.1	RLS-EXT-CONT	18-1
18.2	RLS-LASER-OTS	18-2
18.3	RLS-LPBK-<MOD2>	18-3
18.4	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	18-6
18.5	RLS-PROTNSW-<OCN_TYPE>	18-8
18.6	RLS-PROTNSW-<PATH>	18-11
18.7	RLS-PROTNSW-OCH	18-12



18.8 RLS-SYNCNSW 18-13

**CHAPTER 19**

**RMV Commands 19-1**

19.1 RMV-<MOD2> 19-1

19.2 RMV-EQPT 19-3

**CHAPTER 20**

**RST Commands 20-1**

20.1 RST-<MOD2> 20-1

20.2 RST-EQPT 20-3

**CHAPTER 21**

**RTRV Commands 21-1**

21.1 RTRV-<MOD1FCPAYLOAD> 21-1

21.2 RTRV-<MOD1FICONPAYLOAD> 21-7

21.3 RTRV-<MOD2DWDMPAYLOAD> 21-13

21.4 RTRV-<MOD\_RING> 21-18

21.5 RTRV-<OCN\_TYPE> 21-21

21.6 RTRV-<PATH> 21-31

21.7 RTRV-10GIGE 21-39

21.8 RTRV-ALM-<MOD2ALM> 21-44

21.9 RTRV-ALM-ALL 21-48

21.10 RTRV-ALM-BITS 21-52

21.11 RTRV-ALM-ENV 21-56

21.12 RTRV-ALM-EQPT 21-62

21.13 RTRV-ALM-SYNCN 21-66

21.14 RTRV-ALMTH-<MOD2> 21-71

21.15 RTRV-ALMTH-EQPT 21-76

21.16 RTRV-ALS 21-80

21.17 RTRV-APC 21-84

21.18 RTRV-ATTR-CONT 21-86

21.19 RTRV-ATTR-ENV 21-88

21.20 RTRV-AUDIT-LOG 21-93

21.21 RTRV-BFDLPM-<MOD2> 21-94

21.22 RTRV-BITS 21-96

21.23 RTRV-BULKROLL<OCN\_TYPE> 21-100

21.24 RTRV-CMD-SECU 21-103

21.25 RTRV-COND-<MOD2ALM> 21-104

21.26	RTRV-COND-ALL	21-107
21.27	RTRV-COND-BITS	21-111
21.28	RTRV-COND-ENV	21-115
21.29	RTRV-COND-EQPT	21-120
21.30	RTRV-COND-SYNCN	21-124
21.31	RTRV-CONSOLE-PORT	21-127
21.32	RTRV-CRS	21-129
21.33	RTRV-CRS-<PATH>	21-133
21.34	RTRV-DFLT-SECU	21-139
21.35	RTRV-DS1	21-142
21.36	RTRV-EC1	21-145
21.37	RTRV-EQPT	21-150
21.38	RTRV-ESCON	21-157
21.39	RTRV-EXT-CONT	21-159
21.40	RTRV-FAC	21-161
21.41	RTRV-FFP	21-164
21.42	RTRV-FFP-<MOD2DWDMPAYLOAD>	21-168
21.43	RTRV-FFP-<OCN_TYPE>	21-171
21.44	RTRV-FFP-OCH	21-175
21.45	RTRV-FSTE	21-178
21.46	RTRV-G1000	21-184
21.47	RTRV-GFP	21-189
21.48	RTRV-GIGE	21-193
21.49	RTRV-HDLC	21-200
21.50	RTRV-HDR	21-202
21.51	RTRV-INV	21-203
21.52	RTRV-LNK	21-207
21.53	RTRV-LNK-<MOD20>	21-210
21.54	RTRV-LNKTERM	21-215
21.55	RTRV-LOG	21-217
21.56	RTRV-MAP-NETWORK	21-219
21.57	RTRV-NE-APC	21-220
21.58	RTRV-NE-GEN	21-222
21.59	RTRV-NE-IPMAP	21-224
21.60	RTRV-NE-PATH	21-226

21.61	RTRV-NE-SYCN	21-228
21.62	RTRV-NE-WDMANS	21-230
21.63	RTRV-NETTYPE	21-234
21.64	RTRV-OCH	21-236
21.65	RTRV-OMS	21-244
21.66	RTRV-OPM	21-248
21.67	RTRV-OSC	21-250
21.68	RTRV-OTS	21-251
21.69	RTRV-PM-<MOD2>	21-255
21.70	RTRV-PMMODE-<STS_PATH>	21-272
21.71	RTRV-PMSCHED-<MOD2>	21-275
21.72	RTRV-PMSCHED-ALL	21-280
21.73	RTRV-POS	21-283
21.74	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>	21-287
21.75	RTRV-PROTNSW-<OCN_TYPE>	21-290
21.76	RTRV-PROTNSW-<PATH>	21-293
21.77	RTRV-PROTNSW-OCH	21-295
21.78	RTRV-PROTOCOL	21-297
21.79	RTRV-PTHTRC-<PATH>	21-299
21.80	RTRV-RMONTH-<MOD2_RMON>	21-301
21.81	RTRV-ROLL-<MOD_PATH>	21-315
21.82	RTRV-ROUTE	21-316
21.83	RTRV-ROUTE-GRE	21-318
21.84	RTRV-SLV-WDMANS	21-319
21.85	RTRV-STS	21-321
21.86	RTRV-SYCN	21-327
21.87	RTRV-T1	21-330
21.88	RTRV-T3	21-337
21.89	RTRV-TACC	21-341
21.90	RTRV-TADRMAP	21-344
21.91	RTRV-TH-<MOD2>	21-346
21.92	RTRV-TH-ALL	21-360
21.93	RTRV-TOD	21-373
21.94	RTRV-TRAPTABLE	21-376
21.95	RTRV-TRC-<OCN_BLSR>	21-378

- 21.96 RTRV-TRC-OCH 21-381
- 21.97 RTRV-TUNNEL-FIREWALL 21-385
- 21.98 RTRV-TUNNEL-PROXY 21-386
- 21.99 RTRV-USER-SECU 21-388
- 21.100 RTRV-VCG 21-390
- 21.101 RTRV-VT 21-392
- 21.102 RTRV-WDMANS 21-395
- 21.103 RTRV-WLEN 21-398

---

**CHAPTER 22**

**SCHED Commands 22-1**

- 22.1 SCHED-PMREPT-<MOD2> 22-1

---

**CHAPTER 23**

**SET Commands 23-1**

- 23.1 SET-ALMTH-<MOD2> 23-1
- 23.2 SET-ALMTH-EQPT 23-3
- 23.3 SET-ATTR-CONT 23-5
- 23.4 SET-ATTR-ENV 23-6
- 23.5 SET-ATTR-SECUDFLT 23-9
- 23.6 SET-PMMODE-<STS\_PATH> 23-12
- 23.7 SET-TH-<MOD2> 23-14
- 23.8 SET-TOD 23-20

---

**CHAPTER 24**

**SW Commands 24-1**

- 24.1 SW-DX-EQPT 24-1
- 24.2 SW-TOPROTN-EQPT 24-2
- 24.3 SW-TOWKG-EQPT 24-5

---

**CHAPTER 25**

**Access Identifiers 25-1**

- 25.1 Access Identifiers 25-1
  - 25.1.1 ALL 25-1
  - 25.1.2 AidUnionId 25-9
  - 25.1.3 AidUnionId1 25-12
  - 25.1.4 BAND 25-13
  - 25.1.5 BITS 25-13
  - 25.1.6 BLSR 25-13
  - 25.1.7 CHANNEL 25-14
  - 25.1.8 COM 25-14

25.1.9	CrossConnectId	25-15
25.1.10	CrossConnectId1	25-20
25.1.11	DS1	25-26
25.1.12	ENV	25-26
25.1.13	EQPT	25-27
25.1.14	FACILITY	25-28
25.1.15	IPADDR	25-31
25.1.16	LINE	25-31
25.1.17	LNKTERM	25-32
25.1.18	OPM	25-32
25.1.19	OSC	25-33
25.1.20	PR SLOT	25-33
25.1.21	RFILE	25-33
25.1.22	STS	25-33
25.1.23	SYN	25-39
25.1.24	SYN_SRC	25-39
25.1.25	SYNC_REF	25-40
25.1.26	SYNCSW	25-40
25.1.27	UDC	25-41
25.1.28	VT	25-41
25.1.29	WDMANS	25-42
25.1.30	WLEN	25-43

---

**CHAPTER 26****Conditions** 26-1

---

**CHAPTER 27****Modifiers** 27-1

## 27.1 Modifier Support by Platform 27-1

---

**INDEX**





**T A B L E S**

<i>Table 1</i>	Cisco ONS 15454 SDH TL1 Command Guide Chapters	<b>i-xxxi</b>
<i>Table 1-1</i>	ACT-USER Input Parameters	<b>1-2</b>
<i>Table 1-2</i>	ACT-USER Output Parameters	<b>1-3</b>
<i>Table 2-1</i>	ALW-CONSOLE-PORT Input Parameters	<b>2-2</b>
<i>Table 2-2</i>	ALW-MSG-ALL Input Parameters	<b>2-3</b>
<i>Table 2-3</i>	ALW-MSG-DBCHG Input Parameters	<b>2-4</b>
<i>Table 2-4</i>	ALW-MSG-SECU Input Parameters	<b>2-5</b>
<i>Table 2-5</i>	ALW-PMREPT-ALL Input Parameters	<b>2-5</b>
<i>Table 2-6</i>	ALW-SWDX-EQPT Input Parameters	<b>2-7</b>
<i>Table 2-7</i>	ALW-SWTOPROTN-EQPT Input Parameters	<b>2-8</b>
<i>Table 2-8</i>	ALW-SWTOWKKG-EQPT Input Parameters	<b>2-10</b>
<i>Table 2-9</i>	ALW-USER-SECU Input Parameters	<b>2-11</b>
<i>Table 4-1</i>	CANC Output Parameters	<b>4-2</b>
<i>Table 4-2</i>	CANC-USER Input Parameters	<b>4-3</b>
<i>Table 4-3</i>	CANC-USER-SECU Input Parameters	<b>4-4</b>
<i>Table 5-1</i>	CHG-ACCMD-<MOD_TACC> Input Parameters	<b>5-2</b>
<i>Table 5-2</i>	CHG-EQPT Input Parameters	<b>5-4</b>
<i>Table 6-1</i>	CLR-COND-SECU Input Parameters	<b>6-2</b>
<i>Table 7-1</i>	CONN-TACC-<MOD_TACC> Input Parameters	<b>7-2</b>
<i>Table 7-2</i>	CONN-TACC-<MOD_TACC> Output Parameters	<b>7-4</b>
<i>Table 8-1</i>	COPY-IOSCFG Input Parameters	<b>8-2</b>
<i>Table 8-2</i>	COPY-RFILE Input Parameters	<b>8-5</b>
<i>Table 9-1</i>	DISC-TACC Input Parameters	<b>9-2</b>
<i>Table 10-1</i>	DLT-<MOD1PAYLOAD> Input Parameters	<b>10-3</b>
<i>Table 10-2</i>	DLT-<MOD_RING> Input Parameters	<b>10-4</b>
<i>Table 10-3</i>	DLT-BULKROLL-<OCN_TYPE> Input Parameters	<b>10-6</b>
<i>Table 10-4</i>	DLT-CRS-PATH Input Parameters	<b>10-8</b>
<i>Table 10-5</i>	DLT-EQPT Input Parameters	<b>10-10</b>
<i>Table 10-6</i>	DLT-FFP-<MOD2DWDMPAYLOAD> Input Parameters	<b>10-11</b>
<i>Table 10-7</i>	DLT-FFP-<OCN_TYPE> Input Parameters	<b>10-12</b>
<i>Table 10-8</i>	DLT-LNK-<MOD20> Input Parameters	<b>10-13</b>

Table 10-9	DLT-LNKTERM Input Parameters	10-14
Table 10-10	DLT-OSC Input Parameters	10-15
Table 10-11	DLT-RMONTH-<MOD2_RMON> Input Parameters	10-16
Table 10-12	DLT-ROLL-<MOD_PATH> Input Parameters	10-22
Table 10-13	DLT-ROUTE Input Parameters	10-23
Table 10-14	DLT-ROUTE-GRE Input Parameters	10-24
Table 10-15	DLT-TADRMAP Input Parameters	10-25
Table 10-16	DLT-TRAPTABLE Input Parameters	10-26
Table 10-17	DLT-TUNNEL-FIREWALL Input Parameters	10-27
Table 10-18	DLT-TUNNEL-PROXY Input Parameters	10-28
Table 10-19	DLT-USER-SECU Input Parameters	10-29
Table 10-20	DLT-VCG Input Parameters	10-30
Table 10-21	DLT-WLEN Input Parameters	10-32
Table 11-1	ED-<GIGE_TYPE> Input Parameters	11-3
Table 11-2	ED-<MOD1FCPAYLOAD> Input Parameters	11-8
Table 11-3	ED-<MOD1FICONPAYLOAD> Input Parameters	11-13
Table 11-4	ED-<MOD2DWDMPAYLOAD> Input Parameters	11-18
Table 11-5	ED-<MOD_PATH> Input Parameters	11-23
Table 11-6	ED-<MOD_RING> Input Parameters	11-27
Table 11-7	ED-<OCN_TYPE> Input Parameters	11-30
Table 11-8	ED-ALS Input Parameters	11-38
Table 11-9	ED-APC Input Parameters	11-39
Table 11-10	ED-BITS Input Parameters	11-40
Table 11-11	ED-BULKROLL-<OCN_TYPE> Input Parameters	11-45
Table 11-12	ED-CMD-SECU Input Parameters	11-46
Table 11-13	ED-DAT Input Parameters	11-49
Table 11-14	ED-DS1 Input Parameters	11-51
Table 11-15	ED-EC1 Input Parameters	11-52
Table 11-16	ED-EQPT Input Parameters	11-56
Table 11-17	ED-FAC Input Parameters	11-62
Table 11-18	ED-FFP-<MOD2DWDMPAYLOAD> Input Parameters	11-64
Table 11-19	ED-FFP-<OCN_TYPE> Input Parameters	11-66
Table 11-20	ED-FFP-OCH Input Parameters	11-69
Table 11-21	ED-FSTE Input Parameters	11-72
Table 11-22	ED-G1000 Input Parameters	11-74



Table 11-23	ED-GFP Input Parameters	11-77
Table 11-24	ED-HDLC Input Parameters	11-78
Table 11-25	ED-LNK-<MOD0> Input Parameters	11-79
Table 11-26	ED-LNKTERM Input Parameters	11-81
Table 11-27	ED-NE-GEN Input Parameters	11-83
Table 11-28	ED-NE-PATH Input Parameters	11-84
Table 11-29	ED-NE-SYNCN Input Parameters	11-85
Table 11-30	ED-OCH Input Parameters	11-88
Table 11-31	ED-OMS Input Parameters	11-94
Table 11-32	ED-OSC Input Parameters	11-96
Table 11-33	ED-OTS Input Parameters	11-97
Table 11-34	ED-PID Input Parameters	11-100
Table 11-35	ED-POS Input Parameters	11-102
Table 11-36	ED-PROTOCOL Input Parameters	11-104
Table 11-37	ED-ROLL-<MOD_PATH> Input Parameters	11-105
Table 11-38	ED-SLV-WDMANS Input Parameters	11-107
Table 11-39	ED-SYNCN Input Parameters	11-108
Table 11-40	ED-T1 Input Parameters	11-110
Table 11-41	ED-T3 Input Parameters	11-117
Table 11-42	ED-TRAPTABLE Input Parameters	11-120
Table 11-43	ED-TRC-OCH Input Parameters	11-121
Table 11-44	ED-USER-SECU Input Parameters	11-124
Table 11-45	ED-VCG Input Parameters	11-125
Table 11-46	ED-WDMANS Input Parameters	11-126
Table 11-47	ED-WLEN Input Parameters	11-127
Table 12-1	ENT-<MOD1PAYLOAD> Input Parameters	12-3
Table 12-2	ENT-<MOD_RING> Input Parameters	12-5
Table 12-3	ENT-BULKROLL-<MOD_PATH> Input Parameters	12-7
Table 12-4	ED-CRS-< PATH> Input Parameters	12-10
Table 12-5	ENT-EQPT Input Parameters	12-15
Table 12-6	ENT-FFP-<MOD2DWDMPAYLOAD> Input Parameters	12-22
Table 12-7	ENT-FFP-<OCN_TYPE> Input Parameters	12-25
Table 12-8	ENT-LNK-<MOD20> Input Parameters	12-28
Table 12-9	ENT-LNKTERM Input Parameters	12-30
Table 12-10	ENT-OSC Input Parameters	12-32

Table 12-11	ENT-RMONTH-<MOD2_RMON> Input Parameters	12-33
Table 12-12	ENT-ROLL-<MOD_PATH> Input Parameters	12-40
Table 12-13	ENT-ROUTE Input Parameters	12-41
Table 12-14	ENT-ROUTE-GRE Input Parameters	12-42
Table 12-15	ENT-TADRMAP Input Parameters	12-43
Table 12-16	ENT-TRAPTABLE Input Parameters	12-44
Table 12-17	ENT-TUNNEL-FIREWALL Input Parameters	12-45
Table 12-18	ENT-TUNNEL-PROXY Input Parameters	12-46
Table 12-19	ENT-USER-SECU Input Parameters	12-48
Table 12-20	ENT-VCG Input Parameters	12-49
Table 12-21	ENT-WLEN Input Parameters	12-52
Table 13-1	EX-SW-<OCN_BLSR> Input Parameters	13-3
Table 14-1	INH-CONSOLE-PORT Input Parameters	14-2
Table 14-2	INH-MSG-ALL Input Parameters	14-3
Table 14-3	INH-MSG-DBCHG Input Parameters	14-3
Table 14-4	INH-MSG-SECU Input Parameters	14-4
Table 14-5	INH-PMREPT-ALL Input Parameters	14-5
Table 14-6	INH-SWDX-EQPT Input Parameters	14-6
Table 14-7	INH-SWTOPROTN-EQPT Input Parameters	14-8
Table 14-8	INH-SWTOWKG-EQPT Input Parameters	14-10
Table 14-9	INH-USER-SECU Input Parameters	14-11
Table 15-1	INIT-REG-<MOD2> Input Parameters	15-3
Table 15-2	INIT-SYS Input Parameters	15-10
Table 16-1	OPR-ACO-ALL Input Parameters	16-2
Table 16-2	OPR-ALS Input Parameters	16-4
Table 16-3	OPR-APC Input Parameters	16-6
Table 16-4	OPR-EXTR-CONT Input Parameters	16-7
Table 16-5	OPR-LASER-OTS Input Parameters	16-8
Table 16-6	OPR-LNK Input Parameters	16-9
Table 16-7	OPR-LPBK-<MOD2> Input Parameters	16-12
Table 16-8	OPR-PROTNSW-<MOD2DWDMPAYLOAD> Input Parameters	16-15
Table 16-9	OPR-PROTNSW-<OCN_TYPE> Input Parameters	16-19
Table 16-10	OPR-PROTNSW-<PATH> Input Parameters	16-21
Table 16-11	OPR-PROTNSW-OCH Input Parameters	16-22
Table 16-12	OPR-SLV-WDMANS Input Parameters	16-23

Table 16-13	OPR-SYNCNSW Input Parameters	16-24
Table 16-14	OPR-WDMANS Input Parameters	16-25
Table 17-1	REPT ALM <MOD2ALM> Output Parameters	17-2
Table 17-2	REPT ALM BITS Output Parameters	17-8
Table 17-3	REPT ALM COM Output Parameters	17-9
Table 17-4	REPT ALM ENV Output Parameters	17-11
Table 17-5	REPT ALM EQPT Output Parameters	17-14
Table 17-6	REPT ALM SECU Output Parameters	17-19
Table 17-7	REPT ALM SYNCN Output Parameters	17-21
Table 17-8	REPT DBCHG Output Parameters	17-23
Table 17-9	REPT EVT <MOD2ALM> Output Parameters	17-25
Table 17-10	REPT EVT BITS Output Parameters	17-30
Table 17-11	REPT EVT COM Output Parameters	17-31
Table 17-12	REPT EVT ENV Output Parameters	17-33
Table 17-13	REPT EVT EQPT Output Parameters	17-36
Table 17-14	REPT EVT FXFR Output Parameters	17-41
Table 17-15	REPT EVT IOSCFG Output Parameters	17-42
Table 17-16	REPT EVT SECU Output Parameters	17-44
Table 17-17	REPT EVT SESSION Output Parameters	17-46
Table 17-18	REPT EVT SYNCN Output Parameters	17-47
Table 17-19	REPT PM <MOD2> Output Parameters	17-54
Table 17-20	REPT SW Output Parameters	17-61
Table 18-1	RLS-EXT-CONT Input Parameters	18-2
Table 18-2	RLS-LASER-OTS Input Parameters	18-3
Table 18-3	RLS-LPBK-<MOD2> Input Parameters	18-6
Table 18-4	RLS-PROTNSW-<MOD2DWDMPAYLOAD> Input Parameters	18-8
Table 18-5	RLS-PROTNSW-<OCN_TYPE> Input Parameters	18-11
Table 18-6	RLS-PROTNSW-<PATH> Input Parameters	18-12
Table 18-7	RLS-PROTNSW-OCH Input Parameters	18-13
Table 18-8	RLS-SYNCNSW Input Parameters	18-14
Table 19-1	RMV-<MOD2> Input Parameters	19-3
Table 19-2	RMV-EQPT Input Parameters	19-4
Table 20-1	RST-<MOD2> Input Parameters	20-3
Table 20-2	RST-EQPT Input Parameters	20-4
Table 21-1	RTRV-<MOD1FCPAYLOAD> Input Parameters	21-3

Table 21-2	RTRV-<MOD1FCPAYLOAD> Output Parameters	21-3
Table 21-3	RTRV-<MOD1FICONPAYLOAD> Input Parameters	21-9
Table 21-4	RTRV-<MOD1FICONPAYLOAD> Output Parameters	21-9
Table 21-5	RTRV-<MOD2DWDMPAYLOAD> Input Parameters	21-15
Table 21-6	RTRV-<MOD2DWDMPAYLOAD> Output Parameters	21-15
Table 21-7	RTRV-<MOD_RING> Input Parameters	21-19
Table 21-8	RTRV-<MOD_RING> Output Parameters	21-20
Table 21-9	RTRV-<OCN_TYPE> Input Parameters	21-24
Table 21-10	RTRV-<OCN_TYPE> Output Parameters	21-24
Table 21-11	RTRV-<PATH> Input Parameters	21-33
Table 21-12	RTRV-<PATH> Output Parameters	21-34
Table 21-13	RTRV-10GIGE Input Parameters	21-41
Table 21-14	RTRV-10GIGE Output Parameters	21-41
Table 21-15	RTRV-ALM-<MOD2ALM> Input Parameters	21-45
Table 21-16	RTRV-ALM-<MOD2ALM> Output Parameters	21-46
Table 21-17	RTRV-ALM-ALL Input Parameters	21-49
Table 21-18	RTRV-ALM-ALL Output Parameters	21-50
Table 21-19	RTRV-ALM-BITS Input Parameters	21-53
Table 21-20	RTRV-ALM-BITS Output Parameters	21-54
Table 21-21	RTRV-ALM-ENV Input Parameters	21-57
Table 21-22	RTRV-ALM-ENV Output Parameters	21-60
Table 21-23	RTRV-ALM-EQPT Input Parameters	21-63
Table 21-24	RTRV-ALM-EQPT Output Parameters	21-64
Table 21-25	RTRV-ALM-SYNCN Input Parameters	21-67
Table 21-26	RTRV-ALM-SYNCN Output Parameters	21-68
Table 21-27	RTRV-ALMTH-<MOD2> Input Parameters	21-73
Table 21-28	RTRV-ALMTH-<MOD2> Output Parameters	21-74
Table 21-29	RTRV-ALMTH-EQPT Input Parameters	21-77
Table 21-30	RTRV-ALMTH-EQPT Output Parameters	21-78
Table 21-31	RTRV-ALS Input Parameters	21-82
Table 21-32	RTRV-ALS Output Parameters	21-82
Table 21-33	RTRV-APC Input Parameters	21-85
Table 21-34	RTRV-APC Output Parameters	21-85
Table 21-35	RTRV-ATTR-CONT Input Parameters	21-86
Table 21-36	RTRV-ATTR-CONT Output Parameters	21-87

Table 21-37	RTRV-ATTR-ENV Input Parameters	21-88
Table 21-38	RTRV-ATTR-ENV Output Parameters	21-91
Table 21-39	RTRV-AUDIT-LOG Input Parameters	21-93
Table 21-40	RTRV-AUDIT-LOG Output Parameters	21-94
Table 21-41	RTRV-BFDLPM-<MOD2> Input Parameters	21-95
Table 21-42	RTRV-BFDLPM-<MOD2> Output Parameters	21-96
Table 21-43	RTRV-BITS Input Parameters	21-97
Table 21-44	RTRV-BITS Output Parameters	21-97
Table 21-45	RTRV-BULKROLL-<OCN_TYPE> Input Parameters	21-102
Table 21-46	RTRV-BULKROLL-<OCN_TYPE> Output Parameters	21-102
Table 21-47	RTRV-CMD-SECU Input Parameters	21-103
Table 21-48	RTRV-CMD-SECU Output Parameters	21-104
Table 21-49	RTRV-COND-<MOD2ALM> Input Parameters	21-105
Table 21-50	RTRV-COND-<MOD2ALM> Output Parameters	21-106
Table 21-51	RTRV-COND-ALL Input Parameters	21-109
Table 21-52	RTRV-COND-ALL Output Parameters	21-109
Table 21-53	RTRV-COND-BITS Input Parameters	21-112
Table 21-54	RTRV-COND-BITS Output Parameters	21-113
Table 21-55	RTRV-COND-ENV Input Parameters	21-116
Table 21-56	RTRV-COND-ENV Output Parameters	21-118
Table 21-57	RTRV-COND-EQPT Input Parameters	21-121
Table 21-58	RTRV-COND-EQPT Output Parameters	21-122
Table 21-59	RTRV-COND-SYN CN Input Parameters	21-125
Table 21-60	RTRV-COND-SYN CN Output Parameters	21-125
Table 21-61	RTRV-CONSOLE-PORT Input Parameters	21-128
Table 21-62	RTRV-CONSOLE-PORT Output Parameters	21-128
Table 21-63	RTRV-CRS Input Parameters	21-130
Table 21-64	RTRV-CRS Output Parameters	21-131
Table 21-65	RTRV-CRS-<PATH> Input Parameters	21-135
Table 21-66	RTRV-CRS-<PATH> Output Parameters	21-136
Table 21-67	RTRV-DFLT-SECU Input Parameters	21-139
Table 21-68	RTRV-DFLT-SECU Output Parameters	21-140
Table 21-69	RTRV-DS1 Input Parameters	21-144
Table 21-70	RTRV-DS1 Output Parameters	21-144
Table 21-71	RTRV-EC1 Input Parameters	21-147

Table 21-72	RTRV-EC1 Output Parameters	21-147
Table 21-73	RTRV-EQPT Input Parameters	21-151
Table 21-74	RTRV-EQPT Output Parameters	21-151
Table 21-75	RTRV-ESCON Input Parameters	21-158
Table 21-76	RTRV-ESCON Output Parameters	21-159
Table 21-77	RTRV-EXT-CONT Input Parameters	21-160
Table 21-78	RTRV-EXT-CONT Output Parameters	21-161
Table 21-79	RTRV-FAC Input Parameters	21-163
Table 21-80	RTRV-FAC Output Parameters	21-163
Table 21-81	RTRV-FFP Input Parameters	21-165
Table 21-82	RTRV-FFP Output Parameters	21-166
Table 21-83	RTRV-FFP-<MOD2DWDMPAYLOAD> Input Parameters	21-170
Table 21-84	RTRV-FFP-<MOD2DWDMPAYLOAD> Output Parameters	21-170
Table 21-85	RTRV-FFP-<OCN_TYPE> Input Parameters	21-173
Table 21-86	RTRV-FFP-<OCN_TYPE> Output Parameters	21-173
Table 21-87	RTRV-FFP-OCH Input Parameters	21-176
Table 21-88	RTRV-FFP-OCH Output Parameters	21-177
Table 21-89	RTRV-FSTE Input Parameters	21-180
Table 21-90	RTRV-FSTE Output Parameters	21-180
Table 21-91	RTRV-G1000 Input Parameters	21-186
Table 21-92	RTRV-G1000 Output Parameters	21-186
Table 21-93	RTRV-GFP Input Parameters	21-192
Table 21-94	RTRV-GFP Output Parameters	21-192
Table 21-95	RTRV-GIGE Input Parameters	21-195
Table 21-96	RTRV-GIGE Output Parameters	21-195
Table 21-97	RTRV-HDLC Input Parameters	21-202
Table 21-98	RTRV-HDLC Output Parameters	21-202
Table 21-99	RTRV-HDR Input Parameters	21-203
Table 21-100	RTRV-INV Input Parameters	21-204
Table 21-101	RTRV-INV Output Parameters	21-205
Table 21-102	RTRV-LNK Input Parameters	21-207
Table 21-103	RTRV-LNK Output Parameters	21-208
Table 21-104	RTRV-LNK-<MOD20> Input Parameters	21-211
Table 21-105	RTRV-LNK-<MOD20> Output Parameters	21-212
Table 21-106	RTRV-LNKTERM Input Parameters	21-216

Table 21-107	RTRV-LNKTERM Output Parameters	21-217
Table 21-108	RTRV-LOG Input Parameters	21-217
Table 21-109	RTRV-LOG Output Parameters	21-218
Table 21-110	RTRV-MAP-NETWORK Input Parameters	21-220
Table 21-111	RTRV-MAP-NETWORK Output Parameters	21-220
Table 21-112	RTRV-NE-APC Input Parameters	21-221
Table 21-113	RTRV-NE-APC Output Parameters	21-222
Table 21-114	RTRV-NE-GEN Input Parameters	21-223
Table 21-115	RTRV-NE-GEN Output Parameters	21-224
Table 21-116	RTRV-NE-IPMAP Input Parameters	21-225
Table 21-117	RTRV-NE-IPMAP Output Parameters	21-225
Table 21-118	RTRV-NE-PATH Input Parameters	21-226
Table 21-119	RTRV-NE-PATH Output Parameters	21-227
Table 21-120	RTRV-NE-SYNCN Input Parameters	21-229
Table 21-121	RTRV-NE-SYNCN Output Parameters	21-229
Table 21-122	RTRV-NE-WDMANS Input Parameters	21-231
Table 21-123	RTRV-NE-WDMANS Output Parameters	21-232
Table 21-124	RTRV-NETYPE Input Parameters	21-234
Table 21-125	RTRV-NETYPE Output Parameters	21-235
Table 21-126	RTRV-OCH Input Parameters	21-237
Table 21-127	RTRV-OCH Output Parameters	21-237
Table 21-128	RTRV-OMS Input Parameters	21-245
Table 21-129	RTRV-OMS Output Parameters	21-246
Table 21-130	RTRV-OPM Input Parameters	21-249
Table 21-131	RTRV-OMS Output Parameters	21-250
Table 21-132	RTRV-OSC Input Parameters	21-251
Table 21-133	RTRV-OSC Output Parameters	21-251
Table 21-134	RTRV-OTS Input Parameters	21-252
Table 21-135	RTRV-OTS Output Parameters	21-253
Table 21-136	RTRV-PM-<MOD2> Input Parameters	21-259
Table 21-137	RTRV-PM-<MOD2> Output Parameters	21-265
Table 21-138	RTRV-PMMODE-<STS_PATH> Input Parameters	21-274
Table 21-139	RTRV-PMMODE-<STS_PATH> Output Parameters	21-274
Table 21-140	RTRV-PMSCHED-<MOD2> Input Parameters	21-277
Table 21-141	RTRV-PMSCHED-<MOD2> Output Parameters	21-277

Table 21-142	RTRV-PMSCHED-ALL Input Parameters	21-280
Table 21-143	RTRV-PMSCHED-ALL Output Parameters	21-281
Table 21-144	RTRV-POS Input Parameters	21-285
Table 21-145	RTRV-POS Output Parameters	21-285
Table 21-146	RTRV-PROTNSW-<MOD2DWDMPAYLOAD> Input Parameters	21-289
Table 21-147	RTRV-PROTNSW-<MOD2DWDMPAYLOAD> Output Parameters	21-289
Table 21-148	RTRV-PROTNSW-<OCN_TYPE> Input Parameters	21-292
Table 21-149	RTRV-PROTNSW-<OCN_TYPE> Output Parameters	21-292
Table 21-150	RTRV-PROTNSW-<PATH> Input Parameters	21-294
Table 21-151	RTRV-PROTNSW-<PATH> Output Parameters	21-294
Table 21-152	RTRV-PROTNSW-OCH Input Parameters	21-296
Table 21-153	RTRV-PROTNSW-OCH Output Parameters	21-296
Table 21-154	RTRV-PROTOCOL Input Parameters	21-298
Table 21-155	RTRV-PROTOCOL Output Parameters	21-298
Table 21-156	RTRV-PTHTRC-<PATH> Input Parameters	21-300
Table 21-157	RTRV-PTHTRC-<PATH> Output Parameters	21-301
Table 21-158	RTRV-RMONTH-<MOD2_RMON> Input Parameters	21-302
Table 21-159	RTRV-RMONTH-<MOD2_RMON> Output Parameters	21-309
Table 21-160	RTRV-ROLL-<MOD_PATH> Input Parameters	21-315
Table 21-161	RTRV-ROLL-<MOD_PATH> Output Parameters	21-316
Table 21-162	RTRV-ROUTE Input Parameters	21-317
Table 21-163	RTRV-ROUTE Output Parameters	21-318
Table 21-164	RTRV-ROUTE-GRE Input Parameters	21-318
Table 21-165	RTRV-ROUTE-GRE Output Parameters	21-319
Table 21-166	RTRV-SLV-WDMANS Input Parameters	21-320
Table 21-167	RTRV-SLV-WDMANS Output Parameters	21-321
Table 21-168	RTRV-STS Input Parameters	21-322
Table 21-169	RTRV-STS Output Parameters	21-323
Table 21-170	RTRV-SYNCH Input Parameters	21-328
Table 21-171	RTRV-SYCN Output Parameters	21-328
Table 21-172	RTRV-T1 Input Parameters	21-332
Table 21-173	RTRV-T1 Output Parameters	21-332
Table 21-174	RTRV-T3 Input Parameters	21-339
Table 21-175	RTRV-T3 Output Parameters	21-339
Table 21-176	RTRV-TACC Input Parameters	21-342



Table 21-177	RTRV-TACC Output Parameters	21-342
Table 21-178	RTRV-TADRMAP Input Parameters	21-345
Table 21-179	RTRV-TADRMAP Output Parameters	21-346
Table 21-180	RTRV-TH-<MOD2> Input Parameters	21-348
Table 21-181	RTRV-TH-<MOD2> Output Parameters	21-354
Table 21-182	RTRV-TH-ALL Input Parameters	21-361
Table 21-183	RTRV-TH-ALL Output Parameters	21-367
Table 21-184	RTRV-TOD Input Parameters	21-374
Table 21-185	RTRV-TOD Output Parameters	21-374
Table 21-186	RTRV-TRAPTABLE Input Parameters	21-377
Table 21-187	RTRV-TRAPTABLE Output Parameters	21-377
Table 21-188	RTRV-TRC-<OCN_BLSR> Input Parameters	21-378
Table 21-189	RTRV-TRC-<OCN_BLSR> Output Parameters	21-379
Table 21-190	RTRV-TRC-OCH Input Parameters	21-382
Table 21-191	RTRV-TRC-OCH Output Parameters	21-383
Table 21-192	RTRV-TUNNEL-FIREWALL Input Parameters	21-386
Table 21-193	RTRV-TUNNEL-FIREWALL Output Parameters	21-386
Table 21-194	RTRV-TUNNEL-PROXY Input Parameters	21-387
Table 21-195	RTRV-TUNNEL-PROXY Output Parameters	21-387
Table 21-196	RTRV-USER-SECU Input Parameters	21-389
Table 21-197	RTRV-USER-SECU Output Parameters	21-389
Table 21-198	RTRV-VCG Input Parameters	21-390
Table 21-199	RTRV-VCG Output Parameters	21-391
Table 21-200	RTRV-VT Input Parameters	21-393
Table 21-201	RTRV-VT Output Parameters	21-394
Table 21-202	RTRV-WDMANS Input Parameters	21-396
Table 21-203	RTRV-WDMANS Output Parameters	21-397
Table 21-204	RTRV-WLEN Input Parameters	21-398
Table 21-205	RTRV-WLEN Output Parameters	21-399
Table 22-1	SCHED-PMREPT-<MOD2> Input Parameters	22-4
Table 23-1	SET-ALMTH-<MOD2> Input Parameters	23-3
Table 23-2	SET-ALMTH-EQPT Input Parameters	23-4
Table 23-3	SET-ATTR-CONT Input Parameters	23-6
Table 23-4	SET-ATTR-ENV Input Parameters	23-7
Table 23-5	SET-ATTR-SECUDFLT Input Parameters	23-11

Table 23-6	SET-PMMODE-<STS_PATH> Input Parameters	23-13
Table 23-7	SET-TH-<MOD2> Input Parameters	23-15
Table 23-8	SET-TOD Input Parameters	23-21
Table 24-1	SW-DX-EQPT Input Parameters	24-2
Table 24-2	SW-TOPROTN-EQPT Input Parameters	24-4
Table 24-3	SW-TOWKG-EQPT Input Parameters	24-6
Table 25-1	ALL	25-1
Table 25-2	AidUnionId	25-9
Table 25-3	AidUnionId1	25-12
Table 25-4	BAND	25-13
Table 25-5	BITS	25-13
Table 25-6	BLSR	25-13
Table 25-7	CHANNEL	25-14
Table 25-8	COM	25-14
Table 25-9	CrossConnect Id	25-15
Table 25-10	CrossConnectId1	25-20
Table 25-11	DS1	25-26
Table 25-12	ENV	25-26
Table 25-13	EQPT	25-27
Table 25-14	FACILITY	25-29
Table 25-15	IPADDR	25-31
Table 25-16	LINE	25-32
Table 25-17	LNKTERM	25-32
Table 25-18	OPM	25-32
Table 25-19	OSC	25-33
Table 25-20	PR SLOT	25-33
Table 25-21	RFILE	25-33
Table 25-22	STS	25-34
Table 25-23	SYN	25-39
Table 25-24	SYN_SRC	25-39
Table 25-25	SYNC_REF	25-40
Table 25-26	SYNCSW	25-40
Table 25-27	UDC	25-41
Table 25-28	VT	25-41
Table 25-29	WDMANS	25-42

<i>Table 25-30</i>	<a href="#">WLEN</a>	<b>25-43</b>
<i>Table 26-1</i>	<a href="#">Conditions</a>	<b>26-1</b>
<i>Table 27-1</i>	<a href="#">Modifier Support</a>	<b>27-1</b>





## About this Guide

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### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This section explains the objectives, intended audience, and organization of this publication and describes the conventions that convey instructions and other information.

This section provides the following information:

- [Audience](#)
- [Document Organization](#)
- [Related Documentation](#)
- [Document Conventions](#)
- [Obtaining Optical Networking Information](#)
- [Obtaining Documentation and Submitting a Service Request](#)

## Revision History

Date	Notes
March 2007	Revision History Table added for the first time
August 2007	Updated About this Guide chapter
April 2008	Changed the minute range for REPTINVL from 1-1440 min to 5-1440 min for SCHED-PMREPT command in the SCHED Commands chapter.
May 2008	Added a note to the COPY-RFILE command.

Date	Notes
March 2009	<ul style="list-style-type: none"> <li>• Added Facility AID format for CE-100T-8 card in Chapter 25, Access Identifiers.</li> <li>• Added prerequisites to COPY-RFILE command.</li> <li>• Updated the cct parameter in the ED-CRS-&lt;PATH&gt; in Chapter 11, ED Commands.</li> </ul>
June 2009	<ul style="list-style-type: none"> <li>• Updated the input parameters for the APPLY command in Chapter 3, APPLY Commands.</li> <li>• Updated the output parameter for the RTRV-FAC command in Chapter 21, RTRV Commands.</li> <li>• Updated the following: <ul style="list-style-type: none"> <li>– The output example and output parameters for the RTRV-CMD-SECU command in Chapter 21, RTRV Commands.</li> <li>– The input example and input parameters for the ED-CMD-SECU command in Chapter 11, ED Commands.</li> </ul> </li> </ul>
August 2009	Updated the input parameter description for APPLY command in Chapter 3, APPLY Commands.
September 2009	Updated the PH parameter description in Chapter 15, INIT Commands.
November 2009	<ul style="list-style-type: none"> <li>• Updated “OPR-PROTNSW-OCH” command description in Chapter 16, OPR Commands.</li> <li>• Updated the &lt;PJMOM&gt; parameter description in Chapter 11, ED Commands.</li> <li>• Updated the &lt;PJMOM&gt; parameter description in Chapter 21, RTRV Commands.</li> </ul>
February 2010	Updated Input Parameters table in Chapter “INIT Commands”.

## Document Objectives

This guide explains the use of Transaction Language 1 (TL1) for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL systems. Use this guide in conjunction with the appropriate publications listed in the [Related Documentation](#) section.

## Audience

To use this publication, you should be familiar with Cisco or equivalent optical transmission hardware and cabling, telecommunications hardware and cabling, electronic circuitry and wiring practices, and preferably have experience as a telecommunications technician.

# Document Organization

The *Cisco ONS SONET TL1 Command Guide, R6.0* is organized into the following chapters:

**Table 1** *Cisco ONS 15454 SDH TL1 Command Guide Chapters*

Title	Summary
Chapter 1, “ACT Commands”	Lists activate commands
Chapter 2, “ALW Commands”	Lists allow commands
Chapter 3, “APPLY Commands”	Lists apply commands
Chapter 4, “CANC Commands”	Lists cancel commands
Chapter 5, “CHG Commands”	Lists change commands
Chapter 6, “CLR Commands”	Lists clear commands
Chapter 7, “CONN Commands”	Lists connect commands
Chapter 8, “COPY Commands”	Lists copy commands
Chapter 9, “DISC Commands”	Lists disconnect commands
Chapter 10, “DLT Commands”	Lists delete commands
Chapter 11, “ED Commands”	Lists edit commands
Chapter 12, “ENT Commands”	Lists enter commands
Chapter 13, “EX Commands”	Lists exercise commands
Chapter 14, “INH Commands”	Lists inhibit commands
Chapter 15, “INIT Commands”	Lists initialize commands
Chapter 16, “OPR Commands”	Lists operate commands
Chapter 17, “REPT Messages”	Lists report autonomous messages
Chapter 18, “RLS Commands”	Lists release commands
Chapter 19, “RMV Commands”	Lists remove commands
Chapter 20, “RST Commands”	Lists restore commands
Chapter 21, “RTRV Commands”	Lists retrieve commands
Chapter 22, “SCHED Commands”	Lists schedule commands
Chapter 23, “SET Commands”	Lists set commands
Chapter 24, “SW Commands”	Lists switch commands
Chapter 25, “Access Identifiers”	Lists access identifiers
Chapter 26, “Conditions”	Lists conditions
Chapter 27, “Modifiers”	Lists modifiers

## Related Documentation

Use the *Cisco ONS SONET TL1 Command Guide, R6.0* in conjunction with the following referenced publications:

- *Cisco ONS SONET TL1 Reference Guide*  
Provides general information, procedures, and errors related to using TL1 in the Cisco ONS 15454, ONS 15327, ONS 15310-CL, and ONS 15600.
- *Cisco ONS SONET TL1 Command Quick Reference Guide*  
Provides input formats and output formats (where applicable) for all R6.0 TL1 commands and autonomous messages.
- *Cisco ONS SONET TL1 for Beginners*  
Provides basic beginning instruction for using TL1.
- *Cisco ONS 15454 Procedure Guide*  
*Cisco ONS 15327 Procedure Guide*  
*Cisco ONS 15310-CL Procedure Guide*  
*Cisco ONS 15600 Procedure Guide*  
Provides procedures and tasks for the corresponding Cisco ONS node and network.
- *Cisco ONS 15454 Reference Manual*  
*Cisco ONS 15327 Reference Manual*  
*Cisco ONS 15310-CL Reference Manual*  
*Cisco ONS 15600 Reference Manual*  
Provides reference material for the corresponding Cisco ONS node and network.
- *Cisco ONS 15454 Troubleshooting Guide*  
*Cisco ONS 15327 Troubleshooting Guide*  
*Cisco ONS 15310-CL Troubleshooting Guide*  
*Cisco ONS 15600 Troubleshooting Guide*  
Provides general troubleshooting procedures, alarm descriptions, performance monitoring parameters, and SNMP parameters.
- *Ethernet Card Software Feature and Configuration Guide for the Cisco ONS 15454, Cisco ONS 15454 SDH, and Cisco ONS 15327*  
Provides software features for all Ethernet cards and configuration information for Cisco IOS on ML-Series cards.
- *Release Notes for the Cisco ONS 15454 Release 6.0*  
*Release Notes for the Cisco ONS 15327 Release 6.0*  
*Release Notes for the Cisco ONS 15310 Release 6.0*  
*Release Notes for the Cisco ONS 15600 Release 6.0*  
Provides caveats, closed issues, and new feature and functionality information.

## Document Conventions

This publication uses the following conventions:

<b>Convention</b>	<b>Application</b>
[ ]	Keywords or arguments that appear within square brackets are optional.
{ x   x   x }	A choice of keywords (represented by x) appears in braces separated by vertical bars. The user must select one.
Ctrl	The control key. For example, where Ctrl + D is written, hold down the Control key while pressing the D key.



**Convention**

screen font

&lt; &gt;

**Application**

Examples of information displayed on the screen.

Command parameters that must be replaced by module-specific codes.

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the document.

**Caution**

Means *reader be careful*. In this situation, the user might do something that could result in equipment damage or loss of data.

**Warning****IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

**SAVE THESE INSTRUCTIONS****Waarschuwing****BELANGRIJKE VEILIGHEIDSINSTRUCTIES**

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van de standaard praktijken om ongelukken te voorkomen. Gebruik het nummer van de verklaring onderaan de waarschuwing als u een vertaling van de waarschuwing die bij het apparaat wordt geleverd, wilt raadplegen.

**BEWAAR DEZE INSTRUCTIES****Varoitus****TÄRKEITÄ TURVALLISUUSOHJEITA**

Tämä varoitusmerkki merkitsee vaaraa. Tilanne voi aiheuttaa ruumiillisia vammoja. Ennen kuin käsittelet laitteistoa, huomioi sähköpiirien käsittelemiseen liittyvät riskit ja tutustu onnettomuuksien yleisiin ehkäisytapoihin. Turvallisuusvaroitusten käännökset löytyvät laitteen mukana toimitettujen käännettyjen turvallisuusvaroitusten joukosta varoitusten lopussa näkyvien lausuntonumeroiden avulla.

**SÄILYTÄ NÄMÄ OHJEET**

**Attention    IMPORTANTES INFORMATIONS DE SÉCURITÉ**

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

**CONSERVEZ CES INFORMATIONS****Warnung    WICHTIGE SICHERHEITSHINWEISE**

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

**BEWAHREN SIE DIESE HINWEISE GUT AUF.****Avvertenza    IMPORTANTI ISTRUZIONI SULLA SICUREZZA**

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Utilizzare il numero di istruzione presente alla fine di ciascuna avvertenza per individuare le traduzioni delle avvertenze riportate in questo documento.

**CONSERVARE QUESTE ISTRUZIONI****Advarsel    VIKTIGE SIKKERHETSINSTRUKSJONER**

Dette advarselssymbolet betyr fare. Du er i en situasjon som kan føre til skade på person. Før du begynner å arbeide med noe av utstyret, må du være oppmerksom på farene forbundet med elektriske kretser, og kjenne til standardprosedyrer for å forhindre ulykker. Bruk nummeret i slutten av hver advarsel for å finne oversettelsen i de oversatte sikkerhetsadvarslene som fulgte med denne enheten.

**TA VARE PÅ DISSE INSTRUKSJONENE****Aviso    INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você está em uma situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha conhecimento dos perigos envolvidos no manuseio de circuitos elétricos e familiarize-se com as práticas habituais de prevenção de acidentes. Utilize o número da instrução fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham este dispositivo.

**GUARDE ESTAS INSTRUÇÕES**

**¡Advertencia! INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

**GUARDE ESTAS INSTRUCCIONES****Varning! VIKTIGA SÄKERHETSANVISNINGAR**

Denna varningssignal signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanliga förfaranden för att förebygga olyckor. Använd det nummer som finns i slutet av varje varning för att hitta dess översättning i de översatta säkerhetsvarningar som medföljer denna anordning.

**SPARA DESSA ANVISNINGAR****FONTOS BIZTONSÁGI ELOÍRÁSOK**

Ez a figyelmeztető jel veszélyre utal. Sérülésveszélyt rejtő helyzetben van. Mielőtt bármely berendezésen munkát végezte, legyen figyelemmel az elektromos áramkörök okozta kockázatokra, és ismerkedjen meg a szokásos balesetvédelmi eljárásokkal. A kiadványban szereplő figyelmeztetések fordítása a készülékhez mellékelt biztonsági figyelmeztetések között található; a fordítás az egyes figyelmeztetések végén látható szám alapján kereshető meg.

**ORIZZE MEG EZEKET AZ UTASÍTÁSOKAT!****Предупреждение ВАЖНЫЕ ИНСТРУКЦИИ ПО СОБЛЮДЕНИЮ ТЕХНИКИ БЕЗОПАСНОСТИ**

Этот символ предупреждения обозначает опасность. То есть имеет место ситуация, в которой следует опасаться телесных повреждений. Перед эксплуатацией оборудования выясните, каким опасностям может подвергаться пользователь при использовании электрических цепей, и ознакомьтесь с правилами техники безопасности для предотвращения возможных несчастных случаев. Воспользуйтесь номером заявления, приведенным в конце каждого предупреждения, чтобы найти его переведенный вариант в переводе предупреждений по безопасности, прилагаемом к данному устройству.

**СОХРАНИТЕ ЭТИ ИНСТРУКЦИИ****警告 重要的安全性说明**

此警告符号代表危险。您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾提供的声明号码来找到此设备的安全性警告说明的翻译文本。

请保存这些安全性说明

**警告** 安全上の重要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止策に留意してください。警告の各国語版は、各注意事項の番号を基に、装置に付属の「Translated Safety Warnings」を参照してください。

これらの注意事項を保管しておいてください。

**주의** 중요 안전 지침

이 경고 기호는 위험을 나타냅니다. 작업자가 신체 부상을 일으킬 수 있는 위험한 환경에 있습니다. 장비에 작업을 수행하기 전에 전기 회로와 관련된 위험을 숙지하고 표준 작업 관례를 숙지하여 사고를 방지하십시오. 각 경고의 마지막 부분에 있는 경고문 번호를 참조하여 이 장치와 함께 제공되는 번역된 안전 경고문에서 해당 번역문을 찾으십시오.

이 지시 사항을 보관하십시오.

**Aviso** INSTRUÇÕES IMPORTANTES DE SEGURANÇA

**Este símbolo de aviso significa perigo. Você se encontra em uma situação em que há risco de lesões corporais. Antes de trabalhar com qualquer equipamento, esteja ciente dos riscos que envolvem os circuitos elétricos e familiarize-se com as práticas padrão de prevenção de acidentes. Use o número da declaração fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham o dispositivo.**

**GUARDE ESTAS INSTRUÇÕES****Advarsel** VIGTIGE SIKKERHEDSANVISNINGER

**Dette advarselssymbol betyder fare. Du befinder dig i en situation med risiko for legemeskade. Før du begynder arbejde på udstyr, skal du være opmærksom på de involverede risici, der er ved elektriske kredsløb, og du skal sætte dig ind i standardprocedurer til undgåelse af ulykker. Brug erklæringsnummeret efter hver advarsel for at finde oversættelsen i de oversatte advarsler, der fulgte med denne enhed.**

**GEM DISSE ANVISNINGER****تحذير****إرشادات الأمان الهامة**

يوضح رمز التحذير هذا وجود خطر. وهذا يعني أنك متواجد في مكان قد ينتج عنه التعرض لإصابات. قبل بدء العمل، احذر مخاطر التعرض للصدمات الكهربائية وكن على علم بالإجراءات القياسية للحيلولة دون وقوع أي حوادث. استخدم رقم البيان الموجود في آخر كل تحذير لتحديد مكان ترجمته داخل تحذيرات الأمان المترجمة التي تأتي مع الجهاز. قم بحفظ هذه الإرشادات

## Upozorenje

## VAŽNE SIGURNOSNE NAPOMENE

Ovaj simbol upozorenja predstavlja opasnost. Nalazite se u situaciji koja može prouzročiti tjelesne ozljede. Prije rada s bilo kojim uređajem, morate razumjeti opasnosti vezane uz električne sklopove, te biti upoznati sa standardnim načinima izbjegavanja nesreća. U prevedenim sigurnosnim upozorenjima, priloženima uz uređaj, možete prema broju koji se nalazi uz pojedino upozorenje pronaći i njegov prijevod.

## SAČUVAJTE OVE UPUTE

## Upozornění

## DŮLEŽITÉ BEZPEČNOSTNÍ POKYNY

Tento upozorňující symbol označuje nebezpečí. Jste v situaci, která by mohla způsobit nebezpečí úrazu. Před prací na jakémkoliv vybavení si uvědomte nebezpečí související s elektrickými obvody a seznamte se se standardními opatřeními pro předcházení úrazům. Podle čísla na konci každého upozornění vyhledejte jeho překlad v přeložených bezpečnostních upozorněních, která jsou přiložena k zařízení.

## USCHOVEJTE TYTO POKYNY

## Προειδοποίηση

## ΣΗΜΑΝΤΙΚΕΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

Αυτό το προειδοποιητικό σύμβολο σημαίνει κίνδυνο. Βρίσκεστε σε κατάσταση που μπορεί να προκαλέσει τραυματισμό. Πριν εργαστείτε σε οποιοδήποτε εξοπλισμό, να έχετε υπόψη σας τους κινδύνους που σχετίζονται με τα ηλεκτρικά κυκλώματα και να έχετε εξοικειωθεί με τις συνήθειες πρακτικές για την αποφυγή ατυχημάτων. Χρησιμοποιήστε τον αριθμό δήλωσης που παρέχεται στο τέλος κάθε προειδοποίησης, για να εντοπίσετε τη μετάφρασή της στις μεταφρασμένες προειδοποιήσεις ασφαλείας που συνοδεύουν τη συσκευή.

## ΦΥΛΑΞΤΕ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ

## אזהרה

## הוראות בטיחות חשובות

סימן אזהרה זה מסמל סכנה. אתה נמצא במצב העלול לגרום לפציעה. לפני שתעבוד עם ציוד כלשהו, עליך להיות מודע לסכנות הכרוכות במעגלים חשמליים ולהכיר את הנהלים המקובלים למניעת תאונות. השתמש במספר ההוראה המסופק בסופה של כל אזהרה כדי לאתר את התרגום באזהרות הבטיחות המתורגמות שמצורפות להתקן.

## שמור הוראות אלה

## Opomena

## ВАЖНИ БЕЗБЕДНОСНИ НАПАТСТВИЈА

Симболот за предупредување значи опасност. Се наоѓате во ситуација што може да предизвика телесни повреди. Пред да работите со опремата, бидете свесни за ризикот што постои кај електричните кола и треба да ги познавате стандардните постапки за спречување на несреќни случаи. Искористете го бројот на изјавата што се наоѓа на крајот на секое предупредување за да го најдете неговиот период во prevedените безбедносни предупредувања што се испорачани со уредот.

## ЧУВАЈТЕ ГИ ОБИЕ НАПАТСТВИЈА

**Ostrzeżenie WAŻNE INSTRUKCJE DOTYCZĄCE BEZPIECZEŃSTWA**

Ten symbol ostrzeżenia oznacza niebezpieczeństwo. Zachodzi sytuacja, która może powodować obrażenia ciała. Przed przystąpieniem do prac przy urządzeniach należy zapoznać się z zagrożeniami związanymi z układami elektrycznymi oraz ze standardowymi środkami zapobiegania wypadkom. Na końcu każdego ostrzeżenia podano numer, na podstawie którego można odszukać tłumaczenie tego ostrzeżenia w dołączonym do urządzenia dokumencie z tłumaczeniami ostrzeżeń.

**NINIEJSZE INSTRUKCJE NALEŻY ZACHOWAĆ****Upozornenie DŮLEŽITÉ BEZPEČNOSTNÉ POKYNY**

Tento varovný symbol označuje nebezpečenstvo. Nachádzate sa v situácii s nebezpečenstvom úrazu. Pred prácou na akomkoľvek vybavení si uvedomte nebezpečenstvo súvisiace s elektrickými obvodmi a oboznámte sa so štandardnými opatreniami na predchádzanie úrazom. Podľa čísla na konci každého upozornenia vyhľadajte jeho preklad v preložených bezpečnostných upozorneniach, ktoré sú priložené k zariadeniu.

**USCHOVAJTE SI TENTO NÁVOD**

## Obtaining Optical Networking Information

This section contains information that is specific to optical networking products. For information that pertains to all of Cisco, refer to the [Obtaining Documentation and Submitting a Service Request](#) section.

## Where to Find Safety and Warning Information

For safety and warning information, refer to the *Cisco Optical Transport Products Safety and Compliance Information* document that accompanied the product. This publication describes the international agency compliance and safety information for the Cisco ONS 15454 system. It also includes translations of the safety warnings that appear in the ONS 15454 system documentation.

## Cisco Optical Networking Product Documentation CD-ROM

Optical networking-related documentation, including Cisco ONS 15xxx product documentation, is available in a CD-ROM package that ships with your product. The Optical Networking Product Documentation CD-ROM is updated periodically and may be more current than printed documentation.

# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.







# ACT Commands

This chapter provides ACT (activate) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

## 1.1 ACT-USER

Activate User

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command opens a session with the Network Element (NE).



### Note

- Passwords are masked for the following security commands: ACT-USER, COPY-RFILE, COPY-IOSCFG, ED-PID, ENT-USER-SECU and ED-USER-SECU. Access to a TL1 session through any means will have the password masked. The CTC Request History and Message Log will also show the masked commands. When a password-masked command is re-issued by double-clicking the command from CTC Request History, the password will still be masked in the CTC Request History and Message Log. The actual password that was previously issued will be sent to the NE. To use a former command as a template only, single-click the command in CTC Request History. The command will be placed in the Command Request text box, where you can edit the appropriate fields prior to reissuing it.
- This command is backwards compatible with userids and passwords from ONS 15454 2.x software versions according to the following rules:  
ACT-USER:[TID]:[STRING]:CTAG::[STRING]
  - The syntax of the userid (first [STRING]) and the password (second [STRING]) are not checked.
  - Invalid syntax for both the userid and password is permitted, but the user can only log in if the userid/password match what is in the database.
  - The userid and password cannot exceed 10 characters.
- For the ACT-USER command, it is required that no error code be transmitted except to convey that the login is granted or denied. Per TR-835, Appendix A, Section A.2:

“... the error codes corresponding to ACT ... do not apply to the ACT-USER command because this command requires that no error code be provided to the session request except to indicate that it has been denied. Before a session is established, a specific error code might reveal clues to an intruder attempting unauthorized entry.”

- Starting with Release 4.6, the following feature can be turned on or off and the default is off: A new user must change his or her password after establishing a session for the first time before continuing. All TL1 commands except for ED-PID and CANC-USER will be denied until the password is changed. Once the password has been changed, a user can execute any command that his security level allows. If the user logs out without changing his password, each following session will DENY all commands, except ED-PID and CANC-USER, until the password is changed.

---

**Category** Security

---

**Security** N/A

---

**Related Commands**

ALW-MSG-SECU	ED-CMD-SECU	ED-PID
ALW-USER-SECU	INH-MSG-SECU	EDU-USER-SECU
CANC	INH-USER-SECU	ENT-USER-SECU
CANC-USER	REPT ALM SEUC	RTRV-DFLT-SECU
CANC-USER-SECU	REPT EVT SECU	RTRV-USER-SECU
CLR-COND-SECU	REPT EVT SESSION	SET-ATTR-SECUDFLT
DLT-USER-SECU	RTRV-CMD-SECU	

---

**Input Format** ACT-USER:[<TID>]:<UID>:<CTAG>[:<PID>];

---

**Input Example** ACT-USER:PETALUMA:TERRI:100::MYPASSWD;

---

**Input Parameters**

**Table 1-1 ACT-USER Input Parameters**

Parameter and Values	Description
<b>UID</b>	The user identifier (userid) of the person logged in. UID can be any combination of up to 10 alphanumeric characters. String. Must not be null
<b>PID</b>	The user password. PID is any combination of up to 10 alphanumeric characters. Passwords are encrypted for security reasons and will be displayed as asterisks (*). String. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<UID>:<LASTLOGINTIME>,<UNSUCCESSFULLOGINS>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"TERRI:2003-01-02 14-04-49,0"
;
```

**Output Parameters****Table 1-2** ACT-USER Output Parameters

Parameter and Values	Description
<b>UID</b>	The user identifier (userid) of the person logged in. UID can be any combination of up to 10 alphanumeric characters. String. Must not be null
<b>LASTLOGINTIME</b>	The date and time of the last successful connection to the NE (not including current login). String
<b>UNSUCCESSFULLOGINS</b>	The number of unsuccessful login attempts since the last successful login. Integer





# ALW Commands

This chapter provides ALW (allow) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

## 2.1 ALW-CONSOLE-PORT

Allow Console Port

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command is used to turn on the console port for the ML1000-2, ML100T-12 and ML-100T-8 cards.

### Category

Security

### Security

Superuser

### Related Commands

ACT-USER	DLT-USER-SECU	RTRV-CMD-SECU
ALW-MSG-SECU	ED-CMD-SECU	ED-PID
ALW-USER-SECU	INH-MSG-SECU	EDU-USER-SECU
CANC	INH-USER-SECU	ENT-USER-SECU
CANC-USER	REPT ALM SEUC	RTRV-DFLT-SECU
CANC-USER-SECU	REPT EVT SECU	RTRV-USER-SECU
CLR-COND-SECU	REPT EVT SESSION	SET-ATTR-SECUDFLT

### Input Format

ALW-CONSOLE-PORT:[<TID>]:<AID>:<CTAG>;

### Input Example

ALW-CONSOLE-PORT:CISCONODE:SLOT-2:123;

## Input Parameters

Table 2-1 ALW-CONSOLE-PORT Input Parameters

Parameter and Values	Description
AID	Access identifier. Values are in the “25.1.13 EQPT” section on page 25-27

## 2.2 ALW-MSG-ALL

Allow Message All

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command instructs the NE to enter a mode where all the REPT ALM and REPT EVT autonomous messages are transmitted. See the INH-MSG-ALL command to inhibit these autonomous messages. When a TL1 session starts, the REPT ALM and REPT EVT messages are allowed by default.



## Note

If this command is issued twice in the same session, the SAAL (Status, Already Allowed) error message will be returned. The optional fields in the e block are not supported.

## Category

System

## Security

Retrieve

## Related Commands

ACT-USER	INH-MSG-ALL	RTRV-NE-IPMAP
ALW-MSG-DBCHG	INH-MSG-DBCHG	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-SECU	RTRV-NE-SYCN
ED-DAT	INIT-SYS	RTRV-NE-WDMANS
ED-NE-GEN	RTRV-HDR	RTRV-TOD
ED-NE-PATH	RTRV-INV	SET-TOD
ED-NE-SYCN	RTRV-NE-GEN	

## Input Format

ALW-MSG-ALL:[<TID>]:[<AID>]:<CTAG>[::,];

## Input Example

ALW-MSG-ALL:PETALUMA:ALL:549;

**Input Parameters****Table 2-2 ALW-MSG-ALL Input Parameters**

Parameter and Values	Description
AID	Access identifier. Support is limited to AID ALL. String

## 2.3 ALW-MSG-DBCHG

Allow Database Change Message

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command enables REPT DBCHG. When a TL1 session starts, the REPT DBCHG messages are not allowed by default.

**Note**

This command is not defined in the GR.

**Category**

Log

**Security**

Retrieve

**Related Commands**

ACT-USER	INH-MSG-DBCHG	RTRV-NE-GEN
ALW-MSG-ALL	INH-MSG-SECU	RTRV-NE-IPMAP
ALW-MSG-SECU	INIT-SYS	RTRV-NE-PATH
ED-DAT	REPT DBCHG	RTRV-NE-SYNCN
ED-NE-GEN	RTRV-HDR	RTRV-NE-WDMANS
ED-NE-PATH	RTRV-INV	RTRV-TOD
ED-NE-SYNCN	RTRV-LOG	SET-TOD
INH-MSG-ALL		

**Input Format**

ALW-MSG-DBCHG:[<TID>]::<CTAG>[::,];

**Input Example**

ALW-MSG-DBCHG:CISCO::123;

## Input Parameters

Table 2-3 ALW-MSG-DBCHG Input Parameters

Parameter and Values	Description
—	

## 2.4 ALW-MSG-SECU

Allow Message Security

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command enables REPT EVT SECU and REPT ALM SECU autonomous messages.

## Category

Security

## Security

Superuser

## Related Commands

ACT-USER	ED-NE-SYCN	RTRV-DFLT-SECU
ALW-MSG-ALL	ED-PID	RTRV-HDR
ALW-MSG-DBCHG	ED-USER-SECU	RTRV-INV
ALW-USER-SECU	ENT-USER-SECU	RTRV-NE-GEN
CANC	INH-MSG-ALL	RTRV-NE-IPMAP
CANC-USER	INH-MSG-DBCHG	RTRV-NE-PATH
CANC-USER-SECU	INH-MSG-SECU	RTRV-NE-SYCN
CLR-COND-SECU	INH-USER-SECU	RTRV-NE-WDMANS
DLT-USER-SECU	INIT-SYS REPT	RTRV-TOD
ED-CMD-SECU	ALM SECU	RTRV-USER-SECU
ED-DAT	REPT EVT SECU	SET-ATTR-SECUDFLT
ED-NE-GEN	REPT EVT SESSION	SET-TOD
ED-NE-PATH	RTRV-CMD-SECU	

## Input Format

ALW-MSG-SECU:[<TID>]::<CTAG>[::,];

## Input Example

ALW-MSG-SECU:PETALUMA::123;



**Input Parameters****Table 2-4 ALW-MSG-SECU Input Parameters**

Parameter and Values	Description
—	

## 2.5 ALW-PMREPT-ALL

Allow Performance Report All

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command resumes processing all the PM reports that are inhibited. The allowance of the PM reporting is session-based, which means the command is only effective to the TL1 session that issues this command.

**Category**

Performance

**Security**

Retrieve

**Related Commands**

INH-PMREPT-ALL	RTRV-PMMODE-<STS_PATH>	RTRV-TH-ALL
INIT-REG-<MOD2>	RTRV-PMSCHED-<MOD2>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	RTRV-PMSCHED-ALL	SET-PMMODE-<STS_PATH>
RTRV-PM-<MOD2>	RTRV-TH-<MOD2>	SET-TH-<MOD2>

**Input Format**

ALW-PMREPT-ALL:[<TID>]::<CTAG>;

**Input Example**

ALW-PMREPT-ALL:CISCONODE::123;

**Input Parameters****Table 2-5 ALW-PMREPT-ALL Input Parameters**

Parameter and Values	Description
—	

## 2.6 ALW-SWDX-EQPT

Allow Switch Duplex Equipment

**Usage Guidelines**

Cisco ONS 15454

This command allows automatic or manual switching on a duplex system containing duplexed or redundant equipment. To inhibit an NE from switching to duplex, use the INH-SWDX-EQPT command.

ALW-SWDX-EQPT is not used for SONET line or electrical card protection switching. For SONET line or path protection switching commands, see OPR-PROTNSW and RLS-PROTNSW commands. For the electrical card protection switching, see the SW-TOWKG-EQPT and SW-TOPROTN-EQPT commands.

**Note**

This command applies to the XCVT, XC10G and XC-VXC-10G equipment units only in this release.

**Category**

Equipment

**Security**

Maintenance

**Related Commands**

ALW-SWTOPROTN-EQPT	REPT ALM EQPT
ALW-SWTOWKG-EQPT	REPT EVT EQPT
DLT-EQPT	REPT SW
DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<OCN_TYPE>	RTRV-ALM-EQPT
ED-EQPT	RTRV-ALMTH-EQPT
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-COND-EQPT
ED-FFP-<OCN_TYPE>	RTRV-EQPT
ED-FFP-OCH	RTRV-FFP-<MOD2DWDMPAYLOAD>
ENT-EQPT	RTRV-FFP-<OCN_TYPE>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-OCH
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
EX-SW-<OCN_BLSR>	SET-ALMTH-EQPT
INH-SWDX-EQPT	SW-DX-EQPT
INH-SWTOPROTN-EQPT	SW-TOPROTN-EQPT
INH-SWTOWKG-EQPT	SW-TOWKG-EQPT
OPR-PROTNSW-<OCN_TYPE>	

**Input Format**

ALW-SWDX-EQPT:[<TID>]:<AID>:<CTAG>[::];

**Input Example**

ALW-SWDX-EQPT:CISCO:SLOT-8:1234;

## Input Parameters

Table 2-6 ALW-SWDX-EQPT Input Parameters

Parameter and Values	Description
AID	Access identifier for XCVT/XC10G/XC-VXC-10G from the “25.1.13 EQPT” section on page 25-27

## 2.7 ALW-SWTOPROTN-EQPT

Allow Switch to Protection Equipment

## Usage Guidelines

Cisco ONS 15454

This command allows automatic or manual switching of an equipment unit back to a protection status. Use the INH-SWTOPROTN-EQPT command to inhibit an NE from switching to protection.

ALW-SWTOPROTN-EQPT is used for electrical line cards, for example, DS-1, DS-3, DS3XM, and EC-1. DS-1, DS-3 and DS3XM cards have 1:1 and 1:N equipment protection. EC-1 cards have only 1:1 equipment protection. When this command is given to a working unit, the working unit will be allowed to switch to the protection unit. When this command is given to a protection unit, any working unit in the protection group is allowed to switch to the protection unit.

The standing condition of INHSWPR on the unit specified by the AID will be cleared.



## Note

- This command only supports one value of the <DIRN> parameter - BTH. A command with any other value is considered an incorrect use of the command. An IDNV (Input, Data Not Valid) error message should be responded.
- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G/XC-VXC-10G) cards. A command on a common control card will receive an IIAC (Input, Invalid Access Identifier) error message. To use the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.
- This command is not used for OC-N cards. A command on a SONET card will receive an IIAC (Input, Invalid Access identifier) error message. To use a SONET card switching command, use OPR-PROTNSW and RLS-PROTNSW commands.
- If this command is used on a card that is not in a protection group, the SNVS (Status, Not in Valid State) error message should be responded.
- If this command is used on a card that is not in the inhibit state, the SAAL (Status, Already Allowed) error message should be responded.
- The following situation(s) are allowed and will not generate any error response: Sending this command to cards that have been uninstalled as long as none of the previous error conditions apply.

## Category

Equipment

## Security

Maintenance

Related Commands		
	ALW-SWDX-EQPT	REPT ALM EQPT
	ALW-SWTOWKG-EQPT	REPT EVT EQPT
	DLT-EQPT	REPT SW
	DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<OCN_TYPE>	RTRV-ALM-EQPT
	ED-EQPT	RTRV-ALMTH-EQPT
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-COND-EQPT
	ED-FFP-<OCN_TYPE>	RTRV-EQPT
	ED-FFP-OCH	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ENT-EQPT	RTRV-FFP-<OCN_TYPE>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-OCH
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
	EX-SW-<OCN_BLSR>	SET-ALMTH-EQPT
	INH-SWDX-EQPT	SW-DX-EQPT
	INH-SWTOPROTN-EQPT	SW-TOPROTN-EQPT
	INH-SWTOWKG-EQPT	SW-TOWKG-EQPT
	OPR-PROTNSW-<OCN_TYPE>	

**Input Format** ALW-SWTOPROTN-EQPT:[<TID>]:<AID>:<CTAG>[:<DIRN>];

**Input Example** ALW-SWTOPROTN-EQPT:CISCO:SLOT-2:123::BTH;

### Input Parameters

**Table 2-7 ALW-SWTOPROTN-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. This parameter can either be the protection unit for which carrying traffic will be allowed (release of lockout) or the working unit for which switching to protect will be allowed (release of lock on). Values are in the <a href="#">“25.1.13 EQPT” section on page 25-27</a>
<b>DIRN</b>	The direction relative to the entity defined in the AID field. Tthe direction of the switching. This command only supports one value of the DIRN parameter, BTH. Defaults to BTH Parameter type is DIRECTION—transmit and receive directions
• BTH	Both transmit and receive directions

## 2.8 ALW-SWTOWKG-EQPT

Allow Switch to Working Equipment

**Usage Guidelines**

Cisco ONS 15454

This command allows automatic or manual switching of an equipment unit back to a working status. Use the INH-SWTOWKG-EQPT command to inhibit an NE from switching to working.

ALW-SWTOWKG-EQPT is used for electrical line cards, for example, DS-1, DS-3, DS3XM, and EC-1). DS-1, DS-3 and DS3XM cards have 1:1 and 1:N equipment protection. EC-1 cards have only 1:1 equipment protection.

When this command is given to a working unit, the working unit will be allowed to carry traffic. In the case of revertive protection, the traffic will switch immediately from the protection unit to the working unit regardless of the reversion time setting.

When this command is given to a protection unit, the protection unit will be allowed to switch back to the working unit currently protected as long as the working unit has not raised INH-SWTOWKG. In the case of revertive protection, the traffic will switch immediately from the protection unit to the working unit regardless of the reversion time setting. In the case of non-revertive protection, the protection unit will continue to carry the traffic.

The standing condition of INH-SWTOWKG on the unit specified by the AID will be cleared.

**Note**

- This command only supports one value of the <DIRN> parameter - BTH. A command with any other value is an incorrect use of the command. An IDNV (Input, Data Not Valid) error message should be returned.
- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. A command on a common control card will receive an IIAC (Input, Invalid Access Identifier) error message. To use the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.
- This command is not used for OC-N cards. A command on an optical card will receive an IIAC (Input, Invalid Access Identifier) error message. For OC-N cards, use the OPR-PROTNSW and RLS-PROTNSW commands.
- If this command is used on a card that is not in a protection group, the SNVS (Status, Not in Valid State) error message should be returned.
- If this command is used on a card that is not in the inhibit state, the SAAL (Status, Already Allowed) error message should be returned.
- The following situation(s) are allowed and will not generate any error response: sending this command to cards that have been uninstalled as long as none of the previous error conditions apply.

**Category**

Equipment

**Security**

Maintenance

Related Commands		
	ALW-SWDX-EQPT	REPT ALM EQPT
	ALW-SWTOPROTN-EQPT	REPT EVT EQPT
	DLT-EQPT	REPT SW
	DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<OCN_TYPE>	RTRV-ALM-EQPT
	ED-EQPT	RTRV-ALMTH-EQPT
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-COND-EQPT
	ED-FFP-<OCN_TYPE>	RTRV-EQPT
	ED-FFP-OCH	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ENT-EQPT	RTRV-FFP-<OCN_TYPE>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-OCH
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
	EX-SW-<OCN_BLSR>	SET-ALMTH-EQPT
	INH-SWDX-EQPT	SW-DX-EQPT
	INH-SWTOPROTN-EQPT	SW-TOPROTN-EQPT
	INH-SWTOWKG-EQPT	SW-TOWKG-EQPT
	OPR-PROTNSW-<OCN_TYPE>	

**Input Format** ALW-SWTOWKG-EQPT:[<TID>]:<AID>:<CTAG>[::<DIRN>];

**Input Example** ALW-SWTOWKG-EQPT:CISCO:SLOT-2:123::BTH;

### Input Parameters

**Table 2-8 ALW-SWTOWKG-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. This parameter can either be the protection unit for which carrying traffic will be allowed (release of lockout) or the working unit for which switching to protect will be allowed (release of lock on). Values are in the <a href="#">“25.1.13 EQPT” section on page 25-27</a>
<b>DIRN</b>	The direction relative to the entity defined in the AID field. The direction of the switching. This command only supports one value of the DIRN parameter, BTH. Defaults to BTH Parameter type is DIRECTION—transmit and receive directions
<ul style="list-style-type: none"> <li>BTH</li> </ul>	Both transmit and receive directions

## 2.9 ALW-USER-SECU

Allow User Security

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command enables a userid that has been disabled using the INH-USER-SECU command so the user can reestablish a session with the NE.

**Category**

Security

**Security**

Superuser

**Related Commands**

ACT-USER	ED-CMD-SECU	REPT EVT SECU
ALW-MSG-SECU	ED-PID	REPT EVT SESSION
CANC	ED-USER-SECU	RTRV-CMD-SECU
CANC-USER	ENT-USER-SECU	RTRV-DFLT-SECU
CANC-USER-SECU	INH-MSG-SECU	RTRV-USER-SECU
CLR-COND-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
DLT-USER-SECU	REPT ALM SECU	

**Input Format**

ALW-USER-SECU:[<TID>]::<CTAG>::<UID>;

**Input Example**

ALW-USER-SECU:PETALUMA::123::UID;

**Input Parameters**

**Table 2-9 ALW-USER-SECU Input Parameters**

Parameter and Values	Description
<b>UID</b>	The user identifier (userid) of the person logged in. UID can be a list of userids separated by “&”. The keyword ALL cannot be used to specify all users on an NE. String







# APPLY Commands

This chapter provides APPLY (apply) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

## 3.1 APPLY

Apply

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command activates or reverts a software load during a software upgrade or downgrade process.

**Note**

---

An error will be generated if you attempt to activate an older software load or attempt to revert to a newer software load.

---

---

**Category**

File Transfer

---

**Security**

Superuser

---

**Related Commands**

COPY-RFILE REPT EVT FXFR

---

---

**Input Format**

APPLY:[<TID>]::<CTAG>[::<MEM\_SW\_TYPE>];

---

**Input Example**

APPLY:CISCO::123::ACT;

<b>Input Parameters</b>	<MEM_SW_TYPE>	(Optional) Memory switch action during the software upgrade. The parameter type is DL_TYPE, which indicates the software download type. The default value is ACT.
	• ACPT	(ONS 15600) Activates to a newer software load on the active controller card and resets the active card.
	• CANC	(ONS 15600) Cancels the software download.
	• RVRT	Reverts to an older software load during software download.
	• ACT	Activates to a new software load. (For ONS 15600, the new software load is activated on the standby controller card only).



## CANC Commands

---

This chapter provides CANC (cancel) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 4.1 CANC

Cancel

---

#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of a session timeout event.

CANC is an autonomous message transmitted by the NE to a user when a session established by that user is terminated because no messages were exchanged for a long period of time (a timeout). There is a default timeout period based on the user's privilege/security level. Starting with Release 4.0, timeouts can be provisioned through CTC. Starting with Release 4.6, timeouts can be provisioned through TL1 with the SET-ATTR-SECUDFLT command. The default timeouts based on privilege/security level are:

- A Superuser [SUPER] has a timeout period of 15 minutes.
- A Provisioning [PROV] user has a timeout period of 30 minutes.
- A Maintenance [MAINT] level user has a timeout period of 60 minutes.
- A Retrieve [RTRV] user has no timeout period.

When a timeout occurs, the corresponding port drops the session and the next session initiation at that port requires the regular login procedure.

The CANC message is only used to indicate that a session has been terminated because of a timeout. If a session is terminated for a different reason (for example, forced logout, loss of communication), the REPT EVT SESSION message is used.

---

#### Category

Security

---

#### Security

Retrieve

Related Commands	ACT-USER	ED-CMD-SECU	REPT EVT SECU
	ALW-MSG-SECU	ED-PID	REPT EVT SESSION
	ALW-USER-SECU	ED-USER-SECU	RTRV-CMD-SECU
	CANC-USER	ENT-USER-SECU	RTRV-DFLT-SECU
	CANC-USER-SECU	INH-MSG-SECU	RTRV-USER-SECU
	CLR-COND-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
	DLT-USER-SECU	REPT ALM SECU	

**Output Format**

```
SID DATE TIME
A ATAG CANC
"<UID>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 CANC
"CISCO15"
;
```

#### Output Parameters

*Table 4-1 CANC Output Parameters*

Parameter and Values	Description
UID	The user identifier (userid) of the person logged in. Refers to the userid of a user whose session is terminated due to timeout. String

## 4.2 CANC-USER

Cancel User

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command logs a user out of an active session with the NE.



**Note**

The USERID field of this command is a mandatory field.

For the CANC-USER command: CANC-USER:[TID]:[STRING]:CTAG

the syntax of the userid (first [STRING]) is not checked. Invalid syntax for the userid is permitted and the userid must not exceed 10 characters.

**Category** Security

**Security** Retrieve

Related Commands			
ACT-USER	ED-CMD-SECU	REPT EVT SECU	
ALW-MSG-SECU	ED-PID	REPT EVT SESSION	
ALW-USER-SECU	ED-USER-SECU	RTRV-CMD-SECU	
CANC	ENT-USER-SECU	RTRV-DFLT-SECU	
CANC-USER-SECU	INH-MSG-SECU	RTRV-USER-SECU	
CLR-COND-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT	
DLT-USER-SECU	REPT ALM SECU		

**Input Format** CANC-USER:[<TID>]:<USERID>:<CTAG>;

**Input Example** CANC-USER:PETALUMA:TERRI:101;

**Input Parameters**

*Table 4-2 CANC-USER Input Parameters*

Parameter and Values	Description
USERID	Identifies the user to the system. USERID can be up to 10 alphanumeric characters. String

## 4.3 CANC-USER-SECU

Cancel User Security

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command forces a user off of the NE.

The UID specified can be a single userid or a list of userids separated by “&”. The keyword ALL is not permitted. The UID specified cannot be the userid of the administrator issuing the command.



**Note**

This command will log out ALL sessions on the NE (TL1 and CTC) of a user whose userid matches the UID specified in the command.

**Category** Security

**Security** Superuser

Related Commands	ACT-USER	ED-CMD-SECU	REPT EVT SECU
	ALW-MSG-SECU	ED-PID	REPT EVT SESSION
	ALW-USER-SECU	ED-USER-SECU	RTRV-CMD-SECU
	CANC	ENT-USER-SECU	RTRV-DFLT-SECU
	CANC-USER	INH-MSG-SECU	RTRV-USER-SECU
	CLR-COND-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
	DLT-USER-SECU	REPT ALM SECU	

**Input Format** CANC-USER-SECU:[<TID>]:<UID>:<CTAG>;

**Input Example** CANC-USER-SECU:PETALUMA:CISCO10:100;

**Input Parameters**

**Table 4-3 CANC-USER-SECU Input Parameters**

Parameter and Values	Description
<b>UID</b>	The user identifier (userid) of the person logged in. UID can be a list of userids separated by “&”. The keyword ALL may not be used to specify all users on an NE. String



## CHG Commands

---

This chapter provides CHG (change) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 5.1 CHG-ACCMD-<MOD\_TACC>

Change Test Access Mode (DS1, STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, T1, T3, VT1, VT2)

---

#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command changes the test access (TACC) mode for the circuit being tested. For more information about TACC, refer to the [Cisco ONS SONET TL1 Reference Guide](#).

This can be a change from monitoring the data to inserting data into the STS. This command can only be applied to an existing TAP connection.



#### Caution

---

For this command to be applicable, you must first create the TAP using the ED-<MOD\_PATH> command. Intrusive test access modes are traffic-affecting. If a facility/path is connected to a TAP in an intrusive test access mode, it is forced to go into the OOS-MT state. The forced transition could be traffic-affecting. The present state of the facility/path is stored by the NE and is restored when the TAP connection is terminated. Test access connections are dropped automatically if the TL1 session is terminated or is timed out.

---



#### Note

- If there is no TAP connection, a DENY error message is returned.
  - If a requested condition already exists, a SRCN error message is returned.
  - If a requested access configuration is invalid, a SRAC error message is returned.
  - If a requested TAP does not exist, a RTEN error message is returned.
- 

---

#### Category

Troubleshooting and Test Access

**Security**

Maintenance

**Related Commands**

CONN-TACC-&lt;MOD\_TACC&gt;                      DISC-TACC                      RTRV-TACC

**Input Format**

CHG-ACCMD-&lt;MOD\_TACC&gt;:[&lt;TID&gt;]:&lt;TAP&gt;: &lt;CTAG&gt;::&lt;MD&gt;;

**Input Example**

CHG-ACCMD-STS1:CISCO:8:123::MONE;

**Input Parameters****Table 5-1**                      **CHG-ACCMD-<MOD\_TACC> Input Parameters**

Parameter and Values	Description
<b>TAP</b>	The Test Access Path number. TAP number must be an integer with a range of 1 to 999. String  <b>Note</b> This command only supports changing the mode for a single TAP number at a time.
<b>MD</b>	The test access mode. (SPLTE, SPLTF, LOOPE and LOOPF require an external QRS input signal.) Single FAD Test Access does not support MONEF, SPLTEF & SPLTAB modes  Parameter type is TACC_MODE—test access mode
<ul style="list-style-type: none"> <li>• LOOPE</li> </ul>	Splits both the A and B paths. Connect the line incoming from E direction to the line outgoing in the E direction, and connect this looped configuration to the FAD. The line outgoing in the F direction will have a QRS connected, and the line incoming from the F direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<ul style="list-style-type: none"> <li>• LOOPF</li> </ul>	Splits both the A and B paths. Connect the line incoming from F direction to the line outgoing in the F direction, and connect this looped configuration to the FAD. The line outgoing in the E direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<ul style="list-style-type: none"> <li>• MONE</li> </ul>	Indicates that a monitor connection will be provided from the FAD to the A transmission path of the accessed circuit
<ul style="list-style-type: none"> <li>• MONEF</li> </ul>	Indicates that a monitor connection will be provided: <ul style="list-style-type: none"> <li>• From the FAD1 to a DFAD, or the odd pair of a FAP, to the A transmission path and</li> <li>• From the FAD2 of the same DFAD, or the even pair of a FAP, to the B transmission path of the accessed circuit.</li> </ul>
<ul style="list-style-type: none"> <li>• MONF</li> </ul>	Indicates that a monitor connection will be provided from the FAD to the B transmission path of the accessed circuit.
<ul style="list-style-type: none"> <li>• SPLTA</li> </ul>	Indicates that a connection will be provided from both the E and F sides of the A transmission path of the circuit under test to the FAD and split the A transmission path. Intrusive test access mode



Table 5-1 CHG-ACCMD-&lt;MOD\_TACC&gt; Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>SPLTB</li> </ul>	Indicates that a connection will be provided from both the E and F sides of the B transmission path of the circuit under test to the FAD and split the B transmission path. Intrusive test access mode
<ul style="list-style-type: none"> <li>SPLTE</li> </ul>	Splits both the A and B paths and connect the E side of the accessed circuit to the FAD. The line outgoing in the F direction will have a QRS connected, and the line incoming from the F direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<ul style="list-style-type: none"> <li>SPLTEF</li> </ul>	Splits both the A and B paths, and connect the E side of the accessed circuit to FAD1 and the F side to FAD2. Intrusive test access mode
<ul style="list-style-type: none"> <li>SPLTF</li> </ul>	Splits both the A and B paths, and connect the F side of the accessed circuit to the FAD. The line outgoing in the E direction will have a QRS connected, and the line incoming in the E direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode

## 5.2 CHG-EQPT

Change Equipment

### Usage Guidelines

Cisco ONS 15454

This command performs an in-service upgrade from low density (LD) electrical cards DS1 (DS1-14, DS1N-14), DS3 (DS3-12, DS3N-12, DS3NE-12), EC1, and DS3XM-6 to high density (HD) electrical cards DS1/E1-56, DS3/EC1-48 and DS3XM-12 respectively, is supported by this command.



#### Note

- For Release 6.0, only limited upgrades are supported, such as upgrading one LD DS3-12 card to one HD DS3/EC1-48 card.
- Optical (OC-N) card upgrades are not supported in Release 6.0.
- Compatible equipment types for card upgrade are
  - DS3XM-6 to DS3XM-12
  - DS-3/DS3-N/DS3-E/DS3N-E to DS3/EC1-48
  - DS-1/DS1-N to DS1/E1-56
- Provisioning Rules for card upgrade:
  - DS1-14 and DS1N-14 provisioned on one of Slots 1, 2, 3, 15, 16, and 17 should be upgraded to DS1-E1-56.
  - DS1-14 or DSN-14 provisioned in Slots 4, 5, 6, 12, 13, and 14 will fail when upgrading to DS1-56.

- DS3-12/DS3N-12/DS3E-12/DS3NE-12 in Slots 1, 2, 3, 15, 16, and 17 can be upgraded to DS3/EC1-48 card and will fail on slots 4, 5, 6, 12, 13, and 14.
- Two upgradable cards provisioned in a 1:1 protection group cannot be upgraded.

**Category** Equipment

**Security** Maintenance

Related Commands	ALW-SWDX-EQPT	REPT ALM EQPT	RTRV-ALMTH-EQPT
	ALW-SWTOPROTN-EQPT	REPT EVT EQPT	RTRV-COND-EQPT
	ALW-SWTOWKG-EQPT	REPT RMV EQPT	RTRV-EQPT
	DLT-EQPT ED-EQPT	REPT RST EQPT	SET-ALMTH-EQPT
	ENT-EQPT	RMV-EQPT	SW-DX-EQPT
	INH-SWDX-EQPT	RST-EQPT	SW-TOPROTN-EQPT
	INH-SWTOPROTN-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
	INH-SWTOWKG-EQPT		

**Input Format** CHG-EQPT:[<TID>]:<SRC>:<CTAG>::<EQPTTYPE>;

**Input Example** CHG-EQPT::SLOT-1:1::DS3-EC1-48;

### Input Parameters

**Table 5-2 CHG-EQPT Input Parameters**

Parameter and Values	Description
<b>SRC</b>	The source access identifier from the “25.1.13 EQPT” section on page 25-27
<b>EQPTTYPE</b>	The equipment type to be upgraded Parameter type is EQUIPMENT_TYPE—equipment type
• DS1-14	DS1-14 card
• DS1N-14	DS1N-14 card
• DS3-12	DS3-12card
• DS3-EC1-48	DS3-EC1-48 card
• DS3N-12	DS3N-12 card
• DS3NE-12	DS3NE-12 card
• EC1	EC1 card

**Table 5-2** CHG-EQPT Input Parameters (continued)

Parameter and Values	Description
• DS3XM-6	DS3XM-6 card
• DS3XM-12	DS3XM-12 card





## CLR Commands

---

This chapter provides CLR (clear) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 6.1 CLR-COND-SECU

Clear Security Condition

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command clears the specified standing condition.

**Note**

---

In Release 6.0, only INTRUSION-PSWD parameter value is supported.

---

---

**Category**

Security

---

**Security**

Superuser

Related Commands			
	ACT-USER	REPT ALM ENV	RTRV-ALM-ALL
	ALW-MSG-SECU	REPT ALM EQPT	RTRV-ALM-BITS
	ALW-USER-SECU	REPT ALM SECU	RTRV-ALM-ENV
	CANC	REPT ALM SYNCN	RTRV-ALM-EQPT
	CANC-USER	REPT EVT <MOD2ALM>	RTRV-ALM-SYNCN
	CANC-USER-SECU	REPT EVT BITS	RTRV-CMD-SECU
	DLT-USER-SECU	REPT EVT COM	RTRV-COND-<MOD2ALM>
	ED-CMD-SECU	REPT EVT ENV	RTRV-COND-ALL
	ED-PID	REPT EVT EQPT	RTRV-COND-BITS
	ED-USER-SECU	REPT EVT FXFR	RTRV-COND-ENV
	ENT-USER-SECU	REPT EVT IOSCFG	RTRV-COND-EQPT
	INH-MSG-SECU	REPT EVT SECU	RTRV-COND-SYNCN
	INH-USER-SECU	REPT EVT SESSION	RTRV-DFLT-SECU
	REPT ALM <MOD2ALM>	REPT EVT SYNCN	RTRV-USER-SECU
	REPT ALM BITS	RTRV-ALM-<MOD2ALM>	SET-ATTR-SECUDFLT
	REPT ALM COM		

**Input Formats** CLR-COND-SECU:[<TID>]::<CTAG>[::<SECUALMTYPE>];

**Input Examples** CLR-COND-SECU:CISCO::123::INTRUSION-PSWD:

### Input Parameters

**Table 6-1 CLR-COND-SECU Input Parameters**

Parameter and Values	Description
<b>SECUALMTYPE</b>	Secure alarm type. Defaults to INTRUSION-PSWD Parameter type is SECUALMTYPE—security alarm type
<ul style="list-style-type: none"> <li>INTRUSION-PSWD</li> </ul>	Condition raised after an invalid password is used during login. Condition is raised only if the password is used a specified number of times.



## CONN Commands

---



### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

---

This chapter provides CONN (connect) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 7.1 CONN-TACC-<MOD\_TACC>

Connect Test Access (DS1, STS1, STS12C, STS18C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, T1, T3, VT1, VT2)

#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command connects the STS or VT defined by AID to the STS specified by the TAP number. For more information on TACC, refer to the [Cisco ONS SONET TL1 Reference Guide](#).



### Caution

For this command to be applicable, you must first create the TAP using the ED-<MOD\_PATH> command. Intrusive test access modes are traffic-affecting. If a facility/path is connected to a TAP in an intrusive test access mode, it is forced to go into the OOS-MT state. The forced transition could be traffic-affecting. The present state of the facility/path is stored by the NE and is restored when the TAP connection is brought down. Test access connections are dropped automatically if the TL1 session is terminated or is timed out.

---



### Note

- If all TAPs are busy, a RABY error message is returned.
- If a requested TAP is busy, a RTBY error message is returned.
- If a requested TAP does not exist, a RTEN error message is returned.
- If a circuit is already connected to another TAP, a SCAT error message is returned.

- If a requested condition already exists, a SRCN error message is returned.
- If the AID is invalid, an IIAC (Input, Invalid Access Identifier) error message is returned.
- If an access is not supported, an EANS error message is returned.
- If a requested access configuration is invalid, a SRAC error message is returned.
- A connection can be made to a cross-connection, in which case all modes of access are supported. A connection to an Unmapped AID (AID without a cross-connect on it) will allow only MONE, SPLTE, and LOOPE modes.
- A connection to the protect path of a 1+1, 1:1, or 1:N protection scheme is not allowed; however, connecting to the PCA path of a two-fiber or four-fiber BLSR is supported. This will be preempted when a BLSR switch occurs.
- When you connect a TACC to a protect path protection trunk, you will always be connected to the working trunk instead.
- STS36C is not supported in this release.

---

**Category** Troubleshooting and Test Access

---

**Security** Maintenance

---

**Related Commands** DISC-TACC OPR-LPBK-<MOD2> RTRV-TACC  
EX-SW-<OCN\_BLSR> RLS-LPBK-<MOD2>

---

**Input Format** CONN-TACC-<MOD\_TACC>:[<TID>]:<SRC>:<CTAG>::<TAP>:MD=<MD>;

---

**Input Example** CONN-TACC-ST1:CISCO:STS-2-1-4:123::8:MD=MONE;

---

**Input Parameters**

**Table 7-1 CONN-TACC-<MOD\_TACC> Input Parameters**

Parameter and Values	Description
SRC	Source AID from the <a href="#">“25.1.1 ALL” section on page 25-1</a> . SRC must not be null
TAP	The Test Access Path number. The TAP number is used to identify all messages between TSC and NE until the access point is released. TAP number must be an integer with a range of 1 to 999. TAP must not be null
MD	The test access mode. (SPLTE, SPLTF, LOOPE and LOOPF require an external QRS input signal.) Single FAD Test Access does not support MONEF, SPLTEF & SPLTAB modes. MD must not be null  Parameter type is TACC_MODE—test access mode



Table 7-1 CONN-TACC-&lt;MOD\_TACC&gt; Input Parameters (continued)

Parameter and Values	Description
• LOOPE	Splits both the A and B paths. Connect the line incoming from E direction to the line outgoing in the E direction, and connect this looped configuration to the FAD. The line outgoing in the F direction will have a QRS connected, and the line incoming from the F direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
• LOOPF	Splits both the A and B paths. Connects the line incoming from F direction to the line outgoing in the F direction, and connects this looped configuration to the FAD. The line outgoing in the E direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
• MONE	Indicates that a monitor connection is to be provided from the FAD to the A transmission path of the accessed circuit
• MONEF	Indicates that a monitor connection is to be provided from the FAD1 to a DFAD, or the odd pair of a FAP, to the A transmission path and from FAD2 of the same DFAD, or the even pair of a FAP, to the B transmission path of the accessed circuit.
• MONF	Indicates that a monitor connection is to be provided from the FAD to the B transmission path of the accessed circuit.
• SPLTA	Indicates that a connection is to be provided from both the E and F sides of the A transmission path of the circuit under test to the FAD and split the A transmission path. Intrusive test access mode
• SPLTB	Indicates that a connection is to be provided from both the E and F sides of the B transmission path of the circuit under test to the FAD and split the B transmission path. Intrusive test access mode
• SPLTE	Splits both the A and B paths and connects the E side of the accessed circuit to the FAD. The line outgoing in the F direction will have a QRS connected, and the line incoming from the F direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
• SPLTEF	Splits both the A and B paths, and connects the E side of the accessed circuit to FAD1 and the F side to FAD2. Intrusive test access mode
• SPLTF	Splits both the A and B paths, and connects the F side of the accessed circuit to the FAD. The line outgoing in the E direction will have a QRS connected, and the line incoming in the E direction will have a QRS connected. The line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<TAP>"
;

```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "8"
;
```

**Output Parameters****Table 7-2** *CONN-TACC-<MOD\_TACC> Output Parameters*

Parameter and Values	Description
TAP	The Test Access Path number. The TAP number is used to identify all messages between TSC and NE until the access point is released. The TAP number must be an integer with a range of 1 to 999



# COPY Commands

---

This chapter provides COPY (copy) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

## 8.1 COPY-IOSCFG

Copy Internet Operating System Configuration File

---

### Usage Guidelines

Cisco ONS 15454

This command supports the following types of operations on the Cisco IOS configuration file of ML-Series Ethernet cards:

1. Uploading the startup Cisco IOS configuration file from the network to the node.  
FTP is the only protocol allowed for uploading. When doing this operation, the SRC field must be an FTP URL string specifying the user name and password for FTP authentication, and specifying the host and the directory to locate the startup configuration file from the network. The DEST field must be a string of "STARTUP."
2. Downloading the startup Cisco IOS configuration file from the node to the network.  
FTP is the only protocol allowed for downloading. When doing this operation, the SRC field must be a string of "STARTUP." The DEST field must be an FTP URL string specifying the user name and password for FTP authentication, and specifying the host and the directory to store the startup configuration file on the network.



### Note

- FTP timeout is 30 seconds and is not configurable.
- The Cisco IOS configuration file is unique for each ML-Series card, and is specified by the SLOT number in the AID field of the command.
- In the GNE/ENE environment, if a GNE firewall exists, the download (backup) of the Cisco IOS configuration file through TL1 is not allowed. Any such attempt will receive a "Data Connection Error" from the GNE. If uploading the Cisco IOS configuration file through TL1, the GNE will allow it to go through the firewall only if the file contains the header "! Cisco IOS config <text>". If the configuration file does not contain this header, GNE will block the upload with "Data Connection Error."

- The format of the FTP URL string used in the SRC or DEST field of the command is as follows:  
 In a nonfirewall environment, the format of the URL should be  
 “FTP://[FTPUSER[:FTPPASSWORD]]@FTPHOST/PACKAGE\_PATH” where:  
 FTPUSER is the userid to connect to the computer with the package file  
 <FTPPASSWORD> is the password used to connect to the computer with the package file  
 <FTPHOST> is the IP address of the computer with the package file. DNS lookup of hostnames is not supported  
 <PACKAGE\_PATH> is the long path name to the package file
  - Note that USERID and PASSWORD are optional if the user does not need to log into the host computer. Also note that the password can be optional if the user does not need to log in. All the other portions of the URL are required, including the initial “FTP:” string.

In a firewall environment, the hostname should be replaced with a list of IP addresses each separated by the “@” character. The first IP address should be for the machine where the package file is stored. Subsequent IP addresses should be for firewall machines moving outwards towards the edge of the network, until the final IP address listed was the machine that outside users first access the network.

For example: if your topology is “FTPHOST <-> GNE3 <-> GNE2 <-> GNE1 <-> ENE”, your FTP URL will be:  
 FTP://FTPUSER:FTPPASSWORD@FTPHOST@GNE3@GNE2@GNE1/PACKAGE\_PATH

**Category**

File Transfer

**Security**

Provisioning

**Related Commands**

APPLY REPT EVT FXFR REPT EVT IOSCFG  
 COPY-RFILE

**Input Format**

COPY-IOSCFG:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;::SRC=&lt;SRC&gt;,DEST=&lt;DEST&gt;;

**Input Example**

COPY-IOSCFG::SLOT-1:CTAG::SRC=“LONG\_FTP\_PATH”,DEST=“STARTUP”;

**Input Parameters****Table 8-1 COPY-IOSCFG Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. Specifies the slot number of the card where the Cisco IOS configuration file belongs. AID is from the <a href="#">“25.1.13 EQPT” section on page 25-27</a>
<b>SRC</b>	Source AID. Specifies where the Cisco IOS configuration file is copied from. String
<b>DEST</b>	Specifies where the Cisco IOS configuration file is copied to. String

## 8.2 COPY-RFILE

Copy File

### Prerequisite

To run the **COPY-RFILE** command, do the following:

- Run the FTP server on the remote machine.
- Register the FTP server on the GNE using the **ENT-FTPSERVER** command.

Here is an example that explains the execution of **COPY-RFILE** command:

```
> ENT-FTPSERVER:::A:::IPADDR=72.163.210.211,ENABLE=Y,IPMASK=255.255.255.
> 0,TIMER=0;
Infy600-162 2009-01-23 07:18:27
M A COMPLD
;
>
> RTRV-FTPSERVER:::A;
Infy600-162 2009-01-23 07:18:43
M A COMPLD
"IPADDR=10.77.29.252,IPMASK=255.255.255.0,ENABLE=Y,TIMER=0"
"IPADDR=72.163.210.211,IPMASK=255.255.255.0,ENABLE=Y,TIMER=0"
"IPADDR=64.103.135.83,IPMASK=255.255.255.0,ENABLE=Y,TIMER=0"
"IPADDR=10.65.72.136,IPMASK=255.255.255.0,ENABLE=N,TIMER=0"
;
>
```

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command downloads a new software package from the location specified by the FTP URL. It is also used to backup and restore the system database.



#### Note

Beginning with Release 5.0, PACKAGE\_PATH is relative to your home directory, instead of being an absolute path from the root directory of the NE. If you want to specify an absolute path, start the path with the string "%2F".



#### Note

FTP timeout is 30 seconds and is not configurable.



#### Note

In the gateway network element/end network element (GNE/ENE) environment, if a GNE firewall exists, the backup of the ENE database through TL1 is not allowed. Any such attempt will receive a 'ERROR - -5502 - Command not implemented' from the GNE.

To upload package files or restore databases from a host, the host must be running an FTP server application. If the host is not running an FTP server application, the command fails, indicating that the NE was unable to connect to the remote IP address (host). A host can either be a PC or a workstation running an FTP server application.

- Userid is the user's ID used to connect to the computer hosting the package file or system database.

- Password is the password used to connect to the computer hosting the package file or system database.
- Hostname is the hostname or IP address of the computer hosting the package file or system database.
- PACKAGE\_PATH is the long path name to the package file, starting from the home directory of the logged-in user.

All the other portions of the URL are required, including the initial “FTP://” string.

Example:

```
COPY-RFILE:TID:RFILE-PKG:703::TYPE=SWDL,SRC="FTP://USERID:
PASSWORD@HOSTIP:21/DIR1/DIR2/DIR3/PACKAGE.PKG";
```



#### Note

- The SWDL type is used for software package uploads. The RFBU type is used for system database backups, and the RFR type is used for system database restores. The SRC input is required when the type is SWDL or RFR. The DEST input is needed when the type is RFBU. The SRC and DEST inputs cannot both be used in the same command.
- The extended FTP URL syntax is required by the COPY-RFILE syntax.
- If using FTP URL, port number (21) is optional. Leaving this field blank defaults to 21. However, if using FTTD URL, then port number (21) is mandatory and no default is defined.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command.
- If using FTTD URL, the firewall on GNE must be disabled.

#### Category

File Transfer

#### Security

Superuser

#### Related Commands

APPLY                      REPT EVT FXFR                      REPT EVT IOSCFG  
COPY-IOSCFG

#### Input Format

```
COPY-RFILE:[<TID>]:<SRC>:<CTAG>::TYPE=<XFERTYPE>,[SRC=<SRC1>],
[DEST=<DEST>],[OVWRT=<OVWRT>],[FTTD=<FTTD>];
```

#### Input Example

```
COPY-RFILE:HERNDON:RFILE-PKG:703::TYPE=SWDL,SRC="LONG_FTP_PATH",
DEST="LONG_FTP_PATH",OVWRT=YES,FTTD="FTTD_URL";
```

## Input Parameters

Table 8-2 COPY-RFILE Input Parameters

Parameter and Values	Description
<b>SRC</b>	Source AID. The type of file being transferred. Defaults to RFILE-PKG. From the AID “25.1.21 RFILE” section on page 25-33
<b>XFERTYPE</b>	The file transfer protocol Parameter type is TX_TYPE—specifies the type and direction of the file transferred
<ul style="list-style-type: none"> <li>• RFBU</li> <li>• RFR</li> <li>• SWDL</li> </ul>	<ul style="list-style-type: none"> <li>Remote File Backup. Applicable for Maintenance User (and above)</li> <li>Remote File Restore. Applicable for Superuser</li> <li>Software Download. Applicable for Maintenance User (and above)</li> </ul>
<b>SRC1</b>	<p>Specifies the source of the file to be transferred. Only the FTP URL is supported. In a non-firewall environment the format of the URL should be: “FTP://FTP_USER[:FTP_PASSWORD]]@FTP_HOST_IP[:21]/PACKAGE_PATH[;TYPE=I]” where:</p> <ul style="list-style-type: none"> <li>• &lt;FTP_USER&gt; is the userid to connect to the computer hosting the package file</li> <li>• &lt;FTP_PASSWORD&gt; is the password used to connect to the computer hosting the package file</li> <li>• &lt;FTP_HOST_IP&gt; is the IP address of the computer hosting the package file. DNS lookup of hostnames is not supported</li> <li>• &lt;PACKAGE_PATH&gt; is the long path name to the package file starting from the home directory of the logged-in user.</li> </ul> <p><b>Note</b> Userid and password are optional if the user does not need to log into the host computer. The password can be optional if the user does not need to log in. All the other portions of the URL are required, including the initial “FTP://” string.</p> <p>In a firewall environment, the hostname should be replaced with a list of IP addresses each separated by a @ character. The first IP address should be for the machine where the package file is stored. Subsequent IP addresses should then be for firewall machines moving outwards towards the edge of the network, until the final IP address listed is the machine that outside users first access the network.</p> <p>For example, if the topology is “FTP_HOST_IP &lt;-&gt; GNE3 &lt;-&gt;GNE2 &lt;-&gt; GNE1 &lt;-&gt; ENE”, the FTP URL is:</p> <pre>FTP://FTP_USER:FTP_PASSWORD@FTP_HOST_IP@GNE3@GNE2@GNE1/PACKAGE_PATH</pre> <p>String</p>
<b>DEST</b>	Specifies the destination of the file to be transferred. The comments for the SRC parameter (above) are also valid for DEST. String

**Table 8-2** *COPY-RFILE Input Parameters (continued)*

<b>Parameter and Values</b>	<b>Description</b>
<b>OVWRT</b>	If OVWRT is YES, the files should be overwritten. If OVWRT is NO, the file transfers will fail if the file already exists at the destination. Using the NO value will result in an error message. The NO value is not supported for database restore or software download  Parameter type is YES_NO—indicates whether the user password is about to expire; the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes
<b>FTTD</b>	String





# DISC Commands

This chapter provides DISC (disconnect) commands for the Cisco ONS 15454, ONS 15327 and ONS 15600.

## 9.1 DISC-TACC

Disconnect Test Access

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command disconnects the TAP and puts the connection back to its original state (no splits). For more information on TACC, refer to the [Cisco ONS SONET TL1 Reference Guide](#).

For this command to be applicable, you must first create the TAP using the ED-<MOD\_PATH> command.



### Note

If you send this command to an already disconnected TAP connection, an SADC error message is returned.



### Note

If the system cannot release TAP, an SRTN error message is returned.

### Category

Troubleshooting and Test Access

### Security

Maintenance

### Related Commands

CHG-ACCMD-<MOD_TACC>	OPR-LPBK-<MOD2>	RTRV-PTHTRC-<PATH>
CONN-TACC-<MOD_TACC>	RLS-LPBK-<MOD2>	RTRV-TACC
EX-SW-<OCN_BLSR>		

### Input Format

DISC-TACC:[<TID>]:<TAP>:<CTAG>;

**Input Example** DISC-TACC:CISCO:8:123;

**Input Parameters**

**Table 9-1 DISC-TACC Input Parameters**

Parameter and Values	Description
TAP	The Test Access Path number. TAP number must be an integer with a range of 1 to 999. String <b>Note</b> This command only supports disconnecting one TAP at a time



## DLT Commands

---



### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

---

This chapter provides DLT (delete) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 10.1 DLT-<MOD1PAYLOAD>

Delete (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, EC1, ESCON, ETRCLO, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, T3)

#### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL, ONS 15600

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command deletes the specified port.



### Note

This command supports ports with PPMs (pluggable port modules) (for example, the ASAP card, the 15310-CL-CTX card, the FC\_MR-4 card, and ONS 15454 DWDM cards).

---

#### Category

Ports

#### Security

Provisioning

Related Commands	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-G1000	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-GFP	RTRV-FFP-<OCN_TYPE>
	ED-HDLC	RTRV-FSTE
	ED-POS	RTRV-G1000
	ED-T1	RTRV-GFP
	ED-T3	RTRV-GIGE
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-HDLC
	ED-TRC-<OCN_TYPE>	RTRV-PM-<MOD2>
	ENT-<MOD1PAYLOAD>	RTRV-PMSCHED-<MOD2>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-POS
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	INIT-REG-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
	OPR-ALS	RTRV-T1
	OPR-LPBK-<MOD2>	RTRV-T3
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TH-<MOD2>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	REPT PM <MOD2>	RTRV-TRC-<OCN_TYPE>
	RLS-LPBK-<MOD2>	SCHED-PMREPT-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	SET-TH-<MOD2>

**Input Format** DLT-<MOD1PAYLOAD>:[<TID>]:<AID>:<CTAG>[::::];

**Input Example** DLT-GIGE:TID:FAC-5-1:1;

**Input Parameters****Table 10-1** DLT-<MOD1PAYLOAD> Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28

## 10.2 DLT-<MOD\_RING>

Delete Bidirectional Line Switched Ring

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600

**Note**

ONS 15327 does not support four-fiber BLSR.

This command deletes the BLSR of the NE.

Possible Errors:

1. If the system fails on getting IOR, a SROG (Status, Get IOR Failed) error message is returned.
2. If the AID is invalid, an IIAC (Invalid AID) error message is returned.
3. If the BLSR does not exist, a SRQN (BLSR Does Not Exist) error message is returned.
4. The ALL AID is invalid for this command.
5. The list AID format has been supported since R4.6.
6. The SROF (Facility Not Provisioned or Cannot Access BLSR) error message will be returned for the invalid query.
7. If the BLSR is in use, a SROF (BLSR In Use) error message is returned.
8. The SRQN (BLSR Deletion Failed) error message is returned for the invalid deletion query.

**Category**

BLSR

**Security**

Provisioning

**Related Commands**

ED-<MOD_RING>	EX-SW-<OCN_BLSR>	RTRV-TRC-<OCN_BLSR>
ENT-<MOD_RING>	RTRV-<MOD_RING>	

**Input Format**

DLT-&lt;MOD\_RING&gt;:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;[:::];

**Input Example**

DLT-BLSR:PETALUMA:BLSR-2:123;

**Input Parameters****Table 10-2** DLT-<MOD\_RING> Input Parameters

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.3 AidUnionId1</a> ” section on <a href="#">page 25-12</a> . Identifies the BLSR of the NE. ALL or BLSR-ALL AID is not allowed for editing BLSRs

## 10.3 DLT-BULKROLL<OCN\_TYPE>

Delete Bulkroll (OC12, OC192, OC3, OC48)

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600

This command deletes an attempted bulk rolling operation of a facility or completes an attempted rolling operation. This command is used for bulk line level rolling. Use DLT-ROLL-<MOD\_PATH> for single path level rolling.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

**Category**

Bridge and Roll

**Security**

Provisioning

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<OCN_TYPE>	RMV-<MOD2>
	ED-<GIGE_TYPE>	RST-<MOD2>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
	ED-ALS	RTRV-10GIGE
	ED-BULKROLL-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-DS3I	RTRV-BULKROLL-<OCN_TYPE>
	ED-EC1	RTRV-DS1
	ED-FAC	RTRV-DS3I
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GFP
	ED-T1	RTRV-GIGE
	ED-T3	RTRV-HDLC
	ENT-<MOD1PAYLOAD>	RTRV-PM-<MOD2>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ENT-FFP-<OCN_TYPE>	RTRV-POS
	INIT-REG-<MOD2>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	OPR-ALS	RTRV-PROTNSW-<OCN_TYPE>
	OPR-LPBK-<MOD2>	RTRV-T1
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-T3
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TH-<MOD2>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	REPT RMV <MOD2_IO>	SET-ALMTH-<MOD2>
	REPT RST <MOD2_IO>	SET-TH-<MOD2>
	RLS-LPBK-<MOD2>	
Input Format	DLT-BULKROLL-<OCN_TYPE>:[<TID>]:<FROM>:<CTAG>::: [RFROMSTART=<RFROMSTART>],[RFROMEND=<RFROMEND>],WHY=<WHY>;	

**Input Example**

```
DLT-BULKROLL-OC12:CISCO:FAC-1-1:6:::RFROMSTART=STS-1-1-1,
RFROMEND=STS-1-1-11,WHY=STOP;
```

**Input Parameters****Table 10-3** DLT-BULKROLL-<OCN\_TYPE> Input Parameters

Parameter and Values	Description
<b>FROM</b>	One of the end points. Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28 for line level rolling and bulk rolling
<b>RFROMSTART</b>	The starting time slot in the source roll port. For bulk rolling only. The AID is from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20 (except VCM and FACILITY). Defaults to STS-<FROMSLOT>-<FROMPORT>-1, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID
<b>RFROMEND</b>	The ending time slot in the source roll port. For bulk rolling only. The AID is from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20 (except VCM and FACILITY). Defaults to STS-<FROMSLOT>-<FROMPORT>-N, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID and N is the value of OCn. (for example, OC48, n=48)
<b>WHY</b>	The reason for deletion Parameter type is WHY—reason for deletion
<ul style="list-style-type: none"> <li>• END</li> </ul>	Drop the leg to be rolled. The leg that is identified by the RFROM in ENT-ROLL/ENT-BULKROLL
<ul style="list-style-type: none"> <li>• STOP</li> </ul>	The rolling operation will be aborted and reverted to the previous configuration

## 10.4 DLT-CRS-<PATH>

Delete Cross-Connection (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command deletes a cross-connection between STS paths. STS paths are specified using their STS AID.



**Note**

- The fields after CTAG (trailing colons) are optional.
- For 1-way cross-connections the AIDs must be in the same order as originally entered; for 2-way cross-connections, either order will work.
- This command does not support deleting multiple STS cross-connections.
- Using “&” in the AID field of this command can delete a path protection STS cross-connection.
  - The following command is used to delete a 1-way selector or 2-way selector and bridge with:  
 from points: F1, F2  
 to points: T1  
 DLT-CRS-**{STS\_PATH}**:[<TID>]:F1&F2,T1:<CTAG>;
  - The following command is used to delete a 1-way bridge or 2-way selector and bridge with:  
 from point: F1  
 to points: T1, T2  
 DLT-CRS-**{STS\_PATH}**:[<TID>]:F1,T1&T2:<CTAG>;
  - The following command is used to delete a 1-way or 2-way subtending path protection connection with:  
 from point: F1, F2  
 to points: T1, T2  
 DLT-CRS-**{STS\_PATH}**:[<TID>]:F1&F2,T1&T2:<CTAG>;
  - The AID format in the deletion command is the same as the AID format in the retrieved response message. For example, if the output of any retrieved AID is “F1&F2,T1:CCT,STS3C”, the deletion command with the AID format (F1&F2,T1) is required to delete this cross-connection.
  - The following command is used to delete a path protection IDRI Cross-Connection:  
 DLT-CRS-**{STS\_PATH}**:[<TID>]:A&B,C&D:<CTAG>;  
 A – Path on Ring X to which traffic from ring Y is bridged  
 B – Path on Ring X to which traffic from the same ring is bridged  
 C – Path on Ring Y to which traffic from ring X is bridged  
 D – Path on Ring Y to which traffic from the same ring is bridged  
 A, B, C, and D have a positional meaning. Connection type 2WAYDC is used for path protection IDRI cross-connections.
  - The following command is used to delete a path protection DRI Cross-Connection:  
 DLT-CRS-**{STS\_PATH}**:[<TID>]:A&B,C:<CTAG>;  
 A – Path on Ring X to which traffic from ring Y is bridged  
 B – Path on Ring X to which traffic from the same ring is bridged  
 C – Traffic to and from Ring Y  
 A, B, C, and D have a positional meaning. Connection type 2WAYDC is used for path protection DRI cross-connections.
- All A&B AIDs in the TL1 cross-connection command are in the format of WorkingAID&ProtectAID.

- You can experience some implementation behavior problems if additional drops have been added to the connection object.
- The facility AID is only valid for slots holding the G1K-4 card.
- The virtual facility AID (VFAC) is only valid on slots holding an ML-Series card.
- CKTID is a string of ASCII characters. The maximum length of CKTID can be 48 characters. If the CKTID is EMPTY or NULL the field will not appear.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use the RTRV-XX command to retrieve current values.

**Category** Cross Connections

**Security** Provisioning

**Related Commands** ED-CRS-<PATH> RTRV-CRS RTRV-CRS-<PATH>  
ENT-CRS-<PATH>

**Input Format** DLT-CRS-<PATH>:[<TID>]:<SRC>,<DST>:<CTAG>[::[CKTID=<CKTID>],  
[CMDMDE=<CMDMDE>]];

**Input Example** DLT-CRS-STS12C:VINBURG:STS-1-1-1,STS-12-1-1:102:::CKTID=CKTID,CMDMDE=CMDMDE;

**Input Parameters**

**Table 10-4 DLT-CRS-PATH Input Parameters**

Parameter and Values	Description
SRC	Source AID from the “25.1.10 CrossConnectId1” section on page 25-20
DST	Destination AID from the “25.1.10 CrossConnectId1” section on page 25-20
CKTID	String
CMDMDE	Command Mode. The FRCD mode of operation is applicable to delete a VCAT member cross-connect from IS-NR or OOS-AU,AINS service state  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied

**Table 10-4** DLT-CRS-PATH Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Forces the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail

## 10.5 DLT-EQPT

Delete Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command deletes a card from the NE.

This command removes the card type and attributes that were entered for a particular slot. If any facilities are assigned, they are deleted too. The command will be denied if the card is part of a protection group or has a cross-connect end-point.

To delete a card that is part of a protection group, it has to be removed from the protection group first using the ED-EQPT command.

Error conditions for deleting equipment can be:

- The error message SPLD (Equipment In Use) will be returned in the following conditions:
  - The card is in a protection group
  - The card has a cross-connection or a DCC/GCC/OSC termination or provisionable patchcord termination.
  - If any of its facilities is being used as a synchronization source.
- If a card is not provisioned, an error message will be returned.

### Category

Equipment

### Security

Provisioning

### Related Commands

ALW-SWDX-EQPT	NH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
ED-EQPT	REPT EVT EQPT	SW-DX-EQPT
ENT-EQPT	RTRV-ALM-EQPT	SW-TOPROTN-EQPT
INH-SWDX-EQPT	RTRV-ALMTH-EQPT	SW-TOWKG-EQPT

### Input Format

DLT-EQPT:[<TID>]:<AID>:<CTAG>[::];

**Input Example** DLT-EQPT:SONOMA:SLOT-1:104;

**Input Parameters**

**Table 10-5 DLT-EQPT Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.13 EQPT” section on page 25-27. Identifies an equipment unit to act on

## 10.6 DLT-FFP-<MOD2DWDMPAYLOAD>

Delete Facility Protection Group (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1)

**Usage Guidelines**

Cisco ONS 15454

This command deletes Y-cable protection on client facilities.

**Category**

DWDM

**Security**

Provisioning

**Related Commands**

ALW-SWDX-EQPT	INH-SWTOWKG-EQPT
ALW-SWTOPROTN-EQPT	OPR-PROTNSW-<OCN_TYPE>
ALW-SWTOWKG-EQPT	REPT SW
DLT-FFP-<OCN_TYPE>	RLS-PROTNSW-<OCN_TYPE>
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FFP-OCH	RTRV-FFP-OCH
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	SW-DX-EQPT
EX-SW-<OCN_BLSR>	SW-TOPROTN-EQPT
INH-SWDX-EQPT	SW-TOWKG-EQPT
INH-SWTOPROTN-EQPT	

**Input Format**

DLT-FFP-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>,<DST>:<CTAG>[:::];

**Input Example**

DLT-FFP-HDTV:CISCO:FAC-1-1-1,FAC-2-1-1:100;

**Input Parameters****Table 10-6** DLT-FFP-<MOD2DWDMPAYLOAD> Input Parameters

Parameter and Values	Description
SRC	The working facility AID from the “25.1.14 FACILITY” section on page 25-28
DST	The protecting facility AID from the “25.1.14 FACILITY” section on page 25-28

## 10.7 DLT-FFP-<OCN\_TYPE>

Delete Facility Protection Group (OC3, OC12, OC48, OC192)

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command deletes an OCN facility protection group in a 1+1 protection scheme.

**Note**

If the protection group does not exist, an error message will be returned.

**Category**

Protection

**Security**

Provisioning

**Related Commands**

ALW-SWDX-EQPT	INH-SWTOWKG-EQPT
ALW-SWTOPROTN-EQPT	OPR-PROTNSW-<OCN_TYPE>
ALW-SWTOWKG-EQPT	REPT SW
DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FFP-OCH	RTRV-FFP-OCH
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	SW-DX-EQPT
EX-SW-<OCN_BLSR>	SW-TOPROTN-EQPT
INH-SWDX-EQPT	SW-TOWKG-EQPT
INH-SWTOPROTN-EQPT	

**Input Format**

DLT-FFP-<OCN\_TYPE>:[<TID>]:<WORK>,<PROTECT>:<CTAG>[::];

**Input Example** DLT-FFP-OC3:PETALUMA:FAC-2-1,FAC-1-1:1;

**Input Parameters**

*Table 10-7 DLT-FFP-<OCN\_TYPE> Input Parameters*

Parameter and Values	Description
WORK	The working facility AID from the “25.1.14 FACILITY” section on page 25-28
PROTECT	The protect facility AID from the “25.1.14 FACILITY” section on page 25-28

## 10.8 DLT-LNK-<MOD20>

Delete Optical Link (OCH, OMS, OTS)

**Usage Guidelines**

Cisco ONS 15454

This command deletes an optical link between two optical connection points. Optical link is specified by using the AID of the involved optical connection points.

**Category**

DWDM

**Security**

Provisioning

**Related Commands**

ED-DWDM	ED-TRC-OCH	RTRV-LNK-<MOD20>
ED-FFP-OCH	OPR-LASER-OTS	RTRV-OCH
ED-LNK-<MOD20>	OPR-PROTNSW-OCH	RTRV-OMS
ED-OCH	RLS-LASER-OTS	RTRV-OTS
ED-OMS	RLS-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OTS	RTRV-DWDM	RTRV-TRC-OCH
ENT-LNK-<MOD20>	RTRV-FFP-OCH	

**Input Format**

DLT-LNK-<MOD20>:[<TID>]:<FROM>,<TO>:<CTAG>;

**Input Example**

DLT-LNK-OMS:PENNGROVE:BAND-6-1-TX,BAND-13-1-RX:114;

**Input Parameters****Table 10-8** DLT-LNK-<MOD2O> Input Parameters

Parameter and Values	Description
FROM	The identifier at one end of the optical link from the AID “25.1.4 BAND” section on page 25-13
TO	The identifier at the other end of the optical link from the AID “25.1.4 BAND” section on page 25-13

## 10.9 DLT-LNKTERM

Delete a Provisionable Patchcord Termination

**Usage Guidelines**

Cisco ONS 15454, ONS 15310-CL

This command deletes a provisionable patchcord termination present on a node. All termination points of a link/provisionable patchcord have to be deleted for the link to be deleted fully.

Notes:

1. This command accepts multiple AIDs, but does not accept the ALL AID.
2. A suitable error will be responded if the link termination does not exist.

**Category**

Provisionable Patchcords

**Security**

Provisioning

Related Commands	DLT-LNK-<MOD2O>	ED-WLEN	RTRV-FFP-OCH
	DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
	DLT-WLEN	ENT-LNKTERM	RTRV-LNKTERM
	ED-APC	ENT-OSC	RTRV-NE-APC
	ED-CLNT	ENT-WLEN	RTRV-NE-WDMANS
	ED-DWDM	OPR-APC	RTRV-OCH
	ED-FFP-OCH	OPR-LASER-OTS	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-PROTNSW-OCH	RTRV-OPM
	ED-LNKTERM	OPR-SLV-WDMANS	RTRV-OSC
	ED-OCH	OPR-WDMANS	RTRV-OTS
	ED-OMS	RLS-LASER-OTS	RTRV-PROTNSW-OCH
	ED-OSC	RLS-PROTNSW-OCH	TRV-SLV-WDMANS
	ED-OTS	RTRV-APC	RTRV-TRC-OCH
	ED-SLV-WDMANS	RTRV-CLNT	RTRV-WDMANS
	ED-TRC-OCH	RTRV-DWDM	RTRV-WLEN
	ED-WDMANS	RTRV-ESCON	

**Input Format** DLT-LNKTERM:[<TID>]:<AID>:<CTAG>;

**Input Example** DLT-LNKTERM::LNKTERM-1:CTAG;

### Input Parameters

*Table 10-9 DLT-LNKTERM Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.17 LNKTERM” section on page 25-32</a> . Indicates a link (provisionable patchcord) termination on the local node.

## 10.10 DLT-OSC

Delete Optical Service Channel

### Usage Guidelines

Cisco ONS 15454

This command deletes the OSC group of the NE.

### Category

DWDM



**Security** Provisioning

**Related Commands** ENT-OSC ED-OSC RTRV-OSC

**Input Format** DLT-OSC:[<TID>]:<AID>:<CTAG>;

**Input Example** DLT-OSC:PENNGROVE:OSC-1:114;

**Input Parameters**

*Table 10-10 DLT-OSC Input Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.19 OSC</a> ” section on page 25-33. Identifies the OSC group of the NE

## 10.11 DLT-RMONTH-<MOD2\_RMON>

Delete Remote Monitoring Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, FSTE, G1K-4, GFPOS, GIGE, OCH, POS)

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command deletes a threshold entry in the RMON alarm table. Because there can be multiple thresholds created for a particular montype, you must specify all the necessary parameters for the specific threshold you want to delete.

**Category** Performance

**Security** Provisioning

<b>Related Commands</b>	ALW-PMREPT-ALL	RTRV-PMSCHED-ALL
	ENT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
	INH-PMREPT-ALL	RTRV-TH-<MOD2>
	INIT-REG-<MOD2>	RTRV-TH-ALL
	RTRV-PM-<MOD2>	SCHED-PMREPT-<MOD2>
	RTRV-PMMODE-<STS_PATH>	SET-PMMODE-<STS_PATH>
	RTRV-PMSCHED-<MOD2>	SET-TH-<MOD2>

**Input Format**

```
DLT-RMONTH-<MOD2_RMON>:[<TID>]:<SRC>:<CTAG>::<MONTYPE>,,,<INTVL>:
RISE=<RISE>,FALL=<FALL>,[SAMPLE=<SAMPLE>],[STARTUP=<STARTUP>][:];
```

**Input Example**

```
DLT-RMONTH-GIGE:CISCO:FAC-2-1:1234::ETHERSTATSOCTETS,,100:RISE=1000,FALL=100
SAMPLE=DELTA,STARTUP=RISING;
```

**Input Parameters****Table 10-11 DLT-RMONTH-<MOD2\_RMON> Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the “25.1.14 FACILITY” section on page 25-28. AID for the facility that manages the data statistics
<b>MONTYPE</b>	Monitored type. Type of RMON monitored data statistics Parameter type is ALL_MONTYPE—monitoring type list
<ul style="list-style-type: none"> <li>• AISSP</li> </ul>	Alarm Indication Signal Seconds—Path
<ul style="list-style-type: none"> <li>• ALL</li> </ul>	All possible values
<ul style="list-style-type: none"> <li>• BBE-PM</li> </ul>	OTN—Background Block Errors—Path Monitor Point
<ul style="list-style-type: none"> <li>• BBE-SM</li> </ul>	OTN—Background Block Errors—Section Monitor Point
<ul style="list-style-type: none"> <li>• BBER-PM</li> </ul>	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
<ul style="list-style-type: none"> <li>• BBER-SM</li> </ul>	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
<ul style="list-style-type: none"> <li>• BIEC</li> </ul>	FEC—Bit Errors Corrected
<ul style="list-style-type: none"> <li>• CGV</li> </ul>	8B10B—Code Group Violations
<ul style="list-style-type: none"> <li>• CSSP</li> </ul>	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
<ul style="list-style-type: none"> <li>• CVCPP</li> </ul>	Coding Violations—CP-Bit Path
<ul style="list-style-type: none"> <li>• CVL</li> </ul>	Coding Violations—Line
<ul style="list-style-type: none"> <li>• CVP</li> </ul>	Coding Violations—Path
<ul style="list-style-type: none"> <li>• CVS</li> </ul>	Coding Violations—Section
<ul style="list-style-type: none"> <li>• CVV</li> </ul>	Coding Violations—Section
<ul style="list-style-type: none"> <li>• DCG</li> </ul>	8B10B—Data Code Groups
<ul style="list-style-type: none"> <li>• ESAP</li> </ul>	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
<ul style="list-style-type: none"> <li>• ESBP</li> </ul>	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
<ul style="list-style-type: none"> <li>• ESCPP</li> </ul>	Errored Seconds—CP—Bit Path
<ul style="list-style-type: none"> <li>• ESL</li> </ul>	Errored Seconds—Line
<ul style="list-style-type: none"> <li>• ESNPFE</li> </ul>	Errored Second -Network Path (DS3XM-12 DS1 PM count)
<ul style="list-style-type: none"> <li>• ESP</li> </ul>	Errored Seconds—Path
<ul style="list-style-type: none"> <li>• ES-PM</li> </ul>	OTN—Errored Seconds—Path Monitor Point
<ul style="list-style-type: none"> <li>• ES-SM</li> </ul>	OTN—Errored Seconds—Section Monitor Point

**Table 10-11** *DLT-RMONTH-<MOD2\_RMON> Input Parameters (continued)*

Parameter and Values	Description
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length between 64 and 1518 octets (excluding framing bits, but including FCS octets)
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets received (including bad packets, broadcast packets, and multicast packets)
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference

Table 10-11 DLT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block

Table 10-11 DLT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count

Table 10-11 DLT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count
INTVL	The interval in seconds during which the data is sampled and compared with the rising and falling threshold. A valid value is any integer greater than or equal to 10 (seconds)

Table 10-11 DLT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
<b>RISE</b>	The rising threshold for the sampled statistics. A valid value is any integer
<b>FALL</b>	The falling threshold. A valid value is any integer smaller than the rising threshold
<b>SAMPLE</b>	The method of calculating the value to be compared to the thresholds Parameter type is SAMPLE_TYPE—describes how the data will be calculated during the sampling period
<ul style="list-style-type: none"> <li>• ABSOLUTE</li> <li>• DELTA</li> </ul>	Comparing directly Comparing with the current value of the selected variable subtracted by the last sample
<b>STARTUP</b>	Dictates whether an event will generate if the first valid sample is greater than or equal to the rising threshold, less than or equal to the falling threshold, or both Parameter type is STARTUP_TYPE—indicates whether an event will be generated when the first valid sample is crossing the rising or falling threshold
<ul style="list-style-type: none"> <li>• FALLING</li> <li>• RISING</li> <li>• RISING-OR-FALLING</li> </ul>	Generates the event when the sample is smaller than or equal to the falling threshold Generates the event when the sample is greater than or equal to the rising threshold Generates the event when the sample is crossing the rising threshold, or the falling threshold

## 10.12 DLT-ROLL-<MOD\_PATH>

Delete Roll (STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command deletes or completes an attempted rolling operation of a facility or completes an attempted rolling operation.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



### Note

STS18C and STS36 are not supported for this command in this release.

### Category

Bridge and Roll

### Security

Provisioning

Related Commands	DLT-CRS-<PATH>	ENT-ROLL-<MOD_PATH>	RTRV-NE-PATH
	ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
	ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
	ED-NE-PATH	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>
	ENT-CRS-<PATH>	RTRV-CRS-<PATH>	H>

**Input Format** DLT-ROLL-<MOD\_PATH>:[<TID>]:<FROM>,<TO>:<CTAG>::WHY=<WHY>;

**Input Example** DLT-ROLL-ST51:CISCO:STS-1-1-1,STS-2-1-1:6::WHY=STOP;

### Input Parameters

**Table 10-12 DLT-ROLL-<MOD\_PATH> Input Parameters**

Parameter and Values	Description
FROM	Source access identifier from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20 (except VCM and FACILITY). It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, this termination point (leg) should be the FROM-AID termination point. Otherwise, FROM is not significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for the FROM and TO parameters
TO	Destination access identifier from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20 (except VCM and FACILITY). It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, this termination point (leg) should be the TO-AID termination point. Otherwise, the TO is not significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for the FROM and TO parameters
WHY	The reason for deletion Parameter type is WHY—reason for deletion
<ul style="list-style-type: none"> <li>END</li> </ul>	Drop the leg to be rolled; the leg that is identified by the RFROM in the ENT-ROLL command
<ul style="list-style-type: none"> <li>STOP</li> </ul>	The rolling operation will be deleted and reverted to the previous configuration

## 10.13 DLT-ROUTE

Delete Route

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command deletes the static routes.



**Category** System

**Security** Provisioning

Related Commands	DLT-ROUTE-GRE	ENT-ROUTE-GRE	RTRV-ROUTE-GRE
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TADRMAP
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	ENT-ROUTE	RTRV-ROUTE	

**Input Format** DLT-ROUTE:[<TID>]::<CTAG>::<DESPID>;

**Input Example** DLT-ROUTE:CISCO::123::10.64.72.57;

**Input Parameters**

*Table 10-13 DLT-ROUTE Input Parameters*

Parameter and Values	Description
DESPID	Destination IP. String

## 10.14 DLT-ROUTE-GRE

Delete Route Generic Routing Encapsulation

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command deletes a GRE tunnel.

**Category** System

**Security** Provisioning

Related Commands	DLT-ROUTE	DLT-TADRMAP	ENT-TADRMAP	RTRV-ROUTE-GRE
	DLT-TUNNEL-FIREWALL		ENT-TUNNEL-FIREWALL	RTRV-TADRMAP
	DLT-TUNNEL-PROXY		ENT-TUNNEL-PROXY	RTRV-TUNNEL-FIREWALL
	ENT-ROUTE		RTRV-ROUTE	RTRV-TUNNEL-PROXY
	ENT-ROUTE-GRE			

**Input Format**  
 DLT-ROUTE-GRE:[<TID>]::<CTAG>::IPADDR=<IPADDR>,  
 IPMASK=<IPMASK>,NSAP=<NSAP>;

**Input Example**  
 DLT-ROUTE-GRE:CISCO::123::IPADDR=10.64.72.57,IPMASK=255.255.255.0,  
 NSAP=39840F80FFFFFF0000DDDDAA000010CFB4910200;

### Input Parameters

*Table 10-14 DLT-ROUTE-GRE Input Parameters*

Parameter and Values	Description
<b>IPADDR</b>	IP address of the tunnel endpoint. String
<b>IPMASK</b>	Subnet mask for the tunnel endpoint. String
<b>NSAP</b>	NSAP address for the tunnel endpoint. String

## 10.15 DLT-TADRMAP

Delete Target Identifier Address Mapping

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command instructs a gateway NE to delete an entry in the TADRMAP table.

### Category

System

### Security

Provisioning

### Related Commands

DLT-ROUTE	ENT-TADRMAP	RTRV-TADRMAP
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
ENT-ROUTE	RTRV-ROUTE	

### Input Format

DLT-TADRMAP:[<TID>]::<CTAG>:::[TIDNAME=<TIDNAME>],[ADDRTYPE=<ADDRTYPE>];

### Input Example

DLT-TADRMAP:TID::CTAG:::TIDNAME=ENENODENAME,ADDRTYPE=IPADDR;

### Input Parameters

**Table 10-15 DLT-TADRMAP Input Parameters**

Parameter and Values	Description
<b>TIDNAME</b>	TID of the entity to be removed from the TADRMAP. String
<b>ADDRTYPE</b>	Specifies either to remove and IP, NSAP or IP-AND-NSAP entry in the TADRMAP Parameter type is ADDRTYPE—specifies whether the address is an IP address or an NSAP address
• IP	IP address
• IP-AND-NSAP	IP and NSAP address
• NSAP	NSAP address

## 10.16 DLT-TRAPTABLE

Delete Trap Table

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command deletes an SNMP trap destination entry. Entering ALL will delete the whole table.

### Category

System

### Security

Provisioning

### Related Commands

ACT-USER	ENT-TRAPTABLE	RTRV-NE-APC
ALW-MSG-ALL	INH-MSG-ALL	RTRV-NE-GEN
ALW-MSG-DBCHG	INH-MSG-DBCHG	RTRV-NE-IPMAP
ALW-MSG-SECU	INH-MSG-SECU	RTRV-NE-PATH
COPY-RFILE	INIT-SYS	RTRV-NE-SYNCN
ED-DAT	REPT EVT FXFR	RTRV-NE-WDMANS
ED-NE-GEN	RTRV-HDR	RTRV-TOD
ED-NE-PATH	RTRV-INV	RTRV-TRAPTABLE
ED-NE-SYNCN	RTRV-MAP-NETWORK	SET-TOD
ED-TRAPTABLE		

### Input Format

DLT-TRAPTABLE:[<TID>]:<AID>:<CTAG>;

### Input Example

DLT-TRAPTABLE::1.2.3.4:1;

### Input Parameters

**Table 10-16 DLT-TRAPTABLE Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.15 IPADDR”</a> section on <a href="#">page 25-31</a> . IP address identifies the trap destination. Only numeric IP addresses are allowed

## 10.17 DLT-TUNNEL-FIREWALL

Delete Tunnel Firewall

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command deletes a firewall tunnel.

**Category** System

**Security** Provisioning

Related Commands	DLT-ROUTE	ENT-TADRMAP	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	ENT-ROUTE	RTRV-ROUTE	

**Input Format** DLT-TUNNEL-FIREWALL:[<TID>]::<CTAG>::SRCADDR=<SRCADDR>,  
SRCMASK=<SRCMASK>,DESTADDR=<DESTADDR>,DESTMASK=<DESTMASK>;

**Input Example** DLT-TUNNEL-FIREWALL:TID::CTAG::SRCADDR=192.168.100.52,  
SRCMASK=255.255.255.0,DESTADDR=192.168.101.14,DESTMASK=255.255.255.0;

**Input Parameters**

*Table 10-17 DLT-TUNNEL-FIREWALL Input Parameters*

Parameter and Values	Description
<b>SRCADDR</b>	Source IP address. String
<b>SRCMASK</b>	Source mask. String
<b>DESTADDR</b>	Destination IP address. String
<b>DESTMASK</b>	Destination mask. String

## 10.18 DLT-TUNNEL-PROXY

Delete Tunnel Proxy

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command deletes a proxy tunnel.

### Category

System

### Security

Provisioning

### Related Commands

DLT-ROUTE	ENT-TADRMAP	RTRV-TADRMAP
DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
ENT-ROUTE	RTRV-ROUTE	

### Input Format

DLT-TUNNEL-PROXY:[<TID>]::<CTAG>:::SRCADDR=<SRCADDR>, SRCMASK=<SRCMASK>,DESTADDR=<DESTADDR>,DESTMASK=<DESTMASK>;

### Input Example

DLT-TUNNEL-PROXY:TID::CTAG:::SRCADDR=192.168.100.52, SRCMASK=255.255.255.0,DESTADDR=192.168.101.14,DESTMASK=255.255.255.0;

### Input Parameters

**Table 10-18 DLT-TUNNEL-PROXY Input Parameters**

Parameter and Values	Description
<b>SRCADDR</b>	Source IP address. String
<b>SRCMASK</b>	Source mask. String
<b>DESTADDR</b>	Destination IP address. String
<b>DESTMASK</b>	Destination mask. String

## 10.19 DLT-USER-SECU

Delete User Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command deletes a user and can only be performed by a Superuser. Privilege levels are described in the ENT-USER-SECU command.

This command cannot be used to delete a user that is currently logged on.

For the DLT-USER-SECU command:

DLT-USER-SECU:[TID]:<UID>:[CTAG];

the syntax of <UID> is not checked. The user is deleted if the <UID> exists in the database.

### Category

Security

### Security

Superuser

### Related Commands

ACT-USER	ED-CMD-SECU	REPT EVT SECU
ALW-MSG-SECU	ED-PID	REPT EVT SESSION
ALW-USER-SECU	ED-USER-SECU	RTRV-CMD-SECU
CANC	ENT-USER-SECU	RTRV-DFLT-SECU
CANC-USER	INH-MSG-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	REPT ALM SECU	

### Input Format

DLT-USER-SECU:[<TID>]:<UID>:<CTAG>;

### Input Example

DLT-USER-SECU:PETALUMA:CISCO15:123;

### Input Parameters

**Table 10-19 DLT-USER-SECU Input Parameters**

Parameter and Values	Description
UID	User identifier. Can be up to 10 alphanumeric characters. String

## 10.20 DLT-VCG

Delete Virtual Concatenated Group

**Usage Guidelines** Cisco ONS 15454, ONS 15310-CL  
This command deletes a VCG object.

**Category** VCAT

**Security** Provisioning

**Related Commands** ED-VCG ENT-VCG RTRV-VCG

**Input Format** DLT-VCG:[<TID>]:<SRC>:<CTAG>:::[CMDMDE=<CMDMDE>][:];

**Input Example** DLT-VCG:NODE1:FAC-1-1:1234:::CMDMDE=FRCD;

**Input Parameters**

**Table 10-20 DLT-VCG Input Parameters**

Parameter and Values	Description
SRC	Source AID from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. ML-Series cards use VFAC AID and FC_MR-4 cards use FAC AID
CMDMDE	Command execution mode, forced or normal. FRCD deletes all the VCG members and member cross-connects of a VCG  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail



## 10.21 DLT-WLEN

Delete Wavelength

### Usage Guidelines

Cisco ONS 15454

This command deletes the provisioned wavelength (WLEN).



#### Note

The fields after CTAG (trailing colons) are the optional.



#### Note

This command does not support deleting multiple WLEN.

### Category

DWDM

### Security

Provisioning

### Related Commands

DLT-LNK-<MOD2O>	ED-WLEN	RTRV-FFP-OCH
DLT-LNKTERM	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
DLT-OSC	ENT-LNKTERM	RTRV-LNKTERM
ED-APC	ENT-OSC	RTRV-NE-APC
ED-CLNT	ENT-WLEN	RTRV-NE-WDMANS
ED-DWDM	OPR-APC	RTRV-OCH
ED-FFP-OCH	OPR-LASER-OTS	RTRV-OMS
ED-LNK-<MOD2O>	OPR-PROTNSW-OCH	RTRV-OPM
ED-LNKTERM	OPR-SLV-WDMANS	RTRV-OSC
ED-OCH	OPR-WDMANS	RTRV-OTS
ED-OMS	RLS-LASER-OTS	RTRV-PROTNSW-OCH
ED-OSC	RLS-PROTNSW-OCH	RTRV-SLV-WDMANS
ED-OTS	RTRV-APC	RTRV-TRC-OCH
ED-SLV-WDMANS	RTRV-CLNT	RTRV-WDMANS
ED-TRC-OCH	RTRV-DWDM	RTRV-WLEN
ED-WDMANS	RTRV-ESCON	

### Input Format

DLT-WLEN:[<TID>]:<AID>:<CTAG>[:::CMDMDE=<CMDMDE>],[CKTID=<CKTID>];

### Input Example

DLT-WLEN:PENNGROVE:WLEN-W\_E-1530.33:114:::CMDMDE=NORM,[CKTID=<CKTID>];

## Input Parameters

Table 10-21 DLT-WLEN Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.30 WLEN” section on page 25-43. The wavelength AID per ring direction
<b>CMDMDE</b>	Command execution mode. NORM for normal (default) and FRCD for forced. FRCD will override any safeguards that normally reject a request to delete an in service resource  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state in which the command would normally be denied
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Force the system to override a state in which the command would normally be denied
<ul style="list-style-type: none"> <li>• NORM</li> </ul>	Execute the command normally. Do not override any conditions that could make the command fail
<b>CKTID</b>	String



# CHAPTER 11

## ED Commands

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### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

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This chapter provides ED (edit) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 11.1 ED-<GIGE\_TYPE>

Edit (10GIGE, GIGE)

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#### Usage Guidelines

Cisco ONS 15454, ONS 15600

This command edits Ethernet facility attributes.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

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Ports

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Provisioning

**Related Commands**


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DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

---

ED-<GIGE\_TYPE>:[<TID>]:<AID>:<CTAG>:::[NAME=<NAME>],[MACADDR=<MACADDR>],[CMDMDE=<CMDMDE>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:[<PST>],[<SST>];

```
ED-GIGE:CISCO:FAC-1-1:123:::NAME="GIGE PORT",
MACADDR=00-0E-AA-BB-CC-FF,CMDMDE=CMDMDE,FREQ=1550,LOSSB= SX:IS,AINS;
```

## Input Parameters

**Table 11-1** ED-<GIGE\_TYPE> Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>NAME</b>	Port name. String. Defaults to NULL. Maximum length is 32 characters
<b>MACADDR</b>	String. Defaults to NULL. Maximum length is 18 characters
<b>CMDMDE</b>	Command execution mode. NORM for normal (default) and FRCD for forced. FRCD will override any safeguards that normally reject a request to delete an in service resource  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>FREQ</b>	Parameter type is OPTICAL-WLEN—optical wavelength
<ul style="list-style-type: none"> <li>1530.33</li> </ul>	Wavelength 1
<ul style="list-style-type: none"> <li>1531.12</li> </ul>	Wavelength 2
<ul style="list-style-type: none"> <li>1531.90</li> </ul>	Wavelength 3
<ul style="list-style-type: none"> <li>1532.68</li> </ul>	Wavelength 4
<ul style="list-style-type: none"> <li>1534.25</li> </ul>	Wavelength 5
<ul style="list-style-type: none"> <li>1535.04</li> </ul>	Wavelength 6
<ul style="list-style-type: none"> <li>1535.82</li> </ul>	Wavelength 7
<ul style="list-style-type: none"> <li>1536.61</li> </ul>	Wavelength 8
<ul style="list-style-type: none"> <li>1538.19</li> </ul>	Wavelength 9
<ul style="list-style-type: none"> <li>1538.98</li> </ul>	Wavelength 10
<ul style="list-style-type: none"> <li>1539.77</li> </ul>	Wavelength 11
<ul style="list-style-type: none"> <li>1540.56</li> </ul>	Wavelength 12
<ul style="list-style-type: none"> <li>1542.14</li> </ul>	Wavelength 13
<ul style="list-style-type: none"> <li>1542.94</li> </ul>	Wavelength 14
<ul style="list-style-type: none"> <li>1543.73</li> </ul>	Wavelength 15
<ul style="list-style-type: none"> <li>1544.53</li> </ul>	Wavelength 16
<ul style="list-style-type: none"> <li>1546.12</li> </ul>	Wavelength 17

Table 11-1 ED-&lt;GIGE\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX

**Table 11-1** ED-<GIGE\_TYPE> Input Parameters (continued)

Parameter and Values	Description
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.2 ED-<MOD1FCPAYLOAD>

Edit (1GFC, 2GFC, ESCON)

### Usage Guidelines

Cisco ONS 15454

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command edits the attributes related to the Fibre Channel (FC) facility. The state IS,AINS is not supported on the FC port.



### Note

- The port parameters: VIZ, LINKRCVRY, DISTEXTN, AUTODETECTION, LINKCREDITS and MFS can be edited only if the port state is OOS,MT or OOS,DSBLD.
- The port parameters: AUTODETECTION, LINKCREDITS and MFS can be edited only if distance extension is enabled (set to B2B).

- When 1GFICON and 2GFICON payloads are provisioned, distance extension=B2B is the default and only valid setting. Setting distance extension (using the ED-nGFICON command) to any other setting will be denied with an error message, for example, Provisioning Rules Failed.
- 

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Ports

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Provisioning



**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

---

ED-<MOD1FCPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[LINKRCVRY=<LINKRCVRY>],  
 [DISTEXTN=<DISTEXTN>],[AUTODETECTION=<AUTODETECTION>],  
 [LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[NAME=<NAME>],  
 [CMDMDE=<CMDMDE>],[SOAK=<SOAK>],[FREQ=<FREQ>],  
 [LOSSB=<LOSSB>]:[<PST>],[<SST>];

```
ED-1GFC:CISCO:FAC-6-1:1:::LINKRCVRY=Y,DISTEXTN=NONE,AUTODETECTION=Y,
LINKCREDITS=10,MFS=2148,NAME="FC PORT",CMDMDE=CMDMDE,SOAK=32,
FREQ=1550,LOSSB=LR-1:OOS,MT;
```

## Input Parameters

Table 11-2 ED-&lt;MOD1FCPAYLOAD&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>LINKRCVRY</b>	Link recovery Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>DISTEXTN</b>	Distance extension. It can be set to Buffer-to-Buffer (B2B) Credit Management state or None. <b>Note</b> B2B and link recovery are mutually exclusive. You cannot turn on both B2B and link recovery at the same time Parameter type is DISTANCE_EXTENSION—distance extension
• B2B	Buffer to buffer flow control
• NONE	No distance extension
<b>AUTODETECTION</b>	Autodetection. Turns autodetection on or off Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>LINKCREDITS</b>	Number of link credits. If autodetection is set to off the value of the link credits will be used to configure the hardware. Integer
<b>MFS</b>	Maximum frame size. Integer
<b>NAME</b>	String
<b>CMDMDE</b>	Command execution mode, forced or normal. FRCD deletes all the VCG members and member cross-connects of a VCG Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail

Table 11-2 ED-&lt;MOD1FCPAYLOAD&gt; Input Parameters (continued)

Parameter and Values	Description
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer
<b>FREQ</b>	Parameter type is OPTICAL-WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1

Table 11-2 ED-&lt;MOD1FCPAYLOAD&gt; Input Parameters (continued)

Parameter and Values	Description
<b>LOSSB</b>	Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group

**Table 11-2** ED-<MOD1FCPAYLOAD> Input Parameters (continued)

Parameter and Values	Description
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.3 ED-<MOD1FICONPAYLOAD>

Edit (1GFICON, 2GFICON, ESCON)

### Usage Guidelines

Cisco ONS 15454

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command edits the attributes related with the FICON payload facility. The state IS,AINS is not supported on the FICON port.

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Ports

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Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

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ED-<MOD1FICONPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[LINKRCVRY=<LINKRCVRY>],  
 [DISTEXTN=<DISTEXTN>],[AUTODETECTION=<AUTODETECTION>],  
 [LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[NAME=<NAME>],  
 [CMDMDE=<CMDMDE>],[SOAK=<SOAK>],[FREQ=<FREQ>],  
 [LOSSB=<LOSSB>]:[<PST>[,<SST>]];

ED-1GFICON:CISCO:FAC-6-1:1:::LINKRCVRY=Y,DISTEXTN=NONE,AUTODETECTION=Y, LINKCREDITS=10,MFS=2148,NAME="FC PORT",CMDMDE=CMDMDE,SOAK=32,FREQ=1550, LOSSB=LR-1:OOS,MT;

## Input Parameters

**Table 11-3** ED-<MOD1FICONPAYLOAD> Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>LINKRCVRY</b>	Link recovery Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>DISTEXTN</b>	Distance extension. It can be set to Buffer-to-Buffer (B2B) Credit Management state or None. <b>Note</b> B2B and link recovery are mutually exclusive. You cannot turn on both B2B and link recovery at the same time Parameter type is DISTANCE_EXTENSION—distance extension
• B2B	Buffer to buffer flow control
• NONE	No distance extension
<b>AUTODETECTION</b>	Autodetection. Turns autodetection on or off Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>LINKCREDITS</b>	Number of link credits. If autodetection is set to off the value of the link credits will be used to configure the hardware. Integer
<b>MFS</b>	Maximum frame size. Integer
<b>NAME</b>	String
<b>CMDMDE</b>	Command execution mode, forced or normal. FRCD deletes all the VCG members and member cross-connects of a VCG Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail

Table 11-3 ED-&lt;MOD1FICONPAYLOAD&gt; Input Parameters (continued)

Parameter and Values	Description
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer
<b>FREQ</b>	Parameter type is OPTICAL-WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1



**Table 11-3** ED-<MOD1FICONPAYLOAD> Input Parameters (continued)

Parameter and Values	Description
<b>LOSSB</b>	Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group

Table 11-3 ED-&lt;MOD1FICONPAYLOAD&gt; Input Parameters (continued)

Parameter and Values	Description
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.4 ED-<MOD2DWDMPAYLOAD>

Edit (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ESCON,ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

### Usage Guidelines

Cisco ONS 15454

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command edits the operating parameters for a DWDM client facility.

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DWDM

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Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

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ED-<MOD2DWDMPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[NAME=<NAME>],  
[CMDMDE=<CMDMDE>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:[<PST>[,<SST>]];

ED-HDTV::FAC-1-1:1:::NAME="PORTNAME",CMDMDE=CMDMDE,FREQ=1550,  
LOSSB=LR-1:IS,AINS;

## Input Parameters

Table 11-4 ED-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>LINKCREDITS</b>	Number of link credits. If autodetection is set to off the value of the link credits will be used to configure the hardware. Integer
<b>NAME</b>	String
<b>CMDMDE</b>	Command execution mode, forced or normal. FRCD deletes all the VCG members and member cross-connects of a VCG  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>FREQ</b>	Parameter type is OPTICAL-WLEN—optical wavelength
<ul style="list-style-type: none"> <li>1530.33</li> </ul>	Wavelength 1
<ul style="list-style-type: none"> <li>1531.12</li> </ul>	Wavelength 2
<ul style="list-style-type: none"> <li>1531.90</li> </ul>	Wavelength 3
<ul style="list-style-type: none"> <li>1532.68</li> </ul>	Wavelength 4
<ul style="list-style-type: none"> <li>1534.25</li> </ul>	Wavelength 5
<ul style="list-style-type: none"> <li>1535.04</li> </ul>	Wavelength 6
<ul style="list-style-type: none"> <li>1535.82</li> </ul>	Wavelength 7
<ul style="list-style-type: none"> <li>1536.61</li> </ul>	Wavelength 8
<ul style="list-style-type: none"> <li>1538.19</li> </ul>	Wavelength 9
<ul style="list-style-type: none"> <li>1538.98</li> </ul>	Wavelength 10
<ul style="list-style-type: none"> <li>1539.77</li> </ul>	Wavelength 11
<ul style="list-style-type: none"> <li>1540.56</li> </ul>	Wavelength 12
<ul style="list-style-type: none"> <li>1542.14</li> </ul>	Wavelength 13
<ul style="list-style-type: none"> <li>1542.94</li> </ul>	Wavelength 14
<ul style="list-style-type: none"> <li>1543.73</li> </ul>	Wavelength 15
<ul style="list-style-type: none"> <li>1544.53</li> </ul>	Wavelength 16
<ul style="list-style-type: none"> <li>1546.12</li> </ul>	Wavelength 17

**Table 11-4** ED-<MOD2DWDMPAYLOAD> Input Parameters (continued)

Parameter and Values	Description
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX

Table 11-4 ED-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters (continued)

Parameter and Values	Description
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.5 ED-<MOD\_PATH>

Edit (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VC12, VC3, VT1, VT2)

This command edits the attributes associated with STS and VT paths.

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

The SFBER, SDBER, RVRTV, and RVTM parameters only apply to path protection at the STS path level and ONS 15310\_CL and ONS 15454 VT paths.

SFBER and SDBER also apply to the VT path level on the ONS 15310-CL and ONS 15454 when the ONS 15454 has an XC-VXC-10G card.

SWPDIP does not apply to the VT path level (VT1 and VT2).

The path trace message is a 64 character string including the terminating CR (carriage return) and LF (line feed) that is transported in the J1 byte of the SONET STS Path overhead. Both the EXPTRC and TRC string can be provisioned by user with up to 62 character string.

The EXPTRC indicates the contents of the expected incoming path trace are provisioned by the user. The TRC indicates the contents of the outgoing path trace message. The INCTRC indicates the contents of the incoming path trace message.

The path trace mode has three modes: OFF, MANUAL, and AUTO. The path trace mode defaults to OFF. The MANUAL mode performs the comparison of the received string with the user-entered expected string. The AUTO mode performs the comparison of the present received string with an expected string set to a previously received string. If there is a mismatch, TIM-P alarm is raised. When the path trace is in OFF mode, there is no path trace processing, and all the alarm and state conditions are reset.

The TACC parameter edits an existing single STS or VT and changes it to a test access point. When an editing command on TACC is executed, it assigns the STS or VT for the first 2-way connection and STS+1 as the second 2-way connection. For single FAD test access only a single STS/VT is used for the TAP creation. For more information on TACC, refer to the *Cisco ONS SDH and Cisco ONS 15600 SDH TL1 Reference Guide*.

J1 is implemented on the DS1/DS1N, DS3E/DS3NE, DS3XM, EC1, OC3, OC12-4, OC48AS and OC192 cards.

DS3/DS3N, OC12, OC48, E100, and E1000 cards do not support path trace.

DS1/DS1N, DS3E/DS3NE, and DS3XM support both TRC and EXPTRC in the ED-STS-PATH command.

EC1, OC3, OC48AS, and OC192 only support EXPTRC in the ED-STS-PATH command.

**Note**

Each TL1 command must be less than or equal to 255 characters. Any command larger than 255 characters must be split into multiple commands. For example, if you use the ED-<MOD\_PATH> command to edit the J1 EXPTRC/TRC message, path protection attributes, and TACC attributes and the command exceeds 255 characters the command will not be processed. You must use multiple ED-<MOD\_PATH> commands instead.

The following actions will produce error messages:

1. Sending this command to edit SFBER, SDBER, RVRTV or RVTM for the non-path protection STS path.
2. Sending this command to edit the EXPTRC string with the AUTO path trace mode (TRCMODE=AUTO).
3. Sending this command to edit TRC on any card other than DS3(N)E, DS1(N), and DS3XM cards, will return the “TRC-not allowed for monitor paths. Incorrect card type” error message.
4. Sending this command to edit both TACC and any other attribute(s) will return the “Parameters Not compatible” error message.
5. Sending this command to edit TACC on an AID with cross-connections will return the “STS in Use” error message.

**Note**

- TACC creation will be denied on the protect ports/cards for 1:1, 1:N, and 1+1.
- The VFAC AID is only valid on slots containing an ML-Series card. TACC is not supported for the ML-Series cards.
- After the BLSR switching, provisioning of the J1 trace string or trace mode is not allowed on the protection path.
- TACC creation is allowed on PCA for two-fiber and four-fiber BLSR.

- TACC is not supported on G1000, MXP\_2.5\_10G/TXP\_MR-10G, ML1000-2 and ML100T-12 cards.
- HOLDOFFTIMER is not specific to a path. It is applicable to the path protection selector. If HOLDOFFTIMER is changed on one path associated with the selector, the HOLDOFFTIMER of the other path associated with the same selector is also changed.
- The test set physical connection set up through ED-T3/DS1/STS1/VT1 of the DS3XM-12 card is only allowed on the physical front ports (PORTED ports, ports 1-12), which are the monitoring ports.
  - The monitoring test access ports follow the common rules for the other cards. For example, ED-T3 on port 2 (FAC-6-2) with a TACC number (8), the next port, port 3 (FAC-6-3) is used as the monitoring point also. The RTRV-T3 on both port-2 and port-3 return the same TACC number (8) used to monitor the cross-connection end (A-B). The last port (port 12) is not allowed to set up a physical connection with the test set because there is no next available port to be the monitoring port.
  - The TACC disconnection (DISC-TACC) and the test access mode change command (CHG-TACC) follow the same requirement as in the step above, but it is applied on the ported ports of the DS3XM-12 card.
  - The test access connection set-up command (CONN-TACC) has monitored points, which can be portless ports. This command is applied on both ported and portless ports of the DS3XM-12 card.
- If the entity has a TACC connection, the entity is not allowed to have ported or portless STS/VT cross-connection (or circuit) provisioning on the DS3XM-12 card.
- Test Access is not supported on the ONS 15310-CL.
- J2 path trace is not supported on the 15310-CL-CTX card of the ONS 15310-CL, however the CE-100T-8/ML-100T-8 card provisioned in mapper mode does allow J2 provisioning.
- The cross-connects on the DS3I card will be STS3C width, but the individual STS 1s within the 3C will be accessible. For editing the path attributes use the ED-STS1 command with the FAC AID. For TACC creation, use the ED-STS3C command because the TACC path width (like the cross-connect) has to be 3C on the DS3I card. In this case, you are creating a new entity (TAP) on the DS3I card that has to be of 3C width. On the DS3I card the ED0STS command can be used either with STS1 or STS3C depending on the parameter to be modified.
- For the selector path on a BLSR, the SWPDIP is not editable and is always in the ON state. If you attempt to edit SWPDIP (for the selector path on a BLSR), an error message will be returned.
- You can create an STS1 or VT1.5 single TAP on the DS3XM-12 card's last ported port (12) if the bandwidth is available on that port.
- Optical ports do not support MAN and AUTO trace mode because they are not capable of raising AIS on TIM-P. Use AUTO-NO-AIS or MAN-NO-AIS trace mode on optical ports.
- Sending the ED-VT1/VT2 commands over ONS 15454 path protection paths to edit SFBER or SDBER (when the ONS 15454 does not have an XC-VXC-10G cross-connect) will return the "Invalid Operation For The XCON" error message.
- Sending the ED-VT1/VT2 commands to edit SDBER with 1E-9 will return the "Out Of Range" error message.

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Paths



## Provisioning

Related Commands	DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-CRS-<PATH>
	DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-NE-PATH
	ED-CRS-<PATH>	OPR-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
	ED-NE-PATH	RLS-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
	ED-ROLL-<MOD_PATH>	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>

```
ED-<MOD_PATH>:[<TID>]:<AID>:<CTAG>:::[SFBER=<SFBER>],[SDBER=<SDBER>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SWPDIP=<SWPDIP>],
[HOLDOFFTIMER=<HOLDOFFTIMER>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],
[TRCMODE=<TRCMODE>],[TRCFORMAT=<TRCFORMAT>][TACC=<TACC>],
[TAPTYPE=<TAPTYPE>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];
```

```
ED-ST33C:FERNDAL:STS-2-1-4:115::SFBER=1E-3,SDBER=1E-5,RVRTV=Y,RVTM=1.0,
SWPDIP=Y,HOLDOFFTIMER=2000,EXPTRC="EXPTRCSTRING",TRC="TRCSTRING",
TRCMODE=OFF,TRCFORMAT=64-BYTE,TACC=8,TAPTYPE=SINGLE,
CMDMDE=CMDMDE:IS,AINS;
```

**Table 11-5** ED-<MOD\_PATH> Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.10 CrossConnectId1”</a> section on page 25-20
<b>SFBER</b>	Signal failure threshold. Applies only to path protection. Applies to STS-level paths in SONET (STSn) and to VT-level paths on the ONS 15310-CL with an XC-VXC-10G card. Defaults to 1E-4 Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Signal degrade threshold. Applies only to path protection. Applies to STS-level paths in SONET (STSn) and to VT-level paths on the ONS 15310-CL with an XC-VXC-10G card. 1E-9 is not allowed for VT-level/LO paths. Defaults to 1E-6 Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7

Table 11-5 ED-&lt;MOD\_PATH&gt; Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1E-8</li> </ul>	SDBER is 1E-8
<ul style="list-style-type: none"> <li>1E-9</li> </ul>	SDBER is 1E-9
<b>RVRTV</b>	<p>Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Only applies to path protection</p> <p>Parameter type is ON_OFF—disable or enable an attribute</p>
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>RVTM</b>	<p>Revertive time. RVTM is not allowed to be set while “RVRTV” is N. Only applies to path protection</p> <p>Parameter type is REVERTIVE_TIME—revertive time</p>
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>SWPDIP</b>	<p>On-off switch for path protection payload defect level switching. Applicable only to STS-level paths in SONET (STS<sub>n</sub>). For the selector path on a BLSR, SWPDIP is not editable and always ON. Defaults to N</p> <p>Parameter type is ON_OFF—disable or enable an attribute</p>
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>HOLDOFFTIMER</b>	Hold off timer for path protection DRI. Values must be within 0 and 10000 ms (0 - 10 seconds), with increments of 100 ms. Defaults to “existed value.” Integer
<b>EXPTRC</b>	Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). Applicable to STS-level paths in SONET (STS <sub>n</sub> ). Applicable to VT-level paths for the DS3XM-12 and CE-100T-8 card on the ONS 15454 and the CE-100T-8 card on ONS 15310-CL. Defaults to 64 null characters. String
<b>TRC</b>	The path trace message to be transmitted. The trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (hex 00) and CR and LF. Applicable to STS-level paths in SONET (STS <sub>n</sub> ). Applicable to VT-level paths for the DS3XM-12 and CE-100T-8 card on the ONS 15454 and the CE-100T-8 card on ONS 15310-CL. For ONS 15310-CL, TRC is not provisionable on the EC/OC ports. Defaults to 64 null characters. String

Table 11-5 ED-&lt;MOD\_PATH&gt; Input Parameters (continued)

Parameter and Values	Description
<b>TRCMODE</b>	Path trace mode. Applicable only to STS-level paths in SONET (STSn). Defaults to the OFF mode. ONS 15310-CL EC/OC ports do not support MAN and AUTO, but can be configured as MAN-NO-AIS and AUTO-NO-AIS. <b>Note</b> The ONS 15600 does not support MAN and AUTO Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIM-P is detected
• MAN	Use the provisioned expected string as the expected string
• MAN-NO-AIS	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIM-P is detected
• OFF	Turn off path trace capability. Nothing will be reported
<b>TRCFORMAT</b>	Path trace format. Only 64-byte is supported. Defaults to 64-byte Parameter type is TRCFORMAT—trace format
• 64-BYTE	64 byte trace message
<b>TACC</b>	TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. Integer
<b>TAPTYPE</b>	TAP type. Defaults to DUAL Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
<b>CMDMDE</b>	Command mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied. Defaults to NORM
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service

Table 11-5 ED-&lt;MOD\_PATH&gt; Input Parameters (continued)

Parameter and Values	Description
SST	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.6 ED-<MOD\_RING>

Edit Bidirectional Line Switched Ring

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command edits the BLSR attributes.

ONS 15327 and ONS 15600 do not support four-fiber BLSR.

The RVRTV, RVTM, SRVRTV, SRVTM, NODEID, and RINGID attributes can be edited for the four-fiber BLSR.

The RVRTV, RVTM, NODEID, and RINGID attributes can be edited for the two-Fiber BLSR.

The following actions will produce errors:

- If the system fails on getting IOR, a SROF (Get IOR Failed) error message is returned
- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- If the BLSR does not exist, a SRQN (BLSR Does Not Exist) error message is returned.
- The SROF (Facility Not Provisioned) or (Cannot Access BLSR) error message will be returned for an invalid query.
- The SRQN (BLSR Edition Failed) error message is returned for an invalid edition query.
- Sending this command to modify SRVRTV or SRVTM on a two-fiber BLSR will return an IDNV (Invalid Data For 2F-BLSR) error message.
- Sending this command to modify the nodeid with invalid data will return an IIAC (Invalid NodeId) error message.
- Sending this command to change the ringid into invalid data will return an IIAC (Invalid RingId) error message.

- Changing the BLSR nodeid with a duplicated ID will return a SROF (Cannot Set NodeId) error message.
- Changing the BLSR ringid with a duplicated ID will return a SROF (Cannot Set RingId) error message is returned.



**Note**

- The ALL AID is invalid for this command.
- The list AID format has been supported since R4.6.

BLSR

Provisioning

**Related Commands**

DLT-<MOD\_RING>                      EX-SW-<OCN\_BLSR>                      RTRV-TRC-<OCN\_BLSR>  
 ENT-<MOD\_RING>                      RTRV-<MOD\_RING>

ED-<MOD\_RING>:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],[NODEID=<NODEID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SRVRTV=<SRVRTV>],[SRVTM=<SRVTM>][:];

ED-BLSR:PETALUMA:BLSR-43:123:::RINGID=43,NODEID=3,RVRTV=Y,RVTM=2.0,SRVRTV=Y,SRVTM=5.0;

**Table 11-6**      *ED-<MOD\_RING> Input Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.3 AidUnionId1” section on page 25-12. Identifies the BLSR of the NE. ALL or BLSR-ALL AID is not allowed for editing a BLSR
<b>RINGID</b>	The BLSR ID of the NE up to six characters. Valid characters are A-Z and 0-9. String
<b>NODEID</b>	The BLSR node ID of the NE. NODEID ranges from 0 to 31. Integer

Table 11-6 ED-&lt;MOD\_RING&gt; Input Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. RVTM is not allowed to be set while “RVRTV” is N Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>SRVRTV</b>	The span revertive mode for four-fiber BLSR only Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>SRVTM</b>	The span revertive time for four-fiber BLSR only. SRVTM is not allowed to be set while SRVRTV is N Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes

## 11.7 ED-<OCN\_TYPE>

Edit (OC3, OC12, OC48, OC192)

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command edits the attributes (for example, service parameters) and status of an OC-N facility. Allowable states for a facility are Out Of Service (OOS), Out Of Service with Automatic In Service transitioning (OOS-AINS), Out Of Service for Maintenance (OOS-MT), and In Service (IS).

The DCC transmit is bridged to both working and protect in a 1+1 protection scheme. On the receive side, the active one is selected for DCC. The DCC is provisioned on the working port only in a 1+1 protection scheme.

All lines in a 1+1 BLSR must have the same mode. If you change the mode of a line that is in a 1+1 BLSR, an error message will be returned.

UNI-C DCC provisioning notes:

1. The attributes DCC(Y/N) and mode (SONET/SDH) remain the same in the ED/RTRV-OCN commands when the DCC is used for UNI-C, in which case the port attribute UNIC is enables (UNIC=Y).

2. UNI-C DCC termination cannot be deleted by the regular DCC deprovisioning command.
3. If the DCC is created under regular SONET provisioning, and this port is used by UNI-C, the port is converted as a UNI-C DCC automatically.
4. Deprovisioning UNI-C IF/IB IPCC will free up DCC termination automatically.
5. The parameters ALSMODE, ALSCRINT and ALSRCPW are valid only for OC3-8, OC-192, and OC48ELR cards.
6. SDCC/LDCC termination cannot be unprovisioned if a provisionable patchcord termination end point is provisioned on the port.
7. SSM selectable (admssm) and synchronization messaging for output (syncmsgout) are not applicable to ONS 15600.
8. The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command.
9. J0 Support (EXPTRC, TRC, TRCMODE and TRCFORMAT parameters) is supported only by DWDM cards with an OCn payload. J0 is not supported by OC3-8, OC12, OC48, OC192 and other optical cards.

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 Ports

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 Provisioning

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**Related Commands**

DLT-FFP-<OCN_TYPE>	ENT-FFP-<OCN_TYPE>	RTRV-G1000
ED-DS1	OPR-PROTNSW-<OCN_TYPE>	RTRV-GFP
ED-EC1	RLS-PROTNSW-<OCN_TYPE>	RTRV-GIGE
ED-FFP-<OCN_TYPE>	RTRV-<OCN_TYPE>	RTRV-HDLC
ED-G1000	RTRV-DS1	RTRV-POS
ED-GFP	RTRV-EC1	RTRV-PROTNSW-<OCN_TYPE>
ED-HDLC	RTRV-FAC	RTRV-T1
ED-T1	RTRV-FFP-<OCN_TYPE>	RTRV-T3
ED-T3	RTRV-FSTE	RTRV-TRC-<OCN_TYPE>
ED-TRC-<OCN_TYPE>		

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```
ED-<OCN_TYPE>:[<TID>]:<AID>:<CTAG>:::[DCC=<DCC>],[AREA=<AREA>],
[SYNCSMSG=<SYNCSMSG>],[SENDDUS=<SENDDUS>],[PJMON=<PJMON>],
[SFBER=<SFBER>],[SDBER=<SDBER>],[MODE=<MODE>],[MUX=<MUX>],
[SOAK=<SOAK>],[OSPF=<OSPF>],[LDCC=<LDCC>],[NAME=<NAME>],
[CMDMDE=<CMDMDE>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],
[TRCFORMAT=<TRCFORMAT>],[ADMSSM=<ADMSSM>],[SENDDUSFF=<SENDDUSFF>],
[AISONLPBK=<AISONLPBK>],[FREQ=<FREQ>],[LOSSB=<LOSSB>],
[FOREIGNFEND=<FOREIGNFEND>],[FOREIGNIP=<FOREIGNIP>]:[<PST>][,<SST>];
```

```
ED-OC48:PENNGROVE:FAC-6-1:114:::DCC=Y,AREA=10.92.63.1,SYNCMSG=N,
SENDDUS=N,PJMON=48,SFBER=1E-4,SDBER=1E-6,MODE=SONET,MUX=E2,SOAK=10,
OSPF=Y,LDCC=N,NAME="OCNPORT",CMDMDE=CMDMDE,EXPTRC="AAA",
TRC="AAA",TRCMODE=MAN,TRCFORMAT=16-BYTE,ADMSSM=PRS,SENDDUSFF=N,
AISONLPBK=AIS_ON_LPBK_ALL,FREQ=1550,LOSSB=LR-1,FOREIGNFEND=N,
FOREIGNIP="IP ADDRESS":IS,AINS;
```

**Table 11-7** ED-<OCN\_TYPE> Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on <a href="#">page 25-28</a>
<b>DCC</b>	Indicates whether or not the section DCC is to be used. Identifies the section DCC connection of the port Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	Disable an attribute Enable an attribute
<b>AREA</b>	The area ID and shows up only if the DCC is enabled. String
<b>SYNCMSG</b>	Synchronization status message Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	The ring does not support the extended K1/K2/K3 protocol The ring does support the extended K1/K2/K3 protocol
<b>SENDDUS</b>	The facility will send the DUS (Don’t use for Synchronization) value as the sync status message for that facility Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	Disable an attribute Enable an attribute
<b>PJMON</b>	Identifies an OC-N port PJMON. PJMON is an integer. It defaults to 0 (zero). Set a valid STS number of the optical port. <b>Note</b> The PJMON number displayed in TL1 interface does not correspond to the PJVC4MON number in CTC, but instead corresponds to the STS number of the optical port.
<b>SFBER</b>	Signal failure threshold Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
<ul style="list-style-type: none"> <li>• 1E-3</li> <li>• 1E-4</li> <li>• 1E-5</li> </ul>	SFBER is 1E-3 SFBER is 1E-4 SFBER is 1E-5



Table 11-7 ED-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
<b>SDBER</b>	Signal degrade threshold Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>MODE</b>	OCn port mode Parameter type is OPTICAL_MODE—the facility's optical mode
• SDH	SDH/ETSI optical mode using European/International format
• SONET	SONET/ANSI optical mode using the American format
<b>MUX</b>	BLSR extension byte (supported only on the OC48AS card). MUX cannot be configured if: <ul style="list-style-type: none"> <li>• The card is SONET and the media type is SDHT</li> <li>• The card has an orderwire or UDC connection</li> <li>• This is a protect line and the working line has an orderwire or UDC connection</li> </ul> Parameter type is MUX_TYPE—BLSR extension type
• E2	E2 byte (orderwire)
• F1	F1 byte (user)
• K3	K3 byte
• Z2	Z2 byte
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Defaults to 32. Integer
<b>OSFP</b>	The open shortest path first discovery. Defaults to Y Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>LDCC</b>	The line DCC connection on the port. Defaults to N Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol

Table 11-7 ED-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
<b>NAME</b>	String. Defaults to NULL. Maximum length is 32 characters
<b>CMDMDE</b>	Command Mode. The FRCD mode of operation is applicable to delete a VCAT member cross-connect from IS-NR or OOS-AU,AINS service state. Defaults to NORM  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>EXPTRC</b>	Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). Applicable to STS-level paths in SONET (STS <sub>n</sub> ). Applicable to VT-level paths for the DS3XM-12 card on the ONS 15454. Defaults to NULL. String
<b>TRC</b>	The path trace message to be transmitted. The trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (hex 00) and CR and LF. Applicable to STS-level paths in SONET (STS <sub>n</sub> ). Applicable to VT-level paths for the DS3XM-12 card on the ONS 15454. String
<b>TRCMODE</b>	Path trace mode. Applicable only to STS-level Paths in SONET (STS <sub>n</sub> ). Defaults to MAN  Parameter type is TRCMODE—trace mode
<ul style="list-style-type: none"> <li>AUTO</li> </ul>	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
<ul style="list-style-type: none"> <li>AUTO-NO-AIS</li> </ul>	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP is detected
<ul style="list-style-type: none"> <li>MAN</li> </ul>	Use the provisioned expected string as the expected string
<ul style="list-style-type: none"> <li>MAN-NO-AIS</li> </ul>	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected
<ul style="list-style-type: none"> <li>OFF</li> </ul>	Turn off path trace capability. Nothing will be reported
<b>TRCFORMAT</b>	Trace message size  Parameter type is TRCFORMAT—trace format
<ul style="list-style-type: none"> <li>1-BYTE</li> </ul>	1 byte trace message
<ul style="list-style-type: none"> <li>16-BYTE</li> </ul>	16 byte trace message
<ul style="list-style-type: none"> <li>64-BYTE</li> </ul>	64 byte trace message

Table 11-7 ED-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
<b>ADMSSM</b>	SSM selectable value. It will only appear when SSM is disabled. Defaults to STU  Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>SENDUSFF</b>	Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>AISONLPBK</b>	Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ONLPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks
<b>FREQ</b>	Parameter type is OPTICAL-WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12

Table 11-7 ED-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX

Table 11-7 ED-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>FOREIGNFEND</b>	Indicates whether the far-end NE on the DCC is a foreign NE Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
FOREIGNIP	The IP address of the far-end NE on the DCC. Used only if FOREIGNFEND is Y. String
<b>PST</b>	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.8 ED-ALS

Edit Automatic Laser Shutdown

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**Usage Guidelines**

Cisco ONS 15454, ONS 15310-CL

This command is used to modify the ALS attributes of an OC-N facility and all the facilities that support the ALS feature. For MXP\_2.5G\_10E, TXP\_MR\_10E, MXP\_2.5G\_10G, TXP\_MR\_10G, TXP\_MR\_2.5G, and TXPP\_MR\_2.5G cards this command is used to modify the ALS parameter of the OC48 and OC192 ports.

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Ports

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Provisioning

**Related Commands**


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DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-G1000	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-GFP	RTRV-FFP-<OCN_TYPE>
ED-HDLC	RTRV-FSTE
ED-POS	RTRV-G1000
ED-T1	RTRV-GFP
ED-T3	RTRV-GIGE
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-HDLC
ED-TRC-<OCN_TYPE>	RTRV-PM-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-PMSCHED-<MOD2>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-POS
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
INIT-REG-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
OPR-ALS	RTRV-T1
OPR-LPBK-<MOD2>	RTRV-T3
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TH-<MOD2>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<MOD2DWDMPAYLOAD>
REPT PM <MOD2>	RTRV-TRC-<OCN_TYPE>
RLS-LPBK-<MOD2>	SCHED-PMREPT-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	SET-TH-<MOD2>

---

ED-ALS:[<TID>]:<SRC>:<CTAG>:::[ALSMODE=<ALSMODE>],[ALSRCINT=<ALSRCINT>],[ALSRCPW=<ALSRCPW>][:];

ED-ALS:CISCO:FAC-1-1:100:::ALSMODE=AUTO,ALSRCINT=130,ALSRCPW=35.1;

**Table 11-8 ED-ALS Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Access identifier from the “25.1.2 AidUnionId” section on page 25-9
<b>ALSMODE</b>	ALS is enabled or disabled Parameter type is ALS_MODE—the working mode for automatic laser shutdown
<ul style="list-style-type: none"> <li>• AUTO</li> </ul>	Automatic
<ul style="list-style-type: none"> <li>• DISABLED</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Manual
<ul style="list-style-type: none"> <li>• MAN-RESTART</li> </ul>	Manual restart for test
<b>ALSRCINT</b>	ALS recovery interval. The range is 60 to 300 seconds. Integer
<b>ALSRCPW</b>	ALS recovery pulse width. The range is 2.0 to 100.00 seconds, in increments of 100 ms. Float

## 11.9 ED-APC

Edit Amplification Power Control

### Usage Guidelines

Cisco ONS 15454

This command is used to modify the APC application attributes. The default value for an optional parameter is the NE default value. The value might not be the current value for the parameter. Use a RTRV-xx command to retrieve the current value.

DWDM

Provisioning



Related Commands			
	DLT-LNK-<MOD2O>	ED-WLEN	RTRV-FFP-OCH
	DLT-LNKTERM	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
	DLT-OSC	ENT-LNKTERM	RTRV-LNKTERM
	DLT-WLEN	ENT-OSC	RTRV-NE-APC
	ED-CLNT	ENT-WLEN	RTRV-NE-WDMANS
	ED-DWDM	OPR-APC	RTRV-OCH
	ED-FFP-OCH	OPR-LASER-OTS	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-PROTNSW-OCH	RTRV-OPM
	ED-LNKTERM	OPR-SLV-WDMANS	RTRV-OSC
	ED-OCH	OPR-WDMANS	RTRV-OTS
	ED-OMS	RLS-LASER-OTS	RTRV-PROTNSW-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-SLV-WDMANS
	ED-OTS	RTRV-APC	RTRV-TRC-OCH
	ED-SLV-WDMANS	RTRV-CLNT	RTRV-WDMANS
	ED-TRC-OCH	RTRV-DWDM	RTRV-WLEN
	ED-WDMANS	RTRV-ESCON	

---

```
ED-APC:[<TID>]::<CTAG>[::APCENABLE=<APCENABLE>];
```

---

```
ED-APC:PENNGROVE::CTAG:::APCENABLE=N;
```

---

**Table 11-9** ED-APC Input Parameters

Parameter and Values	Description
<b>APCENABLE</b>	The enable/disable of the APC application. Default is N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute

## 11.10 ED-BITS

Edit Building Integrated Timing Supply

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits the BITS reference attributes.

SYNC-BITS1 and SYNC-BITS2 AIDs can be used to set the BITS-OUT port state. For a BITS facility, 64 k and 6 MHz are only applicable to ON. SSM selectable (ADMSSM) is not applicable to ONS 15600.

The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command.

---

Synchronization

---

Provisioning

---

**Related Commands**

ED-NE-SYCN	REPT EVT BITS	RTRV-BITS
ED-SYCN	REPT EVT SYCN	RTRV-COND-BITS
OPR-SYCN	RLS-SYCN	RTRV-COND-SYCN
REPT ALM BITS	RTRV-ALM-BITS	RTRV-NE-SYCN
REPT ALM SYCN	RTRV-ALM-SYCN	RTRV-SYCN

---

```
ED-BITS:[<TID>]:<AID>:<CTAG>:::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],
[SYCNMSG=<SYCNMSG>],[AISTHRSHLD=<AISTHRSHLD>],[SABIT=<SABIT>],
[BITSFAC=<BITSFAC>],[ADMSSM=<ADMSSM>][:<PST>];
```

---

```
ED-BITS:SONOMA:BITS-2:779:::LINECDE=AMI,FMT=ESF,LBO=0-133,SYCNMSG=N,
AISTHRSHLD=PRS,SABIT=BYTE-5,IMPEDANCE=120-OHM,BITSFAC=T1,ADMSSM=PRS:IS;
```

---

**Table 11-10 ED-BITS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.5 BITS”</a> section on page 25-13
<b>LINECDE</b>	Line code Parameter type is LINE_CODE—line code
<ul style="list-style-type: none"> <li>• AMI</li> <li>• B8ZS</li> </ul>	Line code value is AMI Line code value is B8ZS (bipolar with three-zero substitution)
<b>FMT</b>	Digital signal frame format Parameter type is FRAME_FORMAT—frame format for a T1 port
<ul style="list-style-type: none"> <li>• D4</li> <li>• ESF</li> <li>• UNFRAMED</li> </ul>	Frame format is D4 Frame format is ESF Frame format is unframed
<b>LBO</b>	Line build out settings. BITS line build out. Default value is 0 to 133. Integer Parameter type is BITS_LineBuildOut—BITS line buildout
<ul style="list-style-type: none"> <li>• 0–133</li> <li>• 134–266</li> </ul>	BITS line buildout range is 0–133 BITS line buildout range is 134–266

Table 11-10 ED-BITS Input Parameters (continued)

Parameter and Values	Description
• 267–399	BITS line buildout range is 267–399
• 400–533	BITS line buildout range is 400–533
• 534–655	BITS line buildout range is 534–655
<b>SYNCMSG</b>	Indicates if the BITS facility supports synchronization status message. Default is on (Y) Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>AISTHRSHLD</b>	Alarm indication signal threshold Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>SABIT</b>	When the frame format selection is E1, SABIT is the bit used to receive and transmit the SSM Parameter type is SABITS—SA BITS
• BYTE-4	SABIT is BYTE-4
• BYTE-5	SABIT is BYTE-5
• BYTE-6	SABIT is BYTE-6
• BYTE-7	SABIT is BYTE-7
• BYTE-8	SABIT is BYTE-8
<b>IMPEDANCE</b>	When the frame format selection is E1, IMPEDANCE is the terminal impedance of the BITS-IN port Parameter type is IMPEDANCE—the terminal impedance of the BITS-IN port
• 120-OHM	Impedance of 120 ohm
• 75-OHM	Impedance of 75 ohm

Table 11-10 ED-BITS Input Parameters (continued)

Parameter and Values	Description
<b>BITSFAC</b>	BITS facility settings. BITS-2 always inherits the value of BITS-1 Parameter type is BITS_FAC—BITS facility rate. 64 k and 6 MHz are only applicable to the ONS 15454
• 2 M	2 MHz rate
• 64 K	64 K rate
• 6 M	6 MHz rate
• E1	E1 rate
• T1	T1 rate
<b>ADMSSM</b>	SSM selectable. Only applicable to BITS-IN when SSM is disabled. <b>Note</b> Not applicable for ONS 15600  Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>PST</b>	Primary state  Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service

## 11.11 ED-BULKROLL-<OCN\_TYPE>

Edit Bulkroll (OC12, OC192, OC3, OC48)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command edits information about rolling of traffic from one end point to another without interrupting service. This command uses the FORCE option to force a valid signal. The only parameters that can be edited are RMODE and FORCE. The time slots cannot be edited. Use ED-ROLL-<MOD\_PATH> for single path level rolling.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

Bridge and Roll

---

Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
DLT-BULKROLL-<OCN_TYPE>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-DS3I	RTRV-BULKROLL-<OCN_TYPE>
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-DS3I
ED-FFP-<OCN_TYPE>	RTRV-EC1
ED-FSTE	RTRV-FAC
ED-G1000	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-GFP	RTRV-FFP-<OCN_TYPE>
ED-HDLC	RTRV-FSTE
ED-POS	RTRV-G1000
ED-T1	RTRV-GFP
ED-T3	RTRV-GIGE
ENT-<MOD1PAYLOAD>	RTRV-HDLC
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ENT-FFP-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
INIT-REG-<MOD2>	RTRV-POS
OPR-ALS	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
OPR-LPBK-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-T1
OPR-PROTNSW-<OCN_TYPE>	RTRV-T3
REPT PM <MOD2>	RTRV-TH-<MOD2>
REPT RMV <MOD2_IO>	SCHED-PMREPT-<MOD2>
REPT RST <MOD2_IO>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>

---

ED-BULKROLL-<OCN\_TYPE>[:<TID>]:<FROM>:<CTAG>::  
 [RFROMSTART=<RFROMSTART>],[RFROMEND=<RFROMEND>],[CMDMDE=<CMDMDE>];

---

```
ED-BULKROLL-OC48:CISCO:FAC-1-1:1:::RFROMSTART=STS-1-1-1,
RFROMEND=STS-1-1-11,CMDMDE=FRCD;
```

---

**Table 11-11** ED-BULKROLL-<OCN\_TYPE> Input Parameters

Parameter and Values	Description
<b>FROM</b>	One of the end points. Access identifier from the “25.1.14 FACILITY” section on page 25-28 for line level rolling and bulk rolling
<b>RFROMSTART</b>	The starting time slot in the source roll port. For bulk rolling only. The AID is from the “25.1.10 CrossConnectId1” section on page 25-20 (except VCM and FACILITY). Defaults to STS-<FROMSLOT>-<FROMPORT>-1, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID.
<b>RFROMEND</b>	The ending time slot in the source roll port. For bulk rolling only. The AID is from the “25.1.10 CrossConnectId1” section on page 25-20 (except VCM and FACILITY). Defaults to STS-<FROMSLOT>-<FROMPORT>-N, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID and N is the value of OCN. (for example, OC48, n=48)
<b>CMDMDE</b>	Command execution mode. Defaults to NORM  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail

## 11.12 ED-CMD-SECU

Edit Command Security

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits the command security level of a particular command.

---

Security

---

Superuser

**Related Commands**

ACT-USER	REPT ALM SECU	REPT EVT SECU
ALW-MSG-SECU	DLT-USER-SECU	REPT EVT SESSION
ALW-USER-SECU	ED-PID	RTRV-CMD-SECU
CANC	ED-USER-SECU	RTRV-DFLT-SECU
CANC-USER	ENT-USER-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-MSG-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	INH-USER-SECU	

---

ED-CMD-SECU:[<TID>]:<AID>:<CTAG>::<CAP>;

---

ED-CMD-SECU::INIT-REG:1::SUPER;

**Table 11-12 ED-CMD-SECU Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier string. Identifies the entity in the NE to which the command pertains. It is the command verb along with verb modifier(s), as it currently exists. It can be a single command or a block of commands, where the block might include all commands. Only INIT-REG will be supported. String. Must not be null
<b>CAP</b>	Command access privilege. Must not be null Parameter type is PRIVILEGE—security level
• PROV	Provision security level. 60 minutes of idle time
• SUPER	Superuser security level. 15 minutes of idle time

## 11.13 ED-CRS-<PATH>

Edit Cross-Connect (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

**Usage Guidelines**

Cisco ONS 15454, 15327, 15600, 15310

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command edits a cross-connection.

**Note**

- ADD and REMOVE cannot be used together. The example provided is for informational purposes only. ADD and REMOVE are mutually exclusive.
- Add/Remove drops is possible only on ONEWAY, UPSR\_DROP, UPSR\_DC, and UPSR\_EN type of cross-connects (one-way only).



- Traditional cross-connections cannot be upgraded to DRI cross-connections using the ED\_CRS command.
- CKTID is a string of ASCII characters. The maximum length of CKTID is 48. If the CKTID is EMPTY or NULL this field will not appear.
- You cannot add a drop onto unidirectional connections on BLSR DRI primary or secondary nodes.

**Category**

Cross Connections

**Security**

Provisioning

**Input Format**

```
ED-CRS-<PATH>:[<TID>]:<SRC>,<DST>:<CTAG>::[<CCT>]:[ADD=<ADD>],
[REMOVE=<REMOVE>],[CKTID=<CKTID>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];
```

**Input Example**

```
ED-CRS-STS3C::STS-1-1-1,STS-2-1-1:1::ADD=STS-13-1-1,REMOVE=STS-2-1-1,CKTID=CKTID
CMDMDE=FRCD:IS,AINS;
```

**Input Parameters**

<SRC>	Source AID from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20.
<DST>	Destination AID from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20.
<CCT>	Cross-connection. The parameter type is CCT which indicates the type of cross-connection to be created.
<ul style="list-style-type: none"> <li>• 1WAY</li> </ul>	A unidirectional connection from a source tributary to a destination tributary
<ul style="list-style-type: none"> <li>• 1WAYDC</li> </ul>	Path Protection multicast drop (one-way continue)
<ul style="list-style-type: none"> <li>• 1WAYEN</li> </ul>	Path Protection multicast end node (one-way continue)
<ul style="list-style-type: none"> <li>• 1WAYMON</li> </ul>	<p>A bidirectional connection between the two tributaries</p> <p><b>Note</b> In ONS 15454 Software Release 3.0 and later, 1WAYMON is not supported with TL1. However, it is still supported from Cisco Transport Controller (CTC). Using CTC, you can create 1WAYMON cross-connects that can be retrieved with TL1.</p>
<ul style="list-style-type: none"> <li>• 1WAYPCA</li> </ul>	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
<ul style="list-style-type: none"> <li>• 2WAY</li> </ul>	A bidirectional connection between the two tributaries
<ul style="list-style-type: none"> <li>• 2WAYDC</li> </ul>	A bidirectional drop and continue connection applicable only to path protection traditional and integrated DRIs
<ul style="list-style-type: none"> <li>• 2WAYPCA</li> </ul>	A bidirectional connection between the two tributaries on the extra protection path/fiber

• DIAG	Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect).
<ADD>	AID from the <a href="#">“25.1.2 AidUnionId” section on page 25-9.</a>
<REMOVE>	AID from the <a href="#">“25.1.2 AidUnionId” section on page 25-9.</a>
<CKTID>	Cross-connect ID. The default is Blank or None. String of ASCII characters. Maximum length is 48. If CKTID is empty or null, the CKTID field will not be displayed.
<CMDMDE>	The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states.
• FRCD	Force the system to override a state where the command would normally be denied.
• NORM	Execute the command normally. Do not override any conditions that might make the command fail.
<PST>	Primary state. The parameter type is PST, which indicates the current overall service condition of an entity.
• IS	In service
• OOS	Out of service
<SST>	Secondary state. The parameter type is SST, which provides additional information pertaining to PST and PSTQ.
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.14 ED-DAT

Edit Date and Time

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits the date and the time

System

---

 Provisioning
**Related Commands**

ACT-USER	INH-MSG-ALL	RTRV-NE-IPMAP
ALW-MSG-ALL	INH-MSG-DBCHG	RTRV-NE-PATH
ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-NE-SYNCN
ALW-MSG-SECU	INIT-SYS	RTRV-NE-WDMANS
ED-NE-GEN	RTRV-HDR	RTRV-TOD
ED-NE-PATH	RTRV-INV	SET-TOD
ED-NE-SYNCN	RTRV-NE-GEN	

---

 ED-DAT:[<TID>]::<CTAG>::[<DATE>],[<TIME>];

---

 ED-DAT:CISCO::1234::99-12-21,14-35-15;

**Table 11-13 ED-DAT Input Parameters**

Parameter and Values	Description
DATE	Date. String
TIME	Time. String

## 11.15 ED-DS1

Edit DS1

**Usage Guidelines**

Cisco ONS 15454

This command edits the test access attribute for DS1 access on a DS3XM card.

**Note**

- This command is not allowed if the card is a protect card.
- Both the MODE and FMT fields of this command apply to the DS3XM-12 card only.
- For the DS3XM-12 card, the DS1 frame format NE default is AUTO\_PROV\_FMT for the first 30 seconds to determine the real format. After 30 seconds, the DS1 frame format will be detected as FRAMED. If the frame format is not detected, it will be in the UNFRAMED format.
- For preprovisioning the DS3XM-12 card, the DS1 frame format defaults to UNFRAMED.
- For the DS3XM-12 card, the DS1 configurable attributes (PM, TH, alarm, etc.) only apply on the ported ports (1-12) and the VT-mapped (odd) portless ports in xxx-xxx-DS1 commands. If you provision or retrieve DS1 attributes on the DS3-mapped (even) portless port in xxx-xxx-DS1 commands, an error message will be returned.

- The test set physical connection set up through ED-T3/DS1/STS1/VT1 of the DS3XM-12 card is only allowed on the physical front ports (PORTED ports, ports 1-12), which are the monitoring ports.
  - The monitoring test access ports follow the common rules for the other cards. For example, ED-T3 on port 2 (FAC-6-2) with a TACC number (8), the next port, port 3 (FAC-6-3) is used as the monitoring point also. The RTRV-T3 on both port-2 and port-3 return the same TACC number (8) being used to monitor the cross-connection end (A-B). The last port (port 12) is not allowed to set up a physical connection with the test set because there is no next available port to be the monitoring port.
  - The TACC disconnection (DISC-TACC) and the test access mode change command (CHG-TACC) follow the same requirement as in the step above, but it is applied on the ported ports of the DS3XM-12 card.
  - The test access connection set-up command (CONN-TACC) has monitored points, which can be portless ports. This command is applied on both ported and portless ports of the DS3XM-12 card.
- If the entity has a TACC connection, the entity is not allowed to have ported or portless STS/VT cross-connection (or circuit) provisioning on the DS3XM-12 card.

---

 Ports

---

 Provisioning

---

**Related Commands**

DLT-FFP-<OCN_TYPE>	ENT-FFP-<OCN_TYPE>	RTRV-G1000
ED-<OCN_TYPE>	OPR-PROTNSW-<OCN_TYPE>	RTRV-GFP
ED-EC1	RLS-PROTNSW-<OCN_TYPE>	RTRV-GIGE
ED-FFP-<OCN_TYPE>	RTRV-<OCN_TYPE>	RTRV-HDLC
ED-G1000	RTRV-DS1	RTRV-POS
ED-GFP	RTRV-EC1	RTRV-PROTNSW-<OCN_TYPE>
ED-HDLC	RTRV-FAC	RTRV-T1
ED-T1	RTRV-FFP-<OCN_TYPE>	RTRV-T3
ED-T3	RTRV-FSTE	RTRV-TRC-<OCN_TYPE>
ED-TRC-<OCN_TYPE>		

---

 ED-DS1:[<TID>]:<AID>:<CTAG>:::[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],  
 [MODE=<MODE>],[FMT=<FMT>];

---

 ED-DS1:PETALUMA:DS1-2-1-6-12:123:::TACC=8,TAPTYPE=DUAL,MODE=FDL,FMT=ESF;

**Table 11-14** ED-DS1 Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.11 DS1” section on page 25-26
<b>TACC</b>	TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. Integer
<b>TAPTYPE</b>	TAP type Parameter type is TAPTYPE—test access point type
<ul style="list-style-type: none"> <li>• DUAL</li> <li>• SINGLE</li> </ul>	Dual FAD Single FAD
<b>MODE</b>	Mode with which the command is to be implemented. DS1 path mode of the DS3XM-12 card. Defaults to FDL Parameter type is DS1MODE—the DS1 path mode of the DS3XM-12 card
<ul style="list-style-type: none"> <li>• ATT</li> <li>• FDL</li> </ul>	The DS1 path of the DS3XM-12 card is in AT&T 54016 mode The DS1 path of the DS3XM-12 card is in FDL T1-403 mode
<b>FMT</b>	Digital signal format. The DS1 path frame format of the DS3XM-12 card. Defaults to UNFRAMED Parameter type is FRAME_FORMAT—frame format for a T1 port
<ul style="list-style-type: none"> <li>• D4</li> <li>• ESF</li> <li>• UNFRAMED</li> </ul>	Frame format is D4 Frame format is ESF Frame format is unframed

## 11.16 ED-EC1

Edit Electrical Carrier

### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL

This command edits the attributes of an EC1.



#### Note

This command is not allowed if the card is a protecting card.

Ports

Provisioning

**Related Commands**

DLT-FFP-<OCN_TYPE>	ENT-FFP-<OCN_TYPE>	RTRV-G1000
ED-<OCN_TYPE>	OPR-PROTNSW-<OCN_TYPE>	RTRV-GFP
ED-DS1	RLS-PROTNSW-<OCN_TYPE>	RTRV-GIGE
ED-FFP-<OCN_TYPE>	RTRV-<OCN_TYPE>	RTRV-HDLC
ED-G1000	RTRV-DS1	RTRV-POS
ED-GFP	RTRV-EC1	RTRV-PROTNSW-<OCN_TYPE>
ED-HDLC	RTRV-FAC	RTRV-T1
ED-T1	RTRV-FFP-<OCN_TYPE>	RTRV-T3
ED-T3	RTRV-FSTE	RTRV-TRC-<OCN_TYPE>
ED-TRC-<OCN_TYPE>		

```
ED-EC1:[<TID>]:<AID>:<CTAG>:::[PJMOM=<PJMOM>],[LBO=<LBO>],[SOAK=<SOAK>],
[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],[EXPTRC=<EXPTRC>],
[TRC=<TRC>],[TRCMODE=<TRCMODE>],[<TRCFORMAT>],[AISONLPBK=<AISONLPBK>],
[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];
```

```
ED-EC1:CISCO:FAC-1-1:123::PJMOM=0,LBO=0-225,SOAK=10,SFBER=1E-4,SDBER=1E-6,
NAME="EC1 PORT",EXPTRC="AAA",TRC="AAA",TRCMODE=MAN,TRCFORMAT="16-BYTE,
AISONLPBK=AIS_ON_LPBK_ALL,CMDMDE=CMDMDE:IS,AINS;
```

**Table 11-15 ED-EC1 Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>PJMOM</b>	A SONET pointer number (0 or 1) of an EC1 port. Integer. Defaults to 0
<b>LBO</b>	Line build out settings. Integer. Defaults to 0–225 Parameter type is E_LBO—electrical signal line buildout
• 0–225	Electrical signal line buildout range is 0–225
• 226–450	Electrical signal line buildout range is 226–450
<b>SOAK</b>	IS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer. Defaults to 32
<b>SFBER</b>	Signal failure threshold. Defaults to 1E-4 Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5

Table 11-15 ED-EC1 Input Parameters (continued)

Parameter and Values	Description
<b>SDBER</b>	Signal degrade threshold. Defaults to 1E-7 Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>NAME</b>	String. Default value is NULL. Maximum length is 32 characters
<b>EXPTRC</b>	String
<b>TRC</b>	String
<b>TRCMODE</b>	Trace mode Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP is detected
• MAN	Use the provisioned expected string as the expected string
• MAN-NO-AIS	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected
• OFF	Turn off path trace capability. Nothing will be reported
<b>TRCFORMAT</b>	Trace message size Parameter type is TRCFORMAT—trace format
• 1-BYTE	1 byte trace message
• 16-BYTE	16 byte trace message
• 64-BYTE	64 byte trace message
• Y	Enable an attribute
<b>AISSLPBK</b>	Defaults to AIS_ONLPBK_FACILITY Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ONLPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks

Table 11-15 ED-EC1 Input Parameters (continued)

Parameter and Values	Description
<b>CMDMDE</b>	Command Mode. Defaults to NORM Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.17 ED-EQPT

Edit Equipment

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits the attributes for a given equipment slot in the NE. If the card is in an equipment slot, this command is allowed only on the working AID.



### Note

The ONS 15600 only supports these parameters: TID, AID, CTAG, PST and SST.



The PROTID parameter indicates the unique identifier of the protection group (the protect card). “NULL” is a special value of the PROTID parameter and indicates absence of a protection group. For the 1:1 protection type, RVRTV and RVTM parameters can be changed. For the 1:N protection type, if the PROTID parameter is entered as “NULL”, the protection group is deleted.

```
ED-EQPT:[<TID>]:SLOT-2:<CTAG>:::PROTID=NULL;
```

For the 1:N protection type, if the PROTID is “NULL”, the AIDs in the list are removed from the protection group. If all the working cards are in the AID list, the protection group is deleted.

Example: if Slot-1, Slot-2 and Slot-4 were the only working cards in the protection group. The following command will remove Slot-4 from the protection group:

```
ED-EQPT:[<TID>]:SLOT-4:<CTAG>:::PROTID=NULL;
```

The protection group still has Slot-1 and Slot-2 as working cards.

The following command will remove all the other working cards in the above example and consequently, delete the protection group itself:

```
ED-EQPT:[<TID>]:SLOT-2&SLOT-1:<CTAG>:::PROTID=NULL;
```

The ED-EQPT command can be successfully executed on an already provisioned card to add or remove a working card from a protection group. This command is not valid on a protect card. Only cards can be added to or removed from a protection group. Protection type is immutable and is determined at the time of creation of a protection group (while adding the first working card). Once provisioned, the equipment type cannot be edited either.

Examples of adding an existing card to a protection group using the ED-EQPT command:

1:1 protection group

```
ED-EQPT::SLOT-2:12:::PROTID=SLOT-1,RVRTV=Y,RVTM=9.0;
```

1:N protection group

```
ED-EQPT::SLOT-2:12:::PROTID=SLOT-3,PRTYPE=1-N,RVTM=6.5;
```

Error conditions for editing a 1:1 or 1:N protection group might be:

1. Editing the PRTYPE or PROTID (non-NULL value) parameters.
2. Editing RVRTV or RVTM when no protection group exists.
3. Editing RVRTV for 1:N protection.
4. Failed to remove, currently switched to protect.
5. The CARDMODE provisioning is allowed on the DS3XM-12 and ML-Series cards
  - a. The DS3XM’s provisioning is based on the XCON type and DS3XM-12’s location. For example:  
The DS3XM-12 card in the lower speed I/O slot with the XCVT/XC10G card only allows the DS3XM-12-STS12 CARDMODE. Other cases allow the CARDMODE to be DS3XM-12-STS-48
  - b. There is no card reboot if the CARDMODE is changed on the DS3XM-12 card.
  - c. The DS3XM-12 card can be upgraded or downgraded by changing the CARDMODE with the ED-EQPT command.
6. If the command mode (CMDMDE) is set to forced (FRCD) during the creation of a 1:1 or 1:N protection group, all cards must be physically plugged in and in the service state (IS). If the cards are not physically plugged in, then the command is denied with an appropriate error message. When the command mode is set to normal (NORM) (which is the default) the cards do not have to be physically plugged in and in the service state.

- If the command mode is set to forced (FRCD) during the removal of a card in a 1:1 or 1:N protection group, there must be no cross-connects (for example, services) present on the card. If there are cross-connects present on the card, the command is denied with an appropriate error message. If the command mode is set to normal (NORM) (which is the default), it does not require that cross-connects be deleted on the card.

**Note**

For the FC\_MR-4 card, the card mode cannot be changed to FCMR-LINERATE when the payload on any port is 1GFICON or 2GFICON. These payloads are allowed only in distance extension card mode.

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Equipment

---

Provisioning

**Related Commands**

ALW-SWDX-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
ENT-EQPT	RTRV-ALM-EQPT	SW-TOPROTN-EQPT
INH-SWDX-EQPT	RTRV-ALMTH-EQPT	SW-TOWKG-EQPT

ED-EQPT:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>],[PRTYPE=<PRTYPE>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[CMDMDE=<CMDMDE>],[CARDMODE=<CARDMODE>],[PEERID=<PEERID>],[REGENNAME=<REGENNAME>],[PWL=<PWL>],[RETIME=<RETIME>]:[<PST>[,<SST>]];

ED-EQPT:CISCO:SLOT-2:123:::PROTID=SLOT-1,PRTYPE=1-1,RVRTV=Y,RVTM=9.0,CMDMDE=FRCD,CARDMODE=DS3XM12-STS48,PEERID=SLOT-2,REGENNAME="THIS GROUP",PWL=1530.33,RETIME=Y:OOS,MT;

**Table 11-16 ED-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27
<b>PROTID</b>	Protecting card slot number of the protection group from the <a href="#">“25.1.20 PRSLOT”</a> section on page 25-33
<b>PRTYPE</b>	Protection group type Parameter type is PROTECTION_GROUP—protection group type
• 1-1	1 for 1 protection group
• 1-N	1 for N protection group

Table 11-16 ED-EQPT Input Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>CMDMDE</b>	Command mode. Only applicable when creating or deleting a protection group (1:1 or 1:N) and/or adding cards to an existing protection group (1:N). Default is NORM. If creating or adding cards to a protection group, specifying FRCD requires the card to be physically plugged in and in the service state (IS). If removing cards from a protection group (1:N) or deleting the protection group (1:1, 1:N), specifying FRCD requires that there are no cross-connects (services) on the card Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>CARDMODE</b>	Card mode <b>Note</b> The card will reboot after the mode changes so the mode change request will not go through if all the ports on the card are not in OOS mode. TL1 will not set a default CARD_MODE value at the management interface level if no PWL value is given Parameter type is CARDMODE—card mode. Card mode is applicable to cards that have multiple capabilities, for example, the ML card can operate in two distinct modes: Linear Mapper Mode and L2/L3 Mode
• DS3XM12-ST512	The DS3XM-12 card in the STS12 back plane rate mode
• DS3XM12-ST548	The DS3XM-12 card in the STS48 back plane rate mode
• DWDM-LINE	Line terminating mode
• DWDM-SEC	Section terminating mode

Table 11-16 ED-EQPT Input Parameters (continued)

Parameter and Values	Description
• DWDM-TRANS-AIS	Transparent mode AIS
• DWDM-TRANS-SQUELCH	Transparent mode SQUELCH
• FCMR-DISTEXTN	FC_MR-4 card with distance extension support
• FCMR-LINERATE	FC_MR-4 card without distance extension support
• ML-GFP	ML-Series card in DOS FPGA using GFP framing type
• ML-HDLC	ML-Series card in DOS FPGA using HDLC framing type
• MXPMR25G-FCGE	Fibre channel or GIGE mode for the MXP-MR-2.5G card
<b>PEERID</b>	The regeneration peer slot from the <a href="#">“25.1.13 EQPT”</a> section on <a href="#">page 25-27</a>
<b>REGENNAME</b>	The name of a regeneration group. String
<b>PWL</b>	Provisioned wavelength. TL1 will not set a default PWL value at the management level if no PWL value is given Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24

**Table 11-16 ED-EQPT Input Parameters (continued)**

Parameter and Values	Description
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>RETIME</b>	Indicates if retiming is needed. Applicable only to the DS1-E1-56 card (ONS 15454)  Parameter type is YES_NO—whether the user's password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes
<b>PST</b>	Primary state  Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state  Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.18 ED-FAC

Edit Facility

---

**Usage Guidelines**

Cisco ONS 15454, 15327, 15600, 15310

This command provisions the payload (or signal) type of facility. The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command to retrieve them.

---

Ports

---

Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-BULKROLL-<OCN_TYPE>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-BULKROLL-<OCN_TYPE>	RTRV-BFDLPM-<MOD2>
ED-DS1	RTRV-BULKROLL-<OCN_TYPE>
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ENT-<MOD1PAYLOAD>	RTRV-PM-<MOD2>
ENT-BULKROLL-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-POS
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
INIT-REG-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
OPR-ALS	RTRV-T1
OPR-LPBK-<MOD2>	RTRV-T3
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TH-<MOD2>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

---

ED-FAC:[<TID>]:<SRC>:<CTAG>:::[PAYLOAD=<PAYLOAD>],  
[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

---

```
ED-FAC:CISCO:FAC-3-9:2222:::PAYLOAD=E4-FRAMED,CMDMDE=CMDMDE:IS,AINS;
```

---

**Table 11-17 ED-FAC Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>PAYLOAD</b>	The payload for the card Parameter type is PAYLOAD—identifies payload type
<ul style="list-style-type: none"> <li>• 10GFC</li> <li>• 10GIGE</li> <li>• 1GFC</li> <li>• 1GFICON</li> <li>• 2GFC</li> <li>• 2GFICON</li> <li>• DS3</li> <li>• DV6000</li> <li>• EC1</li> <li>• ESCON</li> <li>• ETRCLO</li> <li>• GIGE</li> <li>• HDTV</li> <li>• ISC1</li> <li>• ISC3</li> <li>• OC12</li> <li>• OC3</li> <li>• OC48</li> <li>• PASS-THROUGH</li> <li>• SDI-D1-VIDEO</li> <li>• SONET</li> </ul>	<ul style="list-style-type: none"> <li>10 Gigabit Ethernet Fibre Channel mode</li> <li>10 Gigabit Ethernet</li> <li>1 Gigabit Fibre Channel mode</li> <li>1 Gigabit FICON mode</li> <li>2 Gigabit Fibre Channel mode</li> <li>2 Gigabit FICON mode</li> <li>DS3 mode</li> <li>Video mode</li> <li>EC1 mode</li> <li>ESCON mode</li> <li>ETR/CLO payload mode</li> <li>Gigabit Ethernet Payload</li> <li>HDTV mode</li> <li>ISC1 Mode</li> <li>ISC3 Mode</li> <li>SONET OC-12 mode</li> <li>SONET OC-3 mode</li> <li>SONET OC-48 mode</li> <li>Pass through mode</li> <li>SDI-D1-Video mode</li> <li>SONET Payload Mode</li> </ul>
<b>CMDMDE</b>	Command Mode. Defaults to NORM Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>• FRCD</li> <li>• NORM</li> </ul>	<ul style="list-style-type: none"> <li>Force the system to override a state where the command would normally be denied</li> <li>Execute the command normally. Do not override any conditions that might make the command fail</li> </ul>



Table 11-17 ED-FAC Input Parameters (continued)

Parameter and Values	Description
<b>PST</b>	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.19 ED-FFP-<MOD2DWDMPAYLOAD>

Edit Facility Protection Group (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1)

### Usage Guidelines

Cisco ONS 15454

This command edits a Y-cable protection group on client facilities.

DWDM

Provisioning

Related Commands		
	ALW-SWDX-EQPT	INH-SWTOWKG-EQPT
	ALW-SWTOPROTN-EQPT	OPR-PROTNSW-<OCN_TYPE>
	ALW-SWTOWKG-EQPT	REPT SW
	DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
	ED-FFP-OCH	RTRV-FFP-OCH
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	SW-DX-EQPT
	EX-SW-<OCN_BLSR>	SW-TOPROTN-EQPT
	INH-SWDX-EQPT	SW-TOWKG-EQPT
	INH-SWTOPROTN-EQPT	
	ED-FFP-<MOD2DWDMPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>], [RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>][:];	
	ED-FFP-CLNT:CISCO:FAC-1-1:100:::PROTID=DC-METRO,RVRTV=N,RVTM=1.0,PSDIRN=BI;	

**Table 11-18** ED-FFP-<MOD2DWDMPAYLOAD> Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>PROTAID</b>	The protection group identifier (protection group name). Defaults to the protecting port AID of the protection group. PROTAID can have a maximum length of 32 characters. String
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Only applies to path protection Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. RVTM is not allowed to be set while “RVRTV” is N. Only applies to path protection Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes

Table 11-18 ED-FFP-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters (continued)

Parameter and Values	Description
PSDIRN	Protection switch operation. Identifies the switching mode. Defaults to UNI. <b>Note</b> The MXP_2.5G_10G and TXP_MR_10G cards do not support BI-DIRECTIONAL switching Parameter type is UNI_BI—unidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching

## 11.20 ED-FFP-<OCN\_TYPE>

Edit Facility Protection Group (OC3, OC12, OC48, OC192)

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command edits the optical facility protection.



#### Note

- This command can be used on both protecting and working AIDs. Optimized 1+1 and related attributes are only applicable to the ONS 15454.
- Optimized 1+1 and related attributes are only applicable to ONS 15454.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command to retrieve them.

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Protection

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Provisioning

Related Commands		
	ALW-SWDX-EQPT	RTRV-FFP-<OCN_TYPE>
	ALW-SWTOPROTN-EQPT	RTRV-FFP-OCH
	ALW-SWTOWKG-EQPT	RTRV-FSTE
	DLT-FFP-<MOD2DWDMPAYLOAD>	RTRV-G1000
	DLT-FFP-<OCN_TYPE>	RTRV-GFP
	ED-<OCN_TYPE>	RTRV-GIGE
	ED-DS1	RTRV-HDLC
	ED-EC1	RTRV-POS
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ED-FFP-OCH	RTRV-T1
	ED-G1000	RTRV-T3
	ED-GFP	RTRV-TRC-<OCN_TYPE>
	ED-HDLC	SW-DX-EQPT
	ED-T1	SW-TOPROTN-EQPT
	ED-T3	SW-TOWKG-EQPT
	ED-TRC-<OCN_TYPE>	OPR-PROTNSW-<OCN_TYPE>
	ENT-FFP-<MOD2DWDMPAYLOAD>	REPT SW
	ENT-FFP-<OCN_TYPE>	RLS-PROTNSW-<OCN_TYPE>
	EX-SW-<OCN_BLSR>	RTRV-<OCN_TYPE>
	INH-SWDX-EQPT	RTRV-DS1
	INH-SWTOPROTN-EQPT	RTRV-EC1
	INH-SWTOWKG-EQPT	RTRV-FAC
	RTRV-FFP-<MOD2DWDMPAYLOAD>	
	ED-FFP-<OCN_TYPE>:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>], [RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>], [DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>][:];	
	ED-FFP-OC3:PETALUMA:FAC-1-1:1:::PROTID=PROT_NAME,RVRTV=Y,RVTM=1.0, PSDIRN=BI,VRGRDTM=0.5,DTGRDTM=1.0,RCGRDTM=1.0;	

**Table 11-19** ED-FFP-<OCN\_TYPE> Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>PROTAID</b>	The protection group identifier (protection group name). PROTAID can have a maximum length of 32 characters. String

Table 11-19 ED-FFP-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Indicates the switch mode. Defaults to UNI Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching
<b>VRGRDTM</b>	Verification guard timer. Only applicable to optimized 1+1 Parameter type is VERIFICATION_GUARD_TIMER—optimized 1+1 verification guard timer
• 0.5	500 ms
• 1.0	1 second
<b>DTGRDTM</b>	Detection guard timer. Only applicable to optimized 1+1 Parameter type is DETECTION_GUARD_TIMER—optimized 1+1 detection guard timer
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0 to 5.0	1 second to 5 seconds
<b>RCGRDTM</b>	Recovery guard timer. Only applicable to optimized 1+1 Parameter type is RECOVERY_GUARD_TIMER—optimized 1+1 recovery guard timer
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0 to 10.0	1 second to 10 seconds

## 11.21 ED-FFP-OCH

Edit Facility Protection Group Optical Channel

### Usage Guidelines

Cisco ONS 15454

This command changes the provisioning for the default protection group on the DWDM port of a TXP\_MR\_2.5G and TXPP\_MR\_2.5G card.

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DWDM

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Provisioning

### Related Commands

ALW-SWDX-EQPT	OPR-LASER-OTS
ALW-SWTOPROTN-EQPT	OPR-PROTNSW-<OCN_TYPE>
ALW-SWTOWKG-EQPT	OPR-PROTNSW-OCH
DLT-FFP-<MOD2DWDMPAYLOAD>	REPT SW
DLT-FFP-<OCN_TYPE>	RLS-LASER-OTS
DLT-LNK-<MOD2O>	RLS-PROTNSW-<OCN_TYPE>
ED-DWDM	RLS-PROTNSW-OCH
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-DWDM
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-LNK-<MOD2O>	RTRV-FFP-<OCN_TYPE>
ED-OCH	RTRV-FFP-OCH
ED-OMS	RTRV-LNK-<MOD2O>
ED-OTS	RTRV-OCH
ED-TRC-OCH	RTRV-OMS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-OTS
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
ENT-LNK-<MOD2O>	RTRV-PROTNSW-OCH
EX-SW-<OCN_BLSR>	RTRV-TRC-OCH
INH-SWDX-EQPT	SW-DX-EQPT
INH-SWTOPROTN-EQPT	SW-TOPROTN-EQPT
INH-SWTOWKG-EQPT	SW-TOWKG-EQPT

---

ED-FFP-OCH:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>][:];

ED-FFP-OCH:VA454-22:CHAN-2-2:100:::PROTID="FIXEDPROTECTION",RVRTV=N,  
RVTM=1.0,PSDIRN=BI;

**Table 11-20 ED-FFP-OCH Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14
<b>PROTAID</b>	The protection group identifier (protection group name). String
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation Parameter type is TRANS_MODE—G1000 transponder mode
• BI	Bidirectional
• NONE	Not in transponder mode
• UNI	Unidirectional

## 11.22 ED-FSTE

Edit Fast Ethernet

### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL

This command edits the front end port information of the fast (10/100 Mbps) Ethernet card.

The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command to retrieve them.



### Note

For the ML-100T-8 card, only the NAME parameter can be set.

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Ports

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Provisioning



**Related Commands**


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DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

---

ED-FSTE:[<TID>]:<AID>:<CTAG>:::[FLOW=<FLOW>],[EXPDUPLICATE=<EXPDUPLICATE>],[EXPSPEED=<EXPSPEED>],[VLANCOS=<VLANCOS>],[IPTOS=<IPTOS>],[NAME=<NAME>],[CMDMDE=<CMDMDE>],[SOAK=<SOAK>]:[<PST>][,<SST>]];

```
ED-FSTE:CISCO:FAC-1-1:123:::FLOW=FLOW,EXPDUPLICATE=EXPDUPLICATE,
EXPSPEED=EXPSPEED, VLANCOS=VLANCOS,IPTOS=IPTOS,
NAME="FSTE PORT",CMDMDE=CMDMDE,SOAK=32:IS,AINS;
```

**Table 11-21 ED-FSTE Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>FLOW</b>	Flow control Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	Disable an attribute Enable an attribute
<b>EXPDUPLICATE</b>	Ethernet duplex mode Parameter type is ETHER_DUPLEX—duplex mode
<ul style="list-style-type: none"> <li>• AUTO</li> <li>• FULL</li> <li>• HALF</li> </ul>	Auto mode Full mode Half mode
<b>EXPSPEED</b>	Ethernet speed Parameter type is ETHER_SPEED—Ethernet speed
<ul style="list-style-type: none"> <li>• 100_MBPS</li> <li>• 10_GBPS</li> <li>• 10_MBPS</li> <li>• 1_GBPS</li> <li>• AUTO</li> </ul>	100 Mbps 10 Gbps 10 Mbps 1 Gbps Auto
<b>VLANCOS</b>	Priority queuing threshold based on VLAN class of service of incoming Ethernet packets. Default value is 1175. Integer
<b>IPTOS</b>	Priority queuing threshold based on IP type of service of incoming Ethernet packets. Default value is 368. Integer
<b>NAME</b>	Name. String
<b>CMDMDE</b>	Command Mode. The FRCD mode of operation is applicable to delete a VCAT member cross-connect from IS-NR or OOS-AU,AINS service state  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Force the system to override a state where the command would normally be denied

**Table 11-21 ED-FSTE Input Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15 minute intervals, so a value of 4 translates to a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>IS</li> <li>OOS</li> </ul>	In service Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> <li>DSBLD</li> <li>LPBK</li> <li>MEA</li> <li>MT</li> <li>OOG</li> <li>SWDL</li> <li>UAS</li> <li>UEQ</li> </ul>	Automatic in service Disabled Loopback Mismatch of equipment and attributes Maintenance mode Out of group Software downloading Unassigned Unequipped

## 11.23 ED-G1000

Edit G1000

### Usage Guidelines

Cisco ONS 15454

This command edits the attributes related to a G1000 port.

The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command.

---

Ports

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Provisioning

Related Commands	DLT-FFP-<OCN_TYPE>	ENT-FFP-<OCN_TYPE>	RTRV-G1000
	ED-<OCN_TYPE>	OPR-PROTNSW-<OCN_TYPE>	RTRV-GFP
	ED-DS1	RLS-PROTNSW-<OCN_TYPE>	RTRV-GIGE
	ED-EC1	RTRV-<OCN_TYPE>	RTRV-HDLC
	ED-FFP-<OCN_TYPE>	RTRV-DS1	RTRV-POS
	ED-GFP	RTRV-EC1	RTRV-PROTNSW-<OCN_TYPE>
	ED-HDLC	RTRV-FAC	RTRV-T1
	ED-T1	RTRV-FFP-<OCN_TYPE>	RTRV-T3
	ED-T3	RTRV-FSTE	RTRV-TRC-<OCN_TYPE>
	ED-TRC-<OCN_TYPE>		

ED-G1000:[<TID>]:<AID>:<CTAG>:::[MFS=<MFS>],[FLOW=<FLOW>],[LOWMRK=<LOWMRK>],[HIWMRK=<HIWMRK>],[AUTONEG=<AUTONEG>],[NAME=<NAME>],[CMDMDE=<CMDMDE>],[SOAK=<SOAK>]:[<PST>[,<SST>]];

ED-G1000:TID:FAC-1-1:CTAG:::MFS=1548,FLOW=Y,LOWMRK=20,HIWMRK=492,AUTONEG=Y,NAME="G1000 PORT",CMDMDE=FRCD,SOAK=32:OOS,DSBLD;

**Table 11-22 ED-G1000 Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>MFS</b>	Maximum frame size Parameter type is MFS_TYPE—maximum frame size used by an Ethernet card
<ul style="list-style-type: none"> <li>1548</li> <li>JUMBO</li> </ul>	Normal frame size Jumbo frame size
<b>FLOW</b>	Flow control Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> <li>Y</li> </ul>	Disable an attribute Enable an attribute
<b>LOWMRK</b>	Low watermark value. Integer. Defaults to 25. LOWMRK is available starting with Release 4.0.1
<b>HIWMRK</b>	High watermark value. Integer. Defaults to 485
<b>AUTONEG</b>	Automatic negotiation. Defaults to Y Parameter type is ON_OFF—disable or enable an attribute

**Table 11-22 ED-G1000 Input Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>NAME</b>	Name. String. Default is NULL. Maximum length is 32 characters
<b>CMDMDE</b>	Command execution mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer. Defaults to 32
<b>ENCAP</b>	Encapsulation. String
<b>PST</b>	Primary state. Defaults to OOS Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>OOS</li> </ul>	Out of service
<b>SST</b>	Secondary state. Defaults to DSBLD Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>UEQ</li> </ul>	Unequipped

## 11.24 ED-GFP

Edit Generic Framing Protocol

**Usage Guidelines**

Cisco ONS 15454, ONS 15310-CL, ONS 15600

This command applies to the ONS 15454 CE-100T-8 card, the ONS 15454 FC\_MR-4 card, the ONS 15310-CL CE-100T-8 card and the ONS 15600 ASAP card.

**Note**

- The ONS 15600 only supports these parameters: TID, AID, CTAG and FCS.
- This command does not apply to ONS 15310-CL ML-100T-8 card.
- For the FC\_MR-4 card, the parameters AUTOTHGFPBUF, GFPBUF and FILTER can be edited only if distance extension is enabled (set to B2B).

Ports

Provisioning

**Related Commands**

DLT-FFP-<OCN_TYPE>	ENT-FFP-<OCN_TYPE>	RTRV-G1000
ED-<OCN_TYPE>	OPR-PROTNSW-<OCN_TYPE>	RTRV-GFP
ED-DS1	RLS-PROTNSW-<OCN_TYPE>	RTRV-GIGE
ED-EC1	RTRV-<OCN_TYPE>	RTRV-HDLC
ED-FFP-<OCN_TYPE>	RTRV-DS1	RTRV-POS
ED-G1000	RTRV-EC1	RTRV-PROTNSW-<OCN_TYPE>
ED-HDLC	RTRV-FAC	RTRV-T1
ED-T1	RTRV-FFP-<OCN_TYPE>	RTRV-T3
ED-T3	RTRV-FSTE	RTRV-TRC-<OCN_TYPE>
ED-TRC-<OCN_TYPE>		

ED-GFP:[<TID>]:<AID>:<CTAG>:::[FCS=<FCS>],[AUTOTHGFPBUF=<AUTOTHGFPBUF>],[GFPBUF=<GFPBUF>],[FILTER=<FILTER>];

ED-GFP:CISCO:VFAC-1-0:123:::FCS=N,AUTOTHGFPBUF=Y,GFPBUF=16,FILTER=EGRESS;

**Table 11-23 ED-GFP Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on <a href="#">page 25-28</a> .  <b>Note</b> VFAC AID is used for the CE-100T-8 cards on ONS 15310-CL and ONS 15454 and ASAP cards on ONS 15600. ML-100T-8 GFP management is done through the Cisco IOS CLI and not through the TL1 interface. FAC AID is used for ONS 15454 FC_MR-4
<b>FCS</b>	Payload frame check sequence Parameter type is FCS—frame check sequence
<ul style="list-style-type: none"> <li>• FCS-16</li> <li>• FCS-32</li> <li>• NONE</li> </ul>	<ul style="list-style-type: none"> <li>Frame check sequencing using 16 bits</li> <li>Frame check sequencing using 32 bits</li> <li>No frame check sequence</li> </ul>
<b>AUTOTHGFPBUF</b>	Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	<ul style="list-style-type: none"> <li>Disable an attribute</li> <li>Enable an attribute</li> </ul>
<b>FILTER</b>	Parameter type is GFP_FILTER—filter feature in GFP
<ul style="list-style-type: none"> <li>• EGRESS</li> <li>• NONE</li> </ul>	<ul style="list-style-type: none"> <li>Activate filter feature on egress port</li> <li>Turn off filter feature</li> </ul>

## 11.25 ED-HDLC

Edit High-Level Data Link Control

### Usage Guidelines

Cisco ONS 15600

This command edits HDLC-related attributes for HDLC-encapsulated payloads.

Ports

Provisioning

Related Commands	DLT-FFP-<OCN_TYPE>	ENT-FFP-<OCN_TYPE>	RTRV-G1000
	ED-<OCN_TYPE>	OPR-PROTNSW-<OCN_TYPE>	RTRV-GFP
	ED-DS1	RLS-PROTNSW-<OCN_TYPE>	RTRV-GIGE
	ED-EC1	RTRV-<OCN_TYPE>	RTRV-HDLC
	ED-FFP-<OCN_TYPE>	RTRV-DS1	RTRV-POS
	ED-G1000	RTRV-EC1	RTRV-PROTNSW-<OCN_TYPE>
	ED-GFP	RTRV-FAC	RTRV-T1
	ED-T1	RTRV-FFP-<OCN_TYPE>	RTRV-T3
	ED-T3	RTRV-FSTE	RTRV-TRC-<OCN_TYPE>
	ED-TRC-<OCN_TYPE>		

---

ED-HDLC:[<TID>]:<SRC>:<CTAG>[:<FCS=<FCS>];

---

ED-HDLC:TID:VFAC-SLOT-PORT:CTAG::FCS=FCS-16;

**Table 11-24 ED-HDLC Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. The ONS 15600 ASAP card uses the VFAC AID
<b>FCS</b>	Payload frame check sequence Parameter type is FCS—frame check sequence
<ul style="list-style-type: none"> <li>FCS-16</li> <li>FCS-32</li> <li>NONE</li> </ul>	<ul style="list-style-type: none"> <li>Frame check sequence using 16 bits</li> <li>Frame check sequence using 32 bits</li> <li>No frame check sequence</li> </ul>

## 11.26 ED-LNK-<MOD20>

Edit Link (OCH, OMS, OTS)

### Usage Guidelines

Cisco ONS 15454

This command edits an optical link state.

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DWDM

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Provisioning



Related Commands	DLT-LNK-<MOD2O>	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
	ED-DWDM	OPR-LASER-OTS	RTRV-OCH
	ED-FFP-OCH	OPR-PROTNSW-OCH	RTRV-OMS
	ED-OCH	RLS-LASER-OTS	RTRV-OTS
	ED-OMS	RLS-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OTS	RTRV-DWDM	RTRV-TRC-OCH
	ED-TRC-OCH	RTRV-FFP-OCH	

ED-LNK-<MOD2O>:[<TID>]:<FROM>,  
<TO>:<CTAG>:::[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

ED-LNK-OMS:PENNGROVE:BAND-6-1-TX,BAND-13-1-RX:114:::CMDMDE=CMDMDE:IS,  
AINS;

**Table 11-25** ED-LNK-<MODO> Input Parameters

Parameter and Values	Description
<b>FROM</b>	Identifier at one end of the optical link from the <a href="#">“25.1.4 BAND” section on page 25-13</a>
<b>TO</b>	Identifier at the other end of the optical link from the <a href="#">“25.1.4 BAND” section on page 25-13</a>
<b>CMDMDE</b>	Command Mode. The FRCD mode of operation is applicable to delete a VCAT member cross-connect from IS-NR or OOS-AU,AINS service state  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state  <b>Note</b> PST is not supported for OCH provisioning  Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>OOS</li> </ul>	Out of service

Table 11-25 ED-LNK-&lt;MODO&gt; Input Parameters (continued)

Parameter and Values	Description
SST	Secondary state <b>Note</b> SST is not supported for OCH provisioning Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.27 ED-LNKTERM

Edit Provisionable Patchcord Termination

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command edits the attributes of a provisionable patchcord that has already been created. Only the remote end attributes (REMOTENODE, REMOTELNKTERMID) can be edited.



### Note

- No two provisionable patchcord terminations on a node can have the same remote end link termination information. An attempt to modify an existing provisionable patchcord termination while not following the above restriction will lead to an error message being responded.
- If the provisionable patchcord termination does not exist, an error message will be responded.
- This command does not accept multiple and ALL AIDs.
- REMOTENODE is a string with a maximum length of 20 characters.

Provisionable Patchcords

Provisioning

Related Commands	DLT-LNK-<MOD2O>	ED-WDMANS	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-DWDM	ENT-OSC	RTRV-OCH
	ED-FFP-OCH	ENT-WLEN	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-OCH	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OMS	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
	ED-OSC	OPR-WDMANS	RTRV-SLV-WDMANS
	ED-OTS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-TRC-OCH	RTRV-DWDM	RTRV-WLEN

---

```
ED-LNKTERM:[<TID>]:<AID>:<CTAG>:::[RE MOTENODE=<RE MOTENODE>],
[RE MOTELNKTERMID=<RE MOTELNKTERMID>];
```

---

```
ED-LNKTERM::LNKTERM-1:CTAG:::RE MOTENODE=172.20.208.226,
RE MOTELNKTERMID=25;
```

---

**Table 11-26 ED-LNKTERM Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.17 LNKTERM”</a> section on page 25-32. Indicates a link (provisionable patchcord) termination on the local node
<b>RE MOTENODE</b>	The node where the other end of the provisionable patchcord resides. This can be an IP address or a valid TID. Defaults to the IP address of the local node/existing value. String
<b>RE MOTELNKTERMID</b>	The corresponding provisionable patchcord termination on the remote node (as specified by the RE MOTENODE parameter). Integer value within the range of 1 to 65535. Defaults to existing value

## 11.28 ED-NE-GEN

Edit Network Element General

**Usage Guidelines** Cisco ONS 15454, 15327, 15600, 15310

This command edits the node attributes of the NE.

**Note**

- Only the IPADDR, IPMASK, DEFRTTR, IOP PORT and node name can be modified with this command.
- The node name can be a maximum of 20 characters. If the entered name exceeds 20 characters, an IPNV (Node Name Too Long) error message is returned.
- An existing NTP timing source can be removed by setting the address to 0.0.0.0.
- The maximum length of IPMASK is 18 characters. The default is the mask of the local IP address.
- ETHIPADDR and ETHIPMASK are disabled in this command. ETHIPADDR and ETHIPMASK are used to show the Ethernet interface address and mask. Both default to the nodes' IP address and masks.

**Caution**

Changing the IPADDR, IPMASK, or IOP Port will cause a reset of the controller card.

System

Superuser

**Related Commands**

ACT-USER	INH-MSG-ALL	RTRV-NE-IPMAP
ALW-MSG-ALL	INH-MSG-DBCHG	RTRV-NE-PATH
ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-NE-SYNCN
ALW-MSG-SECU	INIT-SYS	RTRV-NE-WDMANS
ED-DAT	RTRV-HDR	RTRV-TOD
ED-NE-PATH	RTRV-INV	SET-TOD
ED-NE-SYNCN	RTRV-NE-GEN	

```
ED-NE-GEN:[<TID>]::<CTAG>:::[NAME=<NAME>],[IPADDR=<IPADDR>],
[IPMASK=<IPMASK>],[DEFRTTR=<DEFRTTR>],[IOPPORT=<IOPPORT>],[NTP=<NTP>],
[ETHIPADDR=<ETHIPADDR>],[ETHIPMASK=<ETHIPMASK>],
[SUPPRESSIP=<SUPPRESSIP>];
```

```
ED-NE-GEN:CISCO::123:::NAME=NODENAME,IPADDR=192.168.100.52,
IPMASK=255.255.255.0,DEFRTTR=192.168.100.1,IOPPORT=57790,
NTP=192.168.100.52,ETHIPADDR=172.20.208.225,ETHIPMASK=255.255.255.0,
SUPPRESSIP=NO;
```

**Table 11-27 ED-NE-GEN Input Parameters**

Parameter and Values	Description
NAME	Node name. String. Defaults to NULL
IPADDR	Node IP address. String
IPMASK	Node IP mask. String
DEFRTR	Node default router. String
IIOPPORT	Node IIO port. Integer. Defaults to 57790
NTP	Node NTP timing origin address. String. Defaults to 0.0.0.0
ETHIPADDR	Not supported in this release
ETHIPMASK	Not supported in this release
SUPPRESSIP	Parameter type is YES_NO—whether the user’s password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes

## 11.29 ED-NE-PATH

Edit Network Element Path

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command edits the path attributes of the NE. The default value for an optional parameter is the NE default value.

System

Provisioning

### Related Commands

ACT-USER	INH-MSG-ALL	RTRV-NE-IPMAP
ALW-MSG-ALL	INH-MSG-DBCHG	RTRV-NE-PATH
ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-NE-SYCN
ALW-MSG-SECU	INIT-SYS	RTRV-NE-WDMANS
ED-DAT	RTRV-HDR	RTRV-TOD
ED-NE-GEN	RTRV-INV	SET-TOD
ED-NE-SYCN	RTRV-NE-GEN	

---

```
ED-NE-PATH:[<TID>]::<CTAG>:::[PDIP=<PDIP>],[XCMODE=<XCMODE>];
```

---

```
ED-NE-PATH:::CTAG:::PDIP=Y,XCMODE=MIXED;
```

---

**Table 11-28** ED-NE-PATH Input Parameters

Parameter and Values	Description
<b>PDIP</b>	Flag used to indicate whether PDI-P should be generated on the outgoing VT structured STSs Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>XCMODE</b>	Cross-connect mode Parameter type is XCMODE—applicable only to a node with cross connect cards; XC-VXC-10G, XC-VXC-2.5G for example, that support cross connect mode change
<ul style="list-style-type: none"> <li>MIXED</li> </ul>	Both VT1 and VT2 cross connects can be provisioned on the node
<ul style="list-style-type: none"> <li>VT1</li> </ul>	Only VT1 cross connects can be provisioned on the node
<ul style="list-style-type: none"> <li>VT2</li> </ul>	Only VT2 cross connects can be provisioned on the node

## 11.30 ED-NE-SYNCN

Edit Network Element Synchronization

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits the synchronization attributes of the NE.



#### Note

Although mixed mode timing is supported in this release, it is not recommended. Refer to the *Cisco ONS SDH and Cisco ONS 15600 SDH TL1 Reference Guide* for more information.



#### Note

The existing external and line modes have the same functionality in all ONS 15454 4.x and 5.x releases:

- External mode: the node derives its timing from the BITS inputs
- Line mode: the node derives its timing from the SONET line(s)
- Mixed mode: the node derives its timing from the BITS input or SONET lines

---

Synchronization

---

Provisioning

Related Commands			
	ACT-USER	INIT-SYS	RTRV-COND-SYCN
	ALW-MSG-ALL	OPR-SYCNNSW	RTRV-HDR
	ALW-MSG-DBCHG	REPT ALM BITS	RTRV-INV
	ALW-MSG-SECU	REPT ALM SYCN	RTRV-NE-GEN
	ED-BITS	REPT EVT BITS	RTRV-NE-IPMAP
	ED-DAT	REPT EVT SYCN	RTRV-NE-PATH
	ED-NE-GEN	RLS-SYCNNSW	RTRV-NE-SYCN
	ED-NE-PATH	RTRV-ALM-BITS	RTRV-NE-WDMANS
	ED-SYCN	RTRV-ALM-SYCN	RTRV-SYCN
	INH-MSG-ALL	RTRV-BITS	RTRV-TOD
	INH-MSG-DBCHG	RTRV-COND-BITS	SET-TOD
	INH-MSG-SECU		

---

```
ED-NE-SYCN:[<TID>]::<CTAG>::[TMMD=<TMMD>],[SSMGEN=<SSMGEN>],
[QRES=<QRES>],[RVRTV=<RVRTV>],[RVTM=<RVTM>];
```

---

```
ED-NE-SYCN:CISCO::123::TMMD=LINE,SSMGEN=GEN1,QRES=ABOVE-PRS,
RVRTV=Y,RVTM=8.0;
```

**Table 11-29** ED-NE-SYCN Input Parameters

Parameter and Values	Description
<b>TMMD</b>	Timing mode. A null value is equivalent to ALL Parameter type is TIMING_MODE—timing mode for the current node
<ul style="list-style-type: none"> <li>EXTERNAL</li> </ul>	The node derives its clock from the BITS input
<ul style="list-style-type: none"> <li>LINE</li> </ul>	The node derives its clock from the SONET lines
<ul style="list-style-type: none"> <li>MIXED</li> </ul>	The node derives its clock from the mixed timing mode
<b>SSMGEN</b>	Synchronization status message set. A null value is equivalent to ALL Parameter type is SYNC_GENERATION—synchronization status message set generation

Table 11-29 ED-NE-SYNCN Input Parameters (continued)

Parameter and Values	Description
• GEN1	First generation SSM set
• GEN2	Second generation SSM set
<b>QRES</b>	Quality of the RES. A null value is equivalent to ALL Parameter type is SYNC_QUALITY_LEVEL—network synchronization quality level
• ABOVE-PRS	Better than primary reference source. Valid setting for Generation-1 and Generation-2 SSM Set
• ABOVE-SMC	Between SMC and ST3. Valid setting for Generation-1 and Generation-2 SSM Set
• ABOVE-ST2	Between ST2 and STU. Valid setting for Generation-1 and Generation-2 SSM Set
• ABOVE-ST3	For Generation-1 SSM set, between ST3 and ST2. For Generation-2 SSM set, between ST3 and ST3E
• ABOVE-ST3E	Between ST3E and TNC. Valid setting only for Generation-2 SSM set
• ABOVE-ST4	Between ST4 and ST3. Valid setting for Generation-1 and Generation-2 SSM Set
• ABOVE-STU	Between STU and PRS. Valid setting for Generation-1 and Generation-2 SSM Set. This is Default Setting
• ABOVE-TNC	Between TNC and ST2. Valid setting only for Generation-2 SSM set
• BELOW-ST4	Below ST4 but still usable. Valid setting for Generation-1 and Generation-2 SSM Set
• SAME-AS-DUS	Disable the RES message by equating it to DUS. Valid setting for Generation-1 and Generation-2 SSM Set
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. A null value is equivalent to ALL Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. A null value is equivalent to ALL Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes

## 11.31 ED-OCH

Edit Optical Channel (OCH)



**Usage Guidelines**

Cisco ONS 15454

This command edits the attributes (service parameters) and state of an OCH facility.

Refer to the *Cisco ONS SDH and Cisco ONS 15600 SDH TL1 Reference Guide* for specific card provisioning rules.

**Note**

Primary=OOS and secondary=AINS states do not apply to Ethernet mode.

DWDM

Provisioning

**Related Commands**

DLT-LNK-<MOD2O>	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
ED-DWDM	OPR-LASER-OTS	RTRV-OCH
ED-FFP-OCH	OPR-PROTNSW-OCH	RTRV-OMS
ED-LNK-<MOD2O>	RLS-LASER-OTS	RTRV-OTS
ED-OMS	RLS-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OTS	RTRV-DWDM	RTRV-TRC-OCH
ED-TRC-OCH	RTRV-FFP-OCH	

```
ED-OCH:[<TID>]:<AID>:<CTAG>:::[RDIRN=<RDIRN>],[EXPWLEN=<EXPWLEN>],
[VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],[CALOPWR=<CALOPWR>],
[CHPOWER=<CHPOWER>],[NAME=<PORTNAME>],[SFBER=<SFBER>],[SDBER=<SDBER>],
[COMM=<COMM>],[GCCRATE=<GCCRATE>],[OSDBER=<OSDBER>],[DWRAP=<DWRAP>],
[FEC=<FEC>],[PAYLOADMAP=<PAYLOADMAP>],[MACADDR=<MACADDR>],
[SYNCSMSG=<SYNCSMSG>],[SENDDUS=<SENDDUS>],[SOAK=<SOAK>],[OSPF=<OSPF>],
[MFS=<MFS>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];
```

```
ED-OCH:CISCO:CHAN-6-2:114:::RDIRN=W-E,EXPWLEN=1530.32,VOAATTN=2.5,
VOAPWR=7.5,CALOPWR=0,CHPOWER=2.0,NAME="NYLINE",SFBER=1E-5,
SDBER=1E-6,COMM=DCC,GCCRATE=192K,OSDBER=1E-6,DWRAP=Y,FEC=STD,
PAYLOADMAP=ASYNCH,MACADDR=00-0E-AA-BB-CC-DD,SYNCSMSG=N,
SENDDUS=Y,SOAK=10,OSPF=Y,MFS=2152,CMDMDE=CMDMDE:IS,AINS;
```

Table 11-30 ED-OCH Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.7 CHANNEL” section on page 25-14
<b>RDIRN</b>	Ring directionality of the optical line Parameter type is RDIRN_MODE—the optical ring directionality
• E-W	The direction of the signal is from east to west (clockwise)
• W-E	The direction of the signal is from west to east (counterclockwise)
<b>EXPWLEN</b>	Optical wavelength for this port. Applicable only to the following cards: optical service channel cards, optical amplifier cards, dispersion compensation units, multiplexer and demultiplexer cards and OADM cards Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25

**Table 11-30 ED-OCH Input Parameters (continued)**

Parameter and Values	Description
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>VOAATTN</b>	The value of calibrated attenuation for the VOA. It is expressed in dBm. For the following cards: optical service channel, optical amplifier, dispersion compensation units, multiplexer and demultiplexer and OADM, the range is 0.0 to +30.0. Not supported for TXP or MXP cards. Float
<b>VOAPWR</b>	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Applicable only to the following cards: optical service channel, optical amplifier, dispersion compensation units, multiplexer and demultiplexer and OADM. Float
<b>CALOPWR</b>	The value of the calibrated optical power expected for the line added to the calculated value which equals the total expected output power. Expressed in dBm. Applicable only to the following cards: optical service channel, optical amplifier, dispersion compensation units, multiplexer and demultiplexer and OADM. Defaults to 0 dBm. Float
<b>CHPOWER</b>	The value of per channel optical power expected to the OCH drop port of an AD-4C unit. CHPOWER is a float expressed in dBm Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PORTNAME</b>	Port name. String
<b>SFBER</b>	Signal failure threshold for the SONET payload. Can only be provisioned on the working port Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Signal degrade threshold for the SONET payload. Can only be provisioned on the working port Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6

Table 11-30 ED-OCH Input Parameters (continued)

Parameter and Values	Description
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>COMM</b>	<p>The GCC or DCC is enabled or disabled. The GCC can be enabled only if the digital wrapper has been enabled for the card. The default is NONE. Rules for an MXP_2.5G_10G/TXP_MR_10G client port are; only the DCC can be provisioned, if the termination mode is not transparent and the payload is SONET. On an MXP_2.5G_10G/TXP_MR_10G DWDM port, the DCC can be enabled only if the G.709 is not enabled and if the payload is SONET and the termination mode is not transparent. On an MXP_2.5G_10G/TXP_MR_10G DWDM port, the GCC can be enabled if there is no DCC and the G.709 flag is enabled. On a TXP/MXP DWDM port, the DCC/GCC can be disabled only if there are no provisionable patchcord terminations provisioned on the trunk port</p> <p>Parameter type is COMM_TYPE—out of band communications channel termination type</p>
• DCC	Section DCC type
• GCC	Generic communication channel (OTN) type
• NONE	Disable DCC or GCC if enabled
<b>GCCRATE</b>	<p>The data rate of the GCC traffic. The default is 192 Kbps. For MXP_2.5G_10G/TXP_MR_10G cards this applies only to the DWDM port.</p> <p><b>Note</b> The 576K option is not supported for this release.</p> <p>Parameter type is GCCRATE—the data rate of the GCC traffic</p>
• 192K	192 kbps
• 576K	576 kbps
<b>OSDBER</b>	<p>OTN SDBER. Can only be provisioned on the working port. Defaults to 1E-7</p> <p>Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path</p>
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9

Table 11-30 ED-OCH Input Parameters (continued)

Parameter and Values	Description
<b>DWRAP</b>	<p>The G.709 digital wrapper. It is either on or off. The system default is ON. For MXP_2.5G_10G/TXP_MR_10G cards, this applies only to the DWDM port.</p> <p>To enable G.709:</p> <ul style="list-style-type: none"> <li>there should be no GCC on the DWDM port</li> <li>the payload (where the card is configured) should not be UNFRAMED</li> </ul> <p>To disable G.709:</p> <ul style="list-style-type: none"> <li>there should be no GCC on the DWDM port</li> <li>the FEC should be turned to off</li> <li>there should be no overhead circuit created on the DWDM port</li> <li>none of the client ports on the card should be part of a Y-cable protection group (MXP only)</li> </ul> <p>Parameter type is ON_OFF—disable or enable an attribute</p>
• N	Disable an attribute
• Y	Enable an attribute
<b>FEC</b>	<p>Forward error correction. It can be enabled only if the G.709 is turned ON. It is either off or enabled in standard or enhanced mode. The system default is standard FE enabled. The FEC level PM and thresholds apply if the FEC is turned ON</p> <p>Parameter type is FEC_MODE—specifies the type of forward error correction</p>
• ENH	Enhanced FEC is enabled
• OFF	FEC is disabled
• STD	Standard FEC is enabled
<b>PAYLOADMAP</b>	<p>The type of payload mapping. It can be enabled only if the G.709 is turned ON and FEC is enabled</p> <p>Parameter type is PAYLOAD_MAPPING—payload mapping mode</p>
• ASYNCH	Asynchronous mapping mode
• ODU	ODU multiplex structure mode
• SYNCH	Synchronous mapping mode
<b>MACADDR</b>	MAC address for the 10GigE payload. String
<b>SYNCMSG</b>	<p>The facility be enabled to provide the synchronization clock. This does not apply to the TXPD-10G card. This applies to an MXPD-10G card, only if the payload is SONET/SDH and the card termination mode is as follows:</p> <p>TRANSPARENT - All Client ports are available for all timing selections. All Trunk ports are not available.</p> <p>LINE - All ports are available for all-timing selections</p> <p>Parameter type is ON_OFF—disable or enable an attribute</p>

Table 11-30 ED-OCH Input Parameters (continued)

Parameter and Values	Description
• N	Disable an attribute
• Y	Enable an attribute
<b>SENDUS</b>	The facility sends out a Do not Use for Sync message. This does not apply to the TXPD-10G card. This applies to an MXPDP-10G card, only if the payload is SONET/SDH and the card termination mode is as follows: TRANSPARENT- All Client ports are available for all timing selections. All Trunk ports are not available. LINE - All ports are available for all-timing selections Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer
<b>OSPF</b>	Open shortest path first Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>MFS</b>	Integer
<b>CMDMDE</b>	Command mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled

**Table 11-30 ED-OCH Input Parameters (continued)**

Parameter and Values	Description
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.32 ED-OMS

Edit Optical Multiplex Section (OMS)

### Usage Guidelines

Cisco ONS 15454

This command edits the attributes (service parameters) and state of an OMS facility.

DWDM

Provisioning

### Related Commands

DLT-LNK-<MOD2O>	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
ED-DWDM	OPR-LASER-OTS	RTRV-OCH
ED-FFP-OCH	OPR-PROTNSW-OCH	RTRV-OMS
ED-LNK-<MOD2O>	RLS-LASER-OTS	RTRV-OTS
ED-OCH	RLS-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OTS	RTRV-DWDM	RTRV-TRC-OCH
ED-TRC-OCH	RTRV-FFP-OCH	

```
ED-OMS:[<TID>]:<AID>:<CTAG>:::[RDIRN=<RDIRN>],[EXPBAND=<EXPBAND>],
[VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],[CALOPWR=<CALOPWR>],
[CHPOWER=<CHPOWER>],[NAME=<NAME>],[SOAK=<SOAK>],
[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];
```

```
ED-OMS:PENNGROVE:BAND-6-1:114:::RDIRN=W-E,EXPBAND=1530.32-1532.68,
VOAATTN=2.5,VOAPWR=7.5,CALOPWR=0.0,CHPOWER=2.0,NAME="OMS PORT",
SOAK=8,CMDMDE=CMDMDE:IS,AINS;
```

Table 11-31 ED-OMS Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.4 BAND” section on page 25-13
<b>RDIRN</b>	Ring directionality of the optical line Parameter type is RDIRN_MODE—the optical ring directionality
• E-W	The direction of the signal is from east to west (clockwise)
• W-E	The direction of the signal is from west to east (counterclockwise)
<b>EXPBAND</b>	The expected value of band for this port Parameter type is OPTICAL_BAND—optical band
• 1530.33 to 1532.68	Band 1
• 1534.25 to 1536.61	Band 2
• 1538.19 to 1540.56	Band 3
• 1542.14 to 1544.53	Band 4
• 1546.12 to 1548.51	Band 5
• 1550.12 to 1552.52	Band 6
• 1554.13 to 1556.55	Band 7
• 1558.17 to 1560.61	Band 8
• USE-DEFAULT	This band is not yet configured/retrieved from unit
<b>VOAATTN</b>	The value of calibrated attenuation for the VOA expressed in dBm. The range is 0.0 to +30.0. Float
<b>VOAPWR</b>	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Float
<b>CALOPWR</b>	The value of the calibrated optical power expected for the line added to the calculated value which equals the total expected output power. Expressed in dBm. Defaults to 0 dBm. Float
<b>CHPOWER</b>	The value of per channel optical power. Float expressed in dBm Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>NAME</b>	Port name. String
<b>SOAK</b>	Integer. Defaults to 8
<b>CMDMDE</b>	Command mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail



**Table 11-31 ED-OMS Input Parameters (continued)**

Parameter and Values	Description
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.33 ED-OSC

Edit Optical Service Channel (OSC)

### Usage Guidelines

Cisco ONS 15454

This command edits the OSC (optical service channel) group attributes.

DWDM

Provisioning

Related Commands	DLT-LNK-<MOD2O>	ED-WDMANS	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-DWDM	ENT-OSC	RTRV-OCH
	ED-FFP-OCH	ENT-WLEN	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	OPR-WDMANS	RTRV-SLV-WDMANS
	ED-OTS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-TRC-OCH	RTRV-DWDM	RTRV-WLEN

---

```
ED-OSC:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],[NODEID=<NODEID>];
```

---

```
ED-OSC:PENNGROVE:OSC-1:114:::RINGID=1,NODEID=10;
```

---

**Table 11-32** ED-OSC Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.19 OSC” section on page 25-33</a>
<b>RINGID</b>	The OSC ring ID of the NE, up to six characters. Valid characters are A-Z and 0-9. String. Default value is “# of AID OSC-#”. Integer
<b>NODEID</b>	The OSC node ID of the NE. NODEID ranges from 0 to 31. Integer

## 11.34 ED-OTS

Edit Optical Transport Section (OTS)

### Usage Guidelines

Cisco ONS 15454

This command edits the attributes (service parameters) and state of an OTS facility.

---

DWDM

---

Provisioning

Related Commands	DLT-LNK-<MOD2O>	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
	ED-DWDM	OPR-LASER-OTS	RTRV-OCH
	ED-FFP-OCH	OPR-PROTNSW-OCH	RTRV-OMS
	ED-LNK-<MOD2O>	RLS-LASER-OTS	RTRV-OTS
	ED-OCH	RLS-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	RTRV-DWDM	RTRV-TRC-OCH
	ED-TRC-OCH	RTRV-FFP-OCH	

ED-OTS:[<TID>]:<AID>:<CTAG>:::[RDIRN=<RDIRN>],[VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],[OFFSET=<OFFSET>],[CALTILT=<CALTILT>],[OSRI=<OSRI>],[AMPLMODE=<AMPLMODE>],[CHPOWER=<CHPOWER>],[EXPGAIN=<EXPGAIN>],[NAME=<NAME>],[SOAK=<SOAK>],[CMDMDE=<CMDMDE>]:<PST>,[<SST>];

ED-OTS:PENNGROVE:LINE-6-1:114:::RDIRN=W-E,VOAATTN=5.0,VOAPWR=10.0,OFFSET=0.0,CALTILT=0.0,OSRI=N,AMPLMODE=GAIN,CHPOWER=10.0,EXPGAIN=-5.0,NAME="OTS PORT",SOAK=8,CMDMDE=CMDMDE:IS,AINS;

**Table 11-33 ED-OTS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.16 LINE”</a> section on page 25-31
<b>RDIRN</b>	Ring directionality of the optical line Parameter type is RDIRN_MODE—the optical ring directionality
<ul style="list-style-type: none"> <li>E-W</li> <li>W-E</li> </ul>	<p>The direction of the signal is from east to west (clockwise)</p> <p>The direction of the signal is from west to east (counterclockwise)</p>
<b>VOAATTN</b>	The value of calibrated attenuation for the VOA expressed in dBm. The range is 0.0 to +30.0. Float
<b>VOAPWR</b>	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Float
<b>OFFSET</b>	The calibration value of the optical power added to the calculated reference value. Defaults to 0 dBm. Float
<b>CALTILT</b>	The amplifier calibration tilt offset to be added to the calculated reference value. Defaults to 0 dBm. Float. Optional
<b>OSRI</b>	OSRI enabled or disabled. Present only on a port where the safety is supported. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> <li>Y</li> </ul>	<p>Disable an attribute</p> <p>Enable an attribute</p>
<b>AMPLMODE</b>	The optical amplification control mode Parameter type is AMPL_MODE—defines amplifier control mode

Table 11-33 ED-OTS Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>GAIN</li> </ul>	The amplifier always maintains a fixed gain
<ul style="list-style-type: none"> <li>POWER</li> </ul>	The amplifier maintains the output power to a fixed value
<b>CHPOWER</b>	The per channel optical power. Float
<b>EXPGAIN</b>	The gain expected value to be reached from an amplifier when the node is part of a DWDM access network. Float
<b>NAME</b>	The name of the port. String
<b>SOAK</b>	Integer. Defaults to 8
<b>CMDMDE</b>	Command mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>OOS</li> </ul>	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>UEQ</li> </ul>	Unequipped

## 11.35 ED-PID

Edit Password

**Usage Guidelines**

Cisco ONS 15454, 15327, 15600, 15310

This command allows a user to change his or her own password.

**Note**

- Passwords are masked for the following security commands: ACT-USER, ED-PID, ENT-USER-SECU and ED-USER-SECU. Access to a TL1 session by any means will have the password masked. The CTC Request History and Message Log will also show the masked commands. When a password-masked command is reissued by double-clicking the command from CTC Request History, the password will still be masked in the CTC Request History and Message Log. The actual password that was previously issued will be sent to the NE. To use a former command as a template only, single-click the command in CTC Request History. The command will be placed in the Command Request text box, where you can edit the appropriate fields prior to reissuing it.

- The password will not appear in the TL1 log on the NE.

- For the ED-PID command:

```
ED-PID:[TID]:<UID>:[CTAG]::<OLDPID>,<NEWPID>;
```

The syntax of OLDPID is not checked. The NEWPID is required to follow Telcordia standards (for example, 10 characters maximum including 1 letter, 1 number, and any one of the following characters: #, %, or +). The OLDPID must match what is in the database.

You must use the ED-USER-SECU command to change the default password for the CISCO15 superuser.

- The ED-PID command cannot be used to change the empty password to a valid password.

---

Security

---

Retrieve

**Related Commands**

ACT-USER	DLT-USER-SECU	REPT EVT SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SESSION
ALW-USER-SECU	ED-USER-SECU	RTRV-CMD-SECU
CANC	ENT-USER-SECU	RTRV-DFLT-SECU
CANC-USER	INH-MSG-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	REPT ALM SECU	

---

```
ED-PID:[<TID>]:<UID>:<CTAG>::<OLDPID>,<NEWPID>;
```

---

```
ED-PID:CISCO:UID:123::OLDPWD,NEWPWD;
```

**Table 11-34 ED-PID Input Parameters**

Parameter and Values	Description
<b>UID</b>	User identifier. Up to 10 alphanumeric characters. String
<b>OLDPID</b>	The user's old password. Up to 10 alphanumeric characters. Passwords are encrypted and will appear as asterisks (*). String
<b>NEWPID</b>	The user's new password. Up to 10 alphanumeric characters. Passwords are encrypted and will appear as asterisks (*). String

## 11.36 ED-POS

Edit Packet Over SONET

### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL, ONS 15600

This command edits the back end port information for the Ethernet card when the back end port is working in POS mode. The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command to retrieve them. ED-POS cannot set ENCAP and PST/SST.



### Note

This command is supported for the ONS 15454 CE-100T-8 card, the ONS 15310-CL ML-100T-8 and CE-100T-8 cards and the ONS 15600 ASAP card.

Ports

Provisioning

**Related Commands**


---

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE RTRV-G1000
ED-HDLC	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

---

ED-POS:[<TID>]:<AID>:<CTAG>:::[ENCAP=<ENCAP>],[NAME=<NAME>],  
[CMDMDE=<CMDMDE>],[SOAK=<SOAK>]:[<PST>[,<SST>]];

ED-POS:CISCO:VFAC-2-0:123:::ENCAP=HDLC,NAME=NAME,CMDMDE=CMDMDE,  
SOAK=32:IS,AINS;

Table 11-35 ED-POS Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>ENCAP</b>	Encapsulation Parameter type is ENCAP—frame encapsulation type
• GFP_F	GFP frame mode
• GFP_T	GFP transparent mode
• HDLC	HDLC frame mode
• HDLC_LEX	HDLC LAN extension frame mode
• HDLC_X86	HDLC X.86 frame mode
<b>NAME</b>	Port name. String
<b>CMDMDE</b>	Command Mode. The FRCD mode of operation is applicable to delete a VCAT member cross-connect from IS-NR or OOS-AU,AINS service state  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15 minute intervals, so a value of 4 translates to a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer
<b>PST</b>	Primary state  Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state  Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode



**Table 11-35 ED-POS Input Parameters (continued)**

Parameter and Values	Description
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.37 ED-PROTOCOL

Edit Protocol

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command is used to enable/disable a protocol/service that is supported in the NE. Valid protocols include shell/file system access (SHELL), EMS, TL1 and SNMP.



#### Note

If the AID is TL1 the command will be denied because TL1 users are not allowed to change the setting for TL1 protocol.



#### Note

If the AID is SNMP the SECURE PROTOCOLSTAT is not supported. SNMP can only be enabled or disabled. To enable SNMP, set PROTOCOLSTAT to UNSECURE.

Security

Superuser

### Related Commands

ACT-USER	ED-CMD-SECU	REPT EVT SECU
ALW-CONSOLE-PORT	ED-PID	REPT EVT SESSION
ALW-MSG-SECU	ED-USER-SECU	RTRV-AUDIT-LOG
ALW-USER-SECU	ENT-USER-SECU	RTRV-CMD-SECU
CANC	INH-CONSOLE-PORT	RTRV-CONSOLE-PORT
CANC-USER	INH-MSG-SECU	RTRV-DFLT-SECU
CANC-USER-SECU	INH-USER-SECU	RTRV-USER-SECU
CLR-COND-SECU	REPT ALM SECU	SET-ATTR-SECUDFLT
DLT-USER-SECU		

ED-PROTOCOL:[<TID>]:<PROTOCOLAID>:<CTAG>::<PROTOCOLSTAT>;

---

ED-PROTOCOL:CISCONODE:EMS:123::SECURE;

---

**Table 11-36** ED-PROTOCOL Input Parameters

Parameter and Values	Description
<b>PROTOCOLAID</b>	The protocol/service to which the command pertains Parameter type is PROTOCOLAID—AID for protocol/service
<ul style="list-style-type: none"> <li>EMS</li> </ul>	CTC/CTM protocol/service
<ul style="list-style-type: none"> <li>SHELL</li> </ul>	Shell/file system access protocol
<ul style="list-style-type: none"> <li>SNMP</li> </ul>	SNMP protocol/service
<ul style="list-style-type: none"> <li>TL1</li> </ul>	TL1 protocol service
<b>PROTOCOLSTAT</b>	Identifies the status of the protocol/service Parameter type is PROTOCOLSTAT—status of the protocol
<ul style="list-style-type: none"> <li>DISABLED</li> </ul>	The protocol cannot be used
<ul style="list-style-type: none"> <li>SECURE</li> </ul>	The protocol is enabled and communications using the protocol are sure, for example, through SSH. Not applicable for SNMP protocols
<ul style="list-style-type: none"> <li>UNSECURE</li> </ul>	The protocol is enabled but communication is not secure, for example, through telnet

## 11.38 ED-ROLL-<MOD\_PATH>

Edit Roll (STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command forces a rolling operation. Force attempts to force a valid signal to complete the rolling operation.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



### Note

STS18C and STS36C are not supported for this command in this release.

### Category

Bridge and Roll

### Security

Provisioning

Related Commands	DLT-BULKROLL-<MOD_PATH>	OPR-PROTNSW-<PATH>
	DLT-CRS-<PATH>	RLS-PROTNSW-<PATH>
	DLT-ROLL-<MOD_PATH>	RTRV-<PATH>
	ED-<MOD_PATH>	RTRV-BULKROLL-<MOD_PATH>
	ED-BULKROLL-<MOD_PATH>	RTRV-CRS-<PATH>
	ED-CRS-<PATH>	RTRV-NE-PATH
	ED-NE-PATH	RTRV-PROTNSW-<PATH>
	ENT-BULKROLL-<MOD_PATH>	RTRV-PTHTRC-<PATH>
	ENT-CRS-<PATH>	RTRV-ROLL-<MOD_PATH>
	ENT-ROLL-<MOD_PATH>	

**Input Format** ED-ROLL-<MOD\_PATH>:[<TID>]:<FROM>,<TO>:<CTAG>[:::CMDMDE=<CMDMDE>];

**Input Example** ED-ROLL-ST1:CISCO:STS-1-1-1,STS-2-1-1:1:::CMDMDE=FRCD;

### Input Parameters

**Table 11-37 ED-ROLL-<MOD\_PATH> Input Parameters**

Parameter and Values	Description
<b>FROM</b>	Source access identifier from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20. It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, then this termination point (leg) should be the FROM-AID termination point. Otherwise, FROM is non-significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for FROM and TO parameters
<b>TO</b>	Destination access identifier from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20. It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, then this termination point (leg) should be the TO-AID termination point. Otherwise, the TO is non-significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for FROM and TO parameters
<b>CMDMDE</b>	Command execution mode. Defaults to NORM.  <b>Note</b> CMDMDE can only go from NORM to FRCD (cannot go from FRCD to NORM). CMDMDE cannot be set to NORM using this command  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied

Table 11-37 ED-ROLL-&lt;MOD\_PATH&gt; Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that might make the command fail

## 11.39 ED-SLV-WDMANS

Edit Span Loss Verification Wavelength Division Multiplexing Automatic Node Set Up

### Usage Guidelines

Cisco ONS 15454

This command edits the expected span loss verification.

DWDM

Maintenance

### Related Commands

DLT-LNK-<MOD2O>	ED-WDMANS	RTRV-FFP-OCH
DLT-LNKTERM	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNKTERM
DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
ED-DWDM	ENT-OSC	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
ED-OCH	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
ED-OMS	OPR-WDMANS	RTRV-SLV-WDMANS
ED-OSC	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OTS	RLS-PROTNSW-OCH	RTRV-WDMANS
ED-TRC-OCH	RTRV-DWDM	RTRV-WLEN

```
ED-SLV-WDMANS:[<TID>]:<AID>:<CTAG>:::[HIGHSLVEXP=<HIGHSLVEXP>],
[LOWSLVEXP=<LOWSLVEXP>];
```

```
ED-SLV-WDMANS:VA454-22:WDMANS-E:116:::HIGHSLVEXP=10.0,LOWSLVEXP=5.0;
```

**Table 11-38 ED-SLV-WDMANS Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.29 WDMANS” section on page 25-42
HIGHSLVEXP	The high range value of the expected span loss verification. Float
LOWSLVEXP	The low range value of the expected span loss verification. Float

## 11.40 ED-SYNCN

Edit Synchronization

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits the synchronization reference list used to determine the sources for the NE's reference clock and the BITS output clock. For each clock, up to three synchronization sources might be specified (for example, PRIMARY, SECOND, THIRD). To view or edit the system timing mode, use the RTRV-NE-SYNCN or ED-NE-SYNCN commands.



### Note

To retrieve/set the timing mode, SSM message Set or Quality of RES information, use the RTRV-NE-SYNCN and ED-NE-SYNCN commands.

Synchronization

Provisioning

### Related Commands

ED-BITS	REPT EVT BITS	RTRV-BITS
ED-NE-SYNCN	REPT EVT SYNCN	RTRV-COND-BITS
OPR-SYNCNSW	RLS-SYNCNSW	RTRV-COND-SYNCN
REPT ALM BITS	RTRV-ALM-BITS	RTRV-NE-SYNCN
REPT ALM SYNCN	RTRV-ALM-SYNCN	RTRV-SYNCN

```
ED-SYNCN:[<TID>]:<AID>:<CTAG>:::[PRI=<PRI>],[SEC=<SEC>],[THIRD=<THIRD>][:];
```

```
ED-SYNCN:BOYES:SYNC-NE:112:::PRI=INTERNAL,SEC=INTERNAL,THIRD=INTERNAL;
```

**Table 11-39 ED-SYCN Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.25 SYNC_REF” section on page 25-40
<b>PRI</b>	Primary reference of the synchronization from the “25.1.24 SYN_SRC” section on page 25-39
<b>SEC</b>	Secondary reference of the synchronization from the “25.1.24 SYN_SRC” section on page 25-39
<b>THIRD</b>	Third reference of the synchronization from the “25.1.24 SYN_SRC” section on page 25-39

## 11.41 ED-T1

Edit Digital Signal Facility

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command edits the attributes related to a DS1/T1 port.



#### Note

- The T1 facilities on the ONS 15327 and ONS 15310-CL are on the XTC/15310-CL-CTX card.
- This command is not allowed if the card is a protecting card.
- If sending this command to edit TACC and any other attribute(s), and the port having the cross-connection, the (Parameters Not compatible) error message will be returned.
- Editing TACC using an ED-xxx command is only allowed when there is no circuit/cross-connection on this port and the port/VT does not have a test access point (TAP or TACC number). Otherwise, an error message (for example, VT in Use) will be returned.
- TACC creation will also be denied on the protect ports/cards.
- AUTO-PROV is not supported.
- The AISONLPBK and RETIME options are applicable only to the ONS 15310-CL and the DS2-E1-56 card on the ONS 15454.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use the RTRV-XX commands to retrieve the current values.
- The parameters: SYNCMAP, ADMSSM, VTMAP and INHFELPBK are only supported on the DS1-E1-56 card (ONS 15454).

Ports

Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

ED-T1:[<TID>]:<AID>:<CTAG>:::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],[SFBER=<SFBER>],[SDBER=<SDBER>],[SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],[RETIME=<RETIME>],[NAME=<NAME>],[MODE=<MODE>],[SYNCMAP=<SYNCMAP>],[ADMSSM=<ADMSSM>],[VTMAP=<VTMAP>],[INHFELPBK=<INHFELPBK>],[AISONLPBK=<AISONLPBK>],[CMDMDE=<CMDMDE>],[AISVONAI=<AISVONAI>]:[<PST>[,<SST>]];

```
ED-T1:CISCO:FAC-2-1:1223:::LINECDE=AMI,FMT=ESF,LBO=0-131,TACC=8,
TAPTYPE=SINGLE,SOAK=10,SFBER=1E-4,SDBER=1E-6,SYNCSMSG=Y,SENDDUS=Y,
RETIME=Y,NAME="T1PORT",MODE=FDL,SYNCSMAP=ASYNCS,ADMSSM=STU,
VTMAP=GR253,INHFELPBK=N,AISONLPBK=AIS_ON_LPBK_ALL,CMDMDE=CMDMDE,
AISVONAIIS=Y:IS,AINS;
```

**Table 11-40 ED-T1 Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>LINECDE</b>	Line code Parameter type is LINE_CODE—line code
<ul style="list-style-type: none"> <li>• AMI</li> </ul>	Line code value is AMI
<ul style="list-style-type: none"> <li>• B8ZS</li> </ul>	Line code value is B8ZS (bipolar with three-zero substitution)
<b>FMT</b>	Digital signal frame format Parameter type is FRAME_FORMAT—frame format for a T1 port
<ul style="list-style-type: none"> <li>• D4</li> </ul>	Frame format is D4
<ul style="list-style-type: none"> <li>• ESF</li> </ul>	Frame format is ESF
<ul style="list-style-type: none"> <li>• UNFRAMED</li> </ul>	Frame format is unframed
<b>LBO</b>	Line buildout settings. Integer Parameter type is LINE_BUILDOUT—Line buildout
<ul style="list-style-type: none"> <li>• 0–131</li> </ul>	Line buildout range is 0–131
<ul style="list-style-type: none"> <li>• 132–262</li> </ul>	Line buildout range is 132–262
<ul style="list-style-type: none"> <li>• 263–393</li> </ul>	Line buildout range is 263–393
<ul style="list-style-type: none"> <li>• 394–524</li> </ul>	Line buildout range is 394–524
<ul style="list-style-type: none"> <li>• 525–655</li> </ul>	Line buildout range is 525–655
<b>TACC</b>	TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. Default is N. Integer
<b>TAPTYPE</b>	TAP type. Defaults to DUAL Parameter type is TAPTYPE—test access point type
<ul style="list-style-type: none"> <li>• DUAL</li> </ul>	Dual FAD
<ul style="list-style-type: none"> <li>• SINGLE</li> </ul>	Single FAD
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer
<b>SFBER</b>	The port signal failure threshold Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path



Table 11-40 ED-T1 Input Parameters (continued)

Parameter and Values	Description
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Port signal degrade threshold Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>SYNCMSG</b>	Synchronization status messaging is enabled or disabled on the T1 facility. <b>Note</b> For ONS 15310-CL, SYNCMSG defaults to N. SYNCMSG is not supported on the ONS 15454 or ONS 15327 Parameter type is YES_NO—whether the user's password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes
<b>SENDSDUS</b>	The facility will send the DUS (Don't use for Synchronization) value as the sync status message for that facility <b>Note</b> For ONS 15310-CL, SENDSDUS is optional and defaults to N. SENDSDUS is not supported on the ONS 15454 or ONS 15327 Parameter type is YES_NO—whether the user's password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes
<b>RETIME</b>	Indicates if retiming is needed. <b>Note</b> For ONS 15310-CL, RETIME is optional and defaults to N. RETIME is not supported on the ONS 15454 or ONS 15327 Parameter type is YES_NO—whether the user's password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes
<b>NAME</b>	Name. String

**Table 11-40 ED-T1 Input Parameters (continued)**

Parameter and Values	Description
MODE	Mode. Default value is FDL Parameter type is DS1MODE—the DS1 path mode of the DS3XM-12 card
<ul style="list-style-type: none"> <li>• ATT</li> <li>• FDL</li> </ul>	<ul style="list-style-type: none"> <li>Indicates the DS1 path of the DS3XM-12 is in AT&amp;T 54016 mode</li> <li>Indicates the DS1 path of the DS3XM-12 is in FDL T1-403 mode</li> </ul>
<b>SYNCMAP</b>	The synchronous mapping for the DS1 facility. Defaults to ASYNC. Only supported on ONS 15454. Parameter type is SYNCMAP—synchronous mapping type
<ul style="list-style-type: none"> <li>• ASYNC</li> <li>• BYTE</li> <li>• JBYTE</li> </ul>	<ul style="list-style-type: none"> <li>Asynchronous</li> <li>Mapping in byte</li> <li>Mapping in jbyte</li> </ul>
<b>ADMSSM</b>	The administrative synchronization status message. Only supported on the ONS 15454. Defaults to STU Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level
<ul style="list-style-type: none"> <li>• DUS</li> <li>• PRS</li> <li>• RES</li> <li>• SMC</li> <li>• ST2</li> <li>• ST3</li> <li>• ST3E</li> <li>• ST4</li> <li>• STU</li> <li>• TNC</li> </ul>	<ul style="list-style-type: none"> <li>Do Not Use For Synchronization</li> <li>Primary Reference Source, Stratum 1 Traceable</li> <li>Reserved For Network Synchronization Use</li> <li>SONET Minimum Clock Traceable</li> <li>Stratum 2 Traceable</li> <li>Stratum 3 Traceable</li> <li>Stratum 3E Traceable</li> <li>Stratum 4 Traceable</li> <li>Synchronized, Traceability Unknown</li> <li>Transit Node Clock (2nd Generation Only)</li> </ul>
<b>VTMAP</b>	The port to VT mapping type for that particular STS. Only supported on ONS 15454. Defaults to GR253 Parameter type is VTMAP—VT mapping
<ul style="list-style-type: none"> <li>• GR253</li> <li>• INDUSTRY</li> </ul>	<ul style="list-style-type: none"> <li>Mapping based on GR253</li> <li>Mapping based on industry standard</li> </ul>
<b>INHFELPBK</b>	Indicates whether far end loopbacks are inhibited on the facility. Only supported on ONS 15454. Defaults to N Parameter type is ON_OFF—disable/enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	<ul style="list-style-type: none"> <li>Disable an attribute</li> <li>Enable an attribute</li> </ul>

**Table 11-40 ED-T1 Input Parameters (continued)**

Parameter and Values	Description
<b>AISONLPBK</b>	Defaults to AIS_ON_LPBK_ALL Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ONLPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks
<b>CMDMDE</b>	Command mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>AISVONAI</b>	Defaults to N Parameter type is ON_OFF—disable/enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.42 ED-T3

Edit Digital Signal Facility

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command edits the attributes related to a DS3/T3 port and DS3I card.



### Note

- The T3 facilities on the ONS 15327 and ONS 15310-CL are on the XTC/15310-CL-CTX card.
- This command is not allowed if the card is a protecting card.
- Both FMT and Line code are not supported for T3/DS3 facility. They are supported on both the DS3XM and DS3E card. The unframed value of the framing format is only supported on the DS3E facility.
- If sending this command to edit TACC and any other attribute(s), and the port having the cross-connection or the port/VT has a test access point (TAP or TACC number), the (Parameters Not compatible) error message will be returned.
- Editing TACC using an ED-xxx command is only allowed when there is no circuit/cross-connection on the port and the port/VT does not have a test access point (TAP or TACC number). Otherwise, an error message (VT in Use) will be returned.
- TACC creation will also be denied on the protect ports/cards.
- Automatic application of loopbacks originating from the far end can be initiated on the T3 ports of a DS3E, DS3NE, or DS3XM card.
- CTC can set the FMT attribute of a DS3(N)E line to AUTOPROVISION to set the framing based on the framing that is coming in. The result is the FMT field being blanked out for a few seconds or blanked out indefinitely for a preprovisioned DS3(N)E card in CTC. The AUTOPROVISION is not considered a valid DS3 framing type. It is only used to trigger an autosense and subsequent auto provisioning of a valid DS3 framing type (unframed, M13, C-BIT). TL1 does not have the AUTOPROVISION mode. TL1 maps/returns the AUTOPROVISION mode to the unframed framing type.
- For the DS3XM-12 card, the DS3/T3 configurable attributes (PM, TH, alarm, etc.) only apply on the ported ports (1-12) and the DS3-mapped (even) portless ports in xxx-xxx-T3 commands. If you attempt to provision or retrieve DS3/T3 attributes on the VT-mapped (odd) portless port in xxx-xxx-T3 commands, an error message will be returned.
- For the DS3XM-12 card, if the admin state is already set for a portless port the state setting operation over its associated ported port is an invalid operation.
- The test set physical connection set up through ED-T3/DS1/STS1/VT1 of the DS3XM-12 card is only allowed on the physical front ports (PORTED ports, ports 1-12), which are the monitoring ports.
  - The monitoring test access ports follow the common rules for the other cards. For example, ED-T3 on port 2 (FAC-6-2) with a TACC number (8), the next port, port 3 (FAC-6-3) is used as the monitoring point also. The RTRV-T3 on both port-2 and port-3 return the same TACC number (8) being used to monitor the cross-connection end (A-B). The last port (port 12) is not allowed to set-up a physical connection with the test set because there is no next available port to be the monitoring port.

- The TACC disconnection (DISC-TACC) command and the test access mode change (CHG-TACC) command follow the same requirement as in note 11a. above, but applied on the ported ports of the DS3XM-12 card.
  - The test access connection set-up (CONN-TACC) command has monitored points which can be portless ports. This command is applied on both ported and portless ports of the DS3XM-12 card.
  - If the entity has a TACC connection, the entity is not allowed to have ported or portless STS/VT cross-connection (or circuit) provisioning on the DS3XM-12 card.
  - ED-T3 cannot be used to create TAPs on the DS3I card on the SONET platform because the DS3I card only supports STS3C TAPs.
  - You cannot use this command to change the default provisioning on Slots 3 and 15 for the DS3-EC1-48 card.
  - The AISONLPBK is only applicable to the ONS 15310-CL.
  - The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use the RTRV-XX command to retrieve current default values.
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Ports

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Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

---

ED-T3:[<TID>]:<AID>:<CTAG>:::[FMT=<FMT>],[LINECDE=<LINECDE>],[LBO=<LBO>],[INHFELPBK=<INHFELPBK>],[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],[AISONLPBK=<AISONLPBK>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

```
ED-T3:CISCO:FAC-1-2:123:::FMT=C-BIT,LINECDE=B3ZS,LBO=0-225,INHFELPBK=N,
TACC=8,TAPTYPE=SINGLE,SOAK=10,SFBER=1E-4,SDBER=1E-6,NAME="T3 PORT",
AISONLPBK=AIS_ON_LPBK_ALL,CMDMDE=CMDMDE:IS,AINS;
```

**Table 11-41 ED-T3 Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>FMT</b>	Digital signal frame format. The unframed value of the framing format is only supported for the DS3E card Parameter type is DS_LINE_TYPE—DS123 line type
<ul style="list-style-type: none"> <li>• C-BIT</li> </ul>	C-BIT line type applies to the DS3XM and DS3E cards
<ul style="list-style-type: none"> <li>• M13</li> </ul>	M13 line type applies to the DS3XM and DS3E cards
<ul style="list-style-type: none"> <li>• UNFRAMED</li> </ul>	Line type is unframed. The old DS3 (L3M) and DS3CR cards can only run in unframed mode
<b>LINECDE</b>	Line code Parameter type is DS_LINE_CODE—DS123 line code
<ul style="list-style-type: none"> <li>• B3ZS</li> </ul>	Bipolar with three-zero substitution
<b>LBO</b>	Line build out settings. Integer Parameter type is E_LBO—electrical signal line buildout
<ul style="list-style-type: none"> <li>• 0–225</li> </ul>	Electrical signal line buildout range is 1–225
<ul style="list-style-type: none"> <li>• 226–450</li> </ul>	Electrical signal line buildout range is 226–450
<b>INHFELPBK</b>	Far end loopback inhibition attribute of the port. If it is Y, the automatic far end loopbacks are inhibited. It is either on or off. The system default is N. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>• Y</li> </ul>	Enable an attribute
<b>TACC</b>	TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. Default is N. Integer
<b>TAPTYPE</b>	TAP type. Defaults to DUAL Parameter type is TAPTYPE—test access point type
<ul style="list-style-type: none"> <li>• DUAL</li> </ul>	Dual FAD
<ul style="list-style-type: none"> <li>• SINGLE</li> </ul>	Single FAD
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Integer

Table 11-41 ED-T3 Input Parameters (continued)

Parameter and Values	Description
<b>SFBER</b>	The port signal failure threshold Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Port signal degrade threshold Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>NAME</b>	Name. String
<b>AISONLPBK</b>	Defaults to AIS_ON_LPBK_ALL Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ONLPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks
<b>CMDMDE</b>	Command mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service



**Table 11-41 ED-T3 Input Parameters (continued)**

Parameter and Values	Description
SST	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 11.43 ED-TRAPTABLE

Edit Trap Table

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits a trap destination entry identified by a specific trap destination address.

System

Provisioning

### Related Commands

ACT-USER	ED-NE-SYNCN	RTRV-NE-GEN
ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-SYNCN
DLT-TRAPTABLE	INH-MSG-SECU	RTRV-NE-WDMANS
ED-DAT	INIT-SYS	RTRV-TOD
ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-INV	SET-TOD

```
ED-TRAPTABLE:[<TID>]:<AID>:<CTAG>:::COMMUNITY=<COMMUNITY>,
[TRAPPORT=<TRAPPORT>],[TRAPVER=<TRAPVER>];
```

---

```
ED-TRAPTABLE::1.2.3.4:1::COMMUNITY="PUBLIC",TRAPPORT=162,TRAPVER=SNMPV1;
```

---

**Table 11-42** ED-TRAPTABLE Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.15 IPADDR</a> ” section on <a href="#">page 25-31</a> . IP address identifying the trap destination
<b>COMMUNITY</b>	Community name associated to the trap destination. Maximum of 32 characters. String
<b>TRAPPORT</b>	UDP port number associated with the trap destination. Default to 162. Integer
<b>TRAPVER</b>	SNMP version number. Defaults to SNMPv1 Parameter type is SNMP_VERSION—SNMP version
<ul style="list-style-type: none"> <li>• SNMPV1</li> </ul>	SNMP version 1 (default)
<ul style="list-style-type: none"> <li>• SNMPV2</li> </ul>	SNMP version 2

## 11.44 ED-TRC-OCH

Edit Trace Optical Channel Facility

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### Usage Guidelines

Cisco ONS 15454

The command edits trace-related optical channel facilities.

Refer to the *Cisco ONS SDH and Cisco ONS 15600 SDH TL1 Reference Guide* for specific card provisioning rules.

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DWDM

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Provisioning

Related Commands			
	DLT-LNK-<MOD2O>	ED-WDMANS	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-DWDM	ENT-OSC	RTRV-OCH
	ED-FFP-OCH	ENT-WLEN	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-OTS	RTRV-DWDM	RTRV-WLEN

ED-TRC-OCH:[<TID>]:<SRC>:<CTAG>:::[EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],[TRCLEVEL=<TRCLEVEL>],[TRCFORMAT=<TRCFORMAT>][:];

ED-TRC-OCH:CISCO:CHAN-6-2:10::EXPTRC="AAA",TRC="AAA",TRCMODE=MAN,TRCLEVEL=TTI-PM,TRCFORMAT=64-BYTE;

**Table 11-43 ED-TRC-OCH Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14
<b>EXPTRC</b>	Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). A null value is equivalent to ALL. String
<b>TRC</b>	The path trace message to be transmitted. The trace byte continuously transmits a 64 byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (Hex 00) and CR and LF. A null value is equivalent to ALL
<b>TRCMODE</b>	Trace mode. Defaults to the OFF mode Parameter type is TRCMODE—trace mode
<ul style="list-style-type: none"> <li>AUTO</li> </ul>	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
<ul style="list-style-type: none"> <li>AUTO-NO-AIS</li> </ul>	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP is detected
<ul style="list-style-type: none"> <li>MAN</li> </ul>	Use the provisioned expected string as the expected string

Table 11-43 ED-TRC-OCH Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>MAN-NO-AIS</li> </ul>	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TAMP is detected
<ul style="list-style-type: none"> <li>OFF</li> </ul>	Turn off path trace capability. Nothing will be reported
<b>TRCLEVEL</b>	The trace level to be managed. String
<b>TRCFORMAT</b>	Trace message size Parameter type is TRCFORMAT—trace format
<ul style="list-style-type: none"> <li>1-BYTE</li> </ul>	1 byte trace message
<ul style="list-style-type: none"> <li>16-BYTE</li> </ul>	16 byte trace message
<ul style="list-style-type: none"> <li>64-BYTE</li> </ul>	64 byte trace message
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute

## 11.45 ED-USER-SECU

Edit User Security

### Usage Guidelines

Cisco ONS 15454, 15327, 15600, 15310

This command edits a user's privileges, password, or ID. Only a Superuser might perform this operation. Privilege levels are described in the ENT-USER-SECU command.



### Note

- Passwords are masked for the following security commands: ACT-USER, ED-PID, ENT-USER-SECU and ED-USER-SECU. Access to a TL1 session by any means will have the password masked. The CTC Request History and Message Log will also show the masked commands. When a password-masked command is reissued by double-clicking the command from CTC Request History, the password will still be masked in the CTC Request History and Message Log. The actual password that was previously issued will be sent to the NE. To use a former command as a template only, single-click the command in CTC Request History. The command will be placed in the Command Request text box, where you can edit the appropriate fields prior to reissuing it.
- Although the CTC allows both <UID> and <PID> of up to 20 characters, the CTC-entered users (<UID>, <PID>) are not valid TL1 users (for example, if issuing an ACT-USER command and using the CTC-entered <UID> that is greater than 10 characters long, TL1 will respond with DENY).
- For the ED-USER-SECU command;
 

```
ED-USER-SECU:[TID]:<UID>:[CTAG]:[<NEWUID>],[<NEWPID>],[<UAP>];;
```

  - If the <NEWPID> is specified, the syntax is checked.
  - The syntax of <UID> is not checked.
  - Old users can change their password without changing their userid, but the new password must meet the new requirements.
  - The <NEWPID> is required when changing the <USERID>.

- In this release, when <NEWUID> is specified, <NEWPID> (and the <UAP>) become mandatory, but it is possible to change a USERID without changing the password by providing the same password. You cannot keep your old password if the old password does not meet the new syntax requirements. For example:
  - <USERID> = CISCO2345  
 <PASSWORD>=CISCO#234 /\*PASSWORD ALREADY MEETS REQUIREMENTS\*/  
 ED-USER-SECU::CISCO2345:1::CISCO3456,CISCO#234,,PROV;  
 TCCP 1970-01-02 13:15:35 M 1 COMPLD ;
  - <NEWUSERID> = CISCO60  
 <USERID> = CISCO40 <PASSWORD>=CISCO40 /\*PASSWORD DOES NOT MEET REQUIREMENTS\*/  
 ED-USER-SECU::CISCO40:1::CISCO60,CISCO40,,PROV;  
 BRONCOS4 1970-01-02 13:14:24 M 1 DENY IIFM /\* INVALID PASSWORD \*/ ;
- The ED-USER-SECU command should be used to change the default password for the CISCO15 default superuser.
- The ED-PID command cannot be used to change the empty password to a valid password.

---

 Security

---

 Superuser

---

**Related Commands**

ACT-USER	DLT-USER-SECU	REPT EVT SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SESSION
ALW-USER-SECU	ED-PID	RTRV-CMD-SECU
CANC	ENT-USER-SECU	RTRV-DFLT-SECU
CANC-USER	INH-MSG-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	REPT ALM SECU	

---

 ED-USER-SECU:[<TID>]:<UID>:<CTAG>::[<NEWUID>],[<NEWPID>],[<UAP>][:];

---

 ED-USER-SECU:PETALUMA:CISCO15:123::NEWUID,NEWPID,,MAINT;

**Table 11-44 ED-USER-SECU Input Parameters**

Parameter and Values	Description
<b>UID</b>	User's identifier. Minimum UID is 6 characters. Maximum UID is 10 characters. String
<b>NEWUID</b>	User's new identifier. Minimum UID is 6 characters. Maximum UID is 10 characters. String
<b>NEWPID</b>	User's new password. Minimum UID is 6 characters. Maximum UID is 10 characters. String
<b>UAP</b>	User's access privilege Parameter type is PRIVILEGE—security level
• MAINT	Maintenance security level. 60 minutes of idle time
• PROV	Provision security level. 30 minutes of idle time
• RTRV	Retrieve security level. Unlimited idle time
• SUPER	Superuser security level. 15 minutes of idle time

## 11.46 ED-VCG

Edit Virtual Concatenated Group

### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL

This command edits the attributes of a VCG.

VCAT

Provisioning

### Related Commands

DLT-VCG

ENT-VCG

RTRV-VCG

```
ED-VCG:[<TID>]:<SRC>:<CTAG>:::[TXCOUNT=<TXCOUNT>],[NAME=<NAME>];
```

```
ED-VCG:NODE1:FAC-1-1:1234:::TXCOUNT=7,NAME="VCG2";
```

**Table 11-45 ED-VCG Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the “25.1.14 FACILITY” section on page 25-28
TXCOUNT	Number of members in the Tx direction. For ML1000-2 and ML100T-12 cards the only valid value is 2. For the FC_MR-4 card the only valid value is 8. Integer
NAME	Name of the VCAT group. Maximum length is 64 characters. String.

## 11.47 ED-WDMANS

Edit Wavelength Division Multiplexing Automatic Node Set Up

### Usage Guidelines

Cisco ONS 15454

This command edits the optical node set-up application (AONS) attributes.

DWDM

Maintenance

### Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNKTERM
DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
ED-DWDM	ENT-OSC	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
ED-OTS	RTRV-DWDM	RTRV-WLEN

ED-WDMANS:[<TID>]:<AID>:<CTAG>:::[POWER-IN=<POWERIN>],  
[POWER-OUT=<POWEROUT>],[POWER-EXP=<POWEREXP>],[NTWTYPE=<NTWTYPE>];

```
ED-WDMANS:PENNGROVE:WDMANS-W:114:::POWERIN=10.0,POWEROUT=10.0,|
POWEREXP=10.0,NTWTYPE=METRO-CORE;
```

**Table 11-46 ED-WDMANS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.29 WDMANS” section on page 25-42
<b>POWERIN</b>	Input power for OADM section or Mux/Demux for terminal nodes. Float
<b>POWEROUT</b>	Output power for OADM section or Mux/Demux for terminal nodes. Float
<b>POWEREXP</b>	Express power for OADM section. Float
<b>NTWTYPE</b>	Network type where a DWDM node is installed Parameter type is DWDM_RING_TYPE—network type where NE is installed
• METRO-ACCESS	The network where a DWDM node is installed is a metro access network
• METRO-CORE	The network where a DWDM node is installed is a metro core network
• NONE	A node that does not have a standard DWDM configuration

## 11.48 ED-WLEN

Edit Wavelength

### Usage Guidelines

Cisco ONS 15454

This command edits WLEN (wavelength) provisioning.



#### Note

- The fields after CTAG (trailing colons) are optional.
- This command does not support multiple editing of WLEN provisioning.
- The maximum length of the SIZE parameter is 48 characters.
- CKTID is a string of ASCII characters. The maximum length of a CKTID can be 48. If CKTID is EMPTY or NULL this field will not appear.

DWDM



## Provisioning

Related Commands			
	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-OSC	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	DLT-WDMANS	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-DWDM	ENT-OSC	RTRV-OCH
	ED-FFP-OCH	ENT-WLEN	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-OTS	RTRV-DWDM	RTRV-WLEN

ED-WLEN:[<TID>]:<AID>:<CTAG>:::[SIZE=<SIZE>],[CKTID=<CKTID>],  
[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

ED-WLEN:PENNGROVE:WLEN-W-ADD-1530.33:1:::SIZE=NOT-SPEC,CKTID=CKTID,  
CMDMDE=CMDMDE:IS,AINS;

**Table 11-47 ED-WLEN Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.30 WLEN”</a> section on page 25-43
<b>SIZE</b>	Size of the switching network. Defaults to NOT-SPEC Parameter type is CIRCUIT_SIZE—the DWDM circuit size used on a wavelength
• 10G-FEC	The circuit size is 10 Gbps with FEC
• 10G-NO-FEC	The circuit size is 10 Gbps without FEC
• 2G5-FEC	The circuit size is 2.5 Gbps with FEC
• 2G5-NO-FEC	The circuit size is 2.5 Gbps without FEC
• MULTI-RATE	The circuit size is supports multirate
• NOT-SPEC	The circuit size is not equipment specific
<b>CKTID</b>	Circuit ID. String. Defaults to “ ” (empty string)

Table 11-47 ED-WLEN Input Parameters (continued)

Parameter and Values	Description
<b>CMDMDE</b>	Command execution mode, forced or normal. FRCD is only applicable if the PST=OOS and SST=DSBLD  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that might make the command fail
<b>PST</b>	Primary state  Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
<b>SST</b>	Secondary state  Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped



## ENT Commands

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### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

---

This chapter provides ENT (enter) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 12.1 ENT-<MOD1PAYLOAD>

Enter (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, EC1, ESCON, ETRCLO, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, T3)

#### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL, ONS 15600

This command creates a specified port.



### Note

When 1GFICON and 2GFICON payloads are provisioned, distance extension=B2B is the default and only valid setting. Setting distance extension (using the ED-nGFICON command) to any other setting will be denied with an error message "Provisioning Rules Failed."

---



### Note

Support is limited to ports with PPMs (pluggable port modules).

---

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

#### Category

Ports

#### Security

Provisioning

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
	INIT-REG-<MOD2>	RTRV-T1
	OPR-ALS	RTRV-T3
	OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

**Input Format** ENT-<MOD1PAYLOAD>:[<TID>]:<AID>:<CTAG>[:::];

**Input Example** ENT-GIGE:TID:FAC-5-1:1;

## Input Parameters

Table 12-1 ENT-&lt;MOD1PAYLOAD&gt; Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28

## 12.2 ENT-<MOD\_RING>

Enter Bidirectional Line Switched Ring

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command creates either a two-fiber or four-fiber BLSR.

**Note**

The ONS 15327 and ONS 15600 do not support four-fiber BLSR.

**Note**

<RINGID> defaults to the string of the AID format of BLSR-string.

Four-fiber BLSR:

```
ENT-BLSR:TID:BLSR-N02ABC:CTAG::RINGID=N02ABC,NODEID=3,MODE=4F,RVRTV=Y,
RVTM=5.0,SRVRTV=Y,SRVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1,
EASTPROT=FAC-12-1,WESTPROT=FAC-13-1;
```

Two-fiber BLSR:

```
ENT-BLSR:TID:BLSR-N04EFG:CTAG::RINGID=N04EFG,NODEID=6,MODE=2F,RVRTV=Y,
RVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1;
```

The following actions will produce error messages:

- If RINGID is different from the string presented in the AID format, an IIAC (RingId Does Not Match With AID) error message is returned.
- Sending this command to create a BLSR with an out of range nodeid or ringid will return an IIAC (Invalid NodeId) or (Invalid RingId) error message.
- Sending this command to create a four-fiber BLSR on OC12 cards, or a two-fiber BLSR on OC3 cards will return an IIAC (Input, Invalid work/prot port) error message.
- Sending this command to create a BLSR on an NE that already has five BLSRs will return a SRQN (BLSR Creation Failed) error message because one NE is only allowed to have up to five BLSRs in this release.
- Sending this command to create a BLSR on a port with 1+1 will return a SRQN (BLSR Creation Failed) error message.
- If the system fails on getting IOR, an SROF (Get IOR Failed) error message is returned.
- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- If any facility requested in this command is in use, a SPLD (Facility is Busy) error message is returned.

- The SRQN (BLSR Creation Failed) error message is returned for an invalid creation query.
- Sending this command to provision the mode with an invalid BLSR mode will return an IIDT (Invalid BLSR Mode) error message.
- Sending this command to modify SRVRTV or SRVTM on the two-fiber BLSR will return an IDNV (Invalid Data for 2F-BLSR) error message.
- Sending this command to provision the nodeid with invalid data will return an IIAC (Invalid NodeId) error message.
- Sending this command to provision the ringid with invalid data will return an IIAC (Invalid RingId) error message.
- Sending this command with an invalid working AID will return an IIDT (Invalid BLSR Working Facility) error message.
- Sending this command with an invalid protection AID will return an IIDT (Invalid BLSR Protect Facility) error message.
- Changing the BLSR nodeid with a duplicated ID will return a SROF (Cannot Set NodeId) error message.

**Note**

Both <EASTPROT> and <WESTPROT> are optional, but required for 4-fiber BLSR creation.

**Note**

The ALL AID is invalid for this command.

**Category**

BLSR

**Security**

Provisioning

**Related Commands**

DLT-<MOD\_RING>                      EX-SW-<OCN\_BLSR>                      RTRV-TRC-<OCN\_BLSR>  
ED-<MOD\_RING>                      RTRV-<MOD\_RING>

**Input Format**

ENT-<MOD\_RING>:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],NODEID=<NODEID>,  
MODE=<MODE>,[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SRVRTV=<SRVRTV>],  
[SRVTM=<SRVTM>],EASTWORK=<EASTWORK>,WESTWORK=<WESTWORK>,  
[EASTPROT=<EASTPROT>],[WESTPROT=<WESTPROT>];

**Input Example**

ENT-BLSR:PETALUMA:BLSR-2:123:::RINGID=2,NODEID=1,MODE=4F,RVRTV=Y,RVTM=5.0,  
SRVRTV=Y,SRVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1,EASTPROT=FAC-12-1,  
WESTPROT=FAC-13-1;

## Input Parameters

Table 12-2 ENT-&lt;MOD\_RING&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.3 AidUnionId1”</a> section on page 25-12. Identifies the BLSR of the NE. ALL or BLSR-ALL AIDs are not allowed for editing BLSR. This command only supports a single BLSR AID
<b>RINGID</b>	The BLSR ID of the NE up to six characters. Valid characters are A-Z and 0-9. String
<b>NODEID</b>	The BLSR node ID of the NE. NODEID ranges from 0 to 31. Integer
<b>MODE</b>	Mode with which the command is to be implemented. Identifies the BLSR mode Parameter type is BLSR_MODE—BLSR mode
• 2F	Two-fiber BLSR
• 4F	Four-fiber BLSR
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Defaults to 5.0 Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>SRVRTV</b>	The span revertive mode for four-fiber BLSR only. Defaults to Y Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>SRVTM</b>	The span revertive time for four-fiber BLSR only. Defaults to 5.0 Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>EASTWORK</b>	East working facility. AID from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>WESTWORK</b>	West working facility. AID from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>EASTPROT</b>	East protecting facility. AID from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>WESTPROT</b>	West protecting facility. AID from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28

## 12.3 ENT-BULKROLL-<OCN\_TYPE>

Enter Bulk Roll (OC12, OC192, OC3, OC48)

### Usage Guidelines

Cisco ONS 15454, ONS 15600, ONS 15327

This command enters information about rolling traffic from one end point to another without interrupting service. This command can be used for line level rolling and bulk rolling and cannot be used for single path level rolling.

### Category

Bridge and Roll

### Security

Provisioning

### Related Commands

DLT-BULKROLL-<MOD_PATH>	OPR-PROTNSW-<PATH>
DLT-CRS-<PATH>	RLS-PROTNSW-<PATH>
DLT-ROLL-<MOD_PATH>	RTRV-<PATH>
ED-<MOD_PATH>	RTRV-BULKROLL-<MOD_PATH>
ED-BULKROLL-<MOD_PATH>	RTRV-CRS-<PATH>
ED-CRS-<PATH>	RTRV-NE-PATH
ED-NE-PATH	RTRV-PROTNSW-<PATH>
ED-ROLL-<MOD_PATH>	RTRV-PTHTRC-<PATH>
ENT-CRS-<PATH>	RTRV-ROLL-<MOD_PATH>
ENT-ROLL-<MOD_PATH>	

### Input Format

```
ENT-BULKROLL-<MOD_PATH>:[<TID>]:<FROM>:<CTAG>:::RTOSTART=<RTOSTART>,
[RFROMSTART=<RFROMSTART>],[RFROMEND=<RFROMEND>],[RMODE=<RMODE>],
[CMDMDE=<CMDMDE>];
```

### Input Example

```
ENT-BULKROLL-OC48:CISCO:FAC-5-1:123:::RTOSTART=STS-6-1-1,
RFROMSTART=STS-5-1-1,RFROMEND=STS-5-1-4,RMODE=AUTO,CMDMDE=FRCD;
```

### Input Parameters



Table 12-3 ENT-BULKROLL-&lt;MOD\_PATH&gt; Input Parameters

Parameter and Values	Description
<b>FROM</b>	One of the end points. Access identifier from the <a href="#">“25.1.14 FACILITY” section on page 25-28</a> for line level rolling and bulk rolling
<b>RTOSTART</b>	The starting time slot in the destination roll port. Access identifier from the <a href="#">“25.1.14 FACILITY” section on page 25-28</a> (STS or VT) <b>Note</b> For bulk rolling only
<b>RFROMSTART</b>	The starting time slot in the source roll port. Access identifier from the <a href="#">“25.1.14 FACILITY” section on page 25-28</a> (STS or VT). Defaults to STS-<FROMSLOT>-<FROMPORT>-1, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID <b>Note</b> For bulk rolling only
<b>RFROMEND</b>	The ending time slot in the source roll port. Access identifier from the <a href="#">“25.1.14 FACILITY” section on page 25-28</a> (STS and VT). Defaults to STS-<FROMSLOT>-<FROMPORT>-N, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID and N is the value of OCn. (for example, OC48, n=48) <b>Note</b> For bulk rolling only
<b>RMODE</b>	Indicates the mode of the rolling operation Parameter type is RMODE—roll mode
<ul style="list-style-type: none"> <li>• AUTO</li> <li>• MAN</li> </ul>	Automatic Manual
<b>CMDMDE</b>	Command execution mode. Defaults to NORM Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>• FRCD</li> <li>• NORM</li> </ul>	Force the system to override a state where the command would normally be denied Execute the command normally. Do not override any conditions that could make the command fail

## 12.4 ENT-CRS-<PATH>

Enter STS Cross-Connection (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command creates an STS cross-connection with a cross-connection type (CCT). Refer to the [Cisco ONS SONET TL1 Reference Guide](#) for specific ring provisioning procedures.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

When a path protection cross-connection is created, the path presented by the first AID is configured to be the preferred path. For example, the AID (F1) of the cross-connection (created by ENT-CRS-STs1::F1&F2,T1:123;) is the preferred path.



### Note

- The default cross-connection type is two-way
- If a path is already in a connection, it cannot be in another connection even if the other is a one-way and the new one will be one-way the other direction.
- This command does not support creating multiple STS cross-connections.
- The path protection cross STS connection can be created by using “&” in the AID fields of this command.
  - The following command is used to create a one-way selector or two-way selector and bridge with:
 

```
from points: F1, F2
to points: T1
ENT-CRS-{STS_PATH}:{<TID>}:F1&F2,T1:<CTAG>:::<CCT>;
```
  - The following command is used to create a one-way bridge or two-way selector and bridge with:
 

```
from point: F1
to points: T1, T2
ENT-CRS-{STS_PATH}:{<TID>}:F1,T1&T2:<CTAG>:::<CCT>;
```
  - The following command is used to create a one-way subtending path protection connection or two-way subtending path protection connection with:
 

```
from point: F1, F2
to points: T1, T2
ENT-CRS-{STS_PATH}:{<TID>}:F1&F2,T1&T2:<CTAG>:::<CCT>;
```
  - The following command is used to create a two-way selector and bridge with:
 

```
from point: F1,F2 (F1 is the working side, F2 is the protect side)
selector points: S1, S2 (S1 is the working side, S2 is the protect side)
ENT-CRS-{STS_PATH}:{<TID>}:F1&F2,S1&S2:<CTAG>:::2WAY;
```

- The following command is used to create a Path Protection IDRI Cross-Connection:  
 ENT-CRS-{STS\_PATH}:[<TID>]:A&B,C&D:<CTAG>::2WAYDC;  
 A–Path on ring X to which traffic from ring Y is bridged  
 B–Path on ring X to which traffic from the same ring is bridged  
 C–Path on ring Y to which traffic from ring X is bridged  
 D–Path on ring Y to which traffic from the same ring is bridged  
 A, B, C, and D have a positional meaning. Connection type 2WAYDC is used for Path Protection IDRI cross-connections.
- The following command is used to create a Path Protection DRI Cross-Connection:  
 ENT-CRS-{STS\_PATH}:[<TID>]:A&B,C:<CTAG>::2WAYDC;  
 A–Path on ring X to which traffic from ring Y is bridged  
 B–Path on ring X to which traffic from the same ring is bridged  
 C–Traffic to and from ring Y  
 A, B, C, and D have a positional meaning. Connection type 2WAYDC is used for path protection DRI cross-connections.
- All A&B AIDs in the TL1 cross-connection command are in the format of WorkingAID&ProtectAID.
- To establish a cross-connection on a two-fiber protection path or on a four-fiber protection channel, the PCA connection type (1WAYPCA or 2WAYPCA) is required.
- If you send a PCA cross-connection type on the non-PCA AIDs, the IIAC error message is returned.
- If you send a non-PCA cross-connection type on the PCA AIDs, the IIAC error message is returned.
- The facility AID is only valid on slots holding a G1K-4 card.
- The virtual facility AID (VFAC) is only valid on slots holding an ML-Series card.
- Both DRITYPE and DRINODE optional fields support the BLSR-DRI feature. DRITYPE is applied only if the CCT is drop-and-continue (1WAYDC or 2WAYDC), and defaults to path protection for the DRI. DRINODE must be specified only if at least one end of the connection is on the BLSR, and defaults to NA.
- The DS3XM-12 card allows portless STS1/VT1.5 cross-connection provisioning on the DS3Xm-12 PORTLESS ports (port number > = 12).
- CKTID is a string of ASCII characters. The maximum length of CKTID is 48. If the CKTID is EMPTY or NULL the field will not appear.
- STS18c and STS36c cross-connects are supported only on the FC\_MR-4 card and optical cards.
- LO CCAT is not applicable for ML-100T-8 and CE-100T-8 cards.
- LO VCAT is not applicable for the ML-100T-8 card on ONS 15310.

**Category**

Cross Connections

**Security**

Provisioning

Related Commands	DLT-CRS-<PATH>	ENT-ROLL-<MOD_PATH>	RTRV-CRS-<PATH>
	DLT-ROLL-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-NE-PATH
	ED-<MOD_PATH>	RLS-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
	ED-CRS-<PATH>	RTRV-<PATH>	RTRV-PTHTRC-<PATH>
	ED-NE-PATH	RTRV-CRS	RTRV-ROLL-<MOD_PATH>

**Input Format** ENT-CRS-<PATH>:[<TID>]:<SRC>,<DST>:<CTAG>::[<CCT>]:[DRITYPE=<DRITYPE>],[DRINODE=<DRINODE>],[CKTID=<CKTID>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example** ENT-CRS-ST3C:BODEGA:STS-5-1-1&STS-6-1-1,  
STS-12-1-1&STS-13-1-1:116::1WAYDC:DRITYPE=BLSR,DRINODE=PRI,  
CKTID=CKTID,CMDMDE=FRCD:IS,AINS;

### Input Parameters

**Table 12-4 ED-CRS-< PATH> Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the “25.1.1 ALL” section on page 25-1. Listable
DST	Destination AID from the “25.1.1 ALL” section on page 25-1
CCT	Type of connection. Used for specifying one or two-way connections. Default is 2-way Parameter type is CCT—type of cross-connect to be created
<ul style="list-style-type: none"> <li>• 1WAY</li> </ul>	A unidirectional connection from a source tributary to a destination tributary
<ul style="list-style-type: none"> <li>• 1WAYDC</li> </ul>	Path Protection multicast drop with (1-way) continue
<ul style="list-style-type: none"> <li>• 1WAYEN</li> </ul>	Path Protection multicast end node (1-way continue)
<ul style="list-style-type: none"> <li>• 1WAYMON</li> </ul>	A bidirectional connection between the two tributaries <b>Note</b> 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects and can be retrieved through TL1.
<ul style="list-style-type: none"> <li>• 1WAYPCA</li> </ul>	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
<ul style="list-style-type: none"> <li>• 2WAY</li> </ul>	A bidirectional connection between the two tributaries
<ul style="list-style-type: none"> <li>• 2WAYDC</li> </ul>	A Bidirectional Drop and Continue connection applicable only to Path Protection Traditional and Integrated Dual Ring InterConnections
<ul style="list-style-type: none"> <li>• 2WAYPCA</li> </ul>	A bidirectional connection between the two tributaries on the extra protection path/fiber
<ul style="list-style-type: none"> <li>• DIAG</li> </ul>	Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect)

Table 12-4 ED-CRS-&lt; PATH&gt; Input Parameters (continued)

Parameter and Values	Description
<b>DRITYPE</b>	DRI connection type. Applied only if the CCT is a drop-and-continue connection type (1WAYDC or 2WAYDC). Defaults to path protection Parameter type is DRITYPE—DRI type
<ul style="list-style-type: none"> <li>• BLSR</li> </ul>	BLSR DRI type
<ul style="list-style-type: none"> <li>• Path Protection</li> </ul>	Path Protection DRI type
<ul style="list-style-type: none"> <li>• Path Protection-BLSR</li> </ul>	Path Protection-BLSR type
<b>DRINODE</b>	Dual ring interconnect node Parameter type is DRINODE—DRI node
<ul style="list-style-type: none"> <li>• INT</li> </ul>	Intermediate DRI node
<ul style="list-style-type: none"> <li>• NA</li> </ul>	The node is not a DRI node
<ul style="list-style-type: none"> <li>• PRI</li> </ul>	Primary DRI node
<ul style="list-style-type: none"> <li>• SEC</li> </ul>	Secondary DRI node
<b>CKTID</b>	Cross-connect ID. Defaults to blank or none. String
<b>CMDMDE</b>	Command Mode Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>• NORM</li> </ul>	Execute the command normally. Do not override any conditions that could make the command fail
<b>PST</b>	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>• IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>• OOS</li> </ul>	Out of service
<b>SST</b>	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>• AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>• DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>• LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>• MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>• MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>• OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>• SWDL</li> </ul>	Software downloading

**Table 12-4** ED-CRS-< PATH> Input Parameters (continued)

Parameter and Values	Description
• UAS	Unassigned
• UEQ	Unequipped

## 12.5 ENT-EQPT

Enter Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command enters the card type and attributes for a given equipment slot in the NE. It also automatically enters all facilities supported by the card, assigning default values to all facility and path attributes.

The command supports optional parameters: RVTM (revertive time), RVRTV (revertive behavior), PROTID (unique protection ID) and PRTYPE (protection type) for configuring the card in an equipment protection group. PRTYPE can be 1:1 and 1:N. These parameters can only be entered for a working AID. The protect card must already be provisioned before creating the protection group.

1:1 protection involves the odd slot protecting the even slot. The work-protect pair is as follows (2-1, 4-3, 6-5, 16-17, 14-15, 12-13). DS1, DS3, DS3XM, DS3N, DS3E, EC1 and other electrical cards support 1:1 protection. The value of PROTID is the protecting slot and is of the form "Slot-x". This command creates a 1:1 protection group. If the command has the optional parameters for creating a protection group and the protection group cannot be created due to an error condition, provisioning of the equipment fails.

The PROTID slot must be provisioned first.

To create 1:1 with the ENT-EQPT command, the working card should not be provisioned first, so the AID type field should be presented in ENT-EQPT for the AID on this <AID>.

The following is an example for a 1:1 protection group:

```
ENT-EQPT:[<TID>]:SLOT-1:<CTAG>::DS1;
ENT-EQPT:[<TID>]:SLOT-2:<CTAG>::DS1:PROTID=SLOT-1,PRTYPE=1-1,RVTM=5.0,
RVRTV=Y;
```

1:N protection is always revertive. For 1:N protection, the protect slot can only be Slot 3 or Slot 15. For a protect card in Slot 3, the working cards can be in any of the slots on Bank A. Slot 15 is for protection in Bank B. A DSXN (DS1N or DS3N) card must be provisioned in the protect slot. A 1:1 protection cannot be upgraded to 1:N protection. This command creates a 1:N protection group or adds a new card to an existing 1:N protection group. Multiple working AIDs can be entered in a protection group.

The following is an example of provisioning a 1:N protection group with the ENT-EQPT command:

```
ENT-EQPT:[<TID>]:SLOT-3:<CTAG>::DS1N;
ENT-EQPT:[<TID>]:SLOT-2&SLOT-1:<CTAG>::DS1:PROTID=SLOT-3,PRTYPE=1-N;
```

The following is an example of provisioning a 1:N protection group with the ED-EQPT command:

```
ENT-EQPT:[<TID>]:SLOT-1&SLOT-2:<CTAG>::DS1;
```

```
ENT-EQPT:[<TID>]:SLOT-3:<CTAG>::DS1N;
```

```
ED-EQPT:[<TID>]:SLOT-2&SLOT-1:<CTAG>:::PROTID=SLOT-1,PRTYPE=1-N;
```

If the provisioning fails for some AIDs, PRTL responses will be provided indicating failed AIDs. If the provisioning fails for all the AIDs, a DENY response will be provided. For both CMPLD and PRTL responses on creating protection group query, the protection group has been created for the successful AID(s) query.

The following is an example for 1:N protection. The RVRTV parameter is not valid for 1:N protection.

```
ENT-EQPT:[<TID>]:SLOT-2:<CTAG>:::PROTID=SLOT-3,PRTYPE=1-N,RVTV=5.0;
```

Both ENT-EQPT and ED-EQPT commands can provision all working AIDs (1-5) together for 1:N by using listed AIDs.

The ENT-EQPT command provisions a new card and adds it to the protection group. The ED-EQPT command adds the already provisioned cards to the protection group.

Protect AID should already be provisioned for either command because protection group parameters are not supported for the protect AID.

The ENT-EQPT command provisions an equipment successfully on an empty slot if the equipment type is compatible with the slot number. This command can have the optional parameters in the “f” block to provision a card as a working card. It has the effect of adding the protection behavior at the time of provisioning itself. For the protection provisioning to succeed, the protect card should have already been provisioned. Trying to execute ENT-EQPT to provision a protection group on an already provisioned card will result in an error.

An example to provision a 1:1 protection group:

```
ENT-EQPT::SLOT-1:12::DS3; Provisions the protect card
```

```
ENT-EQPT::SLOT-2:12::DS3:PROTID=SLOT-1,RVTV=Y,RVTV=8.0; Provisions a card and adds it to the protection group.
```

An example to provision a 1:N protection group:

```
ENT-EQPT::SLOT-3:12::DS3N; Provisions the protect card
```

```
ENT-EQPT::SLOT-1:12::DS3:PROTID=SLOT-3,RVTV=7.5,PRTYPE=1-N; Provisions a card and adds it to protection group.
```



#### Note

- Sending this command to provision a DS3NE card on Slot {1,2,4,5,6,12,13,14,16,or 17}, the DS3E card type is presented.
- Sending this command to provision a DS3N card on Slot {1,2,4,5,6,12,13,14,16,17}, the DS3 card type is presented.
- Sending this command to provision a DS1N card on Slot-{1,2,4,5,6,12,13,14,16,17}, the DS1 card type is presented.
- For the MRC-12 card, there are hardware limitations for which SFP ports can be used.
- The OC192-XFP card must be installed in Slots 5-6 or 12-13 and requires an XC10G or XC-VXC-10G cross-connect card.

Error conditions for creating 1:1 or 1:N protection groups are:

- AID sent to a non-working slot; the working cards must be in even slots for 1:1 and in the same bank for 1:N and not in Slot 3 or Slot 15.
- Invalid AID chosen for protection slot.
- Working AID is already in protection group.
- AID is a protect AID.
- The protect card has a circuit.
- The equipment type does not match with the allowed AID.
- The slot is already provisioned.
- The protecting slot is not provisioned.
- Multiple working AIDs for 1:1 protection.
- The CARDMODE provisioning is allowed on the DS3XM-12 and ML-Series cards. Provisioning for the DS3XM-12 is based on the cross-connect type and DS3XM-12 location, for example:
  - The DS3XM-12 card in the lower speed I/O slot with the XCVT/XC10G card only allows the DS3XM-12-STS12 CARDMODE. Other cases allow the CARDMODE to be DS3XM-12-STS48.
  - The NE defaults to the highest available backplane rate/mode for the DS3XM-12 card if you do not specify the CARDMODE in the ENT-EQPT command.
  - The ML100T-8 card will be provisioned to default type MAPPER mode.
- The 1:N ( $1 \leq N \leq 7$ ) protection group is allowed on the DS3XM-12 card in an ONS 15454 across two sides (A and B). All the cards in the 1:N protection group must be on the same backplane rate (or CARDMODE).
  - For 1:N, the protect card must be allocated on either Slot 3 or Slot 15. For 1:1, the protect card must be allocated on the odd slots.
  - The working DS3XM-12 cards on the opposite side of the shelf as the protection card (either Slot 3 or Slot 15) in a 1:N group can only have portless connections while the other working cards of the 1:N group on the same side of the shelf as the protection card do not have this limitation. For example:  
There is a DS3XM-12 card 1:N group on Slot 2, Slot 3, Slot 4, Slot 12 and Slot 16 where Slot 3 is the protect card. Slot 2, Slot 4, Slot 12 and Slot 16 are the working cards in the 1:N (1:5). According to the above limitation rule, the Slot 12 and Slot 16 cards have to have the portless provisioning only, while the Slot 2 and Slot 4 cards can be either portless or ported provisioning.
- If the command mode (CMDMDE) is set to forced (FRCD) during the creation of a 1:1 or 1:N protection group, all cards must be physically plugged in and in the in service state (IS). If the cards are not physically plugged in, then the command is denied with an appropriate error message. When the command mode is set to normal (NORM) (which is the default) the cards do not have to be physically plugged in and in the in service state.
- RETIME provisioning is allowed only on the DS1-E1-56 card (ONS 15454).

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**Category** Equipment

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**Security** Provisioning



**Related Commands**

ALW-SWDX-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
ED-EQPT	RTRV-ALM-EQPT	SW-TOPROTN-EQPT
INH-SWDX-EQPT	RTRV-ALMTH-EQPT	SW-TOWKG-EQPT

**Input Format**

ENT-EQPT:[<TID>]:<AID>:<CTAG>::<AIDTYPE>:[PROTID=<PROTID>],  
 [PRTYPE=<PRTYPE>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[CMDMDE=<CMDMDE>],  
 [CARDMODE=<CARDMODE>],[PEERID=<PEERID>],[REGENNAME=<REGENNAME>],  
 [PWL=<PWL>],[RETIME=<RETIME>][:];

**Input Example**

ENT-EQPT:PETALUMA:SLOT-12:118::DS3XM-12:PROTID=SLOT-13,PRTYPE=1-1,RVRTV=Y,  
 RVTM=8.5,CMDMDE=FRCD,CARDMODE=DS3XM12-ST512,PEERID=SLOT-3,  
 REGENNAME="REGEN GROUP",PWL=1530.33,RETIME=Y;

**Input Parameters****Table 12-5 ENT-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27
<b>AIDTYPE</b>	The type of facility, link or other addressable entity targeted by the message Parameter type is EQUIPMENT_TYPE—equipment type
• 32-DMX-O	Unidirectional optical demultiplexer with 32 channels
• 32-MUX-O	Unidirectional optical multiplexer with 32 channels
• 32-WSS	Optical wavelength selective switch with 32 channels
• AD-1B	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
• AD-1C	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
• AD-2C	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
• AD-4B	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
• AD-4C	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
• AICI	AICI card
• ASAP-4	Any Service Any Port (ASAP) Carrier card with 4 PIM slots
• CE-100T-8	8-Port 100T card on ONS 15454 and ONS 15310-CL
• CXC	Cross-Connect Card (ONS 15600 only)
• DS1	DS1 card
• DS1-E1-56	DS1-E1-56 card
• DSII	DSII card
• DS1N	DS1N card

**Table 12-5** ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• DS3	DS3 card
• DS3E	DS3E card
• DS3-EC1-48	DS3-EC1-48 card
• DS3I	DS3I card
• DS3IN	DS3IN card
• DS3N	DS3N card
• DS3NE	DS3NE card
• DS3XM	DS3XM card
• DS3XM-12	DS3XM-12 card
• E1000T	E1000T card
• E100T	E100T card
• EC1	EC1 card
• FC_MR-4	FC_MR-4 card
• FILLER-CARD	Blank Filler card (ONS 15600)
• G1000-2	2-port G1000 card (ONS 15327)
• G1K-4	4-port G1000 card (ONS 15454)
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC	ONS 15327 MIC card
• MIC-EXT	ONS 15327 MIC-EXT card
• ML100FX	ML-100X-8 card
• ML100T-8	15454-LI+ Mapper card and ONS 15310-CL ML-100T-8 card
• ML1000-2	ML-Series 2-Port GigE card
• ML100T-12	ML-Series 12-Port FSTE card
• MRC-12	12-port multirate optical card (ONS 15454)
• MXP-2.5G-10E	10G (4 * 2.5G) Muxponder Card with Enhanced FEC
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• MXP-MR-2.5G	Multirate 2.5G Muxponder Unprotected
• MXPP-MR-2.5G	Multirate 2.5G Muxponder Protected
• OC3	OC-3 card
• OC3-8	8-Port OC-3 card
• OC12	OC-12 card
• OC12-4	4-port OC-12 card
• OC48	OC-48 card
• OC48_16	16-port OC-48 card
• OC192	OC-192 card
• OC192-4	4-port OC-192 card

**Table 12-5** ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• OC192-XFP	1-port OC-192 XFP
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	4-port Pluggable Interface Module (ONS 15600)
• PPM-1	Pluggable Port Module with 1 SFP port (ONS 15600 ASAP, ONS 15310 ONS 15454 MXP/MXPP, TXP/TXPP, MRC-12 and OC192-XFP)
• SSXC	Cross Connect card (ONS 15600)
• TCC	TCC card
• TXP-MR-10E	10G Multirate Transponder Card with Enhanced FEC
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XC10G	XC10G card
• XCVT	XCVT card
• XCVXC-10G	XC-VXC-10G card
• XCVXC-2.5G	XC-VXC-2.5G card
• XCVXL-10G	XC-VXL-10G card
• XCVXL-2.5G	XC-VXL-2.5G card
• XTC	ONS 15327 XTC card
<b>PROTID</b>	Protecting card slot identifier of the protection group from the <a href="#">“25.1.20 PRSLOT”</a> section on page 25-33 <b>Note</b> Not applicable to TXP_MR_10G and MXP_2.5G_10G cards.
<b>PRTYPE</b>	Protection group type <b>Note</b> Not applicable to TXP_MR_10G and MXP_2.5G_10G cards Parameter type is PROTECTION_GROUP—protection group type
• 1-1	1 for 1 protection
• 1-N	1 for N protection

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	<p>Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N.</p> <p><b>Note</b> Not applicable to TXP_MR_10G and MXP_2.5G_10G cards</p> <p>Parameter type is ON_OFF—disable or enable an attribute</p>
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	<p>Revertive time</p> <p>Parameter type is REVERTIVE_TIME—revertive time</p>
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>CMDMDE</b>	<p>Command Mode. Applicable only when creating 1:1 or 1:N protection groups and/or adding cards to an existing protection group (1:N). If creating or adding cards to a protection group, specifying FRCD requires the card to be physically plugged in and in a ready state (IS). Default is NORM</p> <p>Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied</p>
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that could make the command fail
<b>CARDMODE</b>	<p>Card mode</p> <p><b>Note</b> The card will reboot after the mode changes so the mode change request will not go through if all the ports on the card are not in OOS mode.</p> <p>TL1 will not set a default CARD_MODE value at the management interface level if no PWL value is given</p> <p>Parameter type is CARDMODE—card mode. Card mode is applicable to cards that have multiple capabilities, for example, the ML card can operate in two distinct modes: Linear Mapper Mode and L2/L3 Mode</p>
• DS3XM12-ST512	The DS3XM-12 card in the STS12 back plane rate mode
• DS3XM12-ST548	The DS3XM-12 card in the STS48 back plane rate mode
• DWDM-LINE	Line terminating mode
• DWDM-SEC	Section terminating mode

**Table 12-5** ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• DWDM-TRANS-AIS	Transparent mode AIS
• DWDM-TRANS-SQUELCH	Transparent mode SQUELCH
• FCMR-DISTEXTN	FC_MR-4 card with distance extension support
• FCMR-LINERATE	FC_MR-4 card without distance extension support
• ML-GFP	ML-Series card in DOS FPGA using GFP framing type
• ML-HDLC	ML-Series card in DOS FPGA using HDLC framing type
• MXPMR25G-FCGE	Fibre channel or GIGE mode for the MXP-MR-2.5G card
<b>PEERID</b>	The regeneration peer slot from the <a href="#">“25.1.13 EQPT”</a> section on <a href="#">page 25-27</a>
<b>REGENNAME</b>	Name of a regeneration group. String
<b>PWL</b>	Provisioned wavelength. TL1 will set a default PWL value at the management interface level if now PWL value is given Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>RETIME</b>	Indicates if retiming is needed. Applicable only to the DS1-E1-56 card (ONS 15454)  Parameter type is YES_NO—whether the user’s password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes

## 12.6 ENT-FFP-<MOD2DWDMPAYLOAD>

Enter Facility Protection Group (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

### Usage Guidelines

Cisco ONS 15454

This command creates Y-cable protection on client facilities.

Refer to the [Cisco ONS SONET TL1 Reference Guide](#) for specific card provisioning rules.

### Category

DWDM

### Security

Provisioning

Related Commands		
	DLT-<MOD1PAYLOAD>	RMV-<MOD2>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
	DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
	ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
	ED-ALS	RTRV-ALS
	ED-DS1	RTRV-DS1
	ED-EC1	RTRV-EC1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE	RTRV-FFP-<OCN_TYPE>
	ED-G1000	RTRV-FSTE
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<OCN_TYPE>	>
	INIT-REG-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
	OPR-ALS	RTRV-T1
	OPR-LPBK-<MOD2>	RTRV-T3
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TH-<MOD2>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	REPT PM <MOD2>	RTRV-TRC-<OCN_TYPE>
	RLS-LPBK-<MOD2>	SCHED-PMREPT-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	SET-TH-<MOD2>

**Input Format**

```
ENT-FFP-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>,
<DST>:<CTAG>:::[PROTOTYPE=<PROTOTYPE>],[PROTID=<PROTID>],[RVRTV=<RVRTV>],
[RVTM=<RVTM>],[PSDIRN=<PSDIRN>][:];
```

**Input Example**

```
ENT-FFP-HDTV:CISCO:FAC-1-1-1,FAC-2-1-1:100:::PROTOTYPE=Y-CABLE,
PROTID=DC-METRO-1,RVRTV=Y,RVTM=1.0,PSDIRN=BI;
```

**Input Parameters****Table 12-6** ENT-FFP-<MOD2DWDMPAYLOAD> Input Parameters

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>DST</b>	Destination access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>PROTOTYPE</b>	The type of facility protection Parameter type is PROTOTYPE—protection type for DWDM client facilities
<ul style="list-style-type: none"> <li>Y-CABLE</li> </ul>	Y-cable protection for the client ports on TXP_MR_10G/MXP_2.5G_10G and TXP_MR_2.5G/TXPP_MR_2.5G cards
<b>PROTID</b>	Protection group identifier. Defaults to the protecting port AID of the protection group. String that can have a maximum length of 32 characters
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> <li>Y</li> </ul>	Disable an attribute Enable an attribute
<b>RVTM</b>	Revertive time. Defaults to 5.0 minutes Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Identifies the switching mode. Defaults to UNI <b>Note</b> TXP_MR_10G and MXP_2.5G_10G does not support bidirectional switching Parameter type is UNI_BI—unidirectional and bidirectional switch operations
<ul style="list-style-type: none"> <li>BI</li> <li>UNI</li> </ul>	Bidirectional protection switching Unidirectional protection switching



## 12.7 ENT-FFP-<OCN\_TYPE>

Enter Facility Protection Group (OC3, OC12, OC48, OC192)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command creates an optical 1+1 protection.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



### Note

- Protect AID must not be provisioned with traffic.
- Work AID can be provisioned with traffic.
- PROTID is a string and can have a maximum length of 32 characters.
- Optimized 1+1 and related attributes are only applicable to the ONS 15454.
- The following parameters are only supported in Release 6.0: OPOTYPE, VRGRDTM, DTGRDTM AND RCGRDTM.
- 1+1 protection group rules for the MRC-12 card:
  - A 1+1 protection group can only be created between MRC-12 cards. You cannot create a 1+1 protection group between an MRC-12 card and an OC-48 card, for example.
  - A 1+1 protection group can be created only using the same port number. For example, a protection group cannot be created between Port-1 of Slot-5 and Port-4 of Slot-12 (assuming Slot-5 and Slot-12 both contain MRC-12 cards).
  - A 1+1 protection group cannot be created between ports on the same card. Protection groups cannot be created between Port-1 of Slot-5 and Port-4 of Slot-5 (assuming Slot-5 contains a MRC-12 card).
  - Both the cards in the protection group must be placed in the same type of slot. Both MRC-12 cards must be in drop slots {1-4, 14-17} or both in trunk slots {5-6,12-13}; you cannot create a protection group between an MRC-12 card in a drop slot and another MRC-12 card in a trunk slot.
- 1+1 protection group rules for the OC192-XFP card:
  - 1+1 PG can be created between two OC192-XFP cards in trunk slots {5-6,12-13}.
  - 1+1 PG can be created between a OC192-XFP card and an OC192LR/STM64LH card in trunk slots {5-6,12-13}.
- The PROTOTYPE parameter is only applicable to optical DWDM cards.

### Category

Protection

### Security

Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

**Input Format**

```
ENT-FFP-<OCN_TYPE>:[<TID>]:<WORK>,
<PROTECT>:<CTAG>:::[PROTOTYPE=<PROTOTYPE>],[PROTID=<PROTID>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[OPOTYPE=<OPOTYPE>],
[VRGRDTM=<VRGRDTM>],[DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>][:];
```

**Input Example**

```
ENT-FFP-OC3:PETALUMA:FAC-2-1,FAC-1-1:1:::PROTOTYPE=Y-CABLE,
PROTID=PROT_NAME,RVRTV=Y,RVTM=1.0,PSDIRN=BI,OPOTYPE=STANDARD,
VRGRDTM=0.5,DTGRDTM=1.0,RCGRDTM=1.0;
```

**Input Parameters****Table 12-7** ENT-FFP-<OCN\_TYPE> Input Parameters

Parameter and Values	Description
<b>WORK</b>	Working port from the “25.1.14 FACILITY” section on page 25-28
<b>PROTECT</b>	Protection port from the “25.1.14 FACILITY” section on page 25-28
<b>PROTOTYPE</b>	Protection group type. Y-CABLE is the only applicable value (for optical DWDM cards only)
<b>PROTID</b>	Protection group identifier. Defaults to the protecting port AID of the protection group. If the name has an embedded double quote character, that double quote character has to be escaped with a backslash \”. The double quotes are special characters that delimit the protection group name and they must be balanced (paired). PROTID is a string that has a maximum length of 32 characters
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Defaults to 5.0 minutes Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Identifies the switch mode Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching
<b>OPOTYPE</b>	One plus one protection type. Can be either standard or optimized 1+1 Parameter type is ONE_PLUS_ONE—one plus one protection type
• Optimized	Optimized 1+1 <b>Note</b> Only applicable to the ONS 15454. The port must be in SDH mode.
• Standard	Standard 1+1

Table 12-7 ENT-FFP-&lt;OCN\_TYPE&gt; Input Parameters (continued)

Parameter and Values	Description
<b>VRGRDTM</b>	Verification guard timer. Only applicable to optimized 1+1 Parameter type is VERIFICATION_GUARD_TIMER—optimized 1+1 verification guard timer
• 0.5	500 ms
• 1.0	1 second
<b>DTGRDTM</b>	Detection guard timer. Only applicable to optimized 1+1 Parameter type is DETECTION_GUARD_TIMER—optimized 1+1 detection guard timer
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 second
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
<b>RCGRDTM</b>	Recovery guard timer. Only applicable to optimized 1+1 Parameter type is RECOVERY_GUARD_TIMER—optimized 1+1 detection guard timer
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 second
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
• 6.0	6 seconds
• 7.0	7 seconds
• 8.0	8 seconds
• 9.0	9 seconds
• 10.0	10 seconds

## 12.8 ENT-LNK-<MOD20>

Enter Optical Link (OCH, OMS, OTS)

### Usage Guidelines

ONS 15454

This command creates an optical link between two optical connection points. The optical links can be established between two OTS or two OMS of the same band, and two OCH of the same wavelength. The created optical link must be between points belonging to the same ring directionality. An optical link between two OMS or two OCH can be hitless if the connection is between two points from one drop to a consecutive add in the logical link.

### Category

DWDM

### Security

Provisioning

### Related Commands

DLT-LNK-<MOD20>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD20>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
ED-DWDM	ENT-OSC	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD20>	OPR-LASER-OTS	RTRV-OSC
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
ED-OTS	RTRV-DWDM	RTRV-WLEN

### Input Format

ENT-LNK-<MOD20>:[<TID>]:<FROM>,<TO>:<CTAG>:::[<PST>[,<SST>]];

### Input Example

ENT-LNK-OMS:PENNGROVE:BAND-6-1-TX,BAND-13-1-RX:114:::OOS,AINS;

## Input Parameters

Table 12-8 ENT-LNK-&lt;MOD20&gt; Input Parameters

Parameter and Values	Description
FROM	Identifier at one end of the optical link from the <a href="#">“25.1.4 BAND” section on page 25-13</a>
TO	Identifier at the other end of the optical link from the <a href="#">“25.1.4 BAND” section on page 25-13</a>
PST	Primary state of the entity Parameter type is PST—primary state. Indicates the current overall service condition of an entity
• IS	In Service
• OOS	Out of Service
SST	Secondary state of the entity Parameter type is SST—secondary state. Provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 12.9 ENT-LNKTERM

Creates a Provisionable Patchcord Termination

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command creates a provisionable patchcord (PP) termination (virtual link) on a physical interface. A user-provisioned link is needed when the control channel (DCC/GCC) is transparently carried over several physical links, where the physical link cannot be automatically discovered by OSPF due to lack of control channel termination or when the link does not support SONET/SDH.

The error message “Provisioning Rules Failed” will be returned when the provisioning rules are not satisfied. The following rules must be satisfied while creating a provisionable patchcord termination on a physical interface:

1. For a SONET port:
  - a. It must have SDCC termination provisioned. If it is the protect facility in a 1+1 protection group the corresponding working facility must have SDCC termination provisioned.
  - b. If it is part of a BLSR the SDCC must be provisioned on all of the working ports of the BLSR.
2. For a TXP/MXP trunk port either G.709 must be enabled or the payload type must be non-SONET/SDH
3. For a TXP/MXP client port a card must be operating in the transparent termination mode.
4. MSTP OCH port

**Note**

- If the OCn interface is a part of a 1+1 protection group, a separate PP termination can be provisioned on the other (working/protect) interface also.
- If the client interface is a part of a Y-cable protection group, a separate PP termination can be provisioned on the other (working/protect) interface also.
- If the MXP/TXP trunk interface is a part of a splitter protection group, a separate PP termination can be provisioned on the other (working/protect) interface also.
- If REMOTENODE is specified as an IP address (or a node name that can be resolved by the GNE) that is different from the local node's IP address/name, this termination is intended to be a part of an inter-node provisionable patchcord.
- All end points of the provisionable patchcord need to be provisioned correctly (on the local and/or remote node) for it to show as UP in OSPF.
- Misconfigured or partially configured provisionable patchcords will not cause alarms/events to be generated at either end of the link.
- No two provisionable patchcord terminations on a node can be configured to have the same remote node PP termination information (for example, the combination of values for REMOTENODE and REMOTELNKTERMAID attributes for a PP termination must be unique on a single node).
- All provisionable patchcord terminations on one physical interface must have their remote terminations on a single remote node.
- The command does not accept multiple and ALL style AIDs.

**Category**

Provisionable Patchcords

**Security**

Provisioning

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-OSC	RTRV-OCH
	ED-FFP-OCH	ENT-WLEN	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-OTS	RTRV-DWDM	RTRV-WLEN

**Input Format**  
 ENT-LNKTERM:[<TID>]:<AID>:<CTAG>:::PORT=<PORT>,  
 [REMOTENODE=<REMOTENODE>],REMOTELNKTERMID=<REMOTELNKTERMID>;

**Input Example**  
 ENT-LNKTERM::LNKTERM-1:CTAG:::PORT=FAC-5-1,REMOTENODE=172.20.208.225,  
 REMOTELNKTERMID=20;

### Input Parameters

**Table 12-9 ENT-LNKTERM Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.17 LNKTERM”</a> section on page 25-32. Indicates a link (provisionable patchcord) termination on the local node.
<b>PORT</b>	The local port corresponding to this provisionable patchcord termination from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14
<b>REMOTENODE</b>	The node where the other end of the provisionable patchcord resides. This can be an IP address or a valid TID. Defaults to the IP address of the local node/existing value. String
<b>REMOTELNKTERMID</b>	The corresponding provisionable patchcord termination on the remote node (as specified by the REMOTENODE parameter). Integer value within the range of 1 to 65535. Defaults to existing value



## 12.10 ENT-OSC

Enter Optical Service Channel

### Usage Guidelines

ONS 15454

This command creates the OSC (optical service channel) group of the NE.



### Note

RINGID defaults to the AID number.

### Category

DWDM

### Security

Provisioning

### Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
ED-DWDM	ENT-LNKTERM	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC RTRV-OTS
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OCH	OPR-WDMANS	RTRV-TRC-OCH
ED-OMS	RLS-LASER-OTS	RTRV-WDMANS
ED-OSC	RLS-PROTNSW-OCH	RTRV-WLEN
ED-OTS	RTRV-DWDM	

### Input Format

ENT-OSC:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],[NODEID=<NODEID>],[EAST=<EAST>],[WEST=<WEST>];

### Input Example

ENT-OSC:PENNGROVE:OSC-1:114:::RINGID=10,NODEID=1,EAST=FAC-8-1,WEST=FAC-10-1;

## Input Parameters

Table 12-10 ENT-OSC Input Parameters

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.19 OSC</a> ” section on page 25-33. Identifies the OSC group of the NE
RINGID	OSC ring ID of the NE. It ranges from 1 to 9999. Default value is “# of AID OSC-#”. Integer
NODEID	OSC node ID of the NE. It ranges from 0 to 31. Integer
EAST	The east OC3 facility from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28. EAST_OC3 is the AID facility. Only one OC3 for the east direction is supported in this release. This parameter can be omitted
WEST	The west OC3 facility from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28. EAST_OC3 is the AID facility. Only one OC3 for the west direction is supported in this release. This parameter can be omitted

## 12.11 ENT-RMONTH-<MOD2\_RMON>

Enter Remote Monitoring Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, FSTE, G1000, GFPOS, GIGE, OCH, POS)

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command creates an entry in the RMON alarm table for the threshold of data statistics (GIGE or FC, for example) managed by the RMON engine. After creating the RMON threshold (RMONTH) a TCA event will be generated and reported to the TL1 session when the threshold is crossed.

More than one threshold can be created with different parameters for each data statistic type.

## Category

Performance

## Security

Provisioning

**Related Commands**

ALW-PMREPT-ALL	RTRV-PMSCHED-ALL
DLT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
INH-PMREPT-ALL	RTRV-TH-<MOD2>
INIT-REG-<MOD2>	RTRV-TH-ALL
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RTRV-PM-<MOD2>	SET-PMMODE-<STS_PATH>
RTRV-PMMODE-<STS_PATH>	SET-TH-<MOD2>
RTRV-PMSCHED-<MOD2>	

**Input Format**

```
ENT-RMONTH-<MOD2_RMON>:[<TID>]:<SRC>:<CTAG>::<MONTYPE>,,,
<INTVL>:RISE=<RISE>,FALL=<FALL>,[SAMPLE=<SAMPLE>],[STARTUP=<STARTUP>][:];
```

**Input Example**

```
ENT-RMONTH-GIGE:CISCO:FAC-2-1:1234::ETHERSTATSOCTETS,,,100:RISE=1000,
FALL=100,SAMPLE=DELTA,STARTUP=RISING;
```

**Input Parameters****Table 12-11 ENT-RMONTH-<MOD2\_RMON> Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28. AID for the facility that the data statistics are managed by
<b>MONTYPE</b>	Monitored type. Type of RMON monitored data statistics Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section

Table 12-11 ENT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second—Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio

Table 12-11 ENT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count

Table 12-11 ENT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW

**Table 12-11** ENT-RMONTH-<MOD2\_RMON> Input Parameters (continued)

Parameter and Values	Description
• OPT-MIN	Minimum Transmit Power in 1/10 uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second—Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path

Table 12-11 ENT-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>UASL</li> </ul>	Unavailable Second—Line
<ul style="list-style-type: none"> <li>UASNPFE</li> </ul>	Unavailable Second—Network Path (DS3XM-12 DS1 PM count)
<ul style="list-style-type: none"> <li>UASP</li> </ul>	Unavailable Second—Path
<ul style="list-style-type: none"> <li>UAS-PM</li> </ul>	OTN—Unavailable Second—Path Monitor Point
<ul style="list-style-type: none"> <li>UAS-SM</li> </ul>	OTN—Unavailable Second—Section Monitor Point
<ul style="list-style-type: none"> <li>UASV</li> </ul>	Unavailable Second—VT Path
<ul style="list-style-type: none"> <li>UNC-WORDS</li> </ul>	FEC—Uncorrectable Words
<ul style="list-style-type: none"> <li>VPC</li> </ul>	Valid Packet Count
<b>INTVL</b>	The interval in seconds over which the data is sampled and compared with the rising and falling threshold. A valid value is any integer larger than or equal to 10 (seconds)
<b>RISE</b>	The rising threshold for the sampled statistic. A valid value is any integer
<b>FALL</b>	The falling threshold. A valid value is any integer smaller than the rising threshold
<b>SAMPLE</b>	The method of calculating the value to be compared to the thresholds Parameter type is SAMPLE_TYPE—describes how the data will be calculated during the sampling period
<ul style="list-style-type: none"> <li>ABSOLUTE</li> </ul>	Comparing directly
<ul style="list-style-type: none"> <li>DELTA</li> </ul>	Comparing with the current value of the selected variable subtracted by the last sample
<b>STARTUP</b>	Dictates whether an event will generate if the first valid sample is greater than or equal to the rising threshold, less than or equal to the falling threshold, or both Parameter type is STARTUP_TYPE—indicates whether an event will be generated when the first valid sample is crossing the rising or falling threshold
<ul style="list-style-type: none"> <li>FALLING</li> </ul>	Generates the event when the sample is smaller than or equal to the falling threshold
<ul style="list-style-type: none"> <li>RISING</li> </ul>	Generates the event when the sample is greater than or equal to the rising threshold
<ul style="list-style-type: none"> <li>RISING-OR-FALLING</li> </ul>	Generates the event when the sample is crossing the rising threshold, or the falling threshold



## 12.12 ENT-ROLL-<MOD\_PATH>

Enter Roll (STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, VC12, VC3, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15627, ONS 15600

This command enters information about rolling of traffic from one end point to another without interrupting service. This command can be used to roll single paths (STS or VT).



### Note

STS18C and STS36C are not supported in this release.

### Category

Bridge and Roll

### Security

Provisioning

### Related Commands

DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-NE-PATH
ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-NE-PATH	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>
DLT-ROLL-<MOD_PATH>	RTRV-CRS-<PATH>	

### Input Format

ENT-ROLL-<MOD\_PATH>:[<TID>]:<FROM>,<TO>:<CTAG>:::RFROM=<RFROM>,  
RTO=<RTO>,RMODE=<RMODE>,[CMDMDE=<CMDMDE>];

### Input Example

ENT-ROLL-STS1:CISCO:STS-1-1-1,STS-2-1-1:1:::RFROM=STS-2-1-1,RTO=STS-3-1-1,  
RMODE=MAN,FORCE=Y;

## Input Parameters

Table 12-12 ENT-ROLL-&lt;MOD\_PATH&gt; Input Parameters

Parameter and Values	Description
<b>FROM</b>	Source access identifier from the “25.1.22 STS” section on page 25-33. It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, then this termination point (leg) should be the FROM-AID termination point. Otherwise, FROM is non-significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for FROM and TO parameters
<b>TO</b>	Destination AID from the “25.1.22 STS” section on page 25-33. It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, then this termination point (leg) should be the TO-AID termination point. Otherwise, the TO is non-significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for FROM and TO parameters
<b>RFROM</b>	The termination point of the existing cross-connect that is to be rolled. AID from the “25.1.22 STS” section on page 25-33
<b>RTO</b>	The termination point that will become a leg of the new cross-connection. AID from the “25.1.22 STS” section on page 25-33
<b>RMODE</b>	Indicates the mode of rolling operation Parameter type is RMODE—roll mode
<ul style="list-style-type: none"> <li>• AUTO</li> <li>• MAN</li> </ul>	Automatic Manual
<b>FORCE</b>	Forces a valid signal on the path. FORCE can only go from Y to N Parameter type is ON_OFF—disable/enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	Disable an attribute Enable an attribute

## 12.13 ENT-ROUTE

Enter Route

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command creates static routes.



#### Note

There is no DNS service available on the node. Only numeric IP addresses will be accepted.

**Category** System

**Security** Provisioning

Related Commands	DLT-ROUTE	ENT-TADRMAP	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

**Input Format** ENT-ROUTE:[<TID>]::<CTAG>::<DESTIP>,<IPMASK>,<NXTHOP>,<COST>;

**Input Example** ENT-ROUTE:CISCO::123::10.64.72.57,255.255.255.0,10.64.10.12,200;

**Input Parameters**

**Table 12-13 ENT-ROUTE Input Parameters**

Parameter and Values	Description
DESTIP	Destination ip. String
IPMASK	IP mask. String
NXTHOP	Next hop. String
COST	Unsigned integer. Valid range is from 1 to 32,797

## 12.14 ENT-ROUTE-GRE

Enter Route Generic Routing Encapsulation

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command creates a GRE tunnel. This can be used to transport IP over OSI or OSI over IP.

**Category** System

**Security** Provisioning

<b>Related Commands</b>	DLT-ROUTE	ENT-ROUTE	RTRV-ROUTE-GRE
	DLT-ROUTE-GRE	ENT-TADRMAP	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

**Input Format** ENT-ROUTE-GRE:[<TID>]::<CTAG>::IPADDR=<IPADDR>,IPMASK=<IPMASK>,NSAP=<NSAP>,[COST=<COST>];

**Input Example** ENT-ROUTE-GRE:CISCO::123::IPADDR=10.64.72.57,IPMASK=255.255.255.0,NSAP=39840F80FFFFFFF0000DDDDAA000010CFB4910200,COST=110;

**Input Parameters**

*Table 12-14 ENT-ROUTE-GRE Input Parameters*

Parameter and Values	Description
IPADDR	IP address of the tunnel endpoint. String
IPMASK	Subnet mask for the tunnel endpoint. String
NSAP	NSAP address for the tunnel endpoint. String
COST	Routing cost associated with the tunnel. Integer

## 12.15 ENT-TADRMAP

Enter Target Identifier Address Mapping

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command instructs a gateway NE to create an entry in the TADRMAP table which maps the TIDs of the subtending NEs to their addresses. The OSs will address the subtending NEs using the TID in TL1 messages and a gateway NE will address these NEs by mapping the TID to an IP address or NSAP. The TADRMAP table, which resides in the gateway NE, correlates a TID and an address. The command requires that at least one IPADDR or NSAP be specified. The PORT and ENCODING parameters are only used with IP address mappings.

**Category**

System

**Security**

Provisioning

<b>Related Commands</b>	DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

**Input Format** ENT-TADRMAP:[<TID>]::<CTAG>:::[TIDNAME=<TIDNAME>],[IPADDR=<IPADDR>],[PORT=<PORT>],[ENCODING=<ENCODING>],[NSAP=<NSAP>];

**Input Example** ENT-TADRMAP:TID::CTAG::TIDNAME=ENENODENAME,IPADDR=192.168.100.52,PORT=3082,ENCODING=LV,NSAP=39840F80FFFFFFF0000DDDDAA01001800;

### Input Parameters

**Table 12-15 ENT-TADRMAP Input Parameters**

Parameter and Values	Description
TIDNAME	TID of the new TID/address mapping. String
IPADDR	IP address. String
PORT	Port for the TID/IP address mapping. Defaults to 3082. Integer
ENCODING	TL1 encoding for the TID/IP address mapping. Defaults to LV Parameter type is ENCODING—encoding
LV	Length encoding
RAW-CISCO	Cannot be specified. Used only for display with backward compatible ONS NEs
RAW-STD	Non-interactive encoding

## 12.16 ENT-TRAPTABLE

Enter Trap Table

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command provisions an SNMP trap destination and its associated community; UDP port and SNMP version. The maximum number of trap entries allowed is ten.

**Category** System

**Security** Provisioning

Related Commands	ALW-MSG-ALL	INH-MSG-ALL	RTRV-NE-IPMAP
	ALW-MSG-DBCHG	INH-MSG-DBCHG	RTRV-NE-PATH
	ALW-MSG-SECU	INH-MSG-SECU	RTRV-NE-SYNCN
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	RTRV-HDR	RTRV-NETYPE
	ED-NE-GEN	RTRV-INV	RTRV-TOD
	ED-NE-PATH	RTRV-NE-APC	RTRV-TRAPTABLE
	ED-NE-SYNCN	RTRV-NE-GEN	SET-TOD
	ED-TRAPTABLE		

**Input Format** ENT-TRAPTABLE:[<TID>]:<AID>:<CTAG>::COMMUNITY=<COMMUNITY>,[TRAPPORT=<TRAPPORT>],[TRAPVER=<TRAPVER>];

**Input Example** ENT-TRAPTABLE::1.2.3.4:1::COMMUNITY="PRIVATE",TRAPPORT=162,TRAPVER=SNMPV1;

### Input Parameters

**Table 12-16** ENT-TRAPTABLE Input Parameters

Parameter and Values	Description
<b>AID</b>	IP address identifying the trap destination. Only a numeric IP address is allowed. Access identifier from the <a href="#">“25.1.15 IPADDR” section on page 25-31</a>
<b>COMMUNITY</b>	Community associated with the trap destination. Community name is a string with up to 32 characters
<b>TRAPPORT</b>	UDP port number associated with the trap destination. Defaults to 162. Integer
<b>TRAPVER</b>	SNMP version number. Defaults to SNMPv1 Parameter type is SNMP_VERSION—SNMP Version
SNMPV1	SNMP Version 1 (Default)
SNMPV2	SNMP Version 2

## 12.17 ENT-TUNNEL-FIREWALL

Enter Tunnel Firewall

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command creates a firewall tunnel.

**Category** System

**Security** Provisioning

Related Commands	DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

**Input Format** ENT-TUNNEL-FIREWALL:[<TID>]::<CTAG>:::[SRCADDR=<SRCADDR>],  
[SRCMASK=<SRCMASK>],[DESTADDR=<DESTADDR>],[DESTMASK=<DESTMASK>];

**Input Example** ENT-TUNNEL-FIREWALL:TID::CTAG:::SRCADDR=192.168.100.52,  
SRCMASK=255.255.255.0,DESTADDR=192.168.101.14,DESTMASK=255.255.255.0;

**Input Parameters**

**Table 12-17** ENT-TUNNEL-FIREWALL Input Parameters

Parameter and Values	Description
SRCADDR	Source IP address. String
SRCMASK	Source mask. String
DESTADDR	Destination IP address. String
DESTMASK	Destination mask. String

## 12.18 ENT-TUNNEL-PROXY

Enter Tunnel Proxy

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command creates a proxy tunnel.

**Category** System

**Security** Provisioning

<b>Related Commands</b>	DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

**Input Format**  
 ENT-TUNNEL-PROXY:<TID>::<CTAG>:::[SRCADDR=<SRCADDR>],  
 [SRCMASK=<SRCMASK>],[DESTADDR=<DESTADDR>],[DESTMASK=<DESTMASK>];

**Input Example**  
 ENT-TUNNEL-PROXY:TID::CTAG:::SRCADDR=192.168.100.52,SRCMASK=255.255.255.0,  
 DESTADDR=192.168.101.14,DESTMASK=255.255.255.0;

**Input Parameters**

*Table 12-18 ENT-TUNNEL-PROXY Input Parameters*

Parameter and Values	Description
SRCADDR	Source IP address. String
SRCMASK	Source mask. String
DESTADDR	Destination IP address. String
DESTMASK	Destination mask. String

## 12.19 ENT-USER-SECU

Enter User Security

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command adds a user account. Only a Superuser can do this. Each user is configured as being at one of these four privilege levels:

1. Retrieve [RTRV]: Users with this security level can retrieve information from the node, but cannot modify anything. The default idle time for Retrieve is unlimited.
2. Maintenance [MAINT]: Users with this security level can retrieve information from the node and perform limited maintenance operations such as card resets, Manual/Force/Lockout on cross-connects or in protection groups, and BLSR maintenance. The default idle time for Maintenance is 60 minutes.
3. Provisioning [PROV]: Users with this security level can perform all maintenance actions, and all provisioning actions except those restricted to superusers. The default idle time for Provisioning is 30 minutes.
4. Superuser [SUPER]: Users with this security level can perform all PROV user actions, plus creating/deleting user security profiles, setting basic system parameters such as time/date, node name, and IP address, doing database backup & restore. The default idle time for Superuser is 15 minutes.



**Note**

- Passwords are masked for the following security commands: ACT-USER, ED-PID, ENT-USER-SECU and ED-USER-SECU. Access to a TL1 session by any means will have the password masked. The CTC Request History and Message Log will also show the masked commands. When a password-masked command is reissued by double-clicking the command from CTC Request History, the password will still be masked in the CTC Request History and Message Log. The actual password that was previously issued will be sent to the NE. To use a former command as a template only, single-click the command in CTC Request History. The command will be placed in the Command Request text box, where you can edit the appropriate fields prior to reissuing it.
- The <UID> can be any combination of up to 10 alphanumeric characters.
- The <PID> is a string of up to 10 characters where at least 2 characters are non-alphabetic with at least one special character (+, %, or #).
- Although the CTC allows both <UID> and <PID> of up to 20 characters, the CTC-entered users (<UID> and <PID>) might not be valid TL1 users (for example, if issuing an ACT-USER command and using the CTC-entered <UID> that is greater than 10 characters long, TL1 will respond with DENY (Can't Login) error message).
- The TL1 password security is enforced as follows:
  - The password <PID> cannot be the same as or contain the userid (UID), for example, if the userid is CISCO25 the password cannot be CISCO25#.
  - The password <PID> must have one non-alphabetic and one special (+, %, or #) character.
  - There is no password <PID> toggling; for example, if the current password is CISCO25#, the new password cannot be CISCO25#

**Category**

Security

**Security**

Superuser

**Related Commands**

ACT-USER	DLT-USER-SECU	REPT EVT SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SESSION
ALW-USER-SECU	ED-PID	RTRV-CMD-SECU
CANC	ED-USER-SECU	RTRV-DFLT-SECU
CANC-USER	INH-MSG-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	REPT ALM SECU	

**Input Format**

ENT-USER-SECU:[&lt;TID&gt;]:&lt;UID&gt;:&lt;CTAG&gt;::&lt;PID&gt;,&lt;UAP&gt;[:];

**Input Example**

ENT-USER-SECU:PETALUMA:CISCO15:123::PSWD11#,,MAINT;

**Input Parameters****Table 12-19** ENT-USER-SECU Input Parameters

Parameter and Values	Description
UID	User identifier. The minimum UID size is 6 and the maximum size 10. String
PID	User's password or private identifier. String
UAP	User's access privilege Parameter type is PRIVILEGE—security level
• MAINT	Maintenance security level
• PROV	Provision security level
• RTRV	Retrieve security level
• SUPER	Superuser security level

## 12.20 ENT-VCG

Enter Virtual Concatenated Group

**Usage Guidelines**

Cisco ONS 15454

This command creates a VCG object. VCG on ML-Series cards supports two members and supported subrates are: STS1, STS3C, or STS12C. ML-Series VCG also supports SW-LCAS or NONE. VCG on the FC\_MR-4 card supports eight members and the supported subrate is limited to STS3C. The FC\_MR-4 card VCG has no LCAS support (NONE). VCG on the ML card supports up to three members at a subrate of STS1 and 64 members at a subrate of VT1.

**Category**

VCAT

**Security**

Provisioning

**Related Commands**

DLT-VCG

ED-VCG

RTRV-VCG

**Input Format**

```
ENT-VCG:[<TID>]:<SRC>:<CTAG>:::TYPE=<TYPE>,TXCOUNT=<TXCOUNT>,[CCT=<CCT>],
[LCAS=<LCAS>],[BUFFERS=<BUFFERS>],[NAME=<NAME>];
```

**Input Example**

```
ENT-VCG:NODE1:FAC-1-1:1234:::TYPE=STS3C,TXCOUNT=8,CCT=2WAY,LCAS=LCAS,
BUFFERS=DEFAULT,NAME="VCG1";
```

**Input Parameters**

**Table 12-20 ENT-VCG Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. ML1000-2 and ML100T-12 cards use the VFAC AID. The FC_MR-4 card uses the FAC AID
<b>TYPE</b>	The type of the entity being provisioned. Null indicates not applicable. TYPE can be a common language equipment identifier (CLEI) code or another value. The type of member cross-connect. ML1000-2 and ML100T-12 cards support STS1, STS3c and STS12c. The FC_MR-4 card supports STS3c only Parameter type is MOD_PATH—STS/VT path modifier
• STS1	STS1 path
• STS12C	STS12C path
• STS18C	STS18C path
• STS192	STS192C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS3C	STS3C path
• STS48C	STS48C path
• STS6C	STS6C path
• STS9C	STS9C path
• VT1	VT1 path
• VT2	VT2 path
<b>TXCOUNT</b>	Number of members in the Tx direction. For ML1000-2 and ML100T-12 cards the only valid value is 2. For the FC_MR-4 card the only valid value is 8. Integer
<b>CCT</b>	Type of connection; one-way or two-way. Cross-connect type for the VCG member cross-connects. Must be the same for all the member cross-connects of a VCG Parameter type is CCT—type of cross-connect to be created
• 1WAY	A unidirectional connection from a source tributary to a destination tributary
• 1WAYDC	Path Protection multicast drop with (1-way) continue
• 1WAYEN	Path Protection multicast end node (1-way continue)
• 1WAYMON	A bidirectional connection between the two tributaries <b>Note</b> 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects and can be retrieved through TL1.
• 1WAYPCA	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
• 2WAY	A bidirectional connection between the two tributaries

**Table 12-20** ENT-VCG Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>2WAYDC</li> </ul>	A Bidirectional Drop and Continue connection applicable only to Path Protection Traditional and Integrated Dual Ring InterConnections
<ul style="list-style-type: none"> <li>2WAYPCA</li> </ul>	A bidirectional connection between the two tributaries on the extra protection path/fiber
<ul style="list-style-type: none"> <li>DIAG</li> </ul>	Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect)
<b>LCAS</b>	<p>Link capacity adjustment scheme</p> <p><b>Note</b> If SW-LCAS is selected, then the far-end VCG must also be configured as SW-LCAS.</p> <p>Parameter type is LCAS—link capacity adjustment scheme mode for the VCG created</p>
<ul style="list-style-type: none"> <li>LCAS</li> </ul>	LCAS is enabled
<ul style="list-style-type: none"> <li>NONE</li> </ul>	No LCAS
<ul style="list-style-type: none"> <li>SW-LCAS</li> </ul>	Supports the temporary removal of a VCG member during the member failure. Only supported by the ML1000-2 and ML100T-12 cards
<b>BUFFERS</b>	<p>Buffer type. The default value is DEFAULT. The FC_MR-4 card supports DEFAULT and EXPANDED buffers. Other data cards support DEFAULT buffers only</p> <p>Parameter type is BUFFER_TYPE—buffer type (used in VCAT)</p>
<ul style="list-style-type: none"> <li>DEFAULT</li> </ul>	Default buffer value
<ul style="list-style-type: none"> <li>EXPANDED</li> </ul>	Expanded buffer value
<b>NAME</b>	Name of the VCAT group. Defaults to null. Maximum length is 32 characters. String.

## 12.21 ENT-WLEN

Enter Wavelength

**Usage Guidelines** ONS 15454

This command allocates a wavelength.



**Note** This command does not support allocating multiple wavelengths.



**Note** CKTID is a string of ASCII characters. The maximum length of CKTID can be 48. If CKTID is EMPTY or NULL this field will not appear.

**Category** DWDM

**Security** Provisioning

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-OTS	RTRV-DWDM	RTRV-WLEN

**Input Format** ENT-WLEN:[<TID>]:<AID>:<CTAG>:[:<WCT>]:[SIZE=<SIZE>],  
[CKTID=<CKTID>]:[:<PST>[:<SST>]];

**Input Example** ENT-WLEN:PENNGROVE:WLEN-W-ADD-1530.33:114::1WAY:SIZE=MULTI-RATE,  
CKTID=CKTID:OOS,MT;

## Input Parameters

Table 12-21 ENT-WLEN Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.30 WLEN” section on page 25-43
<b>WCT</b>	Wavelength connection type Parameter type is WCT—wavelength connection types
<ul style="list-style-type: none"> <li>1WAY</li> </ul>	A unidirectional wavelength connection for one specified ring direction
<ul style="list-style-type: none"> <li>2WAY</li> </ul>	A bidirectional wavelength connection for both ring directions
<b>SIZE</b>	Size of the switching network. Defaults to NOT-SPEC Parameter type is CIRCUIT_SIZE—DWDM circuit size used on a wavelength
<ul style="list-style-type: none"> <li>10G-FEC</li> </ul>	Circuit size is 10 Gbps with FEC
<ul style="list-style-type: none"> <li>10G-NO-FEC</li> </ul>	Circuit size is 10 Gbps without FEC
<ul style="list-style-type: none"> <li>2G5-FEC</li> </ul>	Circuit size is 2.5 Gbps with FEC
<ul style="list-style-type: none"> <li>2G5-NO-FEC</li> </ul>	Circuit size is 2.5 Gbps without FEC
<ul style="list-style-type: none"> <li>MULTI-RATE</li> </ul>	Circuit size supports multirate
<ul style="list-style-type: none"> <li>NOT-SPEC</li> </ul>	Circuit size is not equipment specific
<b>CKTID</b>	String of ASCII characters. The maximum length of CKTID can be 48. If CKTID is EMPTY or NULL this field will not appear. Defaults to “ ” (empty string)
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>OOS</li> </ul>	Out of service
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>UEQ</li> </ul>	Unequipped



## EX Commands

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This chapter provides EX (exercise) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 13.1 EX-SW-<OCN\_BLSR>

Exercise Protection Switch (OC12, OC48, OC192)

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command exercises the algorithm for switching from a working facility to a protection facility without actually performing a switch. It is assumed that the facility being exercised is the working unit. The exercise switching success or failure result will be indicated by an automatic alarm.

Exercise switch for the SONET protection line is not supported in this release. If sending this command to the protection unit, an error message will be returned. In addition to all normal INPUT, EQUIPAGE, PRIVILEGE error codes, the following error codes are also included in this command:

SNVS (Status, Not in Valid State)

SROF (Status, Requested Operation Failed)

SSRD (Status, Switch Request Denied)



#### Note

- If you send the EX-SW-<OCN\_BLSR> command to both east and west sides/spans of a two-fiber or four-fiber ring within a short time period (less than 30–45 seconds) the system will only execute one (WEST) side EXER-RING query, and preempt the other (EAST) side query. There will be no event messages reported for the preempted side, and it will be in APS-CLEAR switching state.

Examples of sending the EX-SW-<OCN\_BLSR> command to both east and west sides/spans of a two-fiber or four-fiber ring within a short time period (less than 30–45 seconds) are: (a) A single command with both side/span AIDs (in the list AID format) of the same two-fiber or four-fiber ring or (b) Separate queries (through TL1 or CTC, or TL1 and CTC) on both sides/spans of the same two-fiber or four-fiber ring

- DIRN is an optional parameter. A NULL value of this parameter defaults to BTH for a two-fiber or four-fiber BLSR protection group.

DIRN follows these rules:

- TRMT will always fail for any kind of protection groups
- For two-fiber and four-fiber BLSR protection groups both the RCV and TRMT direction will fail.
- Only BTH is a valid parameter. EX-SW-<OCN\_TYPE> can be operated only on BLSR protection groups.

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**Category** BLSR

---

**Security** Maintenance

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**Related Commands**

ALW-SWDX-EQPT	INH-SWTOWKG-EQPT
ALW-SWTOPROTN-EQPT	OPR-LPBK-<MOD2>
ALW-SWTOWKG-EQPT	OPR-PROTNSW-<OCN_TYPE>
CHG-ACCMD-<MOD_TACC>	REPT SW
CONN-TACC-<MOD_TACC>	RLS-LPBK-<MOD2>
DISC-TACC	RLS-PROTNSW-<OCN_TYPE>
DLT-<MOD_RING>	RTRV-<MOD_RING>
DLT-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
DLT-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-<MOD_RING>	RTRV-FFP-OCH
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ED-FFP-<OCN_TYPE>	RTRV-PTHTRC-<PATH>
ED-FFP-OCH	RTRV-TACC
ENT-<MOD_RING>	RTRV-TRC-<OCN_BLSR>
ENT-FFP-<MOD2DWDMPAYLOAD>	SW-DX-EQPT
ENT-FFP-<OCN_TYPE>	SW-TOPROTN-EQPT
INH-SWDX-EQPT	SW-TOWKG-EQPT
INH-SWTOPROTN-EQPT	

---

**Input Format** EX-SW-<OCN\_BLSR>:[<TID>]:<AID>:<CTAG>::,[<SWITCHTYPE>],[<DIRECTION>];

---

**Input Example** EX-SW-OC48:CISCO:FAC-12-1:123::,SPAN,BTH;



## Input Parameters

Table 13-1 EX-SW-&lt;OCN\_BLSR&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on <a href="#">page 25-28</a> . Identifies the facility in the NE to which the switch request is directed
<b>SWITCHTYPE</b>	Switch type. Must not be null Parameter type is SWITCH_TYPE—BLSR switch type. MANWKSWBK, MANWKSWPR, FRCDWKSWBK, FRCDWKSWPR, LOCKOUTOFPR, and LOCKOUTOFWK are retrieve-only values for RTRV-PROTNSW-OCn commands. They are not applicable for the OPR-PROTNSW-OCn commands. RING and SPAN are the only allowed values for BLSR protection
• FRCDWKSWBK	Working unit is forced to switch back to working
• FRCDWKSWPR	Working unit is forced to switch to the protection unit
• LOCKOUTOFPR	Lockout of protection
• LOCKOUTOFWK	Lockout of working
• MANWKSWBK	Manual switch of working unit back to working
• MANWKSWPR	Manual switch of working unit back to the protection unit
• RING	BLSR ring switch type
• SPAN	BLSR span switch type
<b>DIRECTION</b>	Direction. A null value defaults to RCV Parameter type is DIRECTION—transmit and receive direction
• BTH	Both transmit and receive directions
• RCV	Receive direction only
• TRMT	Transmit direction only





# CHAPTER 14

## INH Commands

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This chapter provides INH (inhibit) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 14.1 INH-CONSOLE-PORT

Inhibit Console Port

---

#### Usage Guidelines

Cisco ONS 15454, ONS 15310-CL

This command is used to turn off the console port for the ML-Series cards.

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#### Category

Security

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#### Security

Superuser

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#### Related Commands

ACT-USER	ED-CMD-SECU	REPT EVT SECU
ALW-CONSOLE-PORT	ED-PID	REPT EVT SESSION
ALW-MSG-SECU	ED-PROTOCOL	RTRV-AUDIT-LOG
ALW-USER-SECU	ED-USER-SECU	RTRV-CMD-SECU
CANC	ENT-USER-SECU	RTRV-CONSOLE-PORT
CANC-USER	INH-MSG-SECU	RTRV-DFLT-SECU
CANC-USER-SECU	INH-USER-SECU	RTRV-USER-SECU
CLR-COND-SECU	REPT ALM SECU	SET-ATTR-SECUDFLT
DLT-USER-SECU		

---

#### Input Format

INH-CONSOLE-PORT:[<TID>]:<AID>:<CTAG>;

---

#### Input Example

INH-CONSOLE-PORT:CISCONODE:SLOT-2:123;

## Input Parameters

Table 14-1 INH-CONSOLE-PORT Input Parameters

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27.

## 14.2 INH-MSG-ALL

Inhibit Message All

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command inhibits all REPT ALM and REPT EVT autonomous messages from being transmitted. See the ALW-MSG-ALL to resume these autonomous messages. When a TL1 session starts, the REPT ALM and REPT EVT messages are allowed by default.



## Note

If this command is used twice in the same session, the SAIN (Already Inhibited) error message is reported.

## Category

System

## Security

Retrieve

## Related Commands

ACT-USER	ED-NE-SYNCN	RTRV-NE-GEN
ALW-MSG-ALL	ED-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-DBCHG	ENT-TRAPTABLE	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-SYNCN
DLT-TRAPTABLE	INH-MSG-SECU	RTRV-NE-WDMANS
ED-DAT	INIT-SYS	RTRV-TOD
ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-INV	SET-TOD

## Input Format

INH-MSG-ALL:[<TID>]:[<AID>]:<CTAG>[::,];

## Input Example

INH-MSG-ALL:PETALUMA:ALL:550;

**Input Parameters****Table 14-2** *INH-MSG-ALL Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a>

## 14.3 INH-MSG-DBCHG

Inhibit Database Change Message

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command disables REPT DBCHG.

**Category**

Log

**Security**

Retrieve

**Related Commands**

ACT-USER	ED-NE-SYCN	RTRV-NE-GEN
ALW-MSG-ALL	ED-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-DBCHG	ENT-TRAPTABLE	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-ALL	RTRV-NE-SYCN
DLT-TRAPTABLE	INH-MSG-SECU	RTRV-NE-WDMANS
ED-DAT	INIT-SYS	RTRV-TOD
ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-INV	SET-TOD

**Input Format**

INH-MSG-DBCHG:[<TID>]::<CTAG>[::,];

**Input Example**

INH-MSG-DBCHG:CISCO::123;

**Input Parameters****Table 14-3** *INH-MSG-DBCHG Input Parameters*

Parameter and Values	Description
—	

## 14.4 INH-MSG-SECU

Inhibit Message Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command inhibits the REPT EVT SECU and REPT ALM SECU autonomous messages.

### Category

Security

### Security

Superuser

### Related Commands

ACT-USER	ED-NE-SYCN	RTRV-NE-GEN
ALW-MSG-ALL	ED-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-DBCHG	ENT-TRAPTABLE	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-ALL	RTRV-NE-SYCN
DLT-TRAPTABLE	INH-MSG-DBCHG	RTRV-NE-WDMANS
ED-DAT	INIT-SYS	RTRV-TOD
ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-INV	SET-TOD

### Input Format

INH-MSG-SECU:[<TID>]::<CTAG>[:,,];

### Input Example

INH-MSG-SECU:PETALUMA::123;

### Input Parameters

*Table 14-4 INH-MSG-SECU Input Parameters*

Parameter and Values	Description
—	

## 14.5 INH-PMREPT-ALL

Inhibit Performance Report All

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command inhibits all scheduled PM reporting. Inhibiting PM reporting is session-based, which means the command is only effective to the TL1 session that issues this command. By default, the scheduled PM reporting is inhibited by a TL1 session.

A TL1 session for which PM reports are inhibited will include an INHMSG-PMREPT condition when issuing TL1 command RTRV-COND-ALL.

**Category** Performance

**Security** Retrieve

Related Commands		
ALW-PMREPT-ALL		RTRV-PMSCHED-ALL
DLT-RMONTH-<MOD2_RMON>		RTRV-RMONTH-<MOD2_RMON>
ENT-RMONTH-<MOD2_RMON>		RTRV-TH-<MOD2>
INIT-REG-<MOD2>		RTRV-TH-ALL
REPT PM <MOD2>		SCHED-PMREPT-<MOD2>
RTRV-PM-<MOD2>		SET-PMMODE-<STS_PATH>
RTRV-PMMODE-<STS_PATH>		SET-TH-<MOD2>
RTRV-PMSCHED-<MOD2>		

**Input Format** INH-PMREPT-ALL:[<TID>]::<CTAG>;

**Input Example** INH-PMREPT-ALL:NE-NAME::123;

**Input Parameters**

*Table 14-5 INH-PMREPT-ALL Input Parameters*

Parameter and Values	Description
—	

## 14.6 INH-SWDX-EQPT

Inhibit Switch Duplex Equipment

**Usage Guidelines** Cisco ONS 15454

This command inhibits automatic or manual switching on a system containing duplex equipment. Use the ALW-SWDX command to release the inhibit. This command is not used for SONET line protection switching. For SONET line/path protection switching commands, use the OPR-PROTNSW and RLS-PROTNSW commands. This command is not used for 1:1 and 1:N equipment protection switching, use ALW-SWTOPROTN, ALW-SWTOWKG, INH-SWTOPROTN, INH-SWTOWKG commands.

**Note**

This command applies for XCVT, XC10G, XC-VXC-10G equipment units only in this release.

**Note**

When sending this command to a TCC2/TCC2P card, an error message will occur because the NE treats the TCC2/TCC2P as a non-revertive protection group without user control.

**Category**

Equipment

**Security**

Maintenance

**Related Commands**

ALW-SWDX-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
ED-EQPT	REPT SW	SW-TOPROTN-EQPT
ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
EX-SW-<OCN_BLSR>	RTRV-ALMTH-EQPT	

**Input Format**

INH-SWDX-EQPT:[<TID>]:<AID>:<CTAG>[::];

**Input Example**

INH-SWDX-EQPT:CISCO:SLOT-8:1234;

**Input Parameters**

*Table 14-6 INH-SWDX-EQPT Input Parameters*

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.13 EQPT</a> ” section on <a href="#">page 25-27</a> . XCVT/XC10G equipment AID (Slot 8 or Slot 10)

## 14.7 INH-SWTOPROTN-EQPT

Inhibit Switch to Protection Equipment

**Usage Guidelines**

Cisco ONS 15454

This command inhibits automatic or manual switching of an equipment unit to protection. Use the ALW-SWTOPROTN-EQPT command to release the inhibit.



INH-SWTOPROTN-EQPT is used for electrical cards that could participate in an electrical protection group (for example, DS1, DS3, DS3XM and EC1 cards). DS1 and DS3 cards have 1:1 and 1:N equipment protection. DS3XM and EC1 cards have only 1:1 equipment protection. When performing a lockout with this command, the traffic will be switched from the unit specified by the AID, unless the working unit being protected has failed or is missing. When performing a lock on with this command and the working unit specified in the AID is in standby, sending this command will also initiate a traffic switch. When traffic is locked on a working unit or locked out of the protection unit with this command, the protection unit will not carry traffic, even if the working unit is pulled from the system.

Sending this command to a working unit in a 1:N protection group does not prevent a protection switch from another working unit in the same protection group. All the working units must be sent this command to prevent a protection switch. If the command is sent only to a subset of the working units, only those working units will have traffic locked on.

The inhibit state is persistent over TCC2/TCC2P side switches and removal/reboot of all the units in the protection group. The inhibit state can, but does not have to be persistent over a complete power cycle of the NE.

The unit specified by the AID will raise the condition of INHSWPR when this command is sent.

The following actions will produce errors:

- This command only supports one value of the <DIRN> parameter - BTH. A command with any other value is considered an incorrect use of the command and will return an IDNV (Input, Data Not Valid) error message.
- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. A command on a common control card will return an IIAC (Input, Invalid Access Identifier) error message. To use the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.
- This command is not used for SONET (OC-N) cards. A command on a SONET card will return an IIAC (Input, Invalid Access Identifier) error message. To use a SONET card switching command, use the OPR-PROTNSW and RLS-PROTNSW commands.
- Using this command on a card that is not in a protection group will return the SNVS (Status, Not in Valid State) error message.
- Using this command on a card that is already in the inhibit state will return the SAIN (Status, Already Inhibited) error message.
- Sending the inhibit switch to protection command to a working card when the protect card in the same protection group has already raised the condition of INHSWWKG will return the SPLD (Status, Protection unit Locked) error message.
- Sending the inhibit switch to protection command to the protect card when a working card in the same protection group has already raised the condition of INHSWWKG will return the SWLD (Status, Working unit Locked) error message.
- Sending the inhibit switch to protection command to an active protect card when the peer working card is failed or missing will return the SWFA (Status, Working unit Failed) error message.
- The following situation(s) are allowed and will not generate any error response: sending this command to missing cards as long as none of the previous error conditions apply.

**Note**

This command only supports one value of the <DIRN> parameter - BTH.

**Category**

Equipment

**Security** Maintenance

Related Commands	ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-COND-EQPT
	ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
	ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
	DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
	ED-EQPT	REPT SW	SW-TOPROTN-EQPT
	ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
	EX-SW-<OCN_BLSR>	RTRV-ALMTH-EQPT	

**Input Format** INH-SWTOPROTN-EQPT:[<TID>]:<AID>:<CTAG>[:<DIRN>];

**Input Example** INH-SWTOPROTN-EQPT:CISCO:SLOT-2:123::BTH;

#### Input Parameters

**Table 14-7 INH-SWTOPROTN-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27. This AID can either be the working unit for which switching to protection is inhibited (lock on) or the protection unit for which carrying traffic is to be inhibited (lockout)
<b>DIRN</b>	The direction relative to the entity defined in the AID field. The direction of the switching. This command only supports the BTH value of this parameter. DIRN defaults to BTH Parameter type is DIRECTION—transmit and receive directions
• BTH	Both transmit and receive directions

## 14.8 INH-SWTOWKG-EQPT

Inhibit Switch to Working Equipment

**Usage Guidelines** Cisco ONS 15454

This command inhibits automatic or manual switching of an equipment unit back to the working unit. Use the ALW-SWTOWKG-EQPT command to release the inhibit.

INH-SWTOWKG-EQPT is used for electrical cards that could participate in an electrical protection group (for example, DS1, DS3, DS3XM and EC1 cards). DS1 and DS3 cards have 1:1 and 1:N equipment protection. DS3XM and EC1 cards have only 1:1 equipment protection. When performing a lock-out with this command, the traffic will be switched from the unit specified by the AID, unless the protection unit has failed or is missing. When performing a lock-on with this command and the protection unit specified in the AID is in standby, sending this command will initiate a traffic switch only

when there is one working card in the protection group. In the case where there is more than one working card in the protection group, an error will be generated (see error conditions below). When traffic is locked on the protection unit or locked out of a working unit with this command, the working unit will not carry traffic, even if the protection unit is pulled from the system.

The inhibit state is persistent over TCC2/TCC2P side switches and removal/reboot of all the units in the protection group. The inhibit state can but does not have to be persistent over a complete power cycle of the NE.

The unit specified by the AID will raise the condition of INHSWWKG when this command is sent.

The following actions will return error messages:

- The command only supports one value of the <DIRN> parameter - BTH. A command with any other value is considered an incorrect use of the command and will return An IDNV (Input, Data Not Valid) error message.
- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. A command on a common control card will return an IIAC (Input, Invalid Access Identifier) error message. To use the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.
- This command is not used for SONET (OCN) cards. A command on a SONET card will return an IIAC (Input, Invalid Access Identifier) error message. To use a SONET card switching command, use the OPR-PROTNSW and RLS-PROTNSW commands.
- Using this command on a card that is not in a protection group will return the SNVS (Status, Not in Valid State) error message.
- Using this command on a card that is already in the inhibit state will return the SAIN (Status, Already Inhibited) error message.
- Sending this command to a working card when the protect card in the same protection group has already raised the condition of INHSWPR will return the SPLD (Status, Protection unit Locked) error message.
- Sending the INH-SWTOWKG command to a protect card when a working card in the same protection group has already raised the condition of INHSWPR will return the SWLD (Status, Working unit Locked) error message.
- Sending the INH-SWTOWKG command to an active working card when the protect card has failed or is missing will return the SPFA (Status, Protection unit Failed) error message.
- Sending the INH-SWTOWKG command to an active working card when the protect card is already carrying traffic (this only occurs in a 1:N protection group with N greater than one) will return the SPAC (Status, Protection unit Active) error message.
- The following situation is allowed and will not generate any error response: Sending this command to missing cards as long as none of the previous error conditions apply.

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**Category** Equipment

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**Security** Maintenance

Related Commands	ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-COND-EQPT
	ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	RTRV-EQPT
	ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
	DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
	ED-EQPT	REPT SW	SW-TOPROTN-EQPT
	ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
	EX-SW-<OCN_BLSR>	RTRV-ALMTH-EQPT	

**Input Format** INH-SWTOWKG-EQPT:[<TID>]:<AID>:<CTAG>[:<DIRN>];

**Input Example** INH-SWTOWKG-EQPT:CISCO:SLOT-2:123::BTH;

### Input Parameters

**Table 14-8** INH-SWTOWKG-EQPT Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.13 EQPT” section on page 25-27. This AID can either be the working unit for which switching to protection is inhibited (lock on) or the protection unit for which carrying traffic is to be inhibited (lockout)
<b>DIRN</b>	The direction relative to the entity defined in the AID field. The direction of the switching. This command only supports the BTH value of this parameter. DIRN defaults to BTH Parameter type is DIRECTION—transmit and receive directions
<ul style="list-style-type: none"> <li>BTH</li> </ul>	Both transmit and receive directions

## 14.9 INH-USER-SECU

Inhibit User Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command disables (without deleting) a user account, so the user is denied access to the NE. The user is disabled until reenabled by the ALW-USER-SECU command.



#### Note

This command does not forcibly log a user off. If the user is logged in, changes do not apply until after the user has logged off.



#### Note

The user is disabled until enabled using the corresponding ALW command.

**Category** Security

**Security** Superuser

Related Commands	ACT-USER	DLT-USER-SECU	REPT EVT SECU
	ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SESSION
	ALW-USER-SECU	ED-PID	RTRV-CMD-SECU
	CANC	ED-USER-SECU	RTRV-DFLT-SECU
	CANC-USER	ENT-USER-SECU	RTRV-USER-SECU
	CANC-USER-SECU	INH-MSG-SECU	SET-ATTR-SECUDFLT
	CLR-COND-SECU	REPT ALM SECU	

**Input Format** INH-USER-SECU:[<TID>]::<CTAG>::<UID>;

**Input Example** INH-USER-SECU:PETALUMA::123::CISCO100;

**Input Parameters**

*Table 14-9 INH-USER-SECU Input Parameters*

Parameter and Values	Description
UID	User identifier. String





## INIT Commands

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This chapter provides INIT (initialize) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 15.1 INIT-REG-<MOD2>

Initialize Register (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

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#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command initializes the performance monitoring (PM) registers.



#### Note

- The time period is always the current time period, and the previous time period counts are not cleared; therefore, both <MONDAT> and <MONTM> are not supported in this command.
  - Unless otherwise stated, DS1 cards are the only cards that support the RCV and TRMT directions.
  - INIT-REG-<MOD2> can also be used to initialize the RMON-managed raw data.
- 

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#### Category

Performance

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#### Security

Maintenance

**Related Commands**


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ALW-PMREPT-ALL	RTRV-FFP-<MOD2DWDMPAYLOAD>
DLT-<MOD1PAYLOAD>	RTRV-FFP-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RTRV-FSTE
DLT-FFP-<OCN_TYPE>	RTRV-G1000
DLT-RMONTH-<MOD2_RMON>	RTRV-GFP
ED-<GIGE_TYPE>	RTRV-GIGE
ED-<MOD1FCPAYLOAD>	RTRV-HDLC
ED-<MOD1FICONPAYLOAD>	RTRV-PM-<MOD2>
ED-<MOD2DWDMPAYLOAD>	RTRV-PMMODE-<STS_PATH>
ED-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ED-ALS	RTRV-PMSCHED-ALL
ED-DS1	RTRV-POS
ED-EC1	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ED-FFP-<OCN_TYPE>	RTRV-RMONTH-<MOD2_RMON>
ED-FSTE	RTRV-T1
ED-G1000	RTRV-T3
ED-GFP	RTRV-TH-<MOD2>
ED-HDLC	RTRV-TH-ALL
ED-POS	RTRV-TRC-<MOD2DWDMPAYLOAD>
ED-T1	RTRV-TRC-<OCN_TYPE>
ED-T3	SCHED-PMREPT-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	SET-ALMTH-<MOD2>
ED-TRC-<OCN_TYPE>	SET-PMMODE-<STS_PATH>
ENT-<MOD1PAYLOAD>	SET-TH-<MOD2>
ENT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RMV-<MOD2>
ENT-RMONTH-<MOD2_RMON>	RST-<MOD2>
INH-PMREPT-ALL	RTRV-<MOD1FCPAYLOAD>
OPR-ALS	RTRV-<MOD1FICONPAYLOAD>
OPR-LPBK-<MOD2>	RTRV-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	RTRV-10GIGE
REPT PM <MOD2>	RTRV-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	RTRV-ALS
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-DS1
RTRV-FAC	RTRV-EC1

---



**Input Format**

```
INIT-REG-<MOD2>:[<TID>]:<AID>:<CTAG>::<MONTYPE>,,[<LOCN>],[<DIRN>],[<TMPER>]
[.,];
```

**Input Examples**

```
INIT-REG-OC3:CISCO:FAC-1-1:1234::CVL,,NEND,BTH,15-MIN;
```

**Input Parameters****Table 15-1** *INIT-REG-<MOD2> Input Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. All of the STS, VT1, Facility and DS1 AIDS are supported
<b>MONTYPE</b>	Monitored type Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio

Table 15-1 *INIT-REG-<MOD2> Input Parameters (continued)*

Parameter and Values	Description
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference

**Table 15-1** *INIT-REG-<MOD2> Input Parameters (continued)*

Parameter and Values	Description
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block

Table 15-1 *INIT-REG-<MOD2> Input Parameters (continued)*

Parameter and Values	Description
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count

**Table 15-1** *INIT-REG-<MOD2> Input Parameters (continued)*

<b>Parameter and Values</b>	<b>Description</b>
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count

Table 15-1 *INIT-REG-<MOD2> Input Parameters (continued)*

Parameter and Values	Description
<b>LOCN</b>	Location associated with a particular command in reference to the entity identified by the AID  Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>DIRN</b>	Direction relative to the entity identified by the AID. Defaults to ALL which means that the command initializes all of the registers irrespective of the PM direction  Parameter type is DIRECTION—transmit and receive directions
• BTH	Both transmit and receive directions
• RCV	Receive direction only
• TRMT	Transmit direction only
<b>TMPER</b>	Accumulation time period for performance counters. A null value defaults to 15-MIN. Defaults to 15-MIN  Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
• RAW-DATA	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.

## 15.2 INIT-SYS

Initialize System

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command initializes the specified card and its associated subsystems.

**Note**

- The SLOT-ALL AID and the list AID are not allowed in this command.
- Only one level of reset is supported in this command for the ONS 15454 and the ONS 15327.
- It is important that the standby TCC2/TCC2P should be up and running fully standby before this command is sent on the active TCC2/TCC2P for a period of time. During this time, the system is vulnerable to traffic outages caused by timing disruptions or other causes.
- The ONS 15310-CL supports the RESET parameters for the 15310-CL-CTX, CE-100T-8 and ML-100T-8 cards only.
- The ONS 15600 does not support soft resets on pluggable IO modules (PIMs).
- If a card is hard reset it has to be in one of the following states: OOS-MA, MT; OOS-MA, DSBLD; OOS-AUMA, MT; OOS-AUMA, DSBLD.

**Category**

System

**Security**

Maintenance

**Related Commands**

ACT-USER	ED-TRAPTABLE	RTRV-NE-GEN
ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-SYNCN
COPY-RFILE	INH-MSG-SECU	RTRV-NE-WDMANS
DLT-TRAPTABLE	REPT EVT FXFR	RTRV-TOD
ED-DAT	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-GEN	RTRV-INV	SET-TOD
ED-NE-PATH	RTRV-MAP-NETWORK	
ED-NE-SYNCN	RTRV-NE-APC	

**Input Format**

INIT-SYS:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;::&lt;PH&gt;[,&lt;CMDMODE&gt;];

**Input Examples**

INIT-SYS:HOTWATER:SLOT-8:201::1,FRCD;

## Input Parameters

Table 15-2 *INIT-SYS Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.13 EQPT” section on page 25-27</a>
PH	The phase. PH is a required parameter for the ONS 15600 and ONS 15310-CL. PH is supported on only the CE-100T-8 card on the ONS 15454. Phase is an integer.
• 1	Soft reset
• 2	Hard reset
CMDMDE	Command Mode. Allows the user to override safety checks. CMDMDE is optional for the ONS 15600 and defaults to NORM. CMDMDE is not supported on the ONS 15454, ONS 15327, ONS 15310-CL.  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands, but you can specify FRCD to force the system to override a state where the command would normally be denied.
• FRCD	Force the system to override a state where the command would normally be denied.
• NORM	Execute the command normally. Do not override any conditions that could make the command fail.





## OPR Commands

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### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This chapter provides OPR (operate) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 16.1 OPR-ACO-ALL

Operate Alarm Cutoff All

---

#### Usage Guidelines

Cisco ONS 15454, ONS 15600

This command cuts off the office audible alarm indication without changing the local alarm indications.

This command does not have any effect on future alarms at the network element (NE); it directs the NE to provide conditioning only on those alarms that are currently active.

The ACO retires the Central Office (CO) alarm audible indicators without clearing the indicators that show the trouble still exists. There is no need for a RLS-ACO command.

---

#### Category

Environment

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#### Security

Maintenance

<b>Related Commands</b>	OPR-EXT-CONT	RTRV-ALM-ENV	RTRV-EXT-CONT
	REPT ALM ENV	RTRV-ATTR-CONT	SET-ATTR-CONT
	REPT EVT ENV	RTRV-ATTR-ENV	SET-ATTR-ENV
	RLS-EXT-CONT	RTRV-COND-ENV	SET-ATTR-SECUDFLT

**Input Format** OPR-ACO-ALL:[<TID>]::<CTAG>;

**Input Example** OPR-ACO-ALL:CISCO::123;

### Input Parameters

*Table 16-1 OPR-ACO-ALL Input Parameters*

Parameter and Values	Description
—	

## 16.2 OPR-ALS

Operate Automatic Laser Shutoff

**Usage Guidelines** Cisco ONS 15454, ONS 15310-CL

This command is used to restart the laser of an OC-N facility and in general for all of the facilities that support the ALS feature.

**Category** Ports

**Security** Maintenance

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
	DLT-BULKROLL-<OCN_TYPE>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-BULKROLL-<OCN_TYPE>	RTRV-ALS
	ED-DS1	RTRV-BFDLPM-<MOD2>
	ED-DS3I	RTRV-BULKROLL-<OCN_TYPE>
	ED-EC1	RTRV-DS1
	ED-FAC	RTRV-DS3I
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GFP
	ED-T1	RTRV-GIGE
	ED-T3	RTRV-HDLC
	ENT-<MOD1PAYLOAD>	RTRV-PM-<MOD2>
	ENT-BULKROLL-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-POS
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	INIT-REG-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
	OPR-LPBK-<MOD2>	RTRV-T1
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-T3
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TH-<MOD2>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	REPT RMV <MOD2_IO>	SET-ALMTH-<MOD2>
	REPT RST <MOD2_IO>	SET-TH-<MOD2>
	RLS-LPBK-<MOD2>	
Input Format	OPR-ALS:[<TID>]:<AID>:<CTAG>[:[:]];	

**Input Example**

```
OPR-ALS:CISCO:FAC-1-1:100;
```

**Input Parameters****Table 16-2 OPR-ALS Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.2 AidUnionId”</a> section on <a href="#">page 25-9</a>

## 16.3 OPR-APC

Operate Amplification Power Control

---

### Usage Guidelines

Cisco ONS 15454

This command permits the APC application inside the NE to force regulation of the optical power to the entire DWDM ring.

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### Category

DWDM

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### Security

Maintenance

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### Related Commands

DLT-LNK-<MOD2O>	ED-WLEN	RTRV-FFP-OCH
DLT-LNKTERM	ENT-LNK-<MOD2O>	RTRV-LNK-<MOD2O>
DLT-OSC	ENT-LNKTERM	RTRV-LNKTERM
DLT-WLEN	ENT-OSC	RTRV-NE-APC
ED-APC	ENT-WLEN	RTRV-NE-WDMANS
ED-DWDM	OPR-LASER-OTS	RTRV-OCH
ED-FFP-OCH	OPR-PROTNSW-OCH	RTRV-OMS
ED-LNK-<MOD2O>	OPR-SLV-WDMANS	RTRV-OPM
ED-LNKTERM	OPR-WDMANS	RTRV-OSC
ED-OCH	RLS-LASER-OTS	RTRV-OTS
ED-OMS	RLS-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OSC	RTRV-APC	RTRV-SLV-WDMANS
ED-OTS	RTRV-CLNT	RTRV-TRC-OCH
ED-SLV-WDMANS	RTRV-DWDM	RTRV-WDMANS
ED-TRC-OCH	RTRV-ESCON	RTRV-WLEN
ED-WDMANS		

---

### Input Format

OPR-APC:[<TID>]::<CTAG>[:::];

---

### Input Example

OPR-APC:VA454-22::116;

## Input Parameters

Table 16-3 OPR-APC Input Parameters

Parameter and Values	Description
—	

## 16.4 OPR-EXT-CONT

Operate External Control

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command operates an external control and closes the external control contact. The control can be operated momentarily or continuously.



## Note

- The duration has two values in this release:  
MNTY: Momentary duration  
CONTS: Continuous duration
- In an automatic state, the contact could be opened or closed depending on the provisioned trigger.
- RLS-EXT-CONT changes the state to automatic. Therefore, issuing an OPR-EXT-CONT command when the control is manually open and then issuing a RLS-EXT-CONT will not revert the state back to Manual Open.
- A NULL value for the duration parameter defaults to MNTY in this release.
- RLS-EXT-CONT is not allowed during the MNTY duration, the command is allowed for the CONTS duration. The length of the MNTY duration is set to be 2 seconds on the Cisco ONS 15454.
- RLS-EXT-CONT cannot change the state to automatic if the existing state is Manual Open.



## Caution

Do not turn on external controls that activate a potential danger, such as, sprinklers or other controls connected to possibly hazardous systems or equipment.

## Category

Environment

## Security

Maintenance

<b>Related Commands</b>	OPR-ACO-ALL	RTRV-ALM-ENV	RTRV-EXT-CONT
	REPT ALM ENV	RTRV-ATTR-CONT	SET-ATTR-CONT
	REPT EVT ENV	RTRV-ATTR-ENV	SET-ATTR-ENV
	RLS-EXT-CONT	RTRV-COND-ENV	SET-ATTR-SECUDFLT

**Input Format** OPR-EXT-CONT:[<TID>]:<AID>:<CTAG>::[<CONTTYPE>],[<DURATION>];

**Input Example** OPR-EXT-CONT:CISCO:ENV-OUT-2:123::AIRCOND,CONTS;

### Input Parameters

*Table 16-4 OPR-EXTR-CONT Input Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.12 ENV”</a> section on page 25-26. Must not be null
<b>CONTTYPE</b>	Environmental control type. A null value is equivalent to ALL Parameter type is CONTTYPE—Environmental control types
• AIRCOND	Air conditioning
• ENGINE	Engine
• FAN	Fan
• GEN	Generator
• HEAT	Heat
• LIGHT	Light
• MISC	Miscellaneous
• SPKLR	Sprinkler
<b>DURATION</b>	Duration. A null value is equivalent to ALL Parameter type is Duration—Duration
• CONTS	Continuous duration

## 16.5 OPR-LASER-OTS

Operate Laser Optical Transport Section

**Usage Guidelines** Cisco ONS 15454

This command instructs a laser to switch on.

**Category** DWDM

**Security** Maintenance

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	OPR-WDMANS	TRV-SLV-WDMANS
	ED-OSC	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OTS	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-SLV-WDMANS	RTRV-DWDM	RTRV-WLEN

**Input Format** OPR-LASER-OTS:[<TID>]:<AID>:<CTAG>;

**Input Example** OPR-LASER-OTS::LINE-5-2-TX:3;

**Input Parameters**

**Table 16-5 OPR-LASER-OTS Input Parameters**

Parameter and Values	Description
AID	Access identifier of an optical facility supporting laser from the “25.1.16 LINE” section on page 25-31

## 16.6 OPR-LNK

Operate Link

**Usage Guidelines** Cisco ONS 15454

This command operates the optical link (OLNK) application inside the NE to calculate all the automatic optical links between end points that can be univocally identified by the NE.

**Category** DWDM



**Security** Maintenance

**Related Commands** —

**Input Format** OPR-LNK:[<TID>]::<CTAG>;

**Input Example** OPR-LNK:PENNGROVE::114;

**Input Parameters**

**Table 16-6 OPR-LNK Input Parameters**

Parameter and Values	Description
—	

## 16.7 OPR-LPBK-<MOD2>

Operate Loopback (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command operates a signal loopback on a traffic or a cross-connect card.

The optional [<LPBKTYPE>] defaults to FACILITY in this command if it is given to a port entity. It defaults to CRS if given to an STS entity.



**Note**

- The value CRS for the LPBKTYPE parameter is applicable only for the STS modifier. The FACILITY and TERMINAL values are applicable to the ports.
- The TERMINAL loopback type is not supported for the DS1 line of a DS3XM card.
- Loopbacks are only allowed to be set up if the port/interface/STS\_PATH is in the OOS-MT or in OOS-AINS state.
- Cross-connect loopbacks cannot be applied to the destination end of any 1WAY cross-connect.
- A cross-connect loopback can be applied only on one STS path of a cross-connect.
- FEAC loopbacks can be applied by using the LINE value for LPBKTYPE parameter and specifying the LOCN as FEND. The FEAC loopbacks are supported only on the DS3(T3) and DS1 interfaces on the DS3XM-12 and DS3XM-6 card.
- FEAC loopbacks can be applied only if the DS3 is in C-bit framing format. FEAC loopbacks will override existing loopbacks at the near end on the entity and vice-versa. This means that if a facility loopback has been applied on a port and if the FEAC loopback is applied, then the facility loopback is first released and the far end loopback is applied.

- The LINE value is supported only with the FEND value of the LOCN parameter. FACILITY, TERMINAL, and CRS values are not compatible with the FEND value for the LOCN parameter.
  - A Lockout of the protection command is required before putting the span of either two-fiber or four-fiber BLSR line in loopback.
    - A span lockout of one side (for example, East side) of the two-fiber BLSR is required before operating a Facility (or Terminal) line Loopback on the same side (for example, East side) of the ring.
    - A span lockout of one Protection side (for example, East Protection side) of the four-fiber BLSR is required before operating a Facility (or Terminal) line Loopback on the same side Working line (for example, East Working side) of the ring.
  - FEAC loopbacks on the DS1 interface of a DS3XM card can be applied only if a VT connection has been created on it. An attempt to operate/release FEAC loopbacks in the absence of a VT connection will lead to an error message response.
  - The FEAC line is supported only with the FEND value of the LOCN parameter on DS1, T3 of the DS3XM-12 card.
- 

**Category** Troubleshooting and Test Access

**Security** Maintenance

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE	RTRV-FFP-<OCN_TYPE>
	ED-G1000	RTRV-FSTE
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

**Input Format**

```
OPR-LPBK-<MOD2>:[<TID>]:<AID>:<CTAG>::[<LOCATION>],,,[<LPBKTYPE>];
```

**Input Example**

```
OPR-LPBK-DS1:PTREYES:DS1-4-1-2-13:203::NEND,,,FACILITY;
```

## Input Parameters

Table 16-7 OPR-LPBK-&lt;MOD2&gt; Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.1 ALL” section on page 25-1. The valid values for AID are FACILITY, DS1, and STS
LOCATION	The location where the operation is to be carried out. LOCATION defaults to NEND Parameter type is LOCATION—location where the action is to take place
<ul style="list-style-type: none"> <li>FEND</li> </ul>	Action occurs on the far end of the facility
<ul style="list-style-type: none"> <li>NEND</li> </ul>	Action occurs on the near end of the facility
LPBKTYPE	Type of loopback signal Parameter type is LPBK_TYPE—indicates the type of loopback that is to be operated or released
<ul style="list-style-type: none"> <li>CRS</li> </ul>	Path level loopback that is established at the cross-connect matrix level (the XCVT/XC10G card). An STS-level cross-connect loopback causes an AIS-P to be sent on the outgoing direction of transmission
<ul style="list-style-type: none"> <li>FACILITY</li> </ul>	Type of loopback that connects the incoming received signal immediately following the optical-to-electrical conversion (after descrambling) to the associated transmitter in the return direction
<ul style="list-style-type: none"> <li>LINE</li> </ul>	Line level loopback for a far end DS1 path loop back of the DS3XM. The DS3XM cards only support the DS1 path far end FEAC loopback in this release
<ul style="list-style-type: none"> <li>TERMINAL</li> </ul>	A loopback that connects the signal that is about to be transmitted (after scrambling but before the electrical-to-optical conversion) and is connected to the associated, incoming receiver

## 16.8 OPR-PROTNSW-<MOD2DWDMPAYLOAD>

Operate Protection Switch (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

## Usage Guidelines

Cisco ONS 15454

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command initiates a Y-cable protection switch request. User switch requests initiated with this command remain active until they are released via the RLS-PROTNSW-<MOD2DWDMPAYLOAD> command or are overridden by a higher priority protection switch request.

The switch commands; MAN (Manual Switch), FRCD (Forced Switch) and LOCKOUT (Lockout) are supported by the ONS 15454, however, you must have provisioning or higher privilege to execute FRCD and LOCKOUT operations.

Manual Switch of Protection Line (to Working Line). If the AID identifies the protection line, then (only in the 1+1 architecture) service will be transferred from the protection line to the working line, unless a request of equal or higher priority is in effect.

Manual Switch of Working Line (to Protection Line). If the AID identifies a working line, service will be switched from the working line to the protection line unless a request of equal or higher priority is in effect.

Force Switch of Protection Line (to Working Line). If the AID identifies the protection line, service will be transferred from the protection line to the working line unless a request of equal or higher priority is in effect.

Force Switch of Working Line (to Protection Line). If the AID identifies a working line, service will be transferred from the working line to the protection line unless a request of equal or higher priority is in effect. A lockout of protection and a signal fail of protection line have higher priority than this switch command.

Lockout of Protection Line. If the AID identifies the protection line, this switch command will prevent the working line from switching to protection line. If the working line is already on protection, then the working line will be switched back to its original working line.

Lockout of Working Line. If the AID identifies the working line, this switch command will prevent the working line from switching to protection line. If the working line is already on protection, then the working line will be switched back from protection line to its original working line.

If the command is used against preprovisioned cards, the SROF (Protection Switching Failed) error is returned.

---

**Category**

DWDM

---

**Security**

Maintenance

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE	RTRV-FFP-<OCN_TYPE>
	ED-G1000	RTRV-FSTE
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

**Input Format** OPR-PROTNSW-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>:<CTAG>::<SC>[:];

**Input Example** OPR-PROTNSW-HDTV:CISCO:FAC-1-1-1:100::FRCD;

## Input Parameters

Table 16-8 OPR-PROTNSW-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters

Parameter and Values	Description
SRC	Access identifier from the “25.1.14 FACILITY” section on page 25-28
SC	Switch command that is to be initiated on the paths Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>• APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>• LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Requests a manual switch of the facility

## 16.9 OPR-PROTNSW-<OCN\_TYPE>

Operate Protection Switch (OC3, OC12, OC48, OC192)

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command initiates a SONET line protection switch request. User switch requests initiated with this command remain active until they are released via the RLS-PROTNSW-OCN command or are overridden by a higher priority protection switch request.

The switch commands; MAN (Manual Switch), FRCD (Forced Switch) and LOCKOUT (Lockout) are supported by the ONS 15454.

Manual Switch of Protection Line (to Working Line). If the AID identifies the protection line, then (only in the 1+1 architecture) service will be transferred from the protection line to the working line, unless a request of equal or higher priority is in effect.

Manual Switch of Working Line (to Protection Line). If the AID identifies a working line, then service will be switched from the working line to the protection line unless a request of equal or higher priority is in effect.

Force Switch of Protection Line (to Working Line). If the AID identifies the protection line, then (only in the 1+1 architecture) service will be transferred from the protection line to the working line unless a request of equal or higher priority is in effect.

Force Switch of Working Line (to Protection Line). If the AID identifies a working line, then service will be transferred from the working line to the protection line unless a request of equal or higher priority is in effect. A lockout of protection and a signal fail of protection line have higher priority than this switch command.

Lockout of Protection Line. If the AID identifies the protection line, this switch command will prevent the working line from switching to protection line. If the working line is already on protection, then the working line will be switched back to its original working line.

Lockout of Working Line. If the AID identifies the working line, this switch command will prevent the working line from switching to protection line. If the working line is already on protection, then the working line will be switched back from protection line to its original working line.

The following actions will return error messages:

- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. A query on a common control card will generate an IIAC (Input, Invalid Access Identifier) error message. To use this command on the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.
- Sending this command to electrical cards will return an IIAC (Input, Invalid Access Identifier) error message. To query an electrical card switching command, use the ALW-SWTOPROTN/SWTOWKG-EQPT and INH-SWTOPROTN/SWTOWKG-EQPT commands.
- Sending this command to query on a card that is not in a protection group will return the SNVS (Status, Not in Valid State) error message.
- Sending this command to a working card that is failed or missing will return the SROF (Protection Switching Failed) error message.
- Sending this command to a protect card that is failed or missing will return the SROF (Protection Switching Failed) error message.
- Protection for preprovisioned cards will not succeed.
- Sending this command to a card that is already in protection with a higher priority will return the SSRD (Status, Switch Request Denied) error message.
- Sending this command to an OCN line with a switching mode that is already in mode will return a SAMS (Already in the Maintenance State) error message.
- Sending this command with EXERCISE or APS\_CLEAR switch operation will return an error SROF (Invalid Protection Switch Operation) because these operations are not valid according to GR-833-CORE. The EX-SW-<OCN\_BLSR> is the correct command to perform the EXERCISE switch over the BLSR line.
- Protection switch will be denied if SD/SF is already present on the switching path. If SD/SF is generated on the switching path after the switch is performed, the switch will be overwritten by the APS\_CLEAR state. This does not apply for lockout of protection and forced switch which have higher priority than SD/SF.



**Note**

- To get the protection switching state (manual, lockout, forced), use the RTRV-COND-ALL or RTRV-ALM-ALL commands.
- If the far end of the same span has a higher protection switching state, for example, the near end is under Manual protection switching state, the far end is in the forced protection switching state, the near end protection switching state will be preemptive and shown as APS\_CLEAR switching state over the CTC/TL1 interface. The RTRV-PROTNSW-OCN command is used to retrieve the current switching state of a SONET line.
- Sending the following manual ring switching request:
  - A single TL1 command with both side/span AIDs (in the list AID format) of the same two-fiber or four-fiber ring.
  - The separated (via TL1, or CTC, or TL1 and CTC user interfaces) queries on the both sides/spans of the same two-fiber or four-fiber ring.

on both east and west sides/spans of a two-fiber or four-fiber ring in less than 30-45 seconds will cause the system to execute only one (WEST) side BLSR query and preempt the other (EAST) side query. There will be no event messages coming out for the preempted side whose switching state will be in APS-CLEAR state.

- DIRN is an optional parameter. A NULL value defaults to BTH for a BLSR protection, BTH for 1+1 BI directional protection group, and RCV for 1+1 UNI directional protection group.  
DIRN follows these rules: TRMT will always fail for any kind of protection groups. For two-fiber and four-fiber BLSR protection groups both the RCV and TRMT directions will fail.
- DIRN is applicable for both 1+1 and BLSR protection groups. For example, OPR-PROTNSW can be performed on a BLSR span/ring as follows:  
OPR-PROTNSW-OC48::FAC-5-1:A::LOCKOUT,SPAN:BTH;
- A lockout of the protection command is required before putting the span of either two-fiber or four-fiber BLSR line in loopback. (a) A span lockout of one side (for example, East side) of the two-fiber BLSR is required before operating a Facility (or Terminal) line Loopback on the same side (for example, East side) of the ring. (b) A span lockout of one Protection side (for example, East Protection side) of the four-fiber BLSR is required before operating a Facility (or Terminal) line Loopback on the same side Working line (for example, East Working side) of the ring.
- A span lockout on the working unit is not supported in ONS 15454, ONS 15327 and ONS 15600.

**Category**

Protection

**Security**

Maintenance

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE	RTRV-FFP-<OCN_TYPE>
	ED-G1000	RTRV-FSTE
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

**Input Format** OPR-PROTNSW-<OCN\_TYPE>[:<TID>]:<AID>:<CTAG>::<SC>,[<SWITCHTYPE>][:<DIRN>];

**Input Example** OPR-PROTNSW-OC48:CHICKALUMA:FAC-6-1:204::LOCKOUT,SPAN:BTH;

## Input Parameters

Table 16-9 OPR-PROTNSW-&lt;OCN\_TYPE&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Identifies the facility in the NE to which the switch request is directed
<b>SC</b>	Switch command that is to be initiated on the paths Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>• APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>• LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Requests a manual switch of the facility
<b>SWITCHTYPE</b>	BLSR switch type Parameter type is SWITCH_TYPE—switch type
<ul style="list-style-type: none"> <li>• RING</li> </ul>	BLSR ring switch type
<ul style="list-style-type: none"> <li>• SPAN</li> </ul>	BLSR span switch type
<b>DIRN</b>	The direction relative to the entity defined in the AID field. The direction of the switching. DIRN defaults to RCV Parameter type is DIRECTION—transmit and receive directions
<ul style="list-style-type: none"> <li>• BTH</li> </ul>	Both transmit and receive directions
<ul style="list-style-type: none"> <li>• RCV</li> </ul>	Receive direction only
<ul style="list-style-type: none"> <li>• TRMT</li> </ul>	Transmit direction only

## 16.10 OPR-PROTNSW-<PATH>

Operate Protection Switch (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

This command initiates a SONET path protection (Path Protection) switch request. User switch requests initiated with this command (forced switch, lockout, and manual switch) remain active until they are released through the RLS-PROTNSW-<PATH> command or overridden by a higher priority protection switch request.

**Note**

- This command applies to path protection configurations only.
- The VTAID should be working or protect AID only.
- If you send this command on the Drop AID, a DENY (Invalid AID, should use working/protect AID) message will be returned.
- To get the protection switching state (manual, lockout, forced), use the RTRV-COND-ALL or RTRV-ALM-ALL commands.
- The GR-1400 does not allow the LOCKOUT\_OF\_WORKING on the path protection WORKING path/AID. When sending this command on the path protection WORKING path, a SROF (Invalid Protection Switch Operation) is returned.
- If sending this command with EXERCISE or APS\_CLEAR switch operation, an error SROF (Invalid Protection Switch Operation) will be returned because these operations are not valid according to GR-833-CORE.
- A protection switch will be denied if SD/SF is already present on the switching path. If SD/SF is generated on the switching path after the switch is performed, the switch will be overwritten by the APS\_CLEAR state. This does not apply for lockout of protection and forced switch which have higher priority than SD/SF. This rule does not apply for Lockout of Protection and Forced Switch, which have a higher priority than SD/SF.

**Category**

Protection

**Security**

Maintenance

**Related Commands**

DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-NE-PATH
DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-PROTNSW-<PATH>
ED-<MOD_PATH>	RLS-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-CRS-<PATH>	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>
ED-NE-PATH	RTRV-CRS-<PATH>	

**Input Format**

OPR-PROTNSW-&lt;PATH&gt;:[&lt;TID&gt;]:&lt;SRC&gt;:&lt;CTAG&gt;::&lt;SC&gt;[:];

**Input Example**

OPR-PROTNSW-ST1:CISCO:STS-2-1-1:123::MAN;

## Input Parameters

Table 16-10 OPR-PROTNSW-&lt;PATH&gt; Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.9 CrossConnectId” section on page 25-15
SC	The switch command that is to be initiated on the paths Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>• APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>• LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Requests a manual switch of the facility

## 16.11 OPR-PROTNSW-OCH

Operate Protection Switch Optical Channel

## Usage Guidelines

Cisco ONS 15454

This command performs a protection switch on the trunk port of a card that has splitter protection.

## Category

DWDM

## Security

Maintenance

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-OCH	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	OPR-WDMANS	RTRV-SLV-WDMANS
	ED-OSC	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OTS	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-SLV-WDMANS	RTRV-DWDM	RTRV-WLEN

**Input Format** OPR-PROTNSW-OCH:[<TID>]:<AID>:<CTAG>::<SW>;

**Input Example** OPR-PROTNSW-OCH:VA454-22:CHAN-2-2:100::FRCD;

### Input Parameters

**Table 16-11 OPR-PROTNSW-OCH Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.7 CHANNEL” section on page 25-14. Indicates the trunk port
<b>SW</b>	Switch operation Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>• APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>• LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Requests a manual switch of the facility

## 16.12 OPR-SLV-WDMANS

Operate Span Loss Verification Wavelength Division Multiplexing Automatic Node Set Up

**Usage Guidelines**

Cisco ONS 15454

This command performs the calculation of the expected span loss verification.

**Category**

DWDM

**Security**

Maintenance

**Related Commands**

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
ED-DWDM	ENT-LNKTERM	RTRV-OCH
ED-FFP-OCH	ENT-OSC	RTRV-OMS
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OMS	OPR-WDMANS	RTRV-SLV-WDMANS
ED-OSC	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OTS	RLS-PROTNSW-OCH	RTRV-WDMANS
ED-SLV-WDMANS	RTRV-DWDM	RTRV-WLEN

**Input Format**

OPR-SLV-WDMANS:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;;

**Input Example**

OPR-SLV-WDMANS:VA454-22:WDMANS-E:116;

**Input Parameters****Table 16-12 OPR-SLV-WDMANS Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.29 WDMANS</a> ” section on <a href="#">page 25-42</a>

## 16.13 OPR-SYNCNSW

Operate Synchronization Switch

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command initiates a switch to the reference specified by the synchronization reference number if the reference supplied is valid and of the same quality.

For manual types of switches, the reference to which you want to switch should be of the same quality as the active reference source, otherwise the command will fail.

If you want to switch to a reference of lower quality, use the forced switch option.

The Operate Synchronization Switches are released by the RLS-SYNCNSW command or are overridden by a synchronization reference failure.

Once the switch is effective, a minor alarm “MANSWTOPRI” (Manual Switch to Primary or Secondary Reference...) will be raised.

**Category** Synchronization

**Security** Maintenance

Related Commands	ED-BITS	REPT EVT BITS	RTRV-BITS
	ED-NE-SYCN	REPT EVT SYCN	RTRV-COND-BITS
	ED-SYCN	RLS-SYNCNSW	RTRV-COND-SYCN
	REPT ALM BITS	RTRV-ALM-BITS	RTRV-NE-SYCN
	REPT ALM SYCN	RTRV-ALM-SYCN	RTRV-SYCN

**Input Format** OPR-SYNCNSW:[<TID>]:[<AID>]:<CTAG>::<SWITCHTO>,[<SC>];

**Input Example** OPR-SYNCNSW:CISCO:SYNC-NE:3::PRI,MAN;

#### Input Parameters

**Table 16-13 OPR-SYNCNSW Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.25 SYNC_REF</a> ” section on <a href="#">page 25-40</a> . Defaults to SYNC-NE
<b>SWITCHTO</b>	Access identifier from the “ <a href="#">25.1.26 SYNCNSW</a> ” section on <a href="#">page 25-40</a> . Identifies the new synchronization reference that will be used
<b>SC</b>	Switch command to be initiated on the paths. Only MAN and FRCD switches are allowed for this command Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>MAN</li> </ul>	Requests a manual switch of the facility



## 16.14 OPR-WDMANS

Operate Wavelength Division Multiplexing Automatic Node Set Up

### Usage Guidelines

Cisco ONS 15454

This command initiates the Automatic Optical Node Set Up (AONS) application inside the NE to force a recompute of the value to be assigned to all VOAs representing the optical path inside the node.

### Category

DWDM

### Security

Maintenance

### Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
ED-DWDM	ENT-LNKTERM	RTRV-OCH
ED-FFP-OCH	ENT-OSC	RTRV-OMS
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
ED-OSC	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OTS	RLS-PROTNSW-OCH	RTRV-WDMANS
ED-SLV-WDMANS	RTRV-DWDM	RTRV-WLEN

### Input Format

OPR-WDMANS:[<TID>]::<CTAG>;

### Input Example

OPR-WDMANS:PENNGROVE::114;

### Input Parameters

**Table 16-14 OPR-WDMANS Input Parameters**

Parameter and Values	Description
—	





## REPT Messages

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This chapter provides REPT (report) messages for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 17.1 REPT ALM <MOD2ALM>

Report Alarm (1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, DS1, E100, E1000, E3, E4, EC1, FSTE, G1000, GFPOS, GIGE, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, UDCDCC, UDCF, VC12, VC3, VCG, VT1, VT2, WLEN)

---

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
Reports an alarm condition against a facility or a path.  
See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

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**Category** Fault

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**Security** Retrieve

Related Commands			
	CLR-COND-SECU	REPT EVT ENV	RTRV-ALM-ENV
	REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-EQPT
	REPT ALM COM	REPT EVT FXFR	RTRV-ALM-SYNCN
	REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
	REPT ALM EQPT	REPT EVT SECU	RTRV-COND-ALL
	REPT ALM SECU	REPT EVT SESSION	RTRV-COND-BITS
	REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-ENV
	REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-EQPT
	REPT EVT BITS	RTRV-ALM-ALL	RTRV-COND-SYNCN
	REPT EVT COM	RTRV-ALM-BITS	

**Output Format**

```

SID DATE TIME
** ATAG REPT ALM <MOD2ALM>
  "<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
  [<OCRTM>],,:[<DESC>],[<AIDDET>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM 1GFC
  "FAC-2-1:MJ,LOS,SA,08-01,14-25-59,,:""LOSS OF SIGNAL\"",OC12"
;

```

**Output Parameters****Table 17-1 REPT ALM <MOD2ALM> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">"25.1.1 ALL" section on page 25-1</a>
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported

Table 17-1 REPT ALM &lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date. Optional
<b>OCRTM</b>	Time. Optional
<b>DESC</b>	Condition description. Optional
<b>AIDDET</b>	AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. Optional Parameter type is EQPT_TYPE—the type of equipment being provisioned into a slot
• AD-1B	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
• AD-1C	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
• AD-2C	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
• AD-4B	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
• AD-4C	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
• AICI	The AICI card
• AIP	The Alarm Indicator Panel
• ALM-PWR	Alarm Power
• ASAP-4	ASAP Carrier card with four PIM slots
• BP	The Backplane of the NE
• CE-100T-8	8 port CE-100T card on ONS 15454 and ONS 15310-CL
• CRFT-TMG	Craft Timing
• DCC	The Data Communications Channel
• DMX-32	Optical De/Multiplexed (DMX) 32 Channels
• DS1-14	A 14 port interface card supporting DS1 facilities
• DS1N-14	A 14 port interface card supporting DS1 facilities
• DS3-12	A 12 port interface card supporting DS3 facilities
• DS3-3	A 3 port interface card supporting DS3 facilities
• DS3-EC1-48	High Density DS3/EC1 card supporting 48 ports

Table 17-1 REPT ALM &lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
• DS3ATM-12	A 12 port interface card supporting DS3 ATM facilities
• DS3CR-12	Cost reduced DS3
• DS3E-12	A 12 port DS3 enhancement interface card supporting DS3E facilities
• DS3N-12	A 12 port interface card supporting DS3 facilities
• DS3NE-12	A 12 port DS3 enhancement interface card supporting DS3E facilities
• DS3XM-6	An interface card that converts six framed DS-3 network connections to 28x6 or 168 VT1.5s
• E1000T-2	A 2 port interface card supporting 1000 Base T Ethernet facilities
• E100T-12	A 12 port interface card supporting 100 Base T Ethernet facilities
• E100T-4	A 4 port interface card supporting 100 Base T Ethernet facilities (ONS 15327)
• EC1-12	A 12 port interface card supporting EC1 facilities
• EC1N-12	A 12 port interface card supporting EC1 facilities
• FILLER_CARD	Smart Filler card (ONS 15600)
• FTA	The Fan Tray of the NE
• FTA1	The Fan Tray 1 of the NE
• FTA2	The Fan Tray 2 of the NE
• G1K-4	A four port G1000 card
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC-28-3-A	ONS 15327 MIC card A
• MIC-28-3-B	ONS 15327 MIC card B
• MIC-EXT	ONS 15327 MIC card
• MIC-GEN	ONS 15327 MIC card
• ML-100T-8	8 port ML-100T card (ONS 15310-CL)
• MUX-32	Optical Multiplexed (MUX) 32 Channels
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• OC12	An interface card that supports one or more OC-12 (622Mbs) optical facilities
• OC12-327	OC12 card (ONS 15327)
• OC12-4	A four port OC12 card
• OC12-IR-1	An interface card that supports one intermediate-range OC-12 (622Mbs) optical facilities
• OC12-LR-1	An interface card that supports one long-range OC-12 (622Mbs) optical facilities
• OC12-SR-1	An interface card that supports one short-range OC-12 (622Mbs) optical facilities

**Table 17-1 REPT ALM <MOD2ALM> Output Parameters (continued)**

Parameter and Values	Description
• OC192_4	4 port OC-192 card (ONS 15600)
• OC192-LR-1	An interface card that supports one or more OC-192 optical facilities
• OC3	An interface card that supports multiple OC-3 (155Mbs) optical facilities
• OC3-327	ONS 15327 OC3 card
• OC3-IR-4	An interface card that supports four intermediate range OC-3 (155Mbs) optical facilities
• OC3-SR-4	An interface card that supports four short range OC-3 (155Mbs) optical facilities
• OC3ATM-IR-6	An interface card that supports six intermediate range OC-3 (155Mbs) ATM optical fibers
• OC3IR-STM1SH-1310-8	An OC3 card which has 8 ports over the lower speed slot of the ONS 15454 with XC10G/192
• OC3POS-SR-4	An interface card that supports four short range OC-3 (155Mbs) POS optical facilities
• OC48	An interface card that supports one or more OC-48 optical facilities
• OC48-327	ONS 15327 OC-48 card
• OC48-AS-1	An interface card that supports one short range OC-48 (10Gbs) optical facilities that can be provisioned in any I/O slot
• OC48-ELR-1	An interface card that supports one short range OC-48 (2.5Gbs) optical facility
• OC48-IR-1	An interface card that supports one intermediate range OC-48 (10Gbs) optical facility
• OC48-LR-1	An interface card that supports one long range OC-48 (10Gbs) optical facility
• OC48-SR-1	An interface card that supports one short range OC-48 (10Gbs) optical facilities
• OC-48_16	16 port OC48 card (ONS 15600)
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	Pluggable interface module with 4 PPM slots
• PPM-1	Pluggable port module with 1 port SFP module
• SSXC	Cross connect card (ONS 15600)
• TCC	The Timing Communication and Control card
• TSC	Timing and synchronization controller card (ONS 15600)
• TXP-MR-10G	10G Multirate Transponder Card

**Table 17-1** REPT ALM <MOD2ALM> Output Parameters (continued)

Parameter and Values	Description
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XCVT	A Cross-Connect card
• XC10G	A Cross-Connect card
• XTC	ONS 15327 XTC card
• XTC-DS1-14	ONS 15327 XTC DS1-14 card
• XTC-DS1-28	ONS 15327 XTC DS1-28 card
• XTC-DS1-56	ONS 15327 XTC DS1-56 card
• XTC-DS3-3	ONS 15327 XTC DS3-3 card



## 17.2 REPT ALM BITS

Report Alarm Building Integrated Timing Supply

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
Reports an alarm condition on a BITS facility.

**Category** Synchronization

**Security** Retrieve

Related Commands			
CLR-COND-SECU	REPT EVT COM	RTRV-ALM-EQPT	
ED-BITS	REPT EVT ENV	RTRV-ALM-SYNCN	
ED-NE-SYNCN	REPT EVT EQPT	RTRV-BITS	
ED-SYNCN	REPT EVT FXFR	RTRV-COND-<MOD2ALM>	
OPR-SYNCNSW	REPT EVT IOSCFG	RTRV-COND-ALL	
REPT ALM <MOD2ALM>	REPT EVT SECU	RTRV-COND-BITS	
REPT ALM COM	REPT EVT SESSION	RTRV-COND-ENV	
REPT ALM ENV	REPT EVT SYNCN	RTRV-COND-EQPT	
REPT ALM EQPT	RLS-SYNCNSW	RTRV-COND-SYNCN	
REPT ALM SECU	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN	
REPT ALM SYNCN	RTRV-ALM-ALL	RTRV-SYNCN	
REPT EVT <MOD2ALM>	RTRV-ALM-BITS		
REPT EVT BITS	RTRV-ALM-ENV		

**Output Format**

```
SID DATE TIME
** ATAG REPT ALM BITS
"<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],[<OCRTM>],,:[<DESC>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM BITS
"BITS-1:MJ,SYNC,SA,08-01,14-25-59,,:\\"LOSS OF TIMING\\""
;
```

## Output Parameters

Table 17-2 REPT ALM BITS Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.5 BITS” section on page 25-13</a>
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> </ul>	The condition causing the alarm has cleared
<ul style="list-style-type: none"> <li>• CR</li> </ul>	A critical alarm
<ul style="list-style-type: none"> <li>• MJ</li> </ul>	A major alarm
<ul style="list-style-type: none"> <li>• MN</li> </ul>	A minor alarm
<ul style="list-style-type: none"> <li>• NA</li> </ul>	The condition is not alarmed
<ul style="list-style-type: none"> <li>• NR</li> </ul>	The alarm is not reported
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>OCRDAT</b>	Date. Optional
<b>OCRTM</b>	Time. Optional
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
<ul style="list-style-type: none"> <li>• NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>• SA</li> </ul>	The condition is service affecting
<b>DESC</b>	Condition description. Optional

## 17.3 REPT ALM COM

Report Alarm Common

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports an alarm condition when an AID cannot be given, for example, a fan failure is reported using this message.

### Category

Fault

**Security** Retrieve

Related Commands			
CLR-COND-SECU	REPT EVT ENV	RTRV-ALM-ENV	
REPT ALM <MOD2ALM>	REPT EVT EQPT	RTRV-ALM-EQPT	
REPT ALM BITS	REPT EVT FXFR	RTRV-ALM-SYNCN	
REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>	
REPT ALM EQPT	REPT EVT SECU	RTRV-COND-ALL	
REPT ALM SECU	REPT EVT SESSION	RTRV-COND-BITS	
REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-ENV	
REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-EQPT	
REPT EVT BITS	RTRV-ALM-ALL	RTRV-COND-SYNCN	
REPT EVT COM	RTRV-ALM-BITS		

**Output Format**

```
SID DATE TIME
** ATAG REPT ALM COM
“[<AID>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],[<OCRTM>],,:[<DESC>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM COM
“COM:MJ,FAN,NSA,08-01,14-25-59,,:\“FAN FAILURE\””
;
```

**Output Parameters**

**Table 17-3 REPT ALM COM Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. Identifies the entity to which the command pertains. Indicates an alarm without AID. String. Optional
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported

Table 17-3 REPT ALM COM Output Parameters (continued)

Parameter and Values	Description
CONDTYPE	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
OCRDAT	Date. Optional
OCRTM	Time. Optional
SRVEFF	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
<ul style="list-style-type: none"> <li>• NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>• SA</li> </ul>	The condition is service affecting
DESC	Condition description. Optional

## 17.4 REPT ALM ENV

Report Alarm Environment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports a customer-defined condition on an environmental alarm input.

### Category

Environment

### Security

Retrieve

Related Commands			
	CLR-COND-SECU	REPT EVT EQPT	RTRV-ATTR-CONT
	OPR-ACO-ALL	REPT EVT FXFR	RTRV-ATTR-ENV
	OPR-EXT-CONT	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
	REPT ALM <MOD2ALM>	REPT EVT SECU	RTRV-COND-ALL
	REPT ALM BITS	REPT EVT SESSION	RTRV-COND-BITS
	REPT ALM COM	REPT EVT SYNCN	RTRV-COND-ENV
	REPT ALM EQPT	RLS-EXT-CONT	RTRV-COND-EQPT
	REPT ALM SECU	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
	REPT ALM SYNCN	RTRV-ALM-ALL	RTRV-EXT-CONT
	REPT EVT <MOD2ALM>	RTRV-ALM-BITS	SET-ATTR-CONT
	REPT EVT BITS	RTRV-ALM-ENV	SET-ATTR-ENV
	REPT EVT COM	RTRV-ALM-EQPT	SET-ATTR-SECUDFLT
	REPT EVT ENV	RTRV-ALM-SYNCN	

**Output Format**

```

SID DATE TIME
** ATAG REPT ALM ENV
"<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCRDAT>],[<OCRTM>],[<DESC>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM ENV
"ENV-IN-1:MJ,OPENDR,08-01,14-25-59,\"OPEN DOOR\""
;

```

**Output Parameters****Table 17-4 REPT ALM ENV Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.12 ENV”</a> section on page 25-26. Identifies an environmental input
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>ALMTYPE</b>	Abbreviated code identifying the alarm Parameter type is ENV_ALM—environmental alarm types

Table 17-4 REPT ALM ENV Output Parameters (continued)

Parameter and Values	Description
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnect bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door

Table 17-4 REPT ALM ENV Output Parameters (continued)

Parameter and Values	Description
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure
OCRDAT	Date. Optional
OCRTM	Time. Optional
DESC	Condition description. Optional

## 17.5 REPT ALM EQPT

Report Alarm Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
Reports an alarm condition against an equipment unit or slot.

### Category

Equipment

**Security** Retrieve

Related Commands			
ALW-SWDX-EQPT	REPT EVT <MOD2ALM>	RTRV-ALM-EQPT	
ALW-SWTOPROTN-EQPT	REPT EVT BITS	RTRV-ALM-SYNCN	
ALW-SWTOWKG-EQPT	REPT EVT COM	RTRV-ALMTH-EQPT	
CLR-COND-SECU	REPT EVT ENV	RTRV-COND-<MOD2ALM>	
DLT-EQPT	REPT EVT EQPT	RTRV-COND-ALL	
ED-EQPT	REPT EVT FXFR	RTRV-COND-BITS	
ENT-EQPT	REPT EVT IOSCFG	RTRV-COND-ENV	
INH-SWDX-EQPT	REPT EVT SECU	RTRV-COND-EQPT	
INH-SWTOPROTN-EQPT	REPT EVT SESSION	RTRV-COND-SYNCN	
INH-SWTOWKG-EQPT	REPT EVT SYNCN	RTRV-EQPT	
REPT ALM <MOD2ALM>	REPT RMV EQPT	SET-ALMTH-EQPT	
REPT ALM BITS	REPT RST EQPT	SW-DX-EQPT	
REPT ALM COM	RTRV-ALM-<MOD2ALM>	SW-TOPROTN-EQPT	
REPT ALM ENV	RTRV-ALM-ALL	SW-TOWKG-EQPT	
REPT ALM SECU	RTRV-ALM-BITS		
REPT ALM SYNCN	RTRV-ALM-ENV		

**Output Format**

```

SID DATE TIME
** ATAG REPT ALM EQPT
  "<AID>:<NTFCNCDE>,<CONDITION>,<SRVEFF>,"
  [<OCRDAT>],[<OCRTM>],,:[<DESC>],[<AIDDET>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM EQPT
  "SLOT-7:MJ,CONTR,NSA,08-01,14-25-59,,:""CONTROLLER FAILURE\","TCC"
;

```

### Output Parameters

**Table 17-5 REPT ALM EQPT Output Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">"25.1.13 EQPT"</a> section on page 25-27. Equipment AID SLOT-{ 1-17 }
NTFCNCDE	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message



Table 17-5 REPT ALM EQPT Output Parameters (continued)

Parameter and Values	Description
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>CONDITION</b>	Condition type for an alarm or a reported event  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition  Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date. Optional
<b>OCRTM</b>	Time. Optional
<b>DESC</b>	Condition description. Optional
<b>AIDDET</b>	AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed.  Optional  Parameter type is EQPT_TYPE—the type of equipment being provisioned into a slot
• AD-1B	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
• AD-1C	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
• AD-2C	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
• AD-4B	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
• AD-4C	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
• AICI	The AICI card
• AIP	The Alarm Indicator Panel
• ALM-PWR	Alarm Power
• ASAP-4	ASAP Carrier card with four PIM slots
• BP	The Backplane of the NE
• CE-100T-8	Eight port CE-100T card on ONS 15454 and ONS 15310-CL
• CRFT-TMG	Craft Timing
• DCC	The Data Communications Channel

Table 17-5 REPT ALM EQPT Output Parameters (continued)

Parameter and Values	Description
• DMX-32	Optical De/Multiplexed (DMX) 32 Channels
• DS1-14	A 14 port interface card supporting DS1 facilities
• DS1N-14	A 14 port interface card supporting DS1 facilities
• DS3-12	A 12 port interface card supporting DS3 facilities
• DS3-3	A three port interface card supporting DS3 facilities
• DS3-EC1-48	High Density DS3/EC1 card supporting 48 ports
• DS3ATM-12	A 12 port interface card supporting DS3 ATM facilities
• DS3CR-12	Cost reduced DS3
• DS3E-12	A 12 port DS3 enhancement interface card supporting DS3E facilities
• DS3N-12	A 12 port interface card supporting DS3 facilities
• DS3NE-12	A 12 port DS3 enhancement interface card supporting DS3E facilities
• DS3XM-6	An interface card that converts six framed DS-3 network connections to 28x6 or 168 VT1.5s
• E1000T-2	A two port interface card supporting 1000 BASE T Ethernet facilities
• E100T-12	A 12 port interface card supporting 100 BASE T Ethernet facilities
• E100T-4	A four port interface card supporting 100 BASE T Ethernet facilities
• EC1-12	A 12 port interface card supporting EC1 facilities
• EC1N-12	A 12 port interface card supporting EC1 facilities
• FILLER_CARD	Smart Filler card (ONS 15600)
• FTA	The fan tray of the NE
• FTA1	The fan tray 1 of the NE
• FTA2	The fan tray 2 of the NE
• G1K-4	A four port G1000 card
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC-28-3-A	ONS 15327 MIC card A
• MIC-28-3-B	ONS 15327 MIC card B
• MIC-EXT	ONS 15327 MIC card
• MIC-GEN	ONS 15327 MIC card
• ML-100T-8	Eight port ML-100T card (ONS 15310-CL)
• MUX-32	Optical Multiplexed (MUX) 32 Channels
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• OC12	An interface card that supports one or more OC-12 (622Mbps) optical facilities
• OC12-327	ONS 15327 OC-12 card

**Table 17-5 REPT ALM EQPT Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• OC12-4	A four port OC-12 card
• OC12-IR-1	An interface card that supports one intermediate range OC-12 (622Mbps) optical facilities
• OC12-LR-1	An interface card that supports one long range OC-12 (622Mbps) optical facilities
• OC12-SR-1	An interface card that supports one short range OC-12 (622Mbps) optical facilities
• OC192_4	4 port OC192 card (ONS 15600)
• OC192-LR-1	An interface card that supports one or more OC-192 optical facilities
• OC3	An interface card that supports multiple OC-3 (155Mbps) optical facilities
• OC3-327	ONS 15327 OC-3 card
• OC3-IR-4	An interface card that supports four intermediate range OC-3 (155Mbps) optical facilities
• OC3-SR-4	An interface card that supports four short range OC-3 (155Mbps) optical facilities
• OC3ATM-IR-6	An interface card that supports six intermediate range OC-3 (155Mbps) ATM optical fibers
• OC3IR-STM1SH-1310-8	An OC-3 card which has eight ports over the lower speed slot of the ONS 15454 with XC10G/192
• OC3POS-SR-4	An interface card that supports four short range OC-3 (155Mbps) POS optical facilities
• OC48	An interface card that supports one or more OC-48 (10Gbs) optical facilities
• OC48-327	ONS 15327 OC48 card
• OC48-AS-1	An interface card that supports one short-range OC-48 (10Gbs) optical facilities that can be provisioned in any I/O slot
• OC48-ELR-1	An interface card that supports one short-range OC-48 (2.5Gbs) optical facility
• OC48-IR-1	An interface card that supports one intermediate-range OC-48 (10Gbs) optical facility
• OC48-LR-1	An interface card that supports one long-range OC-48 (10Gbs) optical facility
• OC48-SR-1	An interface card that supports one short-range OC-48 (10Gbs) optical facilities
• OC-48_16	16 port OC-48 card (ONS 15600)
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)

**Table 17-5 REPT ALM EQPT Output Parameters (continued)**

Parameter and Values	Description
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	Pluggable interface module with four PPM slots
• PPM-1	Pluggable port module with one port SFP module
• SSXC	Cross connect card (ONS 15600)
• TCC	The Timing Communication and Control card
• TSC	Timing and synchronization controller card (ONS 15600)
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XCVT	A Cross-Connect card
• XC10G	A Cross-Connect card
• XTC	ONS 15327 XTC card
• XTC-DS1-14	ONS 15327 XTC DS1-14 card
• XTC-DS1-28	ONS 15327 XTC DS1-28 card
• XTC-DS1-56	ONS 15327 XTC DS1-56 card
• XTC-DS3-3	ONS 15327 XTC DS3-3 card

## 17.6 REPT ALM SECU

Report Alarm Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of an alarmed security event against the NE.

Based on TR-NWT-000835, the AID of the security alarm should be the Connection IDentifier (CID) which is not currently supported.

The COM or UID is an acceptable substitute for the AID.



### Note

The INTRUSION-PSWD condition is the only condition that is reported as a standing condition instead of a transient condition. It defaults to NA and is reported by the REPT EVT SECU message. However, it can be reprovisioned to be reported at a higher severity. If the severity of this alarm is higher than NA, it is reported by the REPT ALM SECU message.

### Category

Security

### Security

Superuser

Related Commands			
ACT-USER	REPT ALM COM	RTRV-ALM-BITS	
ALW-MSG-SECU	REPT ALM ENV	RTRV-ALM-ENV	
ALW-USER-SECU	REPT ALM EQPT	RTRV-ALM-EQPT	
CANC	REPT ALM SYNCN	RTRV-ALM-SYNCN	
CANC-USER	REPT EVT <MOD2ALM>	RTRV-CMD-SECU	
CANC-USER-SECU	REPT EVT BITS	RTRV-COND-<MOD2ALM>	
CLR-COND-SECU	REPT EVT COM	RTRV-COND-ALL	
DLT-USER-SECU	REPT EVT ENV	RTRV-COND-BITS	
ED-CMD-SECU	REPT EVT EQPT	RTRV-COND-ENV	
ED-PID	REPT EVT FXFR	RTRV-COND-EQPT	
ED-USER-SECU	REPT EVT IOSCFG	RTRV-COND-SYNCN	
ENT-USER-SECU	REPT EVT SECU	RTRV-DFLT-SECU	
INH-MSG-SECU	REPT EVT SESSION	RTRV-USER-SECU	
INH-USER-SECU	REPT EVT SYNCN	SET-ATTR-SECUDFLT	
REPT ALM <MOD2ALM>	RTRV-ALM-<MOD2ALM>		
REPT ALM BITS	RTRV-ALM-ALL		

**Output Format**

```

SID DATE TIME
** ATAG REPT ALM SECU
"<AID>:<NOTIFCODE>,<SECUALMTYPE>"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM SECU
"COM:CR,INTRUSION-PSWD"
;

```

**Output Parameters****Table 17-6 REPT ALM SECU Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. Identifies an entity with the condition. Defaults to COM. String
<b>NOTIFCODE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed

Table 17-6 REPT ALM SECU Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>NR</li> </ul>	The alarm is not reported
<b>SECUALMTYPE</b>	Security alarm type. It is a subset of the CONDITION type. In this release the only allowable type is INTRUSION-PSWD Parameter type is SECUALMTYPE—security alarm type
<ul style="list-style-type: none"> <li>INTRUSION-PSWD</li> </ul>	Condition raised after an invalid password is used during login. This condition is raised only if the password is used a specific number of times

## 17.7 REPT ALM SYNCN

Report Alarm Synchronization

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
Reports an alarm condition against a synchronization reference.

### Category

Synchronization

### Security

Retrieve

### Related Commands

CLR-COND-SECU	REPT EVT COM	RTRV-ALM-EQPT
ED-BITS	REPT EVT ENV	RTRV-ALM-SYNCN
ED-NE-SYNCN	REPT EVT EQPT	RTRV-BITS
ED-SYNCN	REPT EVT FXFR	RTRV-COND- <MOD2ALM>
OPR-SYNCNSW	REPT EVT IOSCFG	RTRV-COND-ALL
REPT ALM <MOD2ALM>	REPT EVT SECU	RTRV-COND-BITS
REPT ALM BITS	REPT EVT SESSION	RTRV-COND-ENV
REPT ALM COM	REPT EVT SYNCN	RTRV-COND-EQPT
REPT ALM ENV	RLS-SYNCNSW	RTRV-COND-SYNCN
REPT ALM EQPT	RTRV-ALM- <MOD2ALM>	RTRV-NE-SYNCN
REPT ALM SECU	RTRV-ALM-ALL	RTRV-SYNCN
REPT EVT <MOD2ALM>	RTRV-ALM-BITS	
REPT EVT BITS	RTRV-ALM-ENV	

**Output Format**

```
SID DATE TIME
** ATAG REPT ALM SYNCN
"<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],[<OCRTM>],,:[<DESC>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM SYNCN
"SYNC-NE:MJ,MAN,SA,08-01,14-25-59,,:\"MANUAL SWITCH\";"
;
```

**Output Parameters****Table 17-7 REPT ALM SYNCN Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.25 SYNC_REF”</a> section on page 25-40. Identifies a synchronization reference with alarm condition
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> or a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date. Optional
<b>OCRTM</b>	Time. Optional
<b>DESC</b>	Condition description. Optional

## 17.8 REPT DBCHG

Report Database Change Message

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports any changes on the NE that result from:

- TL1 provisioning commands or their GUI equivalents containing the verbs: ALW, DLT, ED, ENT, INH, INIT, OPR, RLS, SET, and SW (for example, DLT-EQPT, ENT-CRS-ST51)
- External event such as a board insertion
- When secondary state is changed from AINS state to any other state, no REPT DBCHG messages are generated



### Note

- The REPT DBCHG is turned off by default. To turn REPT DBCHG on, you must issue the ALW-MSG-DBCHG command.
- REPT DBCHG messages will be generated every time a roll is performed. A cross-connect delete and add REPT DBCHG message will not be sent every time a roll is performed; instead a REPT DBCHG message on the roll will be sent.

### Category

Log

### Security

Retrieve

### Related Commands

ALW-MSG-DBCHG                      INH-MSG-DBCHG                      RTRV-LOG

### Output Format

```
SID DATE TIME
A ATAG REPT DBCHG
  "TIME=<TIME>,DATE=<DATE>,[SOURCE=<SOURCE>],[USERID=<USERID>],
  DBCHGSEQ=<DBCHGSEQ>:<COMMAND>:[<AID>]:::[<PSTPSTQ>],[<SST>"
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
A 100 REPT DBCHG
  "TIME=14-35-46,DATE=99-07-28,SOURCE=123,USERID=CISCO15,DBCHGSEQ=456:
  ENT-CRS-VT1:VT1-4-1-2-6-4:::PST-PSTQ,SST"
;
```



## Output Parameters

Table 17-8 REPT DBCHG Output Parameters

Parameter and Values	Description
<b>TIME</b>	The time of the message triggered by the NE
<b>DATE</b>	The date of the message triggered by the NE
<b>SOURCE</b>	An input-command CTAG if present. String. Maximum length of 20 characters. Optional
<b>USERID</b>	The user name or user identifier. String. Maximum length of 20 characters. Optional
<b>DBCHGSEQ</b>	Identifier or range of identifiers to be retrieved. It is a sequential number of the DBCHGSEQ message. Integer
<b>COMMAND</b>	The input command or substitute. Maximum length of 20 characters. String
<b>AID</b>	Access identifier. Maximum length of 64 characters. Excess characters will be truncated. String
<b>PSTPSTQ</b>	Admin state in the PST-PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SST</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 17.9 REPT EVT <MOD2ALM>

Report Event (1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, DS1, E100, E1000, E3, E4, EC1, FSTE, G1000, GFPOS, GIGE, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, UDCDCC, UDCF, VC12, VC3, VCG, VT1, VT2, WLEN)

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of a non-alarmed event. Beginning with R5.0, REPT EVT <MOD2ALM> can report the RMON-managed threshold crossing alarm.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

**Category**

Fault

**Security**

Retrieve

**Related Commands**

CLR-COND-SECU	REPT EVT ENV	RTRV-ALM-ENV
REPT ALM <MOD2ALM>	REPT EVT EQPT	RTRV-ALM-EQPT
REPT ALM BITS	REPT EVT FXFR	RTRV-ALM-SYNCN
REPT ALM COM	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
REPT ALM ENV	REPT EVT SECU	
REPT ALM EQPT	REPT EVT SESSION	RTRV-COND-ALL
REPT ALM SECU	REPT EVT SYNCN	RTRV-COND-BITS
REPT ALM SYNCN	RTRV-ALM-<MOD2ALM>	RTRV-COND-ENV
REPT EVT BITS	RTRV-ALM-ALL	RTRV-COND-EQPT
REPT EVT COM	RTRV-ALM-BITS	RTRV-COND-SYNCN

**Output Format**

```
SID DATE TIME
A ATAG REPT EVT <MOD2ALM>
  "<AID>:<CONDTYPE>,[<CONDEFF>],,,[<LOCN>],[<MONVAL>],[<THLEV>],
  [<TMPER>]:[<DESC>],[<AIDDET>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT 1GFC
  "FAC-5-1:WKSWPR,TC,,,FEND,,12,13,15-MIN:\\"WORKING SWITCH TOPROTECTION\\",
  OC48"
;
```

## Output Parameters

Table 17-9 REPT EVT &lt;MOD2ALM&gt; Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 node, whether the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, “Conditions” for a list of conditions
<b>CONDEFF</b>	The effect of the event on the condition of the NE Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>LOCN</b>	Location associated with a particular command in reference to the entity identified by the AID Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>MONVAL</b>	Monitored value. Value to which the register identified by MONTYPE will be initialized or the measured value of a monitored parameter. The value is in the form of numeric counts or rates. Float. Optional
<b>THLEV</b>	Threshold level. Float. Optional
<b>TMPER</b>	Accumulation time period for performance counters. Optional Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.

Table 17-9 REPT EVT &lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>RAW-DATA</li> </ul>	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.
<b>DESC</b>	Condition description. Optional
<b>AIDDET</b>	AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. Optional Parameter type is EQPT_TYPE—the type of equipment being provisioned into a slot
<ul style="list-style-type: none"> <li>AD-1B</li> <li>AD-1C</li> <li>AD-2C</li> <li>AD-4B</li> <li>AD-4C</li> </ul>	<ul style="list-style-type: none"> <li>Optical Add/Drop Multiplexed (OADM) 1 Band Filter</li> <li>Optical Add/Drop Multiplexed (OADM) 1 Channel Filter</li> <li>Optical Add/Drop Multiplexed (OADM) 2 Channels Filter</li> <li>Optical Add/Drop Multiplexed (OADM) 4 Bands Filter</li> <li>Optical Add/Drop Multiplexed (OADM) 4 Channels Filter</li> </ul>
<ul style="list-style-type: none"> <li>AICI</li> <li>AIP</li> <li>ALM-PWR</li> <li>ASAP-4</li> <li>BP</li> <li>CE-100T-8</li> <li>CRFT-TMG</li> <li>DCC</li> <li>DMX-32</li> <li>DS1-14</li> <li>DS1N-14</li> <li>DS3-12</li> <li>DS3-3</li> <li>DS3-EC1-48</li> <li>DS3ATM-12</li> <li>DS3CR-12</li> <li>DS3E-12</li> <li>DS3N-12</li> <li>DS3NE-12</li> <li>DS3XM-6</li> <li>E1000T-2</li> </ul>	<ul style="list-style-type: none"> <li>The AICI card</li> <li>The Alarm Indicator Panel</li> <li>Alarm Power</li> <li>ASAP Carrier card with four PIM slots</li> <li>The Backplane of the NE</li> <li>Eight port CE-100T card on ONS 15454 and ONS 15310-CL</li> <li>Craft Timing</li> <li>The Data Communications Channel</li> <li>Optical De/Multiplexed (DMX) 32 Channels</li> <li>A 14 port interface card supporting DS1 facilities</li> <li>A 14 port interface card supporting DS1 facilities</li> <li>A 12 port interface card supporting DS3 facilities</li> <li>A three port interface card supporting DS3 facilities</li> <li>High Density DS3/EC1 card supporting 48 ports</li> <li>A 12 port interface card supporting DS3 ATM facilities</li> <li>Cost reduced DS3</li> <li>A 12 port DS3 enhancement interface card supporting DS3E facilities</li> <li>A 12 port interface card supporting DS3 facilities</li> <li>A 12 port DS3 enhancement interface card supporting DS3E facilities</li> <li>An interface card that converts six framed DS-3 network connections to 28x6 or 168 VT1.5s</li> <li>A two port interface card supporting 1000 BASE T Ethernet facilities</li> </ul>

**Table 17-9 REPT EVT <MOD2ALM> Output Parameters (continued)**

Parameter and Values	Description
• E100T-12	A 12 port interface card supporting 100 BASE T Ethernet facilities
• E100T-4	A four port interface card supporting 100 BASE T Ethernet facilities.
• EC1-12	A 12 port interface card supporting EC1 facilities
• EC1N-12	A 12 port interface card supporting EC1 facilities
• FILLER_CARD	Smart Filler card (ONS 15600)
• FTA	The fan tray of the NE
• FTA1	The fan tray 1 of the NE
• FTA2	The fan tray 2 of the NE
• G1K-4	A four port G1000 card
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC-28-3-A	ONS 15327 MIC card A
• MIC-28-3-B	ONS 15327 MIC card B
• MIC-EXT	ONS 15327 MIC card
• MIC-GEN	ONS 15327 MIC card
• ML-100T-8	Eight port 100T card on ONS 15310-CL
• MUX-32	Optical Multiplexed (MUX) 32 Channels
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• OC12	An interface card that supports one or more OC-12 (622Mbps) optical facilities
• OC12-327	OC-12 card (ONS 15327)
• OC12-4	A four port OC12 card
• OC12-IR-1	An interface card that supports one intermediate range OC-12 (622Mbps) optical facilities
• OC12-LR-1	An interface card that supports one long range OC-12 (622Mbps) optical facilities
• OC12-SR-1	An interface card that supports one short range OC-12 (622Mbps) optical facilities
• OC192_4	A four port OC192 card (ONS 15600)
• OC192-LR-1	An interface card that supports one or more OC-192 optical facilities
• OC3	An interface card that supports multiple OC-3 (155Mbps) optical facilities
• OC3-327	ONS 15327 OC-3 card
• OC3-IR-4	An interface card that supports four intermediate range OC-3 (155Mbps) optical facilities
• OC3-SR-4	An interface card that supports four short range OC-3 (155Mbps) optical facilities

Table 17-9 REPT EVT &lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
• OC3ATM-IR-6	An interface card that supports six intermediate range OC-3 (155Mbps) ATM optical fibers
• OC3IR-STM1SH-1310-8	An OC-3 card which has 8 ports over the lower speed slot of the ONS 15454 with XC10G/192
• OC3POS-SR-4	An interface card that supports four short range OC-3 (155Mbps) POS optical facilities
• OC48	An interface card that supports one or more OC-48 (10Gbps) optical facilities
• OC48-327	OC-48 card (ONS 15327)
• OC48-AS-1	An interface card that supports one short range OC-48 (10Gbps) optical facilities that can be provisioned in any I/O slot
• OC48-ELR-1	An interface card that supports one short range OC-48 (2.5Gbps) optical facility
• OC48-IR-1	An interface card that supports one intermediate range OC-48 (10Gbs) optical facility
• OC48-LR-1	An interface card that supports one long range OC-48 (10Gbs) optical facility
• OC48-SR-1	An interface card that supports one short range OC-48 (10Gbs) optical facilities
• OC-48_16	16 port OC-48 card (ONS 15600)
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	Pluggable interface module with four PPM slots
• PPM-1	Pluggable port module with 1 port SFP module
• SSXC	Cross connect card (ONS 15600)
• TCC	The Timing Communication and Control card
• TSC	Timing and synchronization controller card (ONS 15600)
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XCVT	A Cross-Connect card
• XC10G	A Cross-Connect card
• XTC	ONS 15327 XTC card
• XTC-DS1-14	ONS 15327 XTC DS1-14 card
• XTC-DS1-28	ONS 15327 XTC DS1-28 card

Table 17-9 REPT EVT &lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
• XTC-DS1-56	ONS 15327 XTC DS1-56 card
• XTC-DS3-3	ONS 15327 XTC DS3-3 card

## 17.10 REPT EVT BITS

Report Event Building Integrated Timing Supply

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
Reports a non-alarmed event against a BITS facility.

### Category

Synchronization

### Security

Retrieve

### Related Commands

CLR-COND-SECU	REPT EVT COM	RTRV-ALM-EQPT
ED-BITS	REPT EVT ENV	RTRV-ALM-SYNCN
ED-NE-SYNCN	REPT EVT EQPT	RTRV-BITS
ED-SYNCN	REPT EVT FXFR	RTRV-COND-<MOD2ALM>
OPR-SYNCNSW	REPT EVT IOSCFG	RTRV-COND-ALL
REPT ALM <MOD2ALM>	REPT EVT SECU	RTRV-COND-BITS
REPT ALM BITS	REPT EVT SESSION	RTRV-COND-ENV
REPT ALM COM	REPT EVT SYNCN	RTRV-COND-EQPT
REPT ALM ENV	RLS-SYNCNSW	RTRV-COND-SYNCN
REPT ALM EQPT	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN
REPT ALM SECU	RTRV-ALM-ALL	RTRV-SYNCN
REPT ALM SYNCN	RTRV-ALM-BITS	
REPT EVT <MOD2ALM>	RTRV-ALM-ENV	

### Output Format

```
SID DATE TIME
** ATAG REPT EVT BITS
"<AID>:<CONDTYPE>,<CONDEFF>],,,,,,:[<DESC>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT ALM BITS
  "BITS-1:SSM-STU,TC,,,,,,;\ "SYNCHRONIZED - TRACEABILITY UNKNOWN\ ""
;
```

**Output Parameters****Table 17-10 REPT EVT BITS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.5 BITS” section on page 25-13</a>
<b>CONDTYPE</b>	Condition type for an alarm or a reported event  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 node, whether the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>CONDEFF</b>	The effect of the event on the condition of the NE  Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>DESC</b>	Condition description. Optional

## 17.11 REPT EVT COM

Report Event Common

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports a non-alarmed event against an NE when there is no AID associated with it.

**Category**

Fault

**Security**

Retrieve



Related Commands			
	CLR-COND-SECU	REPT EVT ENV	RTRV-ALM-ENV
	REPT ALM <MOD2ALM>	REPT EVT EQPT	RTRV-ALM-EQPT
	REPT ALM BITS	REPT EVT FXFR	RTRV-ALM-SYNCN
	REPT ALM COM	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
	REPT ALM ENV	REPT EVT SECU	RTRV-COND-ALL
	REPT ALM EQPT	REPT EVT SESSION	RTRV-COND-BITS
	REPT ALM SECU	REPT EVT SYNCN	RTRV-COND-ENV
	REPT ALM SYNCN	RTRV-ALM-<MOD2ALM>	RTRV-COND-EQPT
	REPT EVT <MOD2ALM>	RTRV-ALM-ALL	RTRV-COND-SYNCN
	REPT EVT BITS	RTRV-ALM-BITS	

**Output Format**

```

SID DATE TIME
A ATAG REPT EVT COM
“[<AID>]:<CONDTYPE>,<CONDEFF>],,,,,,:[<DESC>]”
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT COM
“COM:CLDRESTART,TC,,,,,:\\“COLD RESTART\\”,”
;

```

**Output Parameters****Table 17-11 REPT EVT COM Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. Identifies the entity to which the command pertains. String. Optional
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>CONDEFF</b>	The effect of the event on the condition of the NE Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>DESC</b>	Condition description. Optional

## 17.12 REPT EVT ENV

Report Event Environment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of a non-alarmed event against an environment alarm input.

### Category

Environment

### Security

Retrieve

### Related Commands

CLR-COND-SECU	REPT EVT EQPT	RTRV-ATTR-CONT
OPR-ACO-ALL	REPT EVT FXFR	RTRV-ATTR-ENV
OPR-EXT-CONT	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
REPT ALM <MOD2ALM>	REPT EVT SECU	RTRV-COND-ALL
REPT ALM BITS	REPT EVT SESSION	RTRV-COND-BITS
REPT ALM COM	REPT EVT SYNCN	RTRV-COND-ENV
REPT ALM ENV	RLS-EXT-CONT	RTRV-COND-EQPT
REPT ALM EQPT	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
REPT ALM SECU	RTRV-ALM-ALL	RTRV-EXT-CONT
REPT ALM SYNCN	RTRV-ALM-BITS	SET-ATTR-CONT
REPT EVT <MOD2ALM>	RTRV-ALM-ENV	SET-ATTR-ENV
REPT EVT BITS	RTRV-ALM-EQPT	SET-ATTR-SECUDFLT
REPT EVT COM	RTRV-ALM-SYNCN	

### Output Format

```
SID DATE TIME
A ATAG REPT EVT ENV
  "<AID>:<ALMTYPE>,<CONDEFF>],,,,,,:[<DESC>]"
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT ENV
  "ENV-IN-2:OPENDR,TC,,,,,:\\"OPEN DOOR\\""
;
```

## Output Parameters

Table 17-12 REPT EVT ENV Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26. Identifies an environmental input
<b>ALMTYPE</b>	Abbreviated code identifying the alarm Parameter type is ENV_ALM—environmental alarm types
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnect bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity

Table 17-12 REPT EVT ENV Output Parameters (continued)

Parameter and Values	Description
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure
<b>CONDEFF</b>	The effect of the event on the condition of the NE Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>DESC</b>	Condition description. Optional

## 17.13 REPT EVT EQPT

Report Event Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of a non-alarmed event against an equipment unit or slot.

### Category

Equipment

### Security

Retrieve

### Related Commands

ALW-SWDX-EQPT	REPT ALM SYNCN	RTRV-ALM-EQPT
ALW-SWTOPROTN-EQPT	REPT EVT <MOD2ALM>	RTRV-ALM-SYNCN
ALW-SWTOWKG-EQPT	REPT EVT BITS	RTRV-ALMTH-EQPT
CLR-COND-SECU	REPT EVT COM	RTRV-COND-<MOD2ALM>
DLT-EQPT	REPT EVT ENV	RTRV-COND-ALL
ED-EQPT	REPT EVT FXFR	RTRV-COND-BITS
ENT-EQPT	REPT EVT IOSCFG	RTRV-COND-ENV
INH-SWDX-EQPT	REPT EVT SECU	RTRV-COND-EQPT
INH-SWTOPROTN-EQPT	REPT EVT SESSION	RTRV-COND-SYNCN
INH-SWTOWKG-EQPT	REPT EVT SYNCN	RTRV-EQPT
REPT ALM <MOD2ALM>	REPT RMV EQPT	SET-ALMTH-EQPT
REPT ALM BITS	REPT RST EQPT	SW-DX-EQPT
REPT ALM COM	RTRV-ALM-<MOD2ALM>	SW-TOPROTN-EQPT
REPT ALM ENV	RTRV-ALM-ALL	SW-TOWKG-EQPT
REPT ALM EQPT	RTRV-ALM-BITS	
REPT ALM SECU	RTRV-ALM-ENV	

### Output Format

```
SID DATE TIME
A ATAG REPT EVT EQPT
  "<AID>:<CONDTYPE>,<CONDEFF>],,,,,,:[<DESC>],[<AIDDET>]"
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT EQPT
  "SLOT-7:PLUGIN,TC,,,,,:\\"EQUIPMENT PLUG-IN\\",TCC"
;
```

## Output Parameters

Table 17-13 REPT EVT EQPT Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.13 EQPT” section on page 25-27. Equipment AID SLOT-{1-17}
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, “Conditions” for a list of conditions
<b>CONDEFF</b>	The effect of the event on the condition of the NE Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>DESC</b>	Condition description. Optional
<b>AIDDET</b>	AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. Optional Parameter type is EQPT_TYPE—the type of equipment being provisioned into a slot
• AD-1B	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
• AD-1C	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
• AD-2C	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
• AD-4B	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
• AD-4C	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
• AICI	The AICI card
• AIP	The Alarm Indicator Panel
• ALM-PWR	Alarm Power
• ASAP-4	ASAP Carrier card with four PIM slots
• BP	The Backplane of the NE
• CE-100T-8	Eight port CE-100T card on ONS 15454 and ONS 15310-CL
• CRFT-TMG	Craft Timing
• DCC	The Data Communications Channel
• DMX-32	Optical De/Multiplexed (DMX) 32 Channels
• DS1-14	A 14 port interface card supporting DS1 facilities
• DS1N-14	A 14 port interface card supporting DS1 facilities
• DS3-12	A 12 port interface card supporting DS3 facilities

**Table 17-13 REPT EVT EQPT Output Parameters (continued)**

Parameter and Values	Description
• DS3-3	A three port interface card supporting DS3 facilities
• DS3-EC1-48	High Density DS3/EC1 card supporting 48 ports
• DS3ATM-12	A 12 port interface card supporting DS3 ATM facilities
• DS3CR-12	Cost reduced DS3
• DS3E-12	A 12 port DS3 enhancement interface card supporting DS3E facilities
• DS3N-12	A 12 port interface card supporting DS3 facilities
• DS3NE-12	A 12 port DS3 enhancement interface card supporting DS3E facilities
• DS3XM-6	An interface card that converts six framed DS-3 network connections to 28x6 or 168 VT1.5s
• E1000T-2	A two port interface card supporting 1000 Base T Ethernet facilities
• E100T-12	A 12 port interface card supporting 100 Base T Ethernet facilities
• E100T-4	A four port interface card supporting 100 Base T Ethernet facilities.
• EC1-12	A 12 port interface card supporting EC1 facilities
• EC1N-12	A 12 port interface card supporting EC1 facilities
• FILLER_CARD	Smart Filler card (ONS 15600)
• FTA	The fan tray of the NE
• FTA1	The fan tray 1 of the NE
• FTA2	The fan tray 2 of the NE
• G1K-4	A four port G1000 card
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC-28-3-A	ONS 15327 MIC card A
• MIC-28-3-B	ONS 15327 MIC card B
• MIC-EXT	ONS 15327 MIC card
• MIC-GEN	ONS 15327 MIC card
• ML-100T-8	Eight port 100T card on ONS 15310-CL
• MUX-32	Optical Multiplexed (MUX) 32 Channels
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• OC12	An interface card that supports one or more OC-12 (622Mbps) optical facilities
• OC12-327	ONS 15327 OC-12 card
• OC12-4	A four port OC-12 card
• OC12-IR-1	An interface card that supports one intermediate range OC-12 (622Mbps) optical facilities
• OC12-LR-1	An interface card that supports one long range OC-12 (622Mbps) optical facilities

**Table 17-13 REPT EVT EQPT Output Parameters (continued)**

Parameter and Values	Description
• OC12-SR-1	An interface card that supports one short range OC-12 (622Mbps) optical facilities
• OC192_4	Four port OC192 card (ONS 15600)
• OC192-LR-1	An interface card that supports one or more OC-192 optical facilities
• OC3	An interface card that supports multiple OC-3 (155Mbps) optical facilities
• OC3-327	ONS 15327 OC-3 card
• OC3-IR-4	An interface card that supports four intermediate range OC-3 (155Mbps) optical facilities
• OC3-SR-4	An interface card that supports four short range OC-3 (155Mbps) optical facilities
• OC3ATM-IR-6	An interface card that supports six intermediate range OC-3 (155Mbps) ATM optical fibers
• OC3IR-STM1SH-1310-8	An OC-3 card which has eight ports over the lower speed slot of the ONS 15454 with XC10G/192
• OC3POS-SR-4	An interface card that supports four short range OC-3 (155Mbps) POS optical facilities
• OC48	An interface card that supports one or more OC-48 (10Gbs) optical facilities
• OC48-327	ONS 15327 OC-48 card
• OC48-AS-1	An interface card that supports one short range OC-48 (10Gbs) optical facilities that can be provisioned in any I/O slot
• OC48-ELR-1	An interface card that supports one short range OC-48 (2.5Gbs) optical facility
• OC48-IR-1	An interface card that supports one intermediate range OC-48 (10Gbs) optical facility
• OC48-LR-1	An interface card that supports one long range OC-48 (10Gbs) optical facility
• OC48-SR-1	An interface card that supports one short range OC-48 (10Gbs) optical facilities
• OC-48_16	16 port OC48 card (ONS 15600)
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	Pluggable interface module with 4 PPM slots
• PPM-1	Pluggable port module with 1 port SFP module
• SSXC	Cross connect card (ONS 15600)



**Table 17-13 REPT EVT EQPT Output Parameters (continued)**

Parameter and Values	Description
• TCC	The Timing Communication and Control card
• TSC	Timing and synchronization controller card (ONS 15600)
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XCVT	A Cross-Connect card
• XC10G	A Cross-Connect card
• XTC	ONS 15327 XTC card
• XTC-DS1-14	ONS 15327 XTC DS1-14 card
• XTC-DS1-28	ONS 15327 XTC DS1-28 card
• XTC-DS1-56	ONS 15327 XTC DS1-56 card
• XTC-DS3-3	ONS 15327 XTC DS3-3 card

## 17.14 REPT EVT FXFR

Report Event Software Download

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

Reports the FTP software download status of the start, completion, and completed percentage.



#### Note

The FXFR\_RSLT is only sent when the FXFR\_STATUS is COMPLD.



#### Note

The BYTES\_XFRD is only sent when the FXFR\_STATUS is IP or COMPLD.

### Category

File Transfer

### Security

Retrieve

Related Commands			
	ACT-USER	REPT ALM ENV	RTRV-COND-<MOD2ALM>
	ALW-MSG-ALL	REPT ALM EQPT	RTRV-COND-ALL
	ALW-MSG-DBCHG	REPT ALM SECU	RTRV-COND-BITS
	ALW-MSG-SECU	REPT ALM SYNCN	RTRV-COND-ENV
	CLR-COND-SECU	REPT EVT <MOD2ALM>	RTRV-COND-EQPT
	COPY-RFILE	REPT EVT BITS	RTRV-COND-SYNCN
	DLT-TRAPTABLE	REPT EVT COM	RTRV-HDR
	ED-DAT	REPT EVT ENV	RTRV-INV
	ED-NE-GEN	REPT EVT EQPT	RTRV-MAP-NETWORK
	ED-NE-PATH	REPT EVT IOSCFG	RTRV-NE-APC
	ED-NE-SYNCN	REPT EVT SECU	RTRV-NE-GEN
	ED-TRAPTABLE	REPT EVT SESSION	RTRV-NE-IPMAP
	ENT-TRAPTABLE	REPT EVT SYNCN	RTRV-NE-PATH
	INH-MSG-ALL	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN
	INH-MSG-DBCHG	RTRV-ALM-ALL	RTRV-NE-WDMANS
	INH-MSG-SECU	RTRV-ALM-BITS	RTRV-TOD
	INIT-SYS	RTRV-ALM-ENV	RTRV-TRAPTABLE
	REPT ALM <MOD2ALM>	RTRV-ALM-EQPT	SET-TOD
	REPT ALM BITS	RTRV-ALM-SYNCN	
	REPT ALM COM		

**Output Format**

```

SID DATE TIME
A ATAG REPT EVT FXFR
  "<FILENAME>,<FXFR_STATUS>,[<FXFR_RSLT>],[<BYTES_XFRD>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT FXFR
  "NEW.PKG,COMPLD,SUCCESS,21215147"
;

```

## Output Parameters

Table 17-14 REPT EVT FXFR Output Parameters

Parameter and Values	Description
<b>FILENAME</b>	When a package is being transferred between the FTP server and the controller cards, the filename field will contain the string ACTIVE. Following this transfer, if there is a second common-control card on the NE, the file will be copied over to the second card during which time REPT EVT FXFR messages will be generated with a filename of STANDBY. String
<b>FXFR_STATUS</b>	The status of the file transfer: Start, IP (in progress), or COMPLD Parameter type is TX_STATUS—status of the file transfer
<ul style="list-style-type: none"> <li>• COMPLD</li> <li>• IP</li> <li>• START</li> </ul>	<ul style="list-style-type: none"> <li>The file transmission is completed</li> <li>The file transmission is in progress</li> <li>The file transmission is started</li> </ul>
<b>FXFR_RSLT</b>	The result of the file transfer: Success or Failure. Optional Parameter type is TX_RSLT—result of the file transfer
<ul style="list-style-type: none"> <li>• FAILURE</li> <li>• SUCCESS</li> </ul>	<ul style="list-style-type: none"> <li>A failed result</li> <li>A successful result</li> </ul>
<b>BYTES_XFRD</b>	The percentage of bytes transferred. String. Optional

## 17.15 REPT EVT IOSCFG

Report Event Internet Operating System Configuration File

## Usage Guidelines

Cisco ONS 15454

Reports the status of copying the Cisco IOS configuration file when the COPY-IOSCFG command is issued.

**Note**

You can identify if this message is caused by a Cisco IOS config file downloading/uploading/merging by looking at the SRC and DEST field in the message. See the “[8.1 COPY-IOSCFG](#)” section on page 8-1 for more details.

**Note**

There is no success/failure in the message to indicate the success or failure of the merge process when merging the startup Cisco IOS config file to the running config file.

## Category

File Transfer

## Security

Retrieve

Related Commands			
	CLR-COND-SECU	REPT EVT COM	RTRV-ALM-ENV
	COPY-IOSCFG	REPT EVT ENV	RTRV-ALM-EQPT
	REPT ALM <MOD2ALM>	REPT EVT EQPT	RTRV-ALM-SYNCN
	REPT ALM BITS	REPT EVT FXFR	RTRV-COND-<MOD2ALM>
	REPT ALM COM	REPT EVT SECU	RTRV-COND-ALL
	REPT ALM ENV	REPT EVT SESSION	RTRV-COND-BITS
	REPT ALM EQPT	REPT EVT SYNCN	RTRV-COND-ENV
	REPT ALM SECU	RTRV-ALM-<MOD2ALM>	RTRV-COND-EQPT
	REPT ALM SYNCN	RTRV-ALM-ALL	RTRV-COND-SYNCN
	REPT EVT <MOD2ALM>	RTRV-ALM-BITS	
	REPT EVT BITS		

**Output Format**

```

SID DATE TIME
A ATAG REPT EVT IOSCFG
  "<AID>:<SRC>,<DEST>,<STATUS>,[<RESULT>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT IOSCFG
  "SLOT-1:STARTUP,IOS-CONFIG-FILE-IN-NETWORK,COMPLD,SUCCESS"
;

```

**Output Parameters***Table 17-15 REPT EVT IOSCFG Output Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27. Slot AID for the equipment
<b>SRC</b>	Source access identifier. Specifies where the Cisco IOS config file is copied from. String
<b>DEST</b>	Destination. Specifies where the Cisco IOS config file is copied to. String
<b>STATUS</b>	The status of COPY-IOSCFG: Start, IP, or COMPLD Parameter type is TX_STATUS—status of the file transfer
• COMPLD	The file transmission is completed
• IP	The file transmission is in progress
• START	The file transmission is started
<b>RESULT</b>	The result of the file transfer: Success or Failure. Optional Parameter type is TX_RSLT—result of the file transfer
• FAILURE	A failed result
• SUCCESS	A successful result

## 17.16 REPT EVT SECU

Report Event Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of a non-alarmed security event against the NE.

Based on TR-NWT-000835 in TR-NWT-000835 and the AID of the security alarm should be the Connection Identifier (CID) which is not supported in this release. The COM or UID is an acceptable substitute for the AID here. CIDs will be supported in a future release.

For the rule of single failure, single message/alarm, the security alarm will not be reported as REPT ALM COM, because it is reported as REPT ALM SECU.

Because the NE sends this security message as a transient message, to make all TL1 autonomous messages consistent, the TL1 agent reports the security message into REPT EVT SECU.

This message is inhibited by default. A superuser will have to issue the ALW-MSG-SECU to see this message.

### Category

Security

### Security

Superuser

### Related Commands

ACT-USER	REPT ALM ENV	RTRV-ALM-BITS
ALW-MSG-SECU	REPT ALM EQPT	RTRV-ALM-ENV
ALW-USER-SECU	REPT ALM SECU	RTRV-ALM-EQPT
CANC	REPT ALM SYNCN	RTRV-ALM-SYNCN
CANC-USER	REPT EVT <MOD2ALM>	RTRV-CMD-SECU
CANC-USER-SECU	REPT EVT BITS	RTRV-COND-<MOD2ALM>
CLR-COND-SECU	REPT EVT COM	RTRV-COND-ALL
DLT-USER-SECU	REPT EVT ENV	RTRV-COND-BITS
ED-CMD-SECU	REPT EVT EQPT	RTRV-COND-ENV
ED-PID	REPT EVT FXFR	RTRV-COND-EQPT
ED-USER-SECU	REPT EVT IOSCFG	RTRV-COND-SYNCN
ENT-USER-SECU	REPT EVT SESSION	RTRV-DFLT-SECU
INH-MSG-SECU	REPT EVT SYNCN	RTRV-USER-SECU
INH-USER-SECU	RTRV-ALM-<MOD2ALM>	SET-ATTR-SECUDFLT
REPT ALM <MOD2ALM>	RTRV-ALM-ALL	
REPT ALM BITS		
REPT ALM COM		

**Output Format**

```

SID DATE TIME
A ATAG REPT EVT SECU
  "<AID>:<DNFIELD>,<CONDEFF>],,,,,,;:<SECURITY>:<DNFIELD1>"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT SECU
  "COM:LOGIN-FAILURE-PSWD,TC,,,,,;:\\"SECURITY:
  INVALID LOGIN - PASSWORD - SEE AUDIT LOG\\""
;

```

**Output Parameters****Table 17-16 REPT EVT SECU Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. Identifies an entity with the condition. Defaults to COM. String
<b>DNFIELD</b>	String
<b>CONDEFF</b>	The effect of the event on the condition of the NE Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>SECURITY</b>	String
<b>DNFIELD1</b>	String

## 17.17 REPT EVT SESSION

Report Event Session

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports a non-alarmed event related to establishing a session with the NE.

**Note**

- The WARN field might contain different information depending on the type of session-related event.
- If the password aging feature has not been enabled (or the feature is enabled but the password is not close to expiring):  
/\*USER <UID> LOGGED IN <IP/SERIAL PORT\*/
- If the forced password feature is enforced and the user is logging in for the first time (or the password has expired):

/\*PLEASE CHANGE PASSWORD BEFORE CONTINUING\*/

- If a session is terminated for any reason (except a user timeout), the reason for the session termination is indicated in the warning (<WARN>).

---

**Category** Security

---

**Security** Retrieve

---

<b>Related Commands</b>	ACT-USER	REPT ALM COM	RTRV-ALM-BITS
	ALW-MSG-SECU	REPT ALM ENV	RTRV-ALM-ENV
	ALW-USER-SECU	REPT ALM EQPT	RTRV-ALM-EQPT
	CANC	REPT ALM SECU	RTRV-ALM-SYCN
	CANC-USER	REPT ALM SYCN	RTRV-CMD-SECU
	CANC-USER-SECU	REPT EVT <MOD2ALM>	RTRV-COND-<MOD2ALM>
	CLR-COND-SECU	REPT EVT BITS	RTRV-COND-ALL
	DLT-USER-SECU	REPT EVT COM	RTRV-COND-BITS
	ED-CMD-SECU	REPT EVT ENV	RTRV-COND-ENV
	ED-PID	REPT EVT EQPT	RTRV-COND-EQPT
	ED-USER-SECU	REPT EVT FXFR	RTRV-COND-SYCN
	ENT-USER-SECU	REPT EVT IOSCFG	RTRV-DFLT-SECU
	INH-MSG-SECU	REPT EVT SECU	RTRV-USER-SECU
	INH-USER-SECU	REPT EVT SYCN	SET-ATTR-SECUDFLT
	REPT ALM <MOD2ALM>	RTRV-ALM-<MOD2ALM>	
	REPT ALM BITS	RTRV-ALM-ALL	

---

**Output Format**

```

SID DATE TIME
A ATAG REPT EVT SESSION
  "<AID>:<EXP>,<PCN>"
  "<WARN>"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT SESSION
  "TCCP:YES,5-DAY"
  "/* USER TERRI LOGGED IN TO TCCP */"
;

```

## Output Parameters

Table 17-17 REPT EVT SESSION Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier. Identifies the NE with which a session is established. String
<b>EXP</b>	Indicates whether the password is alive (for example, no password updating is required at the moment), expired, or is about to expire Parameter type is YES_NO—indicates whether the user's password is about to expire, the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes
<b>PCN</b>	The number of days still remaining before the existing password expires. PCN appears only if EXP=YES and either <ul style="list-style-type: none"> <li>The warning period has not been exhausted or</li> <li>The user is a new user establishing a session for the first time and the forced password change policy has been activated.</li> </ul> String
<b>WARN</b>	Free format text containing additional information about the security event. String

## 17.18 REPT EVT SYNCN

Report Event Synchronization

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the occurrence of a non-alarmed event against a synchronization entity.

## Category

Synchronization

## Security

Retrieve



Related Commands			
	CLR-COND-SECU	REPT EVT BITS	RTRV-ALM-EQPT
	ED-BITS	REPT EVT COM	RTRV-ALM-SYNCN
	ED-NE-SYNCN	REPT EVT ENV	RTRV-BITS
	ED-SYNCN	REPT EVT EQPT	RTRV-COND-<MOD2ALM>
	OPR-SYNCNSW	REPT EVT FXFR	RTRV-COND-ALL
	REPT ALM <MOD2ALM>	REPT EVT IOSCFG	RTRV-COND-BITS
	REPT ALM BITS	REPT EVT SECU	RTRV-COND-ENV
	REPT ALM COM	REPT EVT SESSION	RTRV-COND-EQPT
	REPT ALM ENV	RLS-SYNCNSW	RTRV-COND-SYNCN
	REPT ALM EQPT	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN
	REPT ALM SECU	RTRV-ALM-ALL	RTRV-SYNCN
	REPT ALM SYNCN	RTRV-ALM-BITS	
	REPT EVT <MOD2ALM>	RTRV-ALM-ENV	

**Output Format**

```

SID DATE TIME
A ATAG REPT EVT SYNCN
  “<AID>:<CONDTYPE>,<CONDEFF>],,,,,,:[<DESC>],[<AIDDET>]”
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT SYNCN
  “SYNC-NE:SWTOINT,SC,,,,,:\\“SWITCH TO INTERNAL CLOCK”,TCC”
;

```

**Output Parameters****Table 17-18 REPT EVT SYNCN Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.25 SYNC_REF”</a> section on page 25-40. Identifies a synchronization reference with alarm condition
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>CONDEFF</b>	The effect of the event on the condition of the NE Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared

**Table 17-18 REPT EVT SYNCN Output Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• SC</li> </ul>	Standing condition raised
<ul style="list-style-type: none"> <li>• TC</li> </ul>	Transient condition
<b>DESC</b>	Condition description. Optional
<b>AIDDET</b>	AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. Optional Parameter type is EQPT_TYPE—the type of equipment being provisioned into a slot
<ul style="list-style-type: none"> <li>• AD-1B</li> </ul>	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
<ul style="list-style-type: none"> <li>• AD-1C</li> </ul>	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
<ul style="list-style-type: none"> <li>• AD-2C</li> </ul>	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
<ul style="list-style-type: none"> <li>• AD-4B</li> </ul>	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
<ul style="list-style-type: none"> <li>• AD-4C</li> </ul>	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
<ul style="list-style-type: none"> <li>• AICI</li> </ul>	The AICI card
<ul style="list-style-type: none"> <li>• AIP</li> </ul>	The Alarm Indicator Panel
<ul style="list-style-type: none"> <li>• ALM-PWR</li> </ul>	Alarm Power
<ul style="list-style-type: none"> <li>• ASAP-4</li> </ul>	ASAP Carrier card with four PIM slots
<ul style="list-style-type: none"> <li>• BP</li> </ul>	The Backplane of the NE
<ul style="list-style-type: none"> <li>• CE-100T-8</li> </ul>	Eight port CE-100T card on ONS 15454 and ONS 15310-CL
<ul style="list-style-type: none"> <li>• CRFT-TMG</li> </ul>	Craft Timing
<ul style="list-style-type: none"> <li>• DCC</li> </ul>	The Data Communications Channel
<ul style="list-style-type: none"> <li>• DMX-32</li> </ul>	Optical De/Multiplexed (DMX) 32 Channels
<ul style="list-style-type: none"> <li>• DS1-14</li> </ul>	A 14 port interface card supporting DS1 facilities
<ul style="list-style-type: none"> <li>• DS1N-14</li> </ul>	A 14 port interface card supporting DS1 facilities
<ul style="list-style-type: none"> <li>• DS3-12</li> </ul>	A 12 port interface card supporting DS3 facilities
<ul style="list-style-type: none"> <li>• DS3-3</li> </ul>	A three port interface card supporting DS3 facilities
<ul style="list-style-type: none"> <li>• DS3-EC1-48</li> </ul>	High Density DS3/EC1 card supporting 48 ports
<ul style="list-style-type: none"> <li>• DS3ATM-12</li> </ul>	A 12 port interface card supporting DS3 ATM facilities
<ul style="list-style-type: none"> <li>• DS3CR-12</li> </ul>	Cost reduced DS-3
<ul style="list-style-type: none"> <li>• DS3E-12</li> </ul>	A 12 port DS-3 enhancement interface card supporting DS3E facilities
<ul style="list-style-type: none"> <li>• DS3N-12</li> </ul>	A 12 port interface card supporting DS-3 facilities
<ul style="list-style-type: none"> <li>• DS3NE-12</li> </ul>	A 12 port DS3 enhancement interface card supporting DS3E facilities
<ul style="list-style-type: none"> <li>• DS3XM-6</li> </ul>	An interface card that converts six framed DS-3 network connections to 28x6 or 168 VT1.5s
<ul style="list-style-type: none"> <li>• E1000T-2</li> </ul>	A two port interface card supporting 1000 BASE T Ethernet facilities

**Table 17-18 REPT EVT SYNCN Output Parameters (continued)**

Parameter and Values	Description
• E100T-12	A 12 port interface card supporting 100 BASE T Ethernet facilities
• E100T-4	A four port interface card supporting 100 BASE T Ethernet facilities
• EC1-12	A 12 port interface card supporting EC1 facilities
• EC1N-12	A 12 port interface card supporting EC1 facilities
• FILLER_CARD	Smart Filler card (ONS 15600)
• FTA	The fan tray of the NE
• FTA1	The fan tray 1 of the NE
• FTA2	The fan tray 2 of the NE
• G1K-4	A four port G1000 card
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC-28-3-A	ONS 15327 MIC card A
• MIC-28-3-B	ONS 15327 MIC card B
• MIC-EXT	ONS 15327 MIC card
• MIC-GEN	ONS 15327 MIC card
• ML-100T-8	Eight port ML-100T card on ONS 15310-CL
• MUX-32	Optical Multiplexed (MUX) 32 Channels
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• OC12	An interface card that supports one or more OC-12 (622Mbs) optical facilities
• OC12-327	ONS 15327 OC12 card
• OC12-4	A four port OC12 card
• OC12-IR-1	An interface card that supports one intermediate range OC-12 (622Mbs) optical facilities
• OC12-LR-1	An interface card that supports one long range OC-12 (622Mbs) optical facilities
• OC12-SR-1	An interface card that supports one short range OC-12 (622Mbs) optical facilities
• OC192_4	Four port OC-192 card (ONS 15600)
• OC192-LR-1	An interface card that supports one or more OC-192 optical facilities
• OC3	An interface card that supports multiple OC-3 (155Mbs) optical facilities
• OC3-327	ONS 15327 OC-3 card
• OC3-IR-4	An interface card that supports four intermediate range OC-3 (155Mbs) optical facilities
• OC3-SR-4	An interface card that supports four short range OC-3 (155Mbs) optical facilities

**Table 17-18 REPT EVT SYNCN Output Parameters (continued)**

Parameter and Values	Description
• OC3ATM-IR-6	An interface card that supports six intermediate range OC-3 (155Mbps) ATM optical fibers
• OC3IR-STM1SH-1310-8	An OC3 card which has 8 ports over the lower speed slot of the ONS 15454 with XC10G/192
• OC3POS-SR-4	An interface card that supports four short range OC-3 (155Mbps) POS optical facilities
• OC48	An interface card that supports one or more OC-48 (10Gbs) optical facilities
• OC48-327	ONS 15327 OC-48 card
• OC48-AS-1	An interface card that supports one short range OC-48 (10Gbs) optical facilities that can be provisioned in any I/O slot
• OC48-ELR-1	An interface card that supports one short-range OC-48 (2.5Gbs) optical facility
• OC48-IR-1	An interface card that supports one intermediate-range OC-48 (10Gbs) optical facility
• OC48-LR-1	An interface card that supports one long-range OC-48 (10Gbs) optical facility
• OC48-SR-1	An interface card that supports one short-range OC-48 (10Gbs) optical facilities
• OC-48_16	16 port OC48 card (ONS 15600)
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	Pluggable interface module with four PPM slots
• PPM-1	Pluggable port module with one port SFP module
• SSXC	Cross connect card (ONS 15600)
• TCC	The Timing Communication and Control card
• TSC	Timing and synchronization controller card (ONS 15600)
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XCVT	A Cross-Connect card
• XC10G	A Cross-Connect card
• XTC	ONS 15327 XTC card
• XTC-DS1-14	ONS 15327 XTC DS1-14 card
• XTC-DS1-28	ONS 15327 XTC DS1-28 card

**Table 17-18** REPT EVT SYNCN Output Parameters (continued)

Parameter and Values	Description
• XTC-DS1-56	ONS 15327 XTC DS1-56 card
• XTC-DS3-3	ONS 15327 XTC DS3-3 card

## 17.19 REPT PM <MOD2>

Report Performance Monitoring (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

---

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports autonomous monitoring statistics as a result of the schedule created by SCHED-PMREPT.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

### Category

Performance

---

### Security

Retrieve

**Related Commands**


---

ALW-PMREPT-ALL	RMV-<MOD2>
DLT-<MOD1PAYLOAD>	RST-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FICONPAYLOAD>
DLT-RMONTH-<MOD2_RMON>	RTRV-<MOD2DWDMPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<OCN_TYPE>
ED-<MOD1FCPAYLOAD>	RTRV-10GIGE
ED-<MOD1FICONPAYLOAD>	RTRV-ALMTH-<MOD2>
ED-<MOD2DWDMPAYLOAD>	RTRV-ALS
ED-<OCN_TYPE>	RTRV-DS1
ED-ALS	RTRV-EC1
ED-DS1	RTRV-FAC
ED-EC1	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<OCN_TYPE>
ED-FFP-<OCN_TYPE>	RTRV-FSTE
ED-FSTE	RTRV-G1000
ED-G1000	RTRV-GFP
ED-GFP	RTRV-GIGE
ED-HDLC	RTRV-HDLC
ED-POS	RTRV-PM-<MOD2>
ED-T1	RTRV-PMMODE-<STS_PATH>
ED-T3	RTRV-PMSCHED-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-ALL
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-RMONTH-<MOD2_RMON>
ENT-RMONTH-<MOD2_RMON>	RTRV-T1
INH-PMREPT-ALL	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS	RTRV-TH-ALL
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-PMMODE-<STS_PATH>
RLS-PROTNSW-<OCN_TYPE>	

---

**Output Format**

```

SID DATE TIME
A ATAG REPT PM <MOD2>
  "<AID>:<MONTYPE>,<MONVAL>,<VLDTY>,<LOCN>,<DIRN>,<TMPER>,<MONDAT>,<MONTM>"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100 REPT PM 10GFC
  "FAC-3-1:CVL,10,PRTL,NEND,BTH,15-MIN,05-25,14-46"
;

```

**Output Parameters****Table 17-19 REPT PM <MOD2> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a>
<b>MONTYPE</b>	Monitored type Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path



**Table 17-19 REPT PM <MOD2> Output Parameters (continued)**

Parameter and Values	Description
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High-Order Path Negative Pointer Justification Count

Table 17-19 REPT PM &lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• HP-NPJC-PGEN	High-Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High-Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High-Order Path Pointer Justification Count
• HP-PJCS-PGEN	High-Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High-Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High-Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line

**Table 17-19 REPT PM <MOD2> Output Parameters (continued)**

Parameter and Values	Description
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm

Table 17-19 REPT PM &lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count

Table 17-19 REPT PM &lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
<b>MONVAL</b>	The value to which the register identified by MONTYPE is to be initialized to or the measured value of a monitored parameter. The value is in the form of numeric counts or rates. String
<b>VLDTY</b>	Indicates whether the information for the specified time period was accumulated over the entire time period or a portion of that time period. Validity indicator for the reported PM data Parameter type is VALIDITY—response validity
<ul style="list-style-type: none"> <li>• COMPL</li> </ul>	Complete response
<ul style="list-style-type: none"> <li>• PRTL</li> </ul>	Partial response
<b>LOCN</b>	Location associated with a particular command in reference to the entity identified by the AID Parameter type is LOCATION—the location where the action is to take place
<ul style="list-style-type: none"> <li>• FEND</li> </ul>	Action occurs on the Far End of the facility
<ul style="list-style-type: none"> <li>• NEND</li> </ul>	Action occurs on the Near End of the facility
<b>DIRN</b>	Direction relative to the entity identified by the AID. Direction of PM relative to the entity identified by the AID Parameter type is DIRECTION—transmit and receive directions
<ul style="list-style-type: none"> <li>• BTH</li> </ul>	Both transmit and receive directions
<ul style="list-style-type: none"> <li>• RCV</li> </ul>	Receive direction only
<ul style="list-style-type: none"> <li>• TRMT</li> </ul>	Transmit direction only
<b>TMPER</b>	Accumulation time period for performance counters Parameter type is TMPER—accumulation time period for the performance management center
<ul style="list-style-type: none"> <li>• 1-DAY</li> </ul>	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available
<ul style="list-style-type: none"> <li>• 1-HR</li> </ul>	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available
<ul style="list-style-type: none"> <li>• 1-MIN</li> </ul>	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available
<ul style="list-style-type: none"> <li>• 15-MIN</li> </ul>	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length
<ul style="list-style-type: none"> <li>• RAW-DATA</li> </ul>	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs

Table 17-19 REPT PM &lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
MONDAT	The beginning date of the PM or storage register period specified in TMPER. The format is MM-DD. String
MONTM	The beginning time of day of the PM or storage register period specified in TMPER. The format is HH-MM. String

## 17.20 REPT SW

Report Switch

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

Reports the autonomous switching of a unit in a duplex equipment pair to the standby state and its mate unit to the active state. An automatic report for the occurrence or clearance of an alarm or event that triggers the switch might be associated with the message.

### Category

Protection

### Security

Retrieve

### Related Commands

ALW-SWDX-EQPT	INH-SWDX-EQPT	SW-DX-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	SW-TOPROTN-EQPT
ALW-SWTOWKG-EQPT	INH-SWTOWKG-EQPT	SW-TOWKG-EQPT
EX-SW-<OCN_BLSR>		

### Output Format

```
SID DATE TIME
A ATAG REPT SW
  "<ACTID>,<STDBYID>"
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT SW
  "SLOT-8,SLOT-10"
;
```

**Output Parameters****Table 17-20 REPT SW Output Parameters**

<b>Parameter and Values</b>	<b>Description</b>
<b>ACTID</b>	Identifies the equipment unit from the “ <a href="#">25.1.13 EQPT</a> ” section on <a href="#">page 25-27</a> that was placed in the active state. Parameter grouping cannot be used with this parameter
<b>STDBYID</b>	Identifies the equipment unit from the “ <a href="#">25.1.13 EQPT</a> ” section on <a href="#">page 25-27</a> that was placed in the standby state. Parameter grouping cannot be used with this parameter







## RLS Commands

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### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

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This chapter provides RLS (release) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 18.1 RLS-EXT-CONT

Release External Control

#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command releases a forced contact state and returns the control of the contact to an AUTOMATIC control state. In AUTOMATIC control state, the contact can be opened or closed depending on triggers that might be provisioned in the NE. Therefore, issuing a RLS might not produce any contact state change.

The NE defaults to having no triggers provisioned for external controls which consequently produces default open contacts. An NE with this default provisioning will always produce an open contact with a RLS-EXT-CONT command.



### Note

- The duration is not supported, it defaults to CONTS.
  - In an automatic state, the contact could be opened or closed depending on the provisioned trigger. Therefore, issuing an OPR-EXT-CONT command followed by an RLS-EXT-CONT command might not produce any contact state change.
  - The RLS-EXT-CONT is not allowed during the MNTRY duration. The command is allowed for the CONTS duration. The length of MNTRY duration is set to be 2 seconds.
  - RLS-EXT-CONT cannot change the contact state to Automatic if the existing state is Manual Open.
-

---

Environment

---

Maintenance

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**Related Commands**

OPR-ACO-ALL	RTRV-ALM-ENV	RTRV-EXT-CONT
OPR-EXT-CONT	RTRV-ATTR-CONT	SET-ATTR-CONT
REPT ALM ENV	RTRV-ATTR-ENV	SET-ATTR-ENV
REPT EVT ENV	RTRV-COND-ENV	SET-ATTR-SECUDFLT

---

RLS-EXT-CONT:[<TID>]:<AID>:<CTAG>[:.];

---

RLS-EXT-CONT:CISCO:ENV-OUT-2:123;

---

**Input Parameters**

*Table 18-1 RLS-EXT-CONT Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.12 ENV” section on page 25-26</a> . Identifies the external control being released

## 18.2 RLS-LASER-OTS

Release Laser Optical Transport Section

---

**Usage Guidelines**

Cisco ONS 15454

This command instructs a laser to be switched off.

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DWDM

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Maintenance

Related Commands	DLT-LNK-<MOD2O>	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-LNKTERM	ED-WLEN	RTRV-LNKTERM
	DLT-OSC	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	DLT-WLEN	ENT-LNKTERM	RTRV-OCH
	ED-DWDM	ENT-OSC	RTRV-OMS
	ED-FFP-OCH	ENT-WLEN	RTRV-OSC
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OTS
	ED-LNKTERM ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
	ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
	ED-OTS	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-SLV-WDMANS	RTRV-DWDM	RTRV-WLEN
	ED-TRC-OCH	RTRV-FFP-OCH	

---

```
RLS-LASER-OTS:[<TID>]:<AID>:<CTAG>;
```

---

```
RLS-LASER-OTS::LINE-5-2-TX:3;
```

### Input Parameters

**Table 18-2 RLS-LASER-OTS Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.16 LINE”</a> section on page 25-31. Identifies the external control being released

## 18.3 RLS-LPBK-<MOD2>

Release Loopback (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

See [Table 27-1](#) on page 27-1 for supported modifiers by platform.

This command releases a signal loopback on a multiservice or a cross-connect card.

**Note**

- 
- The value CRS for the LPBKTYPE parameter is applicable only for the STS modifier. The FACILITY and TERMINAL values for LPBKTYPE parameter are applicable to the ports.
  - The optional [<LPBKTYPE>] field defaults to the current existing loopback type.
  - The TERMINAL loopback type is supported on the DS1 path of DS3XM cards.
  - FEAC loopbacks can be released by specifying LINE as the loopback type and FEND as the location.
  - FEAC loopbacks on the DS1 interface of a DS3XM card can be applied only if a VT connection has been created on it. An attempt to operate/release FEAC loopbacks in the absence of a VT connection will result in an error message.
- 

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Troubleshooting and Test Access

---

Maintenance

**Related Commands**


---

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

---

RLS-LPBK-<MOD2>:[<TID>]:<SRC>:<CTAG>::[<LOCATION>],,,[<LPBKTYPE>];

RLS-LPBK-DS1:PTREYES:DS1-4-1-2-13:203::NEND,,,FACILITY;

## Input Parameters

Table 18-3 RLS-LPBK-&lt;MOD2&gt; Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.1 ALL” section on page 25-1. The valid values for AID are FACILITY, DS1, and STS
LOCATION	The location where the operation is to be carried out. LOCATION defaults to NEND Parameter type is LOCATION—location where the action is to take place
<ul style="list-style-type: none"> <li>FEND</li> </ul>	Action occurs on the far end of the facility
<ul style="list-style-type: none"> <li>NEND</li> </ul>	Action occurs on the near end of the facility
LPBKTYPE	Type of loopback signal Parameter type is LPBK_TYPE—indicates the type of loopback that is to be operated or released
<ul style="list-style-type: none"> <li>CRS</li> </ul>	Path level loopback which is established at the cross-connect matrix level (the XCVT/XC10G card). An STS level cross-connect loopback causes an AIS-P to be sent on the outgoing direction of transmission
<ul style="list-style-type: none"> <li>FACILITY</li> </ul>	Type of loopback that connects the incoming received signal immediately following the optical-to-electrical conversion (after descrambling) to the associated transmitter in the return direction
<ul style="list-style-type: none"> <li>LINE</li> </ul>	Line level loopback for a far end DS1 path loop back of the DS3XM. The DS3XM cards only support the DS1 path far end FEAC loopback in this release
<ul style="list-style-type: none"> <li>TERMINAL</li> </ul>	A loopback that connects the signal that is about to be transmitted (after scrambling but before the electrical-to-optical conversion) and is connected to the associated, incoming receiver

## 18.4 RLS-PROTNSW-<MOD2DWDMPAYLOAD>

Release Protection Switch (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

## Usage Guidelines

Cisco ONS 15454

This command releases a Y-cable protection switch on client facilities.

DWDM

Maintenance

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PM-<MOD2>
ED-T3	RTRV-PMSCHED-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
ENT-FFP-<OCN_TYPE>	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-LPBK-<MOD2>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	SCHED-PMREPT-<MOD2>
OPR-PROTNSW-<OCN_TYPE>	SET-ALMTH-<MOD2>
REPT PM <MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TPE>	

---

RLS-PROTNSW-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>:<CTAG>[::];

---

RLS-PROTNSW-HDTV:CISCO:FAC-1-1-1:100;

## Input Parameters

Table 18-4 RLS-PROTNSW-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.14 FACILITY” section on page 25-28

## 18.5 RLS-PROTNSW-<OCN\_TYPE>

Release Protection Switch (OC3, OC12, OC48, OC192)

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command releases a SONET line protection switch request.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

The release of a protection switch request is applicable only to the OPR-PROTNSW protection switch commands, the user-initiated switch protection commands.

The following actions will return error messages:

- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. Sending a command on a common control card will return an IIAC (Input, Invalid Access Identifier) error message. To query the common control card switching commands, use SW-DX-EQPT, ALW-SWDX-EQPT commands.
- Sending this command to electrical cards will return an IIAC (Input, Invalid Access Identifier) error message should be responded. To use this command on an electrical card switching command, use ALW-SWTOPROTN/SWTOWKG-EQPT and INH-SWTOPROTN/SWTOWKG-EQPT commands.
- Sending this command to query on a card that is not in a protection group will return the SNVS (Status, Not in Valid State) error message.
- Sending this command to a working card that is failed or missing will return the SWFA (Status, Working unit Failed) error message.
- Sending this command to a protect card that is failed or missing will return the SPFA (Status, Protection unit Failed) error message.
- Sending this command to a card that is not in protection will return the SNPR (Status, Not in Protection State) error message.
- Sending this command to an OC-N line that is already in clear mode will return a SAMS (Already in Clear Maintenance State) error message.



**Note**

- To get the protection switching state (manual, lockout, forced), use the RTRV-COND-ALL or RTRV-ALM-ALL command.
- DIRN is an optional parameter. A NULL value defaults to BTH for a BLSR protection, BTH for 1+1 bidirectional protection group, and RCV for 1+1 UNI directional protection group.

DIRN follows these rules: TRMT will always fail for any kind of protection groups. For two-fiber and four-fiber BLSR protection groups both the RCV and TRMT directions will fail.

- DIRN is applicable for both 1+1 and BLSR protection groups. OPR-PROTNSW applies to a BLSR span/ring as shown by the following command:

“RLS-PROTNSW-OC48::FAC-5-1:A::BTH;” instructs the NE to release a line protection switch request between a working line and a protection line.

---

Protection

---

Maintenance

**Related Commands**


---

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PM-<MOD2>
ED-T3	RTRV-PMSCHED-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
ENT-FFP-<OCN_TYPE>	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-LPBK-<MOD2>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	SCHED-PMREPT-<MOD2>
OPR-PROTNSW-<OCN_TYPE>	SET-ALMTH-<MOD2>
REPT PM <MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

---

RLS-PROTNSW-<OCN\_TYPE>:[<TID>]:<AID>:<CTAG>[::<DIRECTION>];

---

RLS-PROTNSW-OC48:PETALUMA:FAC-6-1:209::BTH;

Table 18-5 RLS-PROTNSW-&lt;OCN\_TYPE&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Identifies the facility in the NE to which the switch request is directed
<b>DIRECTION</b>	Direction. Defaults to RCV Parameter type is DIRECTION—transmit and receive direction
• BTH	Both transmit and receive directions
• RCV	Receive direction only
• TRMT	Transmit direction only

## 18.6 RLS-PROTNSW-<PATH>

Release Protection Switch (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command releases a SONET path protection switch request that was established with the OPR-PROTNSW-<PATH> command. This command assumes that only one user-initiated switch is active per AID.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



#### Note

- This command applies to path protection configuration only.
- The VTAID should be working or protect AID only.
- If sending this command on the Drop AID, a DENY (Invalid AID, should use working/protect AID) message will be returned.
- To get the protection switching state (manual, lockout, forced), use the RTRV-COND-ALL or RTRV-ALM-ALL command.

Protection

Maintenance

Related Commands	DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-NE-PATH
	DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-PROTNSW-<PATH>
	ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
	ED-CRS-<PATH>	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>
	ED-NE-PATH	RTRV-CRS-<PATH>	
RLS-PROTNSW-<PATH>:[<TID>]:<SRC>:<CTAG>[:];			
RLS-PROTNSW-STS1:CISCO:STS-2-1-1:123;			

**Table 18-6** RLS-PROTNSW-<PATH> Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the <a href="#">“25.1.9 CrossConnectId”</a> section on page 25-15

## 18.7 RLS-PROTNSW-OCH

Release Protection Switch Optical Channel

### Usage Guidelines

Cisco ONS 15454

This command releases the protection switch on a TXPP\_MR\_2.5G card.

DWDM

Maintenance

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
	ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
	ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
	ED-SLV-WDMANS	RTRV-DWDM	RTRV-WLEN

---

RLS-PROTNSW-OCH:[<TID>]:<AID>:<CTAG>;

---

RLS-PROTNSW-OCH:VA454-22:CHAN-2-2:1;

**Table 18-7 RLS-PROTNSW-OCH Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on <a href="#">page 25-14</a>

## 18.8 RLS-SYNCNSW

Release Synchronization Switch

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command releases the previous synchronization reference provided by the OPR-SYNCNSW command.

In a non-revertive system, the use of the RLS-SYNCNSW command might not be appropriate. All the switching between synchronization references should be initiated with the OPR-SYNCNSW command.

Once a switch is released, a minor alarm “MANSWTOPRI”, (Manual Switch to Primary Reference or Secondary...) or “FRDCSWTOPRI” (Forced Switch to Primary Reference or Secondary...), will be cleared.

---

Synchronization

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Maintenance

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**Related Commands**

ED-BITS	REPT ALM SYNCN	RTRV-BITS
ED-NE-SYNCN	REPT EVT BITS	RTRV-COND-BITS
ED-SYNCN	REPT EVT SYNCN	RTRV-COND-SYNCN
OPR-SYNCNSW	RTRV-ALM-BITS	RTRV-NE-SYNCN
REPT ALM BITS	RTRV-ALM-SYNCN	RTRV-SYNCN

---

RLS-SYNCNSW:[<TID>]:[<AID>]:<CTAG>;

---

RLS-SYNCNSW:CISCO:SYNC-NE:3;

---

**Table 18-8 RLS-SYNCNSW Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.25 SYNC_REF”</a> section on <a href="#">page 25-40</a> Defaults to SYNC-NE



## RMV Commands

---

This chapter provides RMV (remove) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 19.1 RMV-<MOD2>

Remove (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command removes a facility from service.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

**Category**

Facility

---

**Security**

Maintenance

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PM-<MOD2>
ED-T3	RTRV-PMSCHED-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
ENT-FFP-<OCN_TYPE>	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-LPBK-<MOD2>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	SCHED-PMREPT-<MOD2>
OPR-PROTNSW-<OCN_TYPE>	SET-ALMTH-<MOD2>
REPT PM <MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

RMV-<MOD2>:[<TID>]:<AID>:<CTAG>[:];

**Input Example**

RMV-EC1:CISCO:FAC-1-1:1;



**Input Parameters****Table 19-1** *RMV-<MOD2> Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a>

## 19.2 RMV-EQPT

Remove Equipment

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command removes equipment from the IS state and places it into the MT state.

**Note**

Only applicable to equipment that is in transition from the IS state to the MT state.

**Category**

Equipment

**Security**

Maintenance

**Related Commands**

ALW-SWDX-EQPT	REPT RMV EQPT
ALW-SWTOPROTN-EQPT	REPT RST EQPT
ALW-SWTOWKG-EQPT	RST-EQPT
CHG-EQPT	RTRV-ALM-EQPT
DLT-EQPT	RTRV-ALMTH-EQPT
ED-EQPT	RTRV-COND-EQPT
ENT-EQPT	RTRV-EQPT
INH-SWDX-EQPT	SET-ALMTH-EQPT
INH-SWTOPROTN-EQPT	SW-DX-EQPT
INH-SWTOWKG-EQPT	SW-TOPROTN-EQPT
REPT ALM EQPT	SW-TOWKG-EQPT
REPT EVT EQPT	

**Input Format**

RMV-EQPT:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;[::];

**Input Example**

RMV-EQPT:CISCO:SLOT-1:1;

---

**Input Parameters****Table 19-2** *RMV-EQPT Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27



## RST Commands

---

This chapter provides RST (restore) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 20.1 RST-<MOD2>

Restore (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command provisions a facility in service.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

**Note**

---

This command can only be executed when the port is in OOS,MT state.

---

---

**Category**

Facility

---

**Security**

Maintenance

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
	ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
	ED-ALS	RTRV-ALS
	ED-DS1	RTRV-DS1
	ED-EC1	RTRV-EC1RTRV-FAC
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
	ED-FSTE	RTRV-FSTE
	ED-G1000	RTRV-G1000
	ED-GFP	RTRV-GFP
	ED-HDLC	RTRV-GIGE
	ED-POS	RTRV-HDLC
	ED-T1	RTRV-PM-<MOD2>
	ED-T3	RTRV-PMSCHED-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
	ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
	ENT-FFP-<OCN_TYPE>	RTRV-T3
	INIT-REG-<MOD2>	RTRV-TH-<MOD2>
	OPR-ALS	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-LPBK-<MOD2>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	SCHED-PMREPT-<MOD2>
	OPR-PROTNSW-<OCN_TYPE>	SET-ALMTH-<MOD2>
	REPT PM <MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format** RST-<MOD2>:[<TID>]:<AID>:<CTAG>:::[<PST>[,<sst>]];

**Input Example** RST-EC1:CISCO:FAC-1-1:1:::IS,AINS;

## Input Parameters

Table 20-1 RST-&lt;MOD2&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1
<b>PST</b>	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>• IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>• OOS</li> </ul>	Out of service
<b>SST</b>	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>• AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>• DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>• LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>• MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>• MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>• OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>• SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>• UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>• UEQ</li> </ul>	Unequipped

## 20.2 RST-EQPT

Restore Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command provisions equipment into the IS state from the MT state.



### Note

Only applicable to equipment that is in transition from the MT state to the IS state.

### Category

Equipment

### Security

Maintenance

**Related Commands**

ALW-SWDX-EQPT	REPT RMV EQPT
ALW-SWTOPROTN-EQPT	REPT RST EQPT
ALW-SWTOWKG-EQPT	RMV-EQPT
CHG-EQPT	RTRV-ALM-EQPT
DLT-EQPT	RTRV-ALMTH-EQPT
ED-EQPT	RTRV-COND-EQPT
ENT-EQPT	RTRV-EQPT
INH-SWDX-EQPT	SET-ALMTH-EQPT
INH-SWTOPROTN-EQPT	SW-DX-EQPT
INH-SWTOWKG-EQPT	SW-TOPROTN-EQPT
REPT ALM EQPT	SW-TOWKG-EQPT
REPT EVT EQPT	

**Input Format**

RST-EQPT:[<TID>]:<AID>:<CTAG>[::];

**Input Example**

RST-EQPT:CISCO:SLOT-1:1;

**Input Parameters**

*Table 20-2 RST-EQPT Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27



## RTRV Commands

---



### Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This chapter provides RTRV (retrieve) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 21.1 RTRV-<MOD1FCPAYLOAD>

Retrieve (1GFC, 2GFC)

---

#### Usage Guidelines

Cisco ONS 15454

This command retrieves the attributes related with the Fibre Channel port.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

#### Category

Ports

---

#### Security

Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RMV-<MOD2>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
	DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FICONPAYLOAD>
	ED-<GIGE_TYPE>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
	ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
	ED-<OCN_TYPE>	RTRV-ALS
	ED-ALS	RTRV-DS1
	ED-DS1	RTRV-EC1
	ED-EC1	RTRV-FAC
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
	ED-FSTE	RTRV-FSTE
	ED-G1000	RTRV-G1000
	ED-GFP	RTRV-GFP
	ED-HDLC	RTRV-GIGE
	ED-POS	RTRV-HDLC
	ED-T1	RTRV-PM-<MOD2>
	ED-T3	RTRV-PMSCHED-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
	ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
	ENT-FFP-<OCN_TYPE>	RTRV-T3
	INIT-REG-<MOD2>	RTRV-TH-<MOD2>
	OPR-ALS OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	

**Input Format** RTRV-<MOD1FCPAYLOAD>:[<TID>]:<AID>:<CTAG>[:::];

**Input Example** RTRV-1GFC:CISCO:FAC-6-1:888;



## Input Parameters

Table 21-1 RTRV-&lt;MOD1FCPAYLOAD&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>:.,[<ROLE>],[<STATUS>]:LINKRATE=<LINKRATE>,LINKSTATE=<LINKSTATE>,
[LINKRCVRY=<LINKRCVRY>],[DISTEXTN=<DISTEXTN>],
[LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[ENCAP=<ENCAP>],[NAME=<NAME>],
[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:
<PST_PSTQ>,[<SST>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1:.,WORK,ACT:LINKRATE=1GFC,LINKSTATE=UP,LINKRCVRY=Y,
DISTEXTN=NONE,LINKCREDITS=0,MFS=2148,ENCAP=GFP-T,
NAME=“FC PORT”,SOAK=32,SOAKLEFT=“12-25”,FREQ=1550,
LOSSB=LR-1:OOS-MA,MT”
;

```

## Output Parameters

Table 21-2 RTRV-&lt;MOD1FCPAYLOAD&gt; Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>ROLE</b>	The port role in Y-cable protection (WORK or PROT). Optional Parameter type is SIDE—the role the unit is playing in the protection group
<ul style="list-style-type: none"> <li>• PROT</li> <li>• WORK</li> </ul>	<ul style="list-style-type: none"> <li>The entity is a protection unit in the protection group</li> <li>The entity is a working unit in the protection group</li> </ul>
<b>STATUS</b>	A port status in Y-cable protection (ACT or STBY). Optional Parameter type is STATUS—the status of the unit in the protection pair
<ul style="list-style-type: none"> <li>• ACT</li> <li>• NA</li> <li>• STBY</li> </ul>	<ul style="list-style-type: none"> <li>The entity is the active unit in the shelf</li> <li>Status is unavailable</li> <li>The entity is the standby unit in the shelf</li> </ul>
<b>LINKRATE</b>	The actual rate running on the fibre channel port. It can differ from the payload type provisioned Parameter type is LINKRATE—the link rate on a fibre channel port

Table 21-2 RTRV-&lt;MOD1FCPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1GFC</li> </ul>	The rate is 1 G fibre channel
<ul style="list-style-type: none"> <li>1GFICON</li> </ul>	The rate is 1 G FICON
<ul style="list-style-type: none"> <li>2GFC</li> </ul>	The rate is 2 G fibre channel
<ul style="list-style-type: none"> <li>2GFICON</li> </ul>	The rate is 2 G FICON
<ul style="list-style-type: none"> <li>UNKNOWN</li> </ul>	The rate is unknown
<ul style="list-style-type: none"> <li>UNPLUGGED</li> </ul>	The SFP is not plugged into the fibre channel port so the link rate cannot be detected
<b>LINKSTATE</b>	Link state
	Parameter type is DIRN—specifies the discriminating level for the requested monitored parameter
<ul style="list-style-type: none"> <li>DN</li> </ul>	Monitored parameter with values equal to or greater than the level of LEV will be reported
<ul style="list-style-type: none"> <li>UP</li> </ul>	Monitored parameter with values equal or less than the value of LEV will be reported
<b>LINKRCVRY</b>	Link recovery
	Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>DISTEXTN</b>	Distance extension. Optional
	Parameter type is DISTANCE_EXTENSION—distance extension
<ul style="list-style-type: none"> <li>B2B</li> </ul>	Buffer to buffer flow control
<ul style="list-style-type: none"> <li>NONE</li> </ul>	No distance extension
<b>LINKCREDITS</b>	Number of link credits. Integer. Optional
<b>MFS</b>	Maximum frame size. Integer. Optional
<b>ENCAP</b>	Frame encapsulation type. Optional
	Parameter type is ENCAP—frame encapsulation type
<ul style="list-style-type: none"> <li>GFP_F</li> </ul>	GFP frame mode
<ul style="list-style-type: none"> <li>GFP_T</li> </ul>	GFP transparent mode
<ul style="list-style-type: none"> <li>HDLC</li> </ul>	HDLC frame mode
<ul style="list-style-type: none"> <li>HDLC_LEX</li> </ul>	HDLC LAN extension frame mode
<ul style="list-style-type: none"> <li>HDLC_X86</li> </ul>	HDLC X.86 frame mode
<b>NAME</b>	Identifies the port name. String. Optional
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional

Table 21-2 RTRV-&lt;MOD1FCPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1 minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS state, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>FREQ</b>	Optional. Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25

Table 21-2 RTRV-&lt;MOD1FCPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Optional. Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
• IS_NR	In service - normal
• OOS-AU	Out of service - autonomous

**Table 21-2** RTRV-<MOD1FCPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>OOS-MA</li> </ul>	Out of service - management
SST	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>UEQ</li> </ul>	Unequipped

## 21.2 RTRV-<MOD1FICONPAYLOAD>

Retrieve (1GFICON, 2GFICON)

### Usage Guidelines

Cisco ONS 15454

This command returns fibre channel-specific settings for ports which have been configured to carry FICON traffic using the ENT-FICON command. The MXPP\_MR\_2.5G card only supports the GFP-T frame type

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

### Category

Ports

### Security

Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RMV-<MOD2>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
	DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<GIGE_TYPE>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
	ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
	ED-<OCN_TYPE>	RTRV-ALS
	ED-ALS	RTRV-DS1
	ED-DS1	RTRV-EC1
	ED-EC1	RTRV-FAC
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
	ED-FSTE	RTRV-FSTE
	ED-G1000	RTRV-G1000
	ED-GFP	RTRV-GFP
	ED-HDLC	RTRV-GIGE
	ED-POS	RTRV-HDLC
	ED-T1	RTRV-PM-<MOD2>
	ED-T3	RTRV-PMSCHED-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
	ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
	ENT-FFP-<OCN_TYPE>	RTRV-T3
	INIT-REG-<MOD2>	RTRV-TH-<MOD2>
	OPR-ALS OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	

**Input Format** RTRV-<MOD1FICONPAYLOAD>:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-1GFICON:CISCO:FAC-1-1:123;

## Input Parameters

Table 21-3 RTRV-&lt;MOD1FICONPAYLOAD&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>:.,[<ROLE>],[<STATUS>]:[LINKRATE=<LINKRATE>],[LINKSTATE=<LINKSTATE>],
[LINKRCVRY=<LINKRCVRY>],[DISTEXTN=<DISTEXTN>],
[LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[ENCAP=<ENCAP>],[NAME=<NAME>],
[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:
<PST_PSTQ>,<SST>”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1:.,WORK,ACT:LINKRATE=1GFICON,LINKSTATE=UP,LINKRCVRY=Y,
DISTEXTN=NONE,LINKCREDITS=0,MFS=2148,ENCAP=GFP-T,NAME=“FC PORT”,
SOAK=32,SOAKLEFT=“12-25”,FREQ=1550,LOSSB=LR-1:OOS-MA,MT”
;

```

## Output Parameters

Table 21-4 RTRV-&lt;MOD1FICONPAYLOAD&gt; Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>ROLE</b>	The port role in Y-cable protection (WORK or PROT). Optional Parameter type is SIDE—the role the unit is playing in the protection group
<ul style="list-style-type: none"> <li>• PROT</li> </ul>	The entity is a protection unit in the protection group
<ul style="list-style-type: none"> <li>• WORK</li> </ul>	The entity is a working unit in the protection group
<b>STATUS</b>	A port status in Y-cable protection (ACT or STBY). Optional Parameter type is STATUS—the status of the unit in the protection pair
<ul style="list-style-type: none"> <li>• ACT</li> </ul>	The entity is the active unit in the shelf
<ul style="list-style-type: none"> <li>• NA</li> </ul>	Status is unavailable
<ul style="list-style-type: none"> <li>• STBY</li> </ul>	The entity is the standby unit in the shelf
<b>LINKRATE</b>	The actual rate running on the fibre channel port. It can differ from the payload type provisioned Parameter type is LINKRATE—the link rate on a fibre channel port
<ul style="list-style-type: none"> <li>• 1GFC</li> </ul>	The rate is 1 G fibre channel

Table 21-4 RTRV-&lt;MOD1FICONPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1GFICON</li> </ul>	The rate is 1 G FICON
<ul style="list-style-type: none"> <li>2GFC</li> </ul>	The rate is 2 G fibre channel
<ul style="list-style-type: none"> <li>2GFICON</li> </ul>	The rate is 2 G FICON
<ul style="list-style-type: none"> <li>UNKNOWN</li> </ul>	The rate is unknown
<ul style="list-style-type: none"> <li>UNPLUGGED</li> </ul>	The SFP is not plugged into the fibre channel port so the link rate cannot be detected
<b>LINKSTATE</b>	Link state Parameter type is DIRN—specifies the discriminating level for the requested monitored parameter
<ul style="list-style-type: none"> <li>DN</li> </ul>	Monitored parameter with values equal to or greater than the level of LEV will be reported
<ul style="list-style-type: none"> <li>UP</li> </ul>	Monitored parameter with values equal or less than the value of LEV will be reported
<b>LINKRCVRY</b>	Link recovery Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>DISTEXTN</b>	Distance extension. Optional Parameter type is DISTANCE_EXTENSION—distance extension
<ul style="list-style-type: none"> <li>B2B</li> </ul>	Buffer to buffer flow control
<ul style="list-style-type: none"> <li>NONE</li> </ul>	No distance extension
<b>LINKCREDITS</b>	Number of link credits. Integer. Optional
<b>MFS</b>	Maximum frame size. Integer. Optional
<b>ENCAP</b>	Frame encapsulation type. Optional Parameter type is ENCAP—frame encapsulation type
<ul style="list-style-type: none"> <li>GFP_F</li> </ul>	GFP frame mode
<ul style="list-style-type: none"> <li>GFP_T</li> </ul>	GFP transparent mode
<ul style="list-style-type: none"> <li>HDLC</li> </ul>	HDLC frame mode
<ul style="list-style-type: none"> <li>HDLC_LEX</li> </ul>	HDLC LAN extension frame mode
<ul style="list-style-type: none"> <li>HDLC_X86</li> </ul>	HDLC X.86 frame mode
<b>NAME</b>	Identifies the port name. String. Optional
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional



Table 21-4 RTRV-&lt;MOD1FICONPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1 minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT, or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS state, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>FREQ</b>	Optional. Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25

Table 21-4 RTRV-&lt;MOD1FICONPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Optional. Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
• IS_NR	In service - normal
• OOS-AU	Out of service - autonomous

**Table 21-4** RTRV-<MOD1FICONPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
SST	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.3 RTRV-<MOD2DWDMPAYLOAD>

Retrieve (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

### Usage Guidelines

Cisco ONS 15454

This command retrieves the configuration parameter of a DWDM client.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

### Category

DWDM

### Security

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
ED-<OCN_TYPE>	RTRV-ALS
ED-ALS	RTRV-DS1
ED-DS1	RTRV-EC1
ED-EC1	RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PM-<MOD2>
ED-T3	RTRV-PMSCHED-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-POS
ED-TRC-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
ENT-FFP-<OCN_TYPE>	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

**Input Format**

RTRV-<MOD2DWDMPAYLOAD>:[<TID>]:<AID>:<CTAG>[:::];

**Input Example**

RTRV-HDTV:MILAN:FAC-1-1:100;

## Input Parameters

Table 21-5 RTRV-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AIDUNIONID>,<AIDTYPE>:.,[<ROLE>],[<STATUS>]:[NAME=<NAME>],[LBCL=<LBCL>],
[OPT=<OPT>],[OPR=<OPR>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:<PSTPSTQ>,[<SST>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1-1,HDTV:.,WORK,ACT:NAME=“NY PORT”,LBCL=10.0,OPT=10.0,OPR=10.0,
FREQ=1550,LOSSB=LR-1:OOS-AU,AINS”
;

```

## Output Parameters

Table 21-6 RTRV-&lt;MOD2DWDMPAYLOAD&gt; Output Parameters

Parameter and Values	Description
AIDUNIONID	Access identifier from the “25.1.2 AidUnionId” section on page 25-9
AIDTYPE	A type of access identifier Parameter type is MOD2DWDMPAYLOAD—payload types applicable to DWDM ports
• 10GFC	10 gigabit fibre channel payload
• 10GIGE	10 gigabit Ethernet
• 1GFC	1 gigabit fibre channel payload
• 1GFICON	1 gigabit FICON payload
• 2GFC	2 gigabit fibre channel payload
• 2GFICON	2 gigabit FICON payload
• D1VIDEO	D1 Video payload
• DV6000	DV6000 payload
• ETRCLO	ETR_CLO payload
• GIGE	Gigabit Ethernet payload
• HDTV	HDTV payload
• ISC1	ISC1 payload
• ISC3	ISC3 payload
• PASSTHRU	Any pass through (2R) payload

Table 21-6 RTRV-&lt;MOD2DWDMPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
<b>ROLE</b>	The port role in Y-cable protection (WORK or PROT). Optional Parameter type is SIDE—the role the unit is playing in the protection group
<ul style="list-style-type: none"> <li>• PROT</li> <li>• WORK</li> </ul>	<p>The entity is a protection unit in the protection group</p> <p>The entity is a working unit in the protection group</p>
<b>STATUS</b>	A port status in Y-cable protection (ACT or STBY). Optional Parameter type is STATUS—the status of the unit in the protection pair
<ul style="list-style-type: none"> <li>• ACT</li> <li>• NA</li> <li>• STBY</li> </ul>	<p>The entity is the active unit in the shelf</p> <p>Status is unavailable</p> <p>The entity is the standby unit in the shelf</p>
<b>NAME</b>	Identifies the port name. String. Optional
<b>LBCL</b>	Displays the current value of the laser current. Float. Optional
<b>OPT</b>	Displays the current value of the transmitted optical power. Float. Optional
<b>OPR</b>	Displays the current value of the received optical power. Float. Optional
<b>FREQ</b>	Optional. Parameter type is OPTICAL_WLEN—optical wavelength
<ul style="list-style-type: none"> <li>• 1530.33</li> <li>• 1531.12</li> <li>• 1531.90</li> <li>• 1532.68</li> <li>• 1534.25</li> <li>• 1535.04</li> <li>• 1535.82</li> <li>• 1536.61</li> <li>• 1538.19</li> <li>• 1538.98</li> <li>• 1539.77</li> <li>• 1540.56</li> <li>• 1542.14</li> <li>• 1542.94</li> <li>• 1543.73</li> <li>• 1544.53</li> <li>• 1546.12</li> <li>• 1546.92</li> </ul>	<p>Wavelength 1</p> <p>Wavelength 2</p> <p>Wavelength 3</p> <p>Wavelength 4</p> <p>Wavelength 5</p> <p>Wavelength 6</p> <p>Wavelength 7</p> <p>Wavelength 8</p> <p>Wavelength 9</p> <p>Wavelength 10</p> <p>Wavelength 11</p> <p>Wavelength 12</p> <p>Wavelength 13</p> <p>Wavelength 14</p> <p>Wavelength 15</p> <p>Wavelength 16</p> <p>Wavelength 17</p> <p>Wavelength 18</p>

**Table 21-6** RTRV-<MOD2DWDMPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Optional. Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T

Table 21-6 RTRV-&lt;MOD2DWDMPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
• VX	Reach VX
• ZX	Reach ZX
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
• IS_NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SST</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.4 RTRV-<MOD\_RING>

Retrieve Bidirectional Line Switched Ring

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command retrieves the BLSR information of the NE. A two-fiber or four-fiber BLSR can be retrieved.



### Note

Cisco ONS 15600 and ONS 15327 do not support four-fiber BLSR.



Output examples:

4F BLSR

“BLSR-N43AB::RINGID=N43AB,NODEID=3,MODE=4F,RVRTV=Y,RVTM=5.0,SRVRTV=Y,SRVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1,EASTPROT=FAC-12-1,WESTPROT=FAC-13-1”

2F BLSR

“BLSR-N12EF::RINGID=N12EF,NODEID=2,MODE=2F,RVRTV=Y,RVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1”

The following actions will return error messages:

- If the system fails on getting IOR, a SROF (Get IOR Failed) error message is returned.
- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- If the BLSR does not exist, a SRQN (BLSR Does Not Exist) error message is returned.



**Note**

- Only ALL, NULL, BLSR-ALL, or BLSR-RINGID is allowed for this command.
- A NULL AID defaults to the AID ALL.
- The list AID format is supported.

**Category**

BLSR

**Security**

Retrieve

**Related Commands**

DLT-<MOD\_RING>                      ENT-<MOD\_RING>                      RTRV-TRC-<OCN\_BLSR>  
ED-<MOD\_RING>                      EX-SW-<OCN\_BLSR>

**Input Format**

RTRV-<MOD\_RING>:[<TID>]:[<AID>]:<CTAG>[:];

**Input Example**

RTRV-BLSR:PETALUMA:ALL:123;

**Input Parameters**

**Table 21-7 RTRV-<MOD\_RING> Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.3 AidUnionId1</a> ” section on <a href="#">page 25-12</a> . Identifies the BLSR of the NE. Only ALL, null or a list of BLSR-# in AID are allowed. A null value is equivalent to ALL

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
“[<AID>]::[RINGID=<RINGID>],[NODEID=<NODEID>],[MODE=<MODE>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SRVRTV=<SRVRTV>],[SRVTM=<SRVTM>],
[EASTWORK=<EASTWORK>],[WESTWORK=<WESTWORK>],[EASTPROT=<EASTPROT>],
[WESTPROT=<WESTPROT>]”
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“BLSR-43::RINGID=43,NODEID=3,MODE=4F,RVRTV=Y,RVTM=5.0,SRVRTV=Y,SRVTM=5.0,
EASTWORK=FAC-5-1,WESTWORK=FAC-6-1,EASTPROT=FAC-12-1,WESTPROT=FAC-13-1”
;

```

**Output Parameters****Table 21-8 RTRV-<MOD\_RING> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.3 AidUnionId1”</a> section on page 25-12. Identifies the BLSR of the NE. Optional
<b>RINGID</b>	The BLSR ID of the NE up to six characters. Valid characters are A-Z and 0-9. String. Optional
<b>NODEID</b>	The BLSR node ID of the NE. NODEID ranges from 0 to 31. String. Optional
<b>MODE</b>	Mode with which the command is to be implemented. Identifies the BLSR mode; either two-fiber or four-fiber. Optional Parameter type is BLSR_MODE—BLSR mode
<ul style="list-style-type: none"> <li>• 2F</li> <li>• 4F</li> </ul>	Two-fiber BLSR Four-fiber BLSR
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	Disable an attribute Enable an attribute
<b>RVTM</b>	Revertive time. RVTM is not allowed to be set while “RVRTV” is N Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>• 0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes

Table 21-8 RTRV-&lt;MOD\_RING&gt; Output Parameters (continued)

Parameter and Values	Description
<b>SRVRTV</b>	The span revertive mode for four-fiber BLSR only Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	<ul style="list-style-type: none"> <li>Disable an attribute</li> <li>Enable an attribute</li> </ul>
<b>SRVTM</b>	The span revertive time for four-fiber BLSR only. SRVTM is not allowed to be set while SRVRTV is N Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>• 0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>EASTWORK</b>	East working facility. AID from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28
<b>WESTWORK</b>	West working facility. AID from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28
<b>EASTPROT</b>	East protecting facility. AID from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28
<b>WESTPROT</b>	West protecting facility. AID from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28

## 21.5 RTRV-<OCN\_TYPE>

Retrieve (OC3, OC12, OC48, OC192)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the attributes (for example, service parameters) and the state of an OC-N facility.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

Both RINGID and BLSRTYPE identify the OC-N port connected with a BLSR. These attributes are only presented for the OC-12, OC-48, OC-192 ports within a BLSR connection. The RTRV-<MOD\_RING> command with the AID BLSR-RINGID, can provide more information on this BLSR.



### Note

This command does not show the WVLEN attribute if the OC-N port has zero value on WVLEN.

UNI-C DCC provisioning notes:

1. The attributes DCC(Y/N) and mode (SONET/SDH) remain the same in the ED/RTRV-OCN commands when the DCC is used for UNI-C, in which case the port attribute UNIC is enabled (UNIC=Y).
2. UNI-C DCC termination cannot be deleted by the regular DCC de-provisioning command.
3. If the DCC is created under regular SONET provisioning, and this port is used by UNI-C, the port is converted as an UNI-C DCC automatically.
4. De-provisioning UNI-C IF/IB IPCC will free up DCC termination automatically.

5. The parameters ALSMODE, ALSRCINT, and ALSRCPW are only applicable for OC3-8, OC192 and OC48ELR cards.
6. SSMRCV will display the quality of the individual port.
7. SSM selectable (ADMSSM) and synchronization messaging for output (SYNCMSGOUT) are not applicable to the ONS 15600.
8. J0 Support (EXPTRC, TRC, TRCMODE and TRCFORMAT parameters) are supported by: DWDM cards with an OC-n payload, the MRC-12 card and the OC192-XFP card. J0 is not supported by OC3-8, OC-12, OC-48, OC-192 and other SONET optical cards.

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**Category** BLSR

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**Security** Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE	RTRV-FFP-<OCN_TYPE>
	ED-G1000	RTRV-FSTE
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
	ENT-FFP-<OCN_TYPE>	RTRV-T3
	INIT-REG-<MOD2>	RTRV-TH-<MOD2>
	OPR-ALS	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-LPBK-<MOD2>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	SCHED-PMREPT-<MOD2>
	OPR-PROTNSW-<OCN_TYPE>	SET-ALMTH-<MOD2>
	REPT PM <MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	

**Input Format** RTRV-<OCN\_TYPE>[:<TID>]:<AID>:<CTAG>[:::];

**Input Example** RTRV-OC48:PENNGROVE:FAC-6-1:236;

## Input Parameters

Table 21-9 RTRV-&lt;OCN\_TYPE&gt; Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>:.,[<ROLE>],[<STATUS>]:[DCC=<DCC>],[AREA=<AREA>],[TMGREF=<TMGREF>],
[SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],[PJMON=<PJMON>],
[SFBER=<SFBER>],[SDBER=<SDBER>],[MODE=<MODE>],[WVLEN=<WVLEN>],
[RINGID=<RINGID>],[BLSRTYPE=<BLSRTYPE>],[MUX=<MUX>],[UNIC=<UNIC>],
[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],
[SSMRCV=<SSMRCV>],[OSPF=<OSPF>],[LDCC=<LDCC>],[NAME=<NAME>],
[LBCL=<LBCL>],[OPT=<OPT>],[OPR=<OPR>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],
[TRCMODE=<TRCMODE>],[TRCFORMAT=<TRCFORMAT>],[ADMSSM=<ADMSSM>],
[SENDDUSFF=<SENDDUSFF>],[AISONLPBK=<AISONLPBK>],[FREQ=<FREQ>],
[LOSSB=<LOSSB>],[FOREIGNFEND=<FOREIGNFEND>],
[FOREIGNIPADDRESS=<FOREIGNIPADDRESS>],:<PSTPSTQ>,[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-6-1:.,WORK,ACT:DCC=Y,AREA=10.92.63.1,TMGREF=N,SYNCMSG=N,SENDDUS=N,
PJMON=48,SFBER=1E-4,SDBER=1E-6,MODE=SONET,WVLEN=1310.00,RINGID=43,
BLSRTYPE=WESTWORK,MUX=E2,UNIC=Y,
SOAKLEFT="12-25",SSMRCV=STU,OSPF=Y,LDCC=Y,NAME="OCN PORT",LBCL=10.0,
OPT=10.0,OPR=10.0,EXPTRC="AAA",TRC="AAA",TRCMODE=MAN,
TRCFORMAT=16-BYTE,ADMSSM=PRS,SENDDUSFF=N,AISONLPBK=AIS_ON_LPBK_ALL,
FREQ=1550,LOSSB=LR-1,FOREIGNFEND=Y,
FOREIGNIPADDRESS=10.92.63.44,:OOS-AU,AINS”
;

```

## Output Parameters

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
ROLE	An OCn port role. Optional Parameter type is SIDE—the role the unit is playing in the protection group
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<b>STATUS</b>	An OCn port status. Optional Parameter type is STATUS—the status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
<b>DCC</b>	Indicates whether or not the section DCC is to be used. Optional Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>AREA</b>	Area ID. Shows up only if the DCC is enabled. String. Optional
<b>TMGREF</b>	The termination to be used, whether primary or secondary. Identifies if an OCn port has a timing reference. Defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>SYNCMSG</b>	Synchronization status message Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>SENDUS</b>	The facility will send the DUS (Don't use for Synchronization) value in 0x0f bits pattern as the sync status message for that facility. Defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>PJMON</b>	Identifies an OC-N port PJMON. PJMON is an integer. It defaults to 0 (zero). Set a valid STS number of the optical port. <b>Note</b> The PJMON number displayed in TL1 interface does not correspond to the PJVC4MON number in CTC, but instead corresponds to the STS number of the optical port.
<b>SFBER</b>	An OCn port signal failure threshold. Defaults to 1E-4. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SFBER is 1E-5
<b>SDBER</b>	An OCn port signal degrade threshold. Defaults 1E-7. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SDBER is 1E-5
<ul style="list-style-type: none"> <li>1E-6</li> </ul>	SDBER is 1E-6
<ul style="list-style-type: none"> <li>1E-7</li> </ul>	SDBER is 1E-7
<ul style="list-style-type: none"> <li>1E-8</li> </ul>	SDBER is 1E-8
<ul style="list-style-type: none"> <li>1E-9</li> </ul>	SDBER is 1E-9
<b>MODE</b>	OCn port mode. Defaults to SONET. Optional Parameter type is OPTICAL_MODE—the facility's optical mode
<ul style="list-style-type: none"> <li>SDH</li> </ul>	SDH/ETSI optical mode using European/International format
<ul style="list-style-type: none"> <li>SONET</li> </ul>	SONET/ANSI optical mode using the American format
<b>WVLEN</b>	An OCn port wavelength in nanometers. For example, WVLEN=1310.00 means it operates at 1310 nm in the DWDM application. Float. Optional
<b>RINGID</b>	The BLSR RINGID with which the port is connected. RINGID ranges from 0 to 9999. Integer. Optional
<b>BLSRTYPE</b>	The BLSR type with which the port is connected. Optional Parameter type is BLSR_TYPE—BLSR type of an OCn port
<ul style="list-style-type: none"> <li>EASTPROT</li> </ul>	The OCn port is an east protecting port
<ul style="list-style-type: none"> <li>EASTWORK</li> </ul>	The OCn port is an east working port
<ul style="list-style-type: none"> <li>WESTPROT</li> </ul>	The OCn port is an west protecting port
<ul style="list-style-type: none"> <li>WESTWORK</li> </ul>	The OCn port is an west working port
<b>MUX</b>	BLSR extension byte. Optional Parameter type is MUX_TYPE—BLSR extension byte
<ul style="list-style-type: none"> <li>E2</li> </ul>	E2 byte (orderwire)
<ul style="list-style-type: none"> <li>F1</li> </ul>	F1 byte (user)
<ul style="list-style-type: none"> <li>K3</li> </ul>	K3 byte
<ul style="list-style-type: none"> <li>Z2</li> </ul>	Z2 byte
<b>UNIC</b>	Indicates if the port connects to the UCP. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional



Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1-minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT, or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>SSMRCV</b>	Displays the quality of the individual port. Optional Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>OSPF</b>	The open shortest path first protocol. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>LDCC</b>	The line DCC connection on the port. Optional Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>NAME</b>	Name. String. Optional
<b>LBCL</b>	Displays the current value of the laser current. Float. Optional
<b>OPT</b>	Displays the current value of the transmitted optical power. OPT is only displayed for DWDM cards. Float. Optional
<b>OPR</b>	Received optical power. Float

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<b>EXPTRC</b>	Expected path trace content. String. Optional
<b>TRC</b>	Path trace message to be transmitted. String. Optional
<b>TRCMODE</b>	Path trace mode. Applicable only to STS-level Paths in SONET. Defaults to the OFF mode. Optional Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP is detected
• MAN	Use the provisioned expected string as the expected string
• MAN-NO-AIS	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected
• OFF	Turn off path trace capability. Nothing will be reported
<b>TRCFORMAT</b>	Trace message size. Optional Parameter type is TRCFORMAT—trace format
• 1-BYTE	1-byte trace message
• 16-BYTE	16-byte trace message
• 64-BYTE	64-byte trace message
• Y	Enable an attribute
<b>ADMSSM</b>	SSM selectable value. Only displayed when SSM is disabled. Optional Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<b>SENDDUSFF</b>	Indicates that the facility will send the DUS (Don't use for synchronization) value in 0xff bits pattern as the sync status message for that facility. Defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>AISONLPBK</b>	AIS on loopback. Optional Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ONLPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks
<b>FREQ</b>	Optional. Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Optional. Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX

Table 21-10 RTRV-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<b>FOREIGNFEND</b>	Indicates whether the far-end NE on the DCC is a foreign NE. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>FOREIGNIPADDRESS</b>	The IP address of the far-end NE on the DCC. Used only if FOREIGNFEND is Y. String. Optional
<b>PST_PSTQ</b>	Admin state in the PST_PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.6 RTRV-<PATH>

Retrieve (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the attributes associated with an STS/VT path.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

Supported AIDs are: ALL, SLOT-N (N=1,2,...,ALL), and STS/VT-specific AIDs.

The SFBER, SDBER, RVRTV, RVTM, SWPDIP, HOLDOFFTIMER, and UPSRPTHSTATE parameters only apply to path protection.

The path trace message is a 64 character string including the terminating CR (carriage return) and LF (line feed) that is transported in the J1 byte of the SONET STS Path overhead.

The EXPTRC indicates the contents of the expected incoming path trace are provisioned by the user in the ED-STIS\_PATH command. The TRC indicates the contents of the outgoing path trace message. The INCTRC indicates the contents of the incoming path trace message.

The path trace mode has three modes: OFF, MANUAL, and AUTO. The mode defaults to OFF. The MANUAL mode performs the comparison of the received string with the user entered expected string. The AUTO mode performs the comparison of the present received string with an expected string set to a previously received string. If there is a mismatch, the TIM-P alarm is raised. When the path trace mode is in OFF mode, there is no path trace processing, and all the alarm and state conditions are reset.

When the expected string is queried under the OFF path trace mode, the expected string is a copy of the provisioned string or NULL. When an expected string is queried under the MANUAL path trace mode, the expected string is a copy of the user entered string. When an expected string is queried under the AUTO path trace mode, the expected string is a copy of the acquired received string or NULL if the string has not been acquired.

When the incoming string is queried under the OFF path trace mode, the incoming string is NULL. When an incoming string is queried under the MANUAL or AUTO path trace mode, the incoming string is a copy of the received string or NULL if the string has not been received.

J1 (EXPTRC) is implemented on the DS1/DS1N, DS3E/DS3NE, DS3XM, EC1, DS3-EC1-48, OC3, OC48AS, OC192, MRC-12 and OC192-XFP cards.

TRC and INCTRC are supported on DS1N, DS3NE, DS3-EC1-48 and DS3XM cards.

The following actions will result in error messages:

- Sending this command while BLSRPTHSTYPE=PCA, whether there is BLSR switch or not, the PCA path J1/C2 data will be returned (if there is PCA circuit on the AID).
- Sending this command with an STS AID without circuits and no BLSR switched on the STS will return an error message.



#### Note

- An optional parameter BLSRPTHSTYPE is introduced into this command to provide more options to retrieve J1/C2 of a particular BLSR path. This field is valid only if the queried AID port has BLSR. The BLSRPTHSTYPE defaults to “non-pca” path type if the BLSR is switched, or defaults to all BLSR path types if there is no BLSR switching.
- An optional output parameter BLSRPTHSTATE is introduced into this command output. Each J1/C2 output data of this command will include the BLSR path state information.
- After the BLSR switching, the J1/IPPM/C2 data can be retrieved over the protection path. J1 trace string, trace mode, or threshold is not allowed on the protection path.
- HOLDOFFTIMER is not specific to a path. Instead, it is applicable to the path protection selector.
- The VT1.5 J2 path trace provisioning is supported on the DS3XM-12 card and the 15454 CE-100T-8 card VT1.5 path using the ED-VT1, RTRV-VT1 and RTRV-PTHTRC-VT1 commands. The 15310-CL CE-100T-8 card supports J2 path trace.
- Test access is not supported on the ONS 15310-CL. J2 is not supported on the 15310-CL-CTX card of the ONS 15310-CL, however the CE-100T-8 card supports J2 in the ONS 15310-CL.
- For the selector path on a BLSR, the SWPDIP path attribute is not editable and is always in ON state.

- SFBER and SDBER are applied for the ONS 15310-CL and the ONS 15454 when the ONS 15454 has an XC-VXC-10G card.

**Category**

Paths

**Security**

Retrieve

**Related Commands**

DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-NE-PATH
DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-PROTNSW-<PATH>
ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-ROLL-<MOD_PATH>
ED-NE-PATH	RTRV-CRS-<PATH>	

**Input Format**

RTRV-&lt;PATH&gt;:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;[::BLSRPTHTYPE=&lt;BLSRPTHTYPE&gt;][:];

**Input Example**

RTRV-STS3C:FERNDALE:STS-2-1-4:238:::BLSRPTHTYPE=NON-PCA;

**Input Parameters****Table 21-11 RTRV-<PATH> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on <a href="#">page 25-20</a> . Must not be null
<b>BLSRPTHTYPE</b>	The BLSR path type only if the port is on the BLSR. Defaults to NON-PCA. Applicable only to STS-level paths in SONET. A null value defaults to NON-PCA Parameter type is BLSR_PTH_TYPE—BLSR path type only if the port is on the BLSR
<ul style="list-style-type: none"> <li>• NON-PCA</li> </ul>	The AID is on the working path, or the cross-connection card protection path
<ul style="list-style-type: none"> <li>• PCA</li> </ul>	The AID is on the BLSR PCA path

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AID>::[LEVEL=<LEVEL>],[SFBER=<SFBER>],[SDBER=<SDBER>],[RVRTV=<RVRTV>],
[RVTM=<RVTM>],[SWPDIP=<SWPDIP>],[HOLDOFFTIMER=<HOLDOFFTIMER>],
[EXPTRC=<EXPTRC>],[TRC=<TRC>],[INCTRC=<INCTRC>],[TRCMODE=<TRCMODE>],
[TRCFORMAT =<TRCFORMAT>],[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],
[UPSRPTHSTATE=<UPSRPTHSTATE>],[C2=<C2>],
[BLSRPTHSTATE=<BLSRPTHSTATE>]:<PST_PSTQ>,<SSTQ>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
"STS-2-1-4::LEVEL=STS1,SFBER=1E-3,SDBER=1E-5,RVRTV=Y,RVTM=1.0,SWPDIP=Y,
HOLDOFFTIMER=2000,EXPTRC="EXPTRCSTRING",TRC="TRCSTRING",
INCTRC="INCTRCSTRING",TRCMODE=AUTO,TRCFORMAT=64-BYTE,TACC=8,
TAPTYPE=DUAL,UPSRPTHSTATE=ACT,C2=0X04,
BLSRPTHSTATE=PROTPHACT:OOS-AU,AINS"
;

```

**Output Parameters****Table 21-12 RTRV-<PATH> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.10 CrossConnectId1”</a> section on page 25-20
<b>LEVEL</b>	The rate of the cross-connect. Indicates the rate of the cross-connected channel. Applicable only to STS path in SONET. Optional Parameter type is PATH—modifier for path commands
• STS1	Synchronous transport signal/module level-1 (51.84 Mbps)
• STS3C	Synchronous transport signal/module level-3 concatenated (155.52 Mbps)
• STS6C	Synchronous transport signal/module level-6 (311.04 Mbps)
• STS9C	Synchronous transport signal/module level-9 concatenated (466.56 Mbps)
• STS12C	Synchronous transport signal/module level-12 concatenated (622.08 Mbps)
• STS18C	Synchronous transport signal/module level-18 concatenated (933.12 Mbps)
• STS24C	Synchronous transport signal/module level-24 concatenated (1244.16 Mbps)
• STS36C	Synchronous transport signal/module level-36 concatenated (1866.24 Mbps)
• STS48C	Synchronous transport signal/module level-48 concatenated (2488.32 Mbps)



Table 21-12 RTRV-&lt;PATH&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>STS192C</li> </ul>	Synchronous transport signal/module level-192 concatenated (9953.28 Mbps)
<b>SFBER</b>	An STS path signal failure threshold which only applies to path protection. Applicable only to STS-level paths in SONET. Defaults to 1E-4. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
<ul style="list-style-type: none"> <li>1E-3</li> </ul>	SFBER is 1E-3
<ul style="list-style-type: none"> <li>1E-4</li> </ul>	SFBER is 1E-4
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SFBER is 1E-5
<b>SDBER</b>	An STS path signal degrade threshold which only applies to path protection. Applicable only to STS-level paths in SONET. Defaults 1E-6. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SDBER is 1E-5
<ul style="list-style-type: none"> <li>1E-6</li> </ul>	SDBER is 1E-6
<ul style="list-style-type: none"> <li>1E-7</li> </ul>	SDBER is 1E-7
<ul style="list-style-type: none"> <li>1E-8</li> </ul>	SDBER is 1E-8
<ul style="list-style-type: none"> <li>1E-9</li> </ul>	SDBER is 1E-9
<b>RVRTV</b>	Revertive mode. Only applies to path protection. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>RVTM</b>	Revertive time. Only applies to path protection Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>SWPDIP</b>	Switch on PDI-P. Applicable only to STS-level paths in SONET. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>HOLDOFFTIMER</b>	Hold off timer. Integer. Optional

Table 21-12 RTRV-&lt;PATH&gt; Output Parameters (continued)

Parameter and Values	Description
<b>EXPTRC</b>	Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). Applicable to STS-level paths in SONET. Defaults to NULL when path protection path is created. Supported on the CE-100T-8 card (ONS 15310-CL) provisioned in mapper mode. String. Optional
<b>TRC</b>	The path trace message to be transmitted. The trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (hex 00) and CR and LF. A null value defaults to the NE transmitting null characters (Hex 00). Applicable to STS-level paths in SONET. Applicable to VT-level paths for the DS3XM-12 card on the ONS 15454. Supported on the CE-100T-8 card (ONS 15310-CL) provisioned in mapper mode. String. Optional
<b>INCTRC</b>	The incoming path trace message contents. INCTRC is any combination of 64 characters. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Defaults to Null when a path protection path is created. Supported on the CE-100T-8 card (ONS 15310-CL) provisioned in mapper mode. String. Optional
<b>TRCMODE</b>	Path trace mode. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Defaults to OFF when a path protection path is created. Supported on the CE-100T-8 card (ONS 15310-CL) provisioned in mapper mode. Optional Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string (not applicable to MXP_2.5G_10G and TXP_MR_10G cards)
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP detected
• MAN	Use the provisioned expected string as the expected string
• MAN-NO-AIS	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP detected
• OFF	Turn off path trace capability. Nothing will be reported
<b>TRCFORMAT</b>	Trace message size. Optional Parameter type is TRCFORMAT—trace format
• 1-BYTE	1-byte trace message
• 16-BYTE	16-byte trace message
• 64-BYTE	64-byte trace message
• Y	Enable an attribute
<b>TACC</b>	Test access. Indicates whether the digroup being provisioned is to be used as a test access digroup. Defaults to N. Not applicable to the ONS 15310-CL. Optional

**Table 21-12 RTRV-<PATH> Output Parameters (continued)**

Parameter and Values	Description
<b>TAPTYPE</b>	TAP type. Not applicable to the ONS 15310-CL. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
<b>UPSRPTHSTATE</b>	Indicates whether a given AID is the working or standby path of a path protection cross-connect. Optional Parameter type is STATUS—status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
<b>C2</b>	The c2 byte hex code. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Optional Parameter type is C2_BYTE—c2 byte hex code
• 0X00	Unequipped
• 0X01	Equipped-Non Specific payload
• 0X02	VT-Structured STS-1 SPE
• 0X03	Locked VT Mode
• 0X04	Asynchronous Mapping for DS3
• 0X12	Asynchronous Mapping for DS4NA
• 0X13	Mapping for ATM
• 0X14	Mapping for DQDB
• 0X15	Asynchronous Mapping for FDDI
• 0X16	HDLC-Over-SONET Mapping
• 0XE1	VT-structured STS-1 SPE with 1VTx payload defect
• 0XE2	VT-structured STS-1 SPE with 2VTx payload defects
• 0XE3	VT-structured STS-1 SPE with 3VTx payload defects
• 0XE4	VT-structured STS-1 SPE with 4VTx payload defects
• 0XE5	VT-structured STS-1 SPE with 5VTx payload defects
• 0XE6	VT-structured STS-1 SPE with 6VTx payload defects
• 0XE7	VT-structured STS-1 SPE with 7VTx payload defects
• 0XE8	VT-structured STS-1 SPE with 8VTx payload defects
• 0XE9	VT-structured STS-1 SPE with 9VTx payload defects
• 0XEA	VT-structured STS-1 SPE with 10VTx payload defects
• 0XEB	VT-structured STS-1 SPE with 11VTx payload defects
• 0XEC	VT-structured STS-1 SPE with 12VTx payload defects
• 0XED	VT-structured STS-1 SPE with 13VTx payload defects
• 0XEE	VT-structured STS-1 SPE with 14VTx payload defects

Table 21-12 RTRV-&lt;PATH&gt; Output Parameters (continued)

Parameter and Values	Description
• 0XEF	VT-structured STS-1 SPE with 15VTx payload defects
• 0XF0	VT-structured STS-1 SPE with 16VTx payload defects
• 0XF1	VT-structured STS-1 SPE with 17VTx payload defects
• 0XF2	VT-structured STS-1 SPE with 18VTx payload defects
• 0XF3	VT-structured STS-1 SPE with 19VTx payload defects
• 0XF4	VT-structured STS-1 SPE with 20VTx payload defects
• 0XF5	VT-structured STS-1 SPE with 21VTx payload defects
• 0XF6	VT-structured STS-1 SPE with 22VTx payload defects
• 0XF7	VT-structured STS-1 SPE with 23VTx payload defects
• 0XF8	VT-structured STS-1 SPE with 24VTx payload defects
• 0XF9	VT-structured STS-1 SPE with 25VTx payload defects
• 0XFA	VT-structured STS-1 SPE with 26VTx payload defects
• 0XFB	VT-structured STS-1 SPE with 27VTx payload defects
• 0XFC	VT-structured STS-1 SPE with 28VTx payload defects
• 0XFE	O.181 Test Signal (TSS1 to TSS3) Mapping
• 0XFF	Reserved, however, C2 is 0XFF if AIS-L is being generated by an optical card or cross-connect downstream
<b>BLSRPTHSTATE</b>	The BLSR path state only if the port is on the BLSR. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Optional Parameter type is BLSR_PTH_STATE—the BLSR path state only if the port is on the BLSR
• PCAPTHACT	Indicates the BLSR is un-switched and its PCA path is in the active state
• PCAPTHSTB	Indicates the BLSR is switched and its PCA path is in the standby state
• PROTPTHACT	Indicates the BLSR is switched and its protection path is in the active state
• WKGPTHACT	Indicates the BLSR is not switched and its working path is in the active state
• WKGPTHSTB	Indicates the BLSR is switched and its working path is in the standby state
<b>PST_PSTQ</b>	Admin state in the PST_PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management

**Table 21-12** RTRV-<PATH> Output Parameters (continued)

Parameter and Values	Description
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.7 RTRV-10GIGE

Retrieve 10GIGE

### Usage Guidelines

Cisco ONS 15454

This command retrieves the 10 Gbps-specific parameters for a port that has been configured to support the gigabyte Ethernet payload with the ENT-10GIGE command.

### Category

Ports

### Security

Retrieve

Related Commands	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD_RING>
	ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE	RTRV-FFP-<OCN_TYPE>
	ED-G1000	RTRV-FSTE
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-T1
	ENT-FFP-<OCN_TYPE>	RTRV-T3
	INIT-REG-<MOD2>	RTRV-TH-<MOD2>
	OPR-ALS	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-LPBK-<MOD2>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	SCHED-PMREPT-<MOD2>
	OPR-PROTNSW-<OCN_TYPE>	SET-ALMTH-<MOD2>
	REPT PM <MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	

**Input Format** RTRV-10GIGE:[<TID>]:<AID>:<CTAG>[::::];

**Input Example** RTRV-10GIGE:TID:FAC-1-1:100;

## Input Parameters

Table 21-13 RTRV-10GIGE Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>:.,[<ROLE>],[<STATUS>]:[NAME=<NAME>],[MACADDR=<MACADDR>],
[LBCL=<LBCL>],[OPT=<OPT>],[OPR=<OPR>],[FREQ=<FREQ>],
[LOSSB=<LOSSB>]:<PSTPSTQ>,[<SST>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-6-1:.,WORK,ACT:NAME=“NY PORT”,MACADDR=00-0E-AA-BB-CC-FF,LBCL=10.0,
OPT=10.0,OPR=10.0,FREQ=1550,LOSSB= SX:OOS-AU,AINS”
;
```

## Output Parameters

Table 21-14 RTRV-10GIGE Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
ROLE	The port role in Y-cable protection (WORK or PROT). Optional Parameter type is SIDE—the role the unit is playing in the protection group
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group
STATUS	A port status in Y-cable protection (ACT or STBY). Optional Parameter type is STATUS—the status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
NAME	Port name. String. Optional
MACADDR	The MAC address for the 10 gigabyte Ethernet payload. String. Optional
LBCL	Displays the current value of the laser current. Float. Optional
OPT	Displays the current value of the transmitted optical power. Float. Optional

Table 21-14 RTRV-10GIGE Output Parameters (continued)

Parameter and Values	Description
<b>OPR</b>	Displays the current value of the received optical power. Float. Optional
<b>FREQ</b>	Optional. Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1



**Table 21-14 RTRV-10GIGE Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
<b>LOSSB</b>	Optional. Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX
<b>PST_PSTQ</b>	Admin state in the PST_PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes

**Table 21-14 RTRV-10GIGE Output Parameters (continued)**

Parameter and Values	Description
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.8 RTRV-ALM-<MOD2ALM>

Retrieve Alarm (1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, DS1, E100, E1000, E3, E4, EC1, FSTE, G1000, GFPOS, GIGE, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, UDCDCC, UDCF, VC12, VC3, VCG, VT1, VT2, WLEN)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves and sends the current status of alarm conditions. The alarm condition or severity to be retrieved can be specified by using the input parameters as a filter.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



#### Note

VT1-n-n-n replaces PS\_VT1-n-n-n for the VT1 alarm AID.



#### Note

The [<AIDTYPE>] shows STS1 for STS alarms.

### Category

Fault

### Security

Retrieve

Related Commands	CLR-COND-SECU	REPT EVT COM	RTRV-ALM-ENV
	REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-EQPT
	REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-SYNCN
	REPT ALM COM	REPT EVT FXFR	RTRV-COND-<MOD2ALM>
	REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-ALL
	REPT ALM EQPT	REPT EVT SECU	RTRV-COND-BITS
	REPT ALM SECU	REPT EVT SESSION	RTRV-COND-ENV
	REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT
	REPT EVT <MOD2ALM>	RTRV-ALM-ALL	RTRV-COND-SYNCN
	REPT EVT BITS	RTRV-ALM-BITS	

**Input Format** RTRV-ALM-<MOD2ALM>:[<TID>]:<AID>:<CTAG>:.[<NTFCNCDE>],[<CONDTYPE>],[<SRVEFF>][,,,];

**Input Example** RTRV-ALM-OC12:ELDRIDGE:FAC-5-1:225::MN,SD,SA;

### Input Parameters

**Table 21-15 RTRV-ALM-<MOD2ALM> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.2 AidUnionId</a> ” section on <a href="#">page 25-9</a> . Must not be null
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> <li>• CR</li> <li>• MJ</li> <li>• MN</li> <li>• NA</li> <li>• NR</li> </ul>	<ul style="list-style-type: none"> <li>The condition causing the alarm has cleared</li> <li>A critical alarm</li> <li>A major alarm</li> <li>A minor alarm</li> <li>The condition is not alarmed</li> <li>The alarm is not reported</li> </ul>
<b>CONDTYPE</b>	Condition type for an alarm or a reported event. A null value is equivalent to ALL Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition

Table 21-15 RTRV-ALM-&lt;MOD2ALM&gt; Input Parameters (continued)

Parameter and Values	Description
	Parameter type is SERV_EFF—the effect of the alarm on service. A null value is equivalent to ALL
<ul style="list-style-type: none"> <li>NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>SA</li> </ul>	The condition is service affecting

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AID>,[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
[<OCR TM>],,:[<DESC>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
"FAC-5-1,OC12:MJ,SD,SA,09-05,12-30-20,,:""BER AT SIGNAL DEGRADE LEVEL\"";"
;

```

**Output Parameters**

Table 21-16 RTRV-ALM-&lt;MOD2ALM&gt; Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">"25.1.1 ALL" section on page 25-1</a>
<b>AIDTYPE</b>	Type of access identifier. Optional Parameter type is MOD2ALM—alarm type
<ul style="list-style-type: none"> <li>1GFC</li> </ul>	1 Gigabit fibre channel alarm
<ul style="list-style-type: none"> <li>1GFICON</li> </ul>	1 Gigabit FICON alarm
<ul style="list-style-type: none"> <li>2GFC</li> </ul>	2 Gigabit fibre channel alarm
<ul style="list-style-type: none"> <li>2GFICON</li> </ul>	2 Gigabit FICON alarm
<ul style="list-style-type: none"> <li>CLNT</li> </ul>	Client facility for MXP/TXP cards
<ul style="list-style-type: none"> <li>DS1</li> </ul>	DS1 alarm
<ul style="list-style-type: none"> <li>DS3I</li> </ul>	DS3I alarm
<ul style="list-style-type: none"> <li>E100</li> </ul>	E100 alarm
<ul style="list-style-type: none"> <li>E1000</li> </ul>	E1000 alarm
<ul style="list-style-type: none"> <li>EC1</li> </ul>	EC1 alarm
<ul style="list-style-type: none"> <li>FSTE</li> </ul>	Fast Ethernet Port alarm
<ul style="list-style-type: none"> <li>G1000</li> </ul>	G1000 alarm
<ul style="list-style-type: none"> <li>GFPOS</li> </ul>	Generic framing protocol over packet over SONET virtual port alarm
<ul style="list-style-type: none"> <li>GIGE</li> </ul>	GIG Ethernet port alarm

**Table 21-16** RTRV-ALM-<MOD2ALM> Output Parameters (continued)

Parameter and Values	Description
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• T1	T1 alarm
• T3	T3 alarm
• UDCDCC	UDCDCC alarm
• UDCF	UCDF alarm
• VCG	Virtual Concatenation Group alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• WLEN	Wavelength Path Provisioning
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported

Table 21-16 RTRV-ALM-&lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
CONDTYPE	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
SRVEFF	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
OCRDAT	Date when the specific event or violation occurred. Optional
OCRTM	Time when the specific event or violation occurred. Optional

## 21.9 RTRV-ALM-ALL

Retrieve Alarm All

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves and sends the current status of all active alarm conditions. The alarm condition or severity to be retrieved is specified using the input parameters as a filter.

According to GR-833, the RTRV-ALM-ALL command only reports EQPT, COM, and rr (T1, T3, OCN, EC1, STSN, VT1, DS1, E100, E1000, G1000, ML-Series, TXP and MXP) alarms.

To retrieve all the NE alarms, issue all of the following commands:

```
RTRV-ALM-ALL
RTRV-ALM-BITS
RTRV-ALM-ENV
RTRV-ALM-SYNCN
```

### Category

Fault

### Security

Retrieve

Related Commands	CLR-COND-SECU	REPT EVT COM	RTRV-ALM-ENV
	REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-EQPT
	REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-SYNCN
	REPT ALM COM	REPT EVT FXFR	RTRV-COND-<MOD2ALM>
	REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-ALL
	REPT ALM EQPT	REPT EVT SECU	RTRV-COND-BITS
	REPT ALM SECU	REPT EVT SESSION	RTRV-COND-ENV
	REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT
	REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
	REPT EVT BITS	RTRV-ALM-BITS	

**Input Format** RTRV-ALM-ALL:[<TID>]:[<AID>]:<CTAG>:[:<NTFCNCDE>],[<CONDITION>],[<SRVEFF>][,];

**Input Example** RTRV-ALM-ALL:COTATI:ALL:229::MN,PWRRESTART,NSA;

### Input Parameters

**Table 21-17 RTRV-ALM-ALL Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.1 ALL</a> ” section on page 25-1. A null value is equivalent to ALL. String
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> <li>• CR</li> <li>• MJ</li> <li>• MN</li> <li>• NA</li> <li>• NR</li> </ul>	<ul style="list-style-type: none"> <li>The condition causing the alarm has cleared</li> <li>A critical alarm</li> <li>A major alarm</li> <li>A minor alarm</li> <li>The condition is not alarmed</li> <li>The alarm is not reported</li> </ul>
<b>CONDITION</b>	The type of alarm condition. A null value is equivalent to ALL Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service. A null value is equivalent to ALL

**Table 21-17 RTRV-ALM-ALL Input Parameters (continued)**

Parameter and Values	Description
• NSA	The condition is non-service affecting
• SA	The condition is service affecting

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
“[<AID>],[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,,,,:[<DESC>],[<AIDDET>]”
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SLOT-2,EQPT:MN,PWRRESTART,NSA,,,,:\“POWER FAIL RESTART\”,DS1-14”
;

```

**Output Parameters****Table 21-18 RTRV-ALM-ALL Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL”</a> section on page 25-1. Optional
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm



**Table 21-18 RTRV-ALM-ALL Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed

Table 21-18 RTRV-ALM-ALL Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>NR</li> </ul>	The alarm is not reported
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
<ul style="list-style-type: none"> <li>NSA</li> <li>SA</li> </ul>	The condition is non-service affecting
<b>DESC</b>	A condition description. String. Optional
<b>AIDDET</b>	AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. The supplementary equipment identification. Optional

## 21.10 RTRV-ALM-BITS

Retrieve Alarm Building Integrated Timing Supply

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves and sends the current status of alarm conditions associated with the BITS facility. The alarm condition or severity retrieved is specified using the input parameters as a filter.

### Category

Synchronization

### Security

Retrieve

Related Commands			
	CLR-COND-SECU	REPT EVT BITS	RTRV-ALM-ENV
	ED-BITS	REPT EVT COM	RTRV-ALM-EQPT
	ED-NE-SYNCN	REPT EVT ENV	RTRV-ALM-SYNCN
	ED-SYNCN	REPT EVT EQPT	RTRV-BITS
	OPR-SYNCNSW	REPT EVT FXFR	RTRV-COND-<MOD2ALM>
	REPT ALM <MOD2ALM>	REPT EVT IOSCFG	RTRV-COND-ALL
	REPT ALM BITS	REPT EVT SECU	RTRV-COND-BITS
	REPT ALM COM	REPT EVT SESSION	RTRV-COND-ENV
	REPT ALM ENV	REPT EVT SYNCN	RTRV-COND-EQPT
	REPT ALM EQPT	RLS-SYNCNSW	RTRV-COND-SYNCN
	REPT ALM SECU	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN
	REPT ALM SYNCN	RTRV-ALM-ALL	RTRV-SYNCN
	REPT EVT <MOD2ALM>		

**Input Format** RTRV-ALM-BITS:[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<CONDTYPE>],[<SRVEFF>][,.,,];

**Input Example** RTRV-ALM-BITS:ELVERANO:BITS-1:228::CR,LOS,SA;

### Input Parameters

**Table 21-19 RTRV-ALM-BITS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.5 BITS” section on page 25-13. Must not be null
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>CONDTYPE</b>	The condition type for an alarm or reported event. A null value is equivalent to ALL Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, “Conditions” for a list of conditions

Table 21-19 RTRV-ALM-BITS Input Parameters (continued)

Parameter and Values	Description
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service. A null value is equivalent to ALL
<ul style="list-style-type: none"> <li>NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>SA</li> </ul>	The condition is service affecting

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>,[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,,,,:[<DESC>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"BITS-1,BITS:CR,LOS,SA,,,,:\“LOSS OF SIGNAL\”,”
;
```

**Output Parameters**

Table 21-20 RTRV-ALM-BITS Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.5 BITS”</a> section on page 25-13. Optional
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2B—alarm type
<ul style="list-style-type: none"> <li>1GFC</li> </ul>	1 Gigabit fibre channel alarm
<ul style="list-style-type: none"> <li>1GFICON</li> </ul>	1 Gigabit FICON alarm
<ul style="list-style-type: none"> <li>2GFC</li> </ul>	2 Gigabit fibre channel alarm
<ul style="list-style-type: none"> <li>2GFICON</li> </ul>	2 Gigabit FICON alarm
<ul style="list-style-type: none"> <li>BITS</li> </ul>	BITS alarm
<ul style="list-style-type: none"> <li>CLNT</li> </ul>	Client facility for MXP/TXP cards
<ul style="list-style-type: none"> <li>COM</li> </ul>	Common alarm
<ul style="list-style-type: none"> <li>DS1</li> </ul>	DS1 alarm
<ul style="list-style-type: none"> <li>DS3I</li> </ul>	DS3I alarm
<ul style="list-style-type: none"> <li>E100</li> </ul>	E100 alarm
<ul style="list-style-type: none"> <li>E1000</li> </ul>	E1000 alarm
<ul style="list-style-type: none"> <li>EC1</li> </ul>	EC1 alarm
<ul style="list-style-type: none"> <li>ENV</li> </ul>	ENV alarm

**Table 21-20 RTRV-ALM-BITS Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message

Table 21-20 RTRV-ALM-BITS Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>CL</li> </ul>	The condition causing the alarm has cleared
<ul style="list-style-type: none"> <li>CR</li> </ul>	A critical alarm
<ul style="list-style-type: none"> <li>MJ</li> </ul>	A major alarm
<ul style="list-style-type: none"> <li>MN</li> </ul>	A minor alarm
<ul style="list-style-type: none"> <li>NA</li> </ul>	The condition is not alarmed
<ul style="list-style-type: none"> <li>NR</li> </ul>	The alarm is not reported
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
<ul style="list-style-type: none"> <li>NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>SA</li> </ul>	The condition is service affecting
<b>DESC</b>	A condition description. String. Optional

## 21.11 RTRV-ALM-ENV

Retrieve Alarm Environment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command retrieves the environmental alarms.

### Category

Environment

### Security

Retrieve

Related Commands			
	CLR-COND-SECU	REPT EVT COM	RTRV-ALM-BITS
	REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-EQPT
	REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-SYNCN
	REPT ALM COM	REPT EVT FXFR	RTRV-COND-<MOD2ALM>
	REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-ALL
	REPT ALM EQPT	REPT EVT SECU	RTRV-COND-BITS
	REPT ALM SECU	REPT EVT SESSION	RTRV-COND-ENV
	REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT
	REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
	REPT EVT BITS	RTRV-ALM-ALL	

**Input Format** RTRV-ALM-ENV:[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<ALMTYPE>];

**Input Example** RTRV-ALM-ENV:CISCO:ENV-IN-1:123::MJ,OPENDR;

### Input Parameters

**Table 21-21 RTRV-ALM-ENV Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.12 ENV</a> ” section on page 25-26. Must not be null  <b>Note</b> For RTRV-ALM-ENV, only ENV-IN-{1-4} is a valid AID for ONS 15454 and only ENV-IN-{1-6} is a valid AID for ONS 15327. ENV-OUT-{1,6} is not a valid AID for RTRV-ALM-ENV.
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>ALMTYPE</b>	The alarm type for the environmental alarm. A null value is equivalent to ALL Parameter type is ENV_ALM—environmental alarm types
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure

Table 21-21 RTRV-ALM-ENV Input Parameters (continued)

Parameter and Values	Description
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnected bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure



**Table 21-21 RTRV-ALM-ENV Input Parameters (continued)**

Parameter and Values	Description
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCRDAT>],[<OCRMTM>],[<DESC>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"ENV-IN-1:MJ,OPENDR,08-01,14-25-59,\"OPEN DOOR\""
;
```

## Output Parameters

Table 21-22 RTRV-ALM-ENV Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> <li>• CR</li> <li>• MJ</li> <li>• MN</li> <li>• NA</li> <li>• NR</li> </ul>	<p>The condition causing the alarm has cleared</p> <p>A critical alarm</p> <p>A major alarm</p> <p>A minor alarm</p> <p>The condition is not alarmed</p> <p>The alarm is not reported</p>
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, “Conditions” for a list of conditions
<b>ALMTYPE</b>	The alarm type for the environmental alarm. A null value is equivalent to ALL Parameter type is ENV_ALM—environmental alarm types
<ul style="list-style-type: none"> <li>• AIRCOMPR</li> <li>• AIRCOND</li> <li>• AIRDRYR</li> <li>• BATDSCHRG</li> <li>• BATTERY</li> <li>• CLFAN</li> <li>• CPMAJOR</li> <li>• CPMINOR</li> <li>• ENGINE</li> <li>• ENGOPRG</li> <li>• ENGTRANS</li> <li>• EXPLGS</li> <li>• FIRDETR</li> <li>• FIRE</li> <li>• FLOOD</li> <li>• FUELLEAK</li> <li>• FUSE</li> </ul>	<p>Air compressor failure</p> <p>Air conditioning failure</p> <p>Air dryer failure</p> <p>Battery discharging</p> <p>Battery failure</p> <p>Cooling fan failure</p> <p>Centralized power major failure</p> <p>Centralized power minor failure</p> <p>Engine failure</p> <p>Engine operating</p> <p>Standby engine transfer</p> <p>Explosive gas</p> <p>Fire detector failure</p> <p>Fire</p> <p>Flood</p> <p>Fuel leak</p> <p>Fuse failure</p>

**Table 21-22 RTRV-ALM-ENV Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnected bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay

**Table 21-22 RTRV-ALM-ENV Output Parameters (continued)**

Parameter and Values	Description
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure
OCRDAT	Date. Optional
OCRMT	Time. Optional
DESC	A condition description. String. Optional

## 21.12 RTRV-ALM-EQPT

Retrieve Alarm Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves and sends the current status of alarm conditions associated with the equipment units. The alarm condition or severity to be retrieved is specified using the input parameters as a filter.

### Category

Equipment

### Security

Retrieve

Related Commands			
	ALW-SWDX-EQPT	REPT ALM SECU	RTRV-ALM-ENV
	ALW-SWTOPROTN-EQPT	REPT ALM SYNCN	RTRV-ALM-SYNCN
	ALW-SWTOWKG-EQPT	REPT EVT <MOD2ALM>	RTRV-ALMTH-EQPT
	CLR-COND-SECU	REPT EVT BITS	RTRV-COND-<MOD2ALM>
	DLT-EQPT	REPT EVT COM	RTRV-COND-ALL
	ED-EQPT	REPT EVT ENV	RTRV-COND-BITS
	ENT-EQPT	REPT EVT EQPT	RTRV-COND-ENV
	INH-SWDX-EQPT	REPT EVT FXFR	RTRV-COND-EQPT
	INH-SWTOPROTN-EQPT	REPT EVT IOSCFG	RTRV-COND-SYNCN
	INH-SWTOWKG-EQPT	REPT EVT SECU	RTRV-EQPT
	REPT ALM <MOD2ALM>	REPT EVT SESSION	SET-ALMTH-EQPT
	REPT ALM BITS	REPT EVT SYNCN	SW-DX-EQPT
	REPT ALM COM	RTRV-ALM-<MOD2ALM>	SW-TOPROTN-EQPT
	REPT ALM ENV	RTRV-ALM-ALL	SW-TOWKG-EQPT
	REPT ALM EQPT	RTRV-ALM-BITS	

**Input Format** RTRV-ALM-EQPT:[<TID>]:<AID>:<CTAG>::<NTFCNCDE>],[<CONDTYPE>],[<SRVEFF>][,.,,];

**Input Example** RTRV-ALM-EQPT:TWOROCK:SLOT-7:227::MJ,HITEMP,NSA;

### Input Parameters

**Table 21-23 RTRV-ALM-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.13 EQPT” section on page 25-27. Must not be null
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported

**Table 21-23 RTRV-ALM-EQPT Input Parameters (continued)**

Parameter and Values	Description
CONDTYPE	The condition type for an alarm or a reported event. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
SRVEFF	The effect on service caused by the standing alarm or condition  Parameter type is SERV_EFF—the effect of the alarm on service. A null value is equivalent to ALL
• NSA	The condition is non-service affecting
• SA	The condition is service affecting

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“[<AID>],[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,
[<OCRDAT>],[<OCRTM>],...:[<DESC>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SLOT-7,EQPT:MJ,HITEMP,NSA,08-01,14-25-59,,:“HI TEMPERATURE\””
;
```

**Output Parameters****Table 21-24 RTRV-ALM-EQPT Output Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27. Optional
AIDTYPE	Type of facility, link or other addressable entity targeted by the message. Optional  Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards

**Table 21-24 RTRV-ALM-EQPT Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm

Table 21-24 RTRV-ALM-EQPT Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>VT2</li> </ul>	VT2 alarm
<ul style="list-style-type: none"> <li>XTC</li> </ul>	XTC alarm (ONS 15327)
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>CL</li> </ul>	The condition causing the alarm has cleared
<ul style="list-style-type: none"> <li>CR</li> </ul>	A critical alarm
<ul style="list-style-type: none"> <li>MJ</li> </ul>	A major alarm
<ul style="list-style-type: none"> <li>MN</li> </ul>	A minor alarm
<ul style="list-style-type: none"> <li>NA</li> </ul>	The condition is not alarmed
<ul style="list-style-type: none"> <li>NR</li> </ul>	The alarm is not reported
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
<ul style="list-style-type: none"> <li>NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>SA</li> </ul>	The condition is service affecting
<b>OCRDAT</b>	Date. Optional
<b>OCRTM</b>	Time. Optional
<b>DESC</b>	A condition description. String. Optional

## 21.13 RTRV-ALM-SYNCN

Retrieve Alarm Synchronization

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves and sends the current status of alarm conditions associated with a synchronization facility. The alarm condition or severity to be retrieved can be specified by using the input parameters as a filter.

### Category

Synchronization



**Security** Retrieve

Related Commands			
CLR-COND-SECU	REPT EVT BITS	RTRV-ALM-BITS	
ED-BITS	REPT EVT COM	RTRV-ALM-ENV	
ED-NE-SYNCN	REPT EVT ENV	RTRV-ALM-EQPT	
ED-SYNCN	REPT EVT EQPT	RTRV-BITS	
OPR-SYNCNSW	REPT EVT FXFR	RTRV-COND-<MOD2ALM>	
REPT ALM <MOD2ALM>	REPT EVT IOSCFG	RTRV-COND-ALL	
REPT ALM BITS	REPT EVT SECU	RTRV-COND-BITS	
REPT ALM COM	REPT EVT SESSION	RTRV-COND-ENV	
REPT ALM ENV	REPT EVT SYNCN	RTRV-COND-EQPT	
REPT ALM EQPT	RLS-SYNCNSW	RTRV-COND-SYNCN	
REPT ALM SECU	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN	
REPT ALM SYNCN	RTRV-ALM-ALL	RTRV-SYNCN	
REPT EVT <MOD2ALM>			

**Input Format** RTRV-ALM-SYNCN:[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<CONDTYPE>],[<SRVEFF>][,,,];

**Input Example** RTRV-ALM-SYNCN:FULTON:SYNC-NE:226::CR,FAILTOSW,SA;

### Input Parameters

**Table 21-25 RTRV-ALM-SYNCN Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.25 SYNC_REF” section on page 25-40. Must not be null
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported

**Table 21-25 RTRV-ALM-SYNCN Input Parameters (continued)**

Parameter and Values	Description
<b>CONDTYPE</b>	The condition type for an alarm or a reported event. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition  Parameter type is SERV_EFF—the effect of the alarm on service. A null value is equivalent to ALL
• NSA	The condition is non-service affecting
• SA	The condition is service affecting

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
“<AID>,[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,
[<OCRDAT>],[<OCRTM>],,:[<DESC>]”
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SYNC-NE,SYNCN:CR,FAILTOSW,SA,08-01,
14-25-59,,:“FAILURE TO SWITCH TO PROTECTION\”,”
;

```

**Output Parameters****Table 21-26 RTRV-ALM-SYNCN Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.23 SYN”</a> section on page 25-39
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional  Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards

**Table 21-26 RTRV-ALM-SYNCN Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm

**Table 21-26 RTRV-ALM-SYNCN Output Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• VT2</li> </ul>	VT2 alarm
<ul style="list-style-type: none"> <li>• XTC</li> </ul>	XTC alarm (ONS 15327)
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> </ul>	The condition causing the alarm has cleared
<ul style="list-style-type: none"> <li>• CR</li> </ul>	A critical alarm
<ul style="list-style-type: none"> <li>• MJ</li> </ul>	A major alarm
<ul style="list-style-type: none"> <li>• MN</li> </ul>	A minor alarm
<ul style="list-style-type: none"> <li>• NA</li> </ul>	The condition is not alarmed
<ul style="list-style-type: none"> <li>• NR</li> </ul>	The alarm is not reported
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition Parameter type is SERV_EFF—the effect of the alarm on service
<ul style="list-style-type: none"> <li>• NSA</li> </ul>	The condition is non-service affecting
<ul style="list-style-type: none"> <li>• SA</li> </ul>	The condition is service affecting
<b>OCRDAT</b>	Date. Optional
<b>OCRTM</b>	Time. Optional
<b>DESC</b>	A condition description. String. Optional

## 21.14 RTRV-ALMTH-<MOD2>

Retrieve Alarm Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves the alarm threshold values. The only applicable MOD2 values are OC3, OC12, OC48, OC192, OCH, OMS, and OTS.

---

**Category**

DWDM

---

**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

RTRV-ALMTH-<MOD2>:[<TID>]:<AID>:<CTAG>::[<CONDTYPE>][,,:];

**Input Example**

RTRV-ALMTH-{MOD2}::CHAN-2-2:1::OPT-HIGH;

## Input Parameters

Table 21-27 RTRV-ALMTH-&lt;MOD2&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null
<b>CONDTYPE</b>	Alarm threshold. A null value is equivalent to ALL Parameter type is ALM_THR—alarm threshold list for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, 4MD-xx.x, 32MUX-O, 32DMX-O, AD-1C-xx.x, AD-2C-xx.x, AD-4C-xx.x, AD-1B-xx.x, and AD-4B-xx.x cards
• BATV-EHIGH	Battery Voltage - Extremely High
• BATV-ELow	Battery Voltage - Extremely Low
• BATV-HIGH	Battery Voltage - High
• BATV-LOW	Battery Voltage - Low
• GAIN-HDEG	Gain not reached—High Degrade Threshold
• GAIN-HFAIL	Gain not reached—High Failure Threshold
• GAIN-LDEG	Gain not reached—Low Degrade Threshold
• GAIN-LFAIL	Gain not reached—Low Failure Threshold
• LBCL-HIGH	Laser Bias current in uA as 1/10% High Warning Threshold, Low Warning Threshold Measured value [0.0%, 100.0%]
• OPR-HIGH	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPR-LOW	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPT-HIGH	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPT-LOW	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPWR-HDEG	Optical Power—High Degrade Threshold
• OPWR-HFAIL	Optical Power—High Failure Threshold
• OPWR-LDEG	Optical Power—Low Degrade Threshold
• OPWR-LFAIL	Optical Power—Low Failure Threshold
• VOA-HDEG	VOA Attenuation—High Degrade Threshold
• VOA-HFAIL	VOA Attenuation—High Failure Threshold
• VOA-LDEG	VOA Attenuation—Low Degrade Threshold
• VOA-LFAIL	VOA Attenuation—Low Failure Threshold

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>,<MOD>:<CONDTYPE>,,,<THLEVEL>”
;

```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "CHAN-2-2,OCH:OPT-HIGH,,,20"
;
```

**Output Parameters****Table 21-28 RTRV-ALMTH-<MOD2> Output Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a>
MOD	AID type Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC3 facility
• OC12	OC12 facility
• OC48	OC48 facility
• OC192	OC192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port



**Table 21-28 RTRV-ALMTH-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is ALM_THR—alarm threshold list for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, 4MD-xx.x, 32MUX-O, 32DMX-O, AD-1C-xx.x, AD-2C-xx.x, AD-4C-xx.x, AD-1B-xx.x, and AD-4B-xx.x cards
• BATV-EHIGH	Battery Voltage - Extremely High
• BATV-ELow	Battery Voltage - Extremely Low
• BATV-HIGH	Battery Voltage - High
• BATV-LOW	Battery Voltage - Low
• GAIN-HDEG	Gain not reached—High Degrade Threshold
• GAIN-HFAIL	Gain not reached—High Failure Threshold
• GAIN-LDEG	Gain not reached—Low Degrade Threshold
• GAIN-LFAIL	Gain not reached—Low Failure Threshold
• LBCL-HIGH	Laser Bias current in uA as 1/10% High Warning Threshold, Low Warning Threshold Measured value [0.0%, 100.0%]
• OPR-HIGH	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPR-LOW	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPT-HIGH	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPT-LOW	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPWR-HDEG	Optical Power—High Degrade Threshold
• OPWR-HFAIL	Optical Power—High Failure Threshold
• OPWR-LDEG	Optical Power—Low Degrade Threshold

**Table 21-28** RTRV-ALMTH-<MOD2> Output Parameters (continued)

Parameter and Values	Description
• OPWR-LFAIL	Optical Power—Low Failure Threshold
• VOA-HDEG	VOA Attenuation—High Degrade Threshold
• VOA-HFAIL	VOA Attenuation—High Failure Threshold
• VOA-LDEG	VOA Attenuation—Low Degrade Threshold
• VOA-LFAIL	VOA Attenuation—Low Failure Threshold
<b>THLEVEL</b>	Threshold level. Float

## 21.15 RTRV-ALMTH-EQPT

Retrieve Alarm Threshold Equipment

### Usage Guidelines

Cisco ONS 15454

This command retrieves the alarm thresholds for the power level monitoring on an NE.

### Category

Equipment

### Security

Retrieve

### Related Commands

ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-COND-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	RTRV-EQPT
ALW-SWTOWKG-EQPT	INH-SWTOWKG-EQPT	SET-ALMTH-EQPT
DLT-EQPT	REPT ALM EQPT	SW-DX-EQPT
ED-EQPT	REPT EVT EQPT	SW-TOPROTN-EQPT
ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT

### Input Format

RTRV-ALMTH-EQPT:[<TID>]:<AID>:<CTAG>::[<CONDTYPE>][,,:];

### Input Example

RTRV-ALMTH-EQPT:::1::BATV-HIGH;

## Input Parameters

Table 21-29 RTRV-ALMTH-EQPT Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.7 CHANNEL” section on page 25-14
<b>CONDTYPE</b>	Must not be null Parameter type is ALM_THR—alarm threshold list for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, 4MD-xx.x, 32MUX-O, 32DMX-O, AD-1C-xx.x, AD-2C-xx.x, AD-4C-xx.x, AD-1B-xx.x, and AD-4B-xx.x cards
• BATV-EHIGH	Battery Voltage - Extremely High
• BATV-ELow	Battery Voltage - Extremely Low
• BATV-HIGH	Battery Voltage - High
• BATV-LOW	Battery Voltage - Low
• GAIN-HDEG	Gain not reached—High Degrade Threshold
• GAIN-HFAIL	Gain not reached—High Failure Threshold
• GAIN-LDEG	Gain not reached—Low Degrade Threshold
• GAIN-LFAIL	Gain not reached—Low Failure Threshold
• LBCL-HIGH	Laser Bias current in uA as 1/10% High Warning Threshold, Low Warning Threshold Measured value [0.0%, 100.0%]
• OPR-HIGH	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPR-LOW	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPT-HIGH	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPT-LOW	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPWR-HDEG	Optical Power—High Degrade Threshold
• OPWR-HFAIL	Optical Power—High Failure Threshold
• OPWR-LDEG	Optical Power—Low Degrade Threshold
• OPWR-LFAIL	Optical Power—Low Failure Threshold
• VOA-HDEG	VOA Attenuation—High Degrade Threshold
• VOA-HFAIL	VOA Attenuation—High Failure Threshold
• VOA-LDEG	VOA Attenuation—Low Degrade Threshold
• VOA-LFAIL	VOA Attenuation—Low Failure Threshold

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“,<MOD2B>:<CONDTYPE>,,<DNFIELD>”
;

```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "EQPT:BATV-HIGH,,, -52.0,"
;
```

**Output Parameters****Table 21-30 RTRV-ALMTH-EQPT Output Parameters**

Parameter and Values	Description
<b>MOD2B</b>	Alarm type Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm

Table 21-30 RTRV-ALMTH-EQPT Output Parameters (continued)

Parameter and Values	Description
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>CONDTYPE</b>	Parameter type is ALM_THR—alarm threshold list for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, 4MD-xx.x, 32MUX-O, 32DMX-O, AD-1C-xx.x, AD-2C-xx.x, AD-4C-xx.x, AD-1B-xx.x, and AD-4B-xx.x cards
• BATV-EHIGH	Battery Voltage - Extremely High
• BATV-ELow	Battery Voltage - Extremely Low
• BATV-HIGH	Battery Voltage - High
• BATV-LOW	Battery Voltage - Low
• GAIN-HDEG	Gain not reached—High Degrade Threshold
• GAIN-HFAIL	Gain not reached—High Failure Threshold
• GAIN-LDEG	Gain not reached—Low Degrade Threshold
• GAIN-LFAIL	Gain not reached—Low Failure Threshold
• LBCL-HIGH	Laser Bias current in uA as 1/10% High Warning Threshold, Low Warning Threshold Measured value [0.0%, 100.0%]
• OPR-HIGH	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPR-LOW	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPT-HIGH	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPT-LOW	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPWR-HDEG	Optical Power—High Degrade Threshold
• OPWR-HFAIL	Optical Power—High Failure Threshold

**Table 21-30 RTRV-ALMTH-EQPT Output Parameters (continued)**

Parameter and Values	Description
• OPWR-LDEG	Optical Power—Low Degrade Threshold
• OPWR-LFAIL	Optical Power—Low Failure Threshold
• VOA-HDEG	VOA Attenuation—High Degrade Threshold
• VOA-HFAIL	VOA Attenuation—High Failure Threshold
• VOA-LDEG	VOA Attenuation—Low Degrade Threshold
• VOA-LFAIL	VOA Attenuation—Low Failure Threshold
<b>DNFIELD</b>	Float

## 21.16 RTRV-ALS

Retrieve Automatic Laser Shutoff

### Usage Guidelines

Cisco ONS 15454, 15310-CL

This command retrieves the ALS attributes of an OC-N facility and all the facilities that support the ALS feature. This command is used to retrieve the ALS parameter of the OC48 and OC192 ports on the MXP\_2.5G\_10E, TXP\_MR\_10E, TXP\_MR\_2.5G, TXPP\_MR\_2.5G, MXP\_2.5G\_10G, and TXP\_MR\_10G cards

### Category

Ports

### Security

Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RMV-<MOD2>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
	DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
	ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
	ED-ALS	RTRV-DS1
	ED-DS1	RTRV-EC1
	ED-EC1	RTRV-FAC
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
	ED-FSTE	RTRV-FSTE
	ED-G1000	RTRV-G1000
	ED-GFP	RTRV-GFP
	ED-HDLC	RTRV-GIGE
	ED-POS	RTRV-HDLC
	ED-T1	RTRV-PM-<MOD2>
	ED-T3	RTRV-PMMODE-<STS_PATH>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-ALL
	ENT-<MOD1PAYLOAD>	RTRV-POS
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
	INIT-REG-<MOD2>	RTRV-T1
	OPR-ALS	RTRV-T3
	OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	

**Input Format** RTRV-ALS:[<TID>]:<AID>:<CTAG>[:::];

**Input Example** RTRV-ALS:PENNGROVE:FAC-1-1:1;

## Related Commands

Table 21-31 RTRV-ALS Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.2 AidUnionId” section on page 25-9. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>,<AIDTYPE>::[ALSMODE=<ALSMODE>],[ALSRCINT=<ALSRCINT>],
[ALSRCPW=<ALSRCPW>],[LSRSTAT=<LSRSTAT>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-6-1,OC192::ALSMODE=DISABLED,ALSRCINT=100,ALSRCPW=2.0,LSRSTAT=ON:”
;
```

## Output Parameters

Table 21-32 RTRV-ALS Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.2 AidUnionId” section on page 25-9
AIDTYPE	Type of access identifier Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility



**Table 21-32 RTRV-ALS Output Parameters (continued)**

Parameter and Values	Description
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC3 facility
• OC12	OC12 facility
• OC48	OC48 facility
• OC192	OC192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>ALSMODE</b>	ALS is enabled or disabled Parameter type is ALS_MODE—the working mode for automatic laser shutdown
• AUTO	Automatic
• DISABLED	Disabled
• MAN	Manual
• MAN-RESTART	Manual restart for test
<b>ALSRCINT</b>	ALS recovery interval. The range is 60 to 300 seconds. Integer. Optional

**Table 21-32 RTRV-ALS Output Parameters (continued)**

Parameter and Values	Description
ALSRCPW	ALS recovery pulse width. The range is 2.0 to 100.00 seconds, in increments of 100 ms. Float. Optional
LSRSTAT	Status of the laser. Optional Parameter type is LASER_STATUS—laser status
<ul style="list-style-type: none"> <li>• APR</li> </ul>	Laser is switched on but is working automatic power reduction
<ul style="list-style-type: none"> <li>• OFF</li> </ul>	Laser is switched off
<ul style="list-style-type: none"> <li>• ON</li> </ul>	Laser is switched on

## 21.17 RTRV-APC

Operate Amplification Power Control

### Usage Guidelines

Cisco ONS 15454

This command retrieves the APC application attributes.

### Category

DWDM

### Security

Maintenance

### Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
ED-DWDM	ENT-LNKTERM	RTRV-OCH
ED-FFP-OCH	ENT-OSC	RTRV-OMS
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OMS	OPR-WDMANS	RTRV-TRC-OCH
ED-OSC	RLS-LASER-OTS	RTRV-WDMANS
ED-OTS	RLS-PROTNSW-OCH	RTRV-WLEN

### Input Format

RTRV-APC:[<TID>]::<CTAG>;

**Input Example** RTRV-APC:PENNGROVE::114;

### Input Parameters

**Table 21-33 RTRV-APC Input Parameters**

Parameter and Values	Description
—	

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“::[APCENABLE=<APCENABLE>],[APCSTATE=<APCSTATE>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“::APCENABLE=Y,APCSTATE=WORKING”
;
```

### Output Parameters

**Table 21-34 RTRV-APC Output Parameters**

Parameter and Values	Description
<b>APCENABLE</b>	The enable/disable of the APC application. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> <li>• Y</li> </ul>	<ul style="list-style-type: none"> <li>Disable an attribute</li> <li>Enable an attribute</li> </ul>
<b>APCSTATE</b>	Indicates the status of the APC application. Optional Parameter type is APC_STATE—APC status
<ul style="list-style-type: none"> <li>• DISABLE</li> <li>• FORCED-DISABLE</li> <li>• WORKING</li> </ul>	<ul style="list-style-type: none"> <li>The APC is disabled by the user and is not working</li> <li>The APC has been internally disabled by the node and is not working</li> <li>The APC is enabled by the user and is working</li> </ul>

## 21.18 RTRV-ATTR-CONT

Retrieve Attribute Control

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves and sends the attributes associated with an external control. These attributes are used when an external control is operated or released. To set these attributes, use the SET-ATTR-CONT command.

### Category

Environment

### Security

Retrieve

### Related Commands

OPR-ACO-ALL	RLS-EXT-CONT	RTRV-EXT-CONT
OPR-EXT-CONT	RTRV-ALM-ENV	SET-ATTR-CONT
REPT ALM ENV	RTRV-ATTR-ENV	SET-ATTR-ENV
REPT EVT ENV	RTRV-COND-ENV	SET-ATTR-SECUDFLT

### Input Format

RTRV-ATTR-CONT:[<TID>]:<AID>:<CTAG>[:<CONTTYPER>];

### Input Example

RTRV-ATTR-CONT:CISCO:ENV-OUT-2:123::AIRCOND;

### Input Parameters

**Table 21-35 RTRV-ATTR-CONT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.12 ENV” section on page 25-26</a> . Identifies the external control for which attributes are being set. Must not be null
<b>CONTTYPER</b>	Environmental control type. A null value is equivalent to ALL Parameter type is CONTTYPER—Environmental control types
• AIRCOND	Air conditioning
• ENGINE	Engine
• FAN	Fan
• GEN	Generator
• HEAT	Heat
• LIGHT	Light

**Table 21-35 RTRV-ATTR-CONT Input Parameters (continued)**

Parameter and Values	Description
• MISC	Miscellaneous
• SPKLR	Sprinkler

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>:[<CONTTYPE>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"ENV-OUT-2:AIRCOND"
;
```

**Output Parameters****Table 21-36 RTRV-ATTR-CONT Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.12 ENV”</a> section on page 25-26. Identifies the external control for which attributes are being set. Must not be null
<b>CONTTYPE</b>	Environmental control type. A null value is equivalent to ALL Parameter type is CONTTYPE—Environmental control types
• AIRCOND	Air conditioning
• ENGINE	Engine
• FAN	Fan
• GEN	Generator
• HEAT	Heat
• LIGHT	Light
• MISC	Miscellaneous
• SPKLR	Sprinkler

## 21.19 RTRV-ATTR-ENV

Retrieve Attribute Environment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the attributes associated with an environmental alarm.

### Category

Environment

### Security

Retrieve

### Related Commands

OPR-ACO-ALL	RLS-EXT-CONT	RTRV-EXT-CONT
OPR-EXT-CONT	RTRV-ALM-ENV	SET-ATTR-CONT
REPT ALM ENV	RTRV-ATTR-CONT	SET-ATTR-ENV
REPT EVT ENV	RTRV-COND-ENV	SET-ATTR-SECUDFLT

### Input Format

RTRV-ATTR-ENV:[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<ALMTYPE>];

### Input Example

RTRV-ATTR-ENV:CISCO:ENV-IN-1:123::MJ,OPENDR;

### Input Parameters

**Table 21-37 RTRV-ATTR-ENV Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.12 ENV</a> ” section on page 25-26. Must not be null
<b>NTFCNCDE</b>	Two-letter notification code Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> <li>• CR</li> <li>• MJ</li> <li>• MN</li> <li>• NA</li> <li>• NR</li> </ul>	<ul style="list-style-type: none"> <li>The condition causing the alarm has cleared</li> <li>A critical alarm</li> <li>A major alarm</li> <li>A minor alarm</li> <li>The condition is not alarmed</li> <li>The alarm is not reported</li> </ul>
<b>ALMTYPE</b>	The alarm type for the environmental alarm. A null value is equivalent to ALL Parameter type is ENV_ALM—environmental alarm types

**Table 21-37 RTRV-ATTR-ENV Input Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail, or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnect bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door

**Table 21-37 RTRV-ATTR-ENV Input Parameters (continued)**

Parameter and Values	Description
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
  "<AID>:[<NTFCNCDE>],[<ALMTYPE>],[<DESC>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "ENV-IN-1:MJ,OPENDR,\"OPEN DOOR\""
;

```



## Output Parameters

Table 21-38 RTRV-ATTR-ENV Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26. Must not be null
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>ALMTYPE</b>	The alarm type for the environmental alarm. Optional Parameter type is ENV_ALM—environmental alarm types
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature

**Table 21-38 RTRV-ATTR-ENV Output Parameters (continued)**

Parameter and Values	Description
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnect bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf

**Table 21-38 RTRV-ATTR-ENV Output Parameters (continued)**

Parameter and Values	Description
• VENTN	Ventilation system failure
DESC	Alarm description. String. Optional

## 21.20 RTRV-AUDIT-LOG

Retrieve Audit Log

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the contents of the audit log stored in the NE. Audit records contain information for user operations such as login, logout, change of provisioning parameters and other changes a user might make when connected to the NE. Audit records do not store operations related to parameter retrieval.

### Category

Log

### Security

Retrieve

### Related Commands

ALW-MSG-DBCHG	REPT DBCHG	RTRV-LOG
INH-MSG-DBCHG		

### Input Format

RTRV-AUDIT-LOG:[<TID>]::<CTAG>;

### Input Example

RTRV-AUDIT-LOG:::1;

### Input Parameters

**Table 21-39 RTRV-AUDIT-LOG Input Parameters**

Parameter and Values	Description
—	

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“ <ENTRYNUM>,<OCRDAT>,<OCRTM>,<TASKID>,<TXSTATUS>,<DESCRIPTION>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  " 17172,2004-10-05,09-52-44, TPROVMGR,COMPLD,
  \17172,2004-10-05,09-52-44, TPROVMGR,COMPLD,\"DESCRIPTION\""
```

**Output Parameters****Table 21-40 RTRV-AUDIT-LOG Output Parameters**

Parameter and Values	Description
<b>ENTRYNUM</b>	Entry number. Integer
<b>OCRDAT</b>	Date
<b>OCRTM</b>	Time
<b>TASKID</b>	Task ID. String
<b>TXSTATUS</b>	Parameter type is TX_STATUS—indicates the status of the transferred file
<ul style="list-style-type: none"> <li>• COMPLD</li> </ul>	The file transmission is completed
<ul style="list-style-type: none"> <li>• IP</li> </ul>	The file transmission is in process
<ul style="list-style-type: none"> <li>• START</li> </ul>	The file transmission is started
<b>DESCRIPTION</b>	Description of event. Description format varies depending on the event and can include parameters used during the event. String

## 21.21 RTRV-BFDLPM-<MOD2>

Retrieve BFDL Performance Monitoring (DS1, T1)

**Usage Guidelines**

Cisco ONS 15454

This command retrieves the BFDL (enhanced 24-hour ES, UAS, BES, CSS and LOFC) performance monitoring parameters and applies to the DS3XM-12 card DS1 under BFDL mode. This command returns the current 15-minute and current 24-hour BFDL PMs and the 96 15-minute history requested type PMs.

For example:

Input:

```
RTRV-BFDLPM-DS1::DS1-14-1-1:1::REQTYPE=ENH-24HR-ES;
```

## Output:

```
DS1-14-1-1:ES,30,CURR-15MIN-INV DS1-14-1-1:UAS,40,CURR-15MIN-INV
DS1-14-1-1:BES,50,CURR-15MIN-INV DS1-14-1-1:SES,60,CURR-15MIN-INV
DS1-14-1-1:CSS,70,CURR-15MIN-INV DS1-14-1-1:LOFC,80,CURR-15MIN-INV
DS1-14-1-1:ES,30,CURR-24HR-INV DS1-14-1-1:UAS,40,CURR-24HR-INV
DS1-14-1-1:BES,50,CURR-24HR-INV DS1-14-1-1:SES,60,CURR-24HR-INV
DS1-14-1-1:CSS,70,CURR-24HR-INV DS1-14-1-1:LOFC,80,CURR-24HR-INV
DS1-14-1-1:ES,30,1-15MIN-INV DS1-14-1-1:ES,40,2-15MIN-INV
DS1-14-1-1:ES,50,3-15MIN-INV
DS1-14-1-1:ES,80,96-15MIN-INV
```

Sending this command with a REQTYPE of ENH-24HR-CSS-AND-LOFC will retrieve 96 15-minute PMs for both CSS and LOFC. The command is applied on the DS3XM-12 DS1 under BFDL mode, ESF frame format, C-BIT IS port with an IS VT circuit configuration.

**Category** Performance

**Security** Retrieve

Related Commands	ED-DS1	RTRV-E1	RTRV-PMSCHED-<MOD2>
	ED-T1	RTRV-E3	RTRV-T1
	ED-T3	RTRV-PM-<MOD2>	RTRV-T3
	RTRV-DS1		

**Input Format** RTRV-BFDLPM-<MOD2>:[<TID>]:<AID>:<CTAG>:::REQTYPE=<REQTYPE>;

**Input Example** RTRV-BFDLPM-DS1:TID:DS1-14-1-1:123:::REQTYPE=ENH-24HR-ES;

**Input Parameters**

**Table 21-41 RTRV-BFDLPM-<MOD2> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.11 DS1” section on page 25-26</a> . Must not be null
<b>REQTYPE</b>	Indicates requested BFDL PM type. Must not be null Parameter type is REQTYPE—requested PM type
• ENH-24HR-BES	The enhanced 24-hour BES performance data
• ENH-24HR-CSS-AND-LOFC	The enhanced 24-hour CSS-AND-LOFC performance data
• ENH-24HR-ES	The enhanced 24-hour ES performance data
• ENH-24HR-SES	The enhanced 24-hour SES performance data
• ENH-24HR-UAS	The enhanced 24-hour UAS performance data

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>:<MONTYPE>,<MONVAL>,<BUCKET>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"DS1-14-1-1:ES,55,CURR-15MIN-INV"
;
```

**Output Parameters****Table 21-42 RTRV-BFDLPM-<MOD2> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">"25.1.11 DS1" section on page 25-26</a>
<b>MONTYPE</b>	Monitored type which includes: BES, CSS, ES, LOFC, SES, UAS. String
<b>MONVAL</b>	The value to which the register identified by MONTYPE is to be initialized to or the measured value of a monitored parameter. The value is in the form of numeric counts or rates. String
<b>BUCKET</b>	The BIN of each BFDL PM. String

## 21.22 RTRV-BITS

Retrieve Building Integrated Timing Supply

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the BITS configuration command. For BITS facility, 64 K and 6 MHz are only applicable to the ONS 15454. SSM selectable (ADMSSM) is not applicable to the ONS 15600.

**Category** Synchronization

**Security** Retrieve

Related Commands	ED-BITS	REPT ALM SYNCN	RTRV-ALM-SYNCN
	ED-NE-SYNCN	REPT EVT BITS	RTRV-COND-BITS
	ED-SYNCN	REPT EVT SYNCN	RTRV-COND-SYNCN
	OPR-SYNCNSW	RLS-SYNCNSW	RTRV-NE-SYNCN
	REPT ALM BITS	RTRV-ALM-BITS	RTRV-SYNCN

**Input Format** RTRV-BITS:[<TID>]:<AID>:<CTAG>[:::];

**Input Example** RTRV-BITS:SONOMA:BITS-1:782;

### Input Parameters

**Table 21-43 RTRV-BITS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.5 BITS” section on page 25-13. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],
[SYNCSMSG=<SYNCSMSG>],[AISTHRSHLD=<AISTHRSHLD>],[SABIT=<SABIT>],
[IMPEDANCE=<IMPEDANCE>],[BITSFAC=<BITSFAC>],[ADMSSM=<ADMSSM>]:[<PST>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“BITS-1::LINECDE=AMI,FMT=ESF,LBO=0-133,SYNCSMSG=N,AISTHRSHLD=PRS,
SABIT=BYTE-4,IMPEDANCE=120-OHM,BITSFAC=T1,ADMSSM=PRS:IS”
;
```

### Output Parameters

**Table 21-44 RTRV-BITS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.5 BITS” section on page 25-13
<b>LINECDE</b>	Line code. Optional Parameter type is LINE_CODE—line code
• AMI	Line code value is AMI
• B8ZS	Line code value is B8ZS (bipolar with three-zero substitution)
<b>FMT</b>	Digital signal frame format. Optional Parameter type is FRAME_FORMAT—frame format for a T1 port

Table 21-44 RTRV-BITS Output Parameters (continued)

Parameter and Values	Description
• D4	Frame format is D4
• ESF	Frame format is ESF
• UNFRAMED	Frame format is unframed
<b>LBO</b>	Line build out settings. BITS line build out. Default value is 0 to 133. Integer. Optional Parameter type is BITS_LineBuildOut—BITS line buildout
• 0–133	BITS line buildout range is 0–133
• 134–266	BITS line buildout range is 134–266
• 267–399	BITS line buildout range is 267–399
• 400–533	BITS line buildout range is 400–533
• 534–655	BITS line buildout range is 534–655
<b>SYNCMSG</b>	Indicates if the BITS facility supports synchronization status message. Default is on (Y) Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>AISTHRSHLD</b>	Alarm indication signal threshold. Optional Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>SABIT</b>	When the frame format selection is E1, SABIT is the BIT used to receive and transmit the SSM. Optional Parameter type is SABITS—SA BITS
• BYTE-4	SABIT is BYTE-4
• BYTE-5	SABIT is BYTE-5
• BYTE-6	SABIT is BYTE-6
• BYTE-7	SABIT is BYTE-7



Table 21-44 RTRV-BITS Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• BYTE-8</li> </ul>	SABIT is BYTE-8
<b>IMPEDANCE</b>	When the frame format selection is E1, IMPEDANCE is the terminal impedance of the BITS-IN port. Optional Parameter type is IMPEDANCE—the terminal impedance of the BITS-IN port
<ul style="list-style-type: none"> <li>• 120-OHM</li> </ul>	Impedance of 120 ohms
<ul style="list-style-type: none"> <li>• 75-OHM</li> </ul>	Impedance of 75 ohms
<b>BITSFAC</b>	BITS facility settings. Optional Parameter type is BITS_FAC—BITS facility rate. 64 K and 6 MHz are only applicable to the ONS 15454
<ul style="list-style-type: none"> <li>• 2 M</li> </ul>	2 MHz rate
<ul style="list-style-type: none"> <li>• 64 K</li> </ul>	64 K rate
<ul style="list-style-type: none"> <li>• 6 M</li> </ul>	6 MHz rate
<ul style="list-style-type: none"> <li>• E1</li> </ul>	E1 rate
<ul style="list-style-type: none"> <li>• T1</li> </ul>	T1 rate
<b>ADMSSM</b>	SSM selectable. Only applicable to BITS-IN when SSM is disabled. Optional <b>Note</b> Not applicable for the ONS 15600 Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
<ul style="list-style-type: none"> <li>• DUS</li> </ul>	Do Not Use For Synchronization
<ul style="list-style-type: none"> <li>• PRS</li> </ul>	Primary Reference Source, Stratum 1 Traceable
<ul style="list-style-type: none"> <li>• RES</li> </ul>	Reserved For Network Synchronization Use
<ul style="list-style-type: none"> <li>• SMC</li> </ul>	SONET Minimum Clock Traceable
<ul style="list-style-type: none"> <li>• ST2</li> </ul>	Stratum 2 Traceable
<ul style="list-style-type: none"> <li>• ST3</li> </ul>	Stratum 3 Traceable
<ul style="list-style-type: none"> <li>• ST3E</li> </ul>	Stratum 3E Traceable
<ul style="list-style-type: none"> <li>• ST4</li> </ul>	Stratum 4 Traceable
<ul style="list-style-type: none"> <li>• STU</li> </ul>	Synchronized, Traceability Unknown
<ul style="list-style-type: none"> <li>• TNC</li> </ul>	Transit Node Clock (2nd Generation Only)
<b>PST</b>	Primary state. Optional Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> <li>• IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>• OOS</li> </ul>	Out of service

## 21.23 RTRV-BULKROLL<OCN\_TYPE>

Retrieve Bulkroll (OC12, OC192, OC3, OC48)

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600

This command retrieves roll data parameters on a line.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

**Category**

Bridge and Roll

---

**Security**

Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-LPBK-<MOD2>
DLT-BULKROLL-<OCN_TYPE>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<OCN_TYPE>	RMV-<MOD2>
ED-<GIGE_TYPE>	RST-<MOD2>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
ED-ALS	RTRV-10GIGE
ED-BULKROLL-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-DS3I	RTRV-DS1
ED-EC1	RTRV-DS3I
ED-FAC	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-PMSCHED-<MOD2>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-POS
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
INIT-REG-<MOD2>	RTRV-PROTNSW-<OCN_TYPE>
OPR-ALS	RTRV-T1
OPR-LPBK-<MOD2>	RTRV-T3
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TH-<MOD2>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
REPT RMV <MOD2_IO>	SET-TH-<MOD2>
REPT RST <MOD2_IO>	

**Input Format**

RTRV-BULKROLL-<OCN\_TYPE>:[<TID>]:<SRC>:<CTAG>;

**Input Example** RTRV-BULKROLL-OC12:CISCO:FAC-3-1:1;

**Input Parameters**

**Table 21-45 RTRV-BULKROLL-<OCN\_TYPE> Input Parameters**

Parameter and Values	Description
SRC	Source AID from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28. Must not be null

**Output Format**

SID DATE TIME  
M CTAG COMPLD  
“<FROM>:RFROM=<RFROM>,RTO=<RTO>,[RMODE=<RMODE>],VLDSIG=<VLDSIG>”  
;

**Output Example**

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“STS-3-1-1:RFROM=STS-3-1-1,RTO=STS-5-1-1,RMODE=AUTO,VLDSIG=Y”  
;

**Output Parameters**

**Table 21-46 RTRV-BULKROLL-<OCN\_TYPE> Output Parameters**

Parameter and Values	Description
<b>FROM</b>	One of the end points. Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on page 25-28 for line level rolling and bulk rolling
<b>RFROM</b>	The termination point of the existing cross-connect that is to be rolled. The AID is from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20 (except VCM and FACILITY)
<b>RTO</b>	The termination point that will become a leg of the new cross-connection. The AID is from the “ <a href="#">25.1.10 CrossConnectId1</a> ” section on page 25-20 (except VCM and FACILITY)
<b>RMODE</b>	The rolling mode of operation. Optional Parameter type is ALS_MODE—specifies the working mode for the automatic laser shutdown (ALS) functionality
• AUTO	Automatic
• DISABLED	Disabled
• MAN	Manual
• MAN-RESTART	Manual Restart for Test
<b>VLDSIG</b>	The rolling mode of operation. Optional Parameter type is ON_OFF—disable or enable an attribute

**Table 21-46** RTRV-BULKROLL-<OCN\_TYPE> Output Parameters (continued)

Parameter and Values	Description
• N	Disable an attribute
• Y	Enable an attribute

## 21.24 RTRV-CMD-SECU

Retrieve Command Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the current command security level of the command specified in the AID field.

### Category

Security

### Security

Superuser

### Related Commands

ACT-USER	DLT-USER-SECU	REPT ALM SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SECU
ALW-USER-SECU	ED-PID	REPT EVT SESSION
CANC	ED-USER-SECU	RTRV-DFLT-SECU
CANC-USER	ENT-USER-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-MSG-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	INH-USER-SECU	

### Input Format

RTRV-CMD-SECU:[<TID>]:<AID>:<CTAG>;

### Input Example

RTRV-CMD-SECU::INIT-REG:1;

### Input Parameters

**Table 21-47** RTRV-CMD-SECU Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier string. Identifies the entity in the NE to which the command pertains. It is the command verb along with verb modifier(s), as it currently exists. It can be a single command or a block of commands, where the block might include all commands. Only INIT-REG will be supported. String. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>:<CAP>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"INIT-REG:PROV"
;
```

**Output Parameters****Table 21-48 RTRV-CMD-SECU Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier. It can be a single command or a block of commands, where the block can include all commands. Only INIT-REG is supported. String. Optional
<b>CAP</b>	Command access privilege Parameter type is PRIVILEGE—security level
• PROV	Provision security level
• SUPER	Superuser security level

## 21.25 RTRV-COND-<MOD2ALM>

Retrieve Condition (1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, DS1, E100, E1000, E3, E4, EC1, FSTE, G1000, GFPOS, GIGE, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, UDCDCC, UDCF, VC12, VC3, VCG, VT1, VT2, WLEN)

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the current standing condition and state associated with an entity.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

**Category** Fault

**Security** Retrieve

Related Commands	CLR-COND-SECU	REPT EVT COM	RTRV-ALM-BITS
	REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-ENV
	REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-EQPT
	REPT ALM COM	REPT EVT FXFR	RTRV-ALM-SYNCN
	REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-ALL
	REPT ALM EQPT	REPT EVT SECU	RTRV-COND-BITS
	REPT ALM SECU	REPT EVT SESSION	RTRV-COND-ENV
	REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT
	REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
	REPT EVT BITS	RTRV-ALM-ALL	

**Input Format** RTRV-COND-<MOD2ALM>:[<TID>]:<AID>:<CTAG>:[<TYPEREQ>][,];

**Input Example** RTRV-COND-T3:TID:FAC-2-1:229::LOS;

### Input Parameters

**Table 21-49 RTRV-COND-<MOD2ALM> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a> . Must not be null
<b>TYPEREQ</b>	The type of condition to be retrieved. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions

**Output Format** SID DATE TIME  
M CTAG COMPLD  
“<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],  
[<OCR TM>],,,[<DESC>]”  
;

**Output Example** TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“FAC-2-1,T3:CR,LOS,SA,01-01,16-00-20,,,“LOS OF SIGNAL\””  
;

## Output Parameters

Table 21-50 RTRV-COND-&lt;MOD2ALM&gt; Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1
<b>AIDTYPE</b>	Type of access identifier. Specifies the type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2ALM—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• CLNT	Client facility for MXP/TXP cards
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GFPOS	Generic framing protocol over packet over SONET virtual port alarm
• GIGE	GIG Ethernet port alarm
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm



Table 21-50 RTRV-COND-&lt;MOD2ALM&gt; Output Parameters (continued)

Parameter and Values	Description
• STS192C	STS192C alarm
• T1	T1 alarm
• T3	T3 alarm
• UDCDCC	UDCDCC alarm
• UDCF	UCDF alarm
• VCG	Virtual Concatenation Group alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• WLEN	Wavelength Path Provisioning
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>TYPERP</b>	The condition itself Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition, Optional Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date when the specific event or violation occurred. Optional
<b>OCRTM</b>	Time when the specific event or violation occurred. Optional
<b>DESC</b>	Condition description. String. Optional

## 21.26 RTRV-COND-ALL

Retrieve Condition All

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the current standing condition for all entities.

According to GR-833, the RTRV-COND-ALL command only reports EQPT, COM, and rr (T1, T3, OCn, EC1, STSn, VT1, DS1, E100, E1000, G1000, ML-Series, TXP and MXP) alarms.

This command does not return all conditions that are returned by other, more specific RTRV-COND commands; RTRV-COND-ALL returns a subset of these conditions. GR-253-CORE, Section 6.2.1.8.4 states a retrieval that returns ALL conditions from a node (RTRV-COND-ALL) must omit any conditions that are “same root cause” as other raised conditions. The section also states any retrieval of a subset of the conditions from a node, regardless of how the subsetting occurs, should not omit these “same root cause” conditions.

RTRV-COND-STS1, for example, includes “same root cause” conditions in the set it returns and RTRV-COND-ALL does not.

To retrieve all the NE conditions, issue all of the following commands:

```
RTRV-COND-ALL
RTRV-COND-ENV
RTRV-COND-BITS
RTRV-COND-SYNCN
```

**Category**

Fault

**Security**

Retrieve

**Related Commands**

CLR-COND-SECU	REPT EVT COM	RTRV-ALM-BITS
REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-ENV
REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-EQPT
REPT ALM COM	REPT EVT FXFR	RTRV-ALM-SYNCN
REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
REPT ALM EQPT	REPT EVT SECU	RTRV-COND-BITS
REPT ALM SECU	REPT EVT SESSION	RTRV-COND-ENV
REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT
REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
REPT EVT BITS	RTRV-ALM-ALL	

**Input Format**

RTRV-COND-ALL:[<TID>]:[<AID>]:<CTAG>::[<TYPEREQ>][,,,];

**Input Example**

RTRV-COND-ALL:TID:ALL:229::LOS;

## Input Parameters

Table 21-51 RTRV-COND-ALL Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. String. A null value is equivalent to ALL
<b>TYPEREQ</b>	The type of condition to be retrieved. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, “Conditions” for a list of conditions

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREQ>,[<SRVEFF>],[<OCRDAT>],
[<OCR TM>],...[<DESC>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-2-1,OC3:CR,LOS,SA,01-01,16-02-15,,\“LOS OF SIGNAL\””
;

```

## Output Parameters

Table 21-52 RTRV-COND-ALL Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1 that has an alarm condition
<b>AIDTYPE</b>	Type of access identifier. Specifies the type of facility, link or other addressable entity targeted by the message. Optional  Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm

**Table 21-52 RTRV-COND-ALL Output Parameters (continued)**

Parameter and Values	Description
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)

Table 21-52 RTRV-COND-ALL Output Parameters (continued)

Parameter and Values	Description
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>TYPERP</b>	The type of condition to be retrieved Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition, Optional Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date when the specific event or violation occurred. Optional
<b>OCRTM</b>	Time when the specific event or violation occurred. Optional
<b>DESC</b>	Condition description. String. Optional

## 21.27 RTRV-COND-BITS

Retrieve Condition Building Integrated Timing Supply

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the standing conditions on BITS.

### Category

Synchronization

### Security

Retrieve

Related Commands	CLR-COND-SECU	REPT EVT COM	RTRV-ALM-BITS
	REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-ENV
	REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-EQPT
	REPT ALM COM	REPT EVT FXFR	RTRV-ALM-SYNCN
	REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
	REPT ALM EQPT	REPT EVT SECU	RTRV-COND-ALL
	REPT ALM SECU	REPT EVT SESSION	RTRV-COND-ENV
	REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT
	REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN
	REPT EVT BITS	RTRV-ALM-ALL	

**Input Format** RTRV-COND-BITS:[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,,,];

**Input Example** RTRV-COND-BITS:TID:BITS-1:229::LOS;

### Input Parameters

**Table 21-53 RTRV-COND-BITS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.5 BITS” section on page 25-13</a> . Must not be null
<b>TYPEREQ</b>	The type of condition to be retrieved. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions

**Output Format** SID DATE TIME  
M CTAG COMPLD  
“<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],  
[<OCR TM>],,,[<DESC>]”  
;

**Output Example** TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“BITS-1,BITS:CR,LOS,SA,01-01,16-02-15,,,\“LOS OF SIGNAL\””  
;

## Output Parameters

Table 21-54 RTRV-COND-BITS Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.5 BITS” section on page 25-13 that has an alarm condition
<b>AIDTYPE</b>	Type of access identifier. Specifies the type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS2I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm

Table 21-54 RTRV-COND-BITS Output Parameters (continued)

Parameter and Values	Description
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>TYPEREPEP</b>	The type of condition to be retrieved Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition, Optional Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date when the specific event or violation occurred. Optional
<b>OCRMTM</b>	Time when the specific event or violation occurred. Optional
<b>DESC</b>	Condition description. String. Optional



## 21.28 RTRV-COND-ENV

Retrieve Environmental Condition

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command retrieves the environmental conditions.

**Category** Environment

**Security** Retrieve

Related Commands			
CLR-COND-SECU	REPT EVT COM	RTRV-ALM-BITS	
REPT ALM <MOD2ALM>	REPT EVT ENV	RTRV-ALM-ENV	
REPT ALM BITS	REPT EVT EQPT	RTRV-ALM-EQPT	
REPT ALM COM	REPT EVT FXFR	RTRV-ALM-SYNCN	
REPT ALM ENV	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>	
REPT ALM EQPT	REPT EVT SECU	RTRV-COND-ALL	
REPT ALM SECU	REPT EVT SESSION	RTRV-COND-BITS	
REPT ALM SYNCN	REPT EVT SYNCN	RTRV-COND-EQPT	
REPT EVT <MOD2ALM>	RTRV-ALM-<MOD2ALM>	RTRV-COND-SYNCN	
REPT EVT BITS	RTRV-ALM-ALL		

**Input Format** RTRV-COND-ENV:[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<ALMTYPE>][,.,,];

**Input Example** RTRV-COND-ENV:CISCO:ENV-IN-1:123::MJ,OPENDR;

## Input Parameters

Table 21-55 RTRV-COND-ENV Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26. Must not be null  <b>Note</b> For RTRV-ALM-ENV, only ENV-IN-{1-4} is a valid AID for ONS 15454 and only ENV-IN-{1-6} is a valid AID for ONS 15327. ENV-OUT-{1,6} is not a valid AID for RTRV-ALM-ENV.
<b>NTFCNCDE</b>	Two-letter notification code. A null value is equivalent to ALL Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>ALMTYPE</b>	The alarm type for the environmental alarm. A null value is equivalent to ALL Parameter type is ENV_ALM—environmental alarm types
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail

**Table 21-55 RTRV-COND-ENV Input Parameters (continued)**

Parameter and Values	Description
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnect bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke

**Table 21-55 RTRV-COND-ENV Input Parameters (continued)**

Parameter and Values	Description
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCDAT>],[<OCDTM>],,,,[<DESC>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"ENV-IN-1:MJ,OPENDR,01-01,16-02-15,,,\"OPEN DOOR\""
```

**Output Parameters****Table 21-56 RTRV-COND-ENV Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.12 ENV” section on page 25-26</a>
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>ALMTYPE</b>	The alarm type for the environmental alarm Parameter type is ENV_ALM—environmental alarm types
• AIRCOMPR	Air compressor failure
• AIRCOND	Air conditioning failure
• AIRDRYR	Air dryer failure
• BATDSCHRG	Battery discharging
• BATTERY	Battery failure
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure

**Table 21-56 RTRV-COND-ENV Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnect bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter
• PWRMJ	Power supply major
• PWRMN	Power supply minor

Table 21-56 RTRV-COND-ENV Output Parameters (continued)

Parameter and Values	Description
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure
<b>OCRDAT</b>	Date when the specific event or violation occurred. Optional
<b>OCRTM</b>	Time when the specific event or violation occurred. Optional
<b>DESC</b>	Condition description. String. Optional

## 21.29 RTRV-COND-EQPT

Retrieve Condition Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the equipment conditions.

### Category

Equipment

### Security

Retrieve

Related Commands			
	ALW-SWDX-EQPT	REPT ALM SECU	RTRV-ALM-ENV
	ALW-SWTOPROTN-EQPT	REPT ALM SYNCN	RTRV-ALM-EQPT
	ALW-SWTOWKG-EQPT	REPT EVT <MOD2ALM>	RTRV-ALM-SYNCN
	CLR-COND-SECU	REPT EVT BITS	RTRV-ALMTH-EQPT
	DLT-EQPT	REPT EVT COM	RTRV-COND-<MOD2ALM>
	ED-EQPT	REPT EVT ENV	RTRV-COND-ALL
	ENT-EQPT	REPT EVT EQPT	RTRV-COND-BITS
	INH-SWDX-EQPT	REPT EVT FXFR	RTRV-COND-ENV
	INH-SWTOPROTN-EQPT	REPT EVT IOSCFG	RTRV-COND-SYNCN
	INH-SWTOWKG-EQPT	REPT EVT SECU	RTRV-EQPT
	REPT ALM <MOD2ALM>	REPT EVT SESSION	SET-ALMTH-EQPT
	REPT ALM BITS	REPT EVT SYNCN	SW-DX-EQPT
	REPT ALM COM	RTRV-ALM-<MOD2ALM>	SW-TOPROTN-EQPT
	REPT ALM ENV	RTRV-ALM-ALL	SW-TOWKG-EQPT
	REPT ALM EQPT	RTRV-ALM-BITS	

**Input Format** RTRV-COND-EQPT:[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,.,,];

**Input Example** RTRV-COND-EQPT:TID:SLOT-1:229::LOS;

### Input Parameters

**Table 21-57 RTRV-COND-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27 that has an alarm condition. Must not be null
<b>TYPEREQ</b>	The type of condition to be retrieved. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREQ>,[<SRVEFF>],[<OCRDAT>],
[<OCRTM>],,,[<DESC>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "SLOT-1,EQPT:CR,LOS,SA,01-01,16-02-15,,,\"LOS OF SIGNAL\""
;
```

**Output Parameters****Table 21-58 RTRV-COND-EQPT Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27 that has an alarm condition
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section



Table 21-58 RTRV-COND-EQPT Output Parameters (continued)

Parameter and Values	Description
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>TYPEREPEP</b>	The type of condition to be retrieved Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alerted conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition, Optional Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting

Table 21-58 RTRV-COND-EQPT Output Parameters (continued)

Parameter and Values	Description
• SA	The condition is service affecting
OCRDAT	Date when the specific event or violation occurred. Optional
OCRTM	Time when the specific event or violation occurred. Optional
DESC	Condition description. String. Optional

## 21.30 RTRV-COND-SYNCN

Retrieve Condition Synchronization

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the synchronization condition.

### Category

Synchronization

### Security

Retrieve

### Related Commands

CLR-COND-SECU	REPT EVT BITS	RTRV-ALM-BITS
ED-BITS	REPT EVT COM	RTRV-ALM-ENV
ED-NE-SYNCN	REPT EVT ENV	RTRV-ALM-EQPT
ED-SYNCN	REPT EVT EQPT	RTRV-ALM-SYNCN
OPR-SYNCNSW	REPT EVT FXFR	RTRV-BITS
REPT ALM <MOD2ALM>	REPT EVT IOSCFG	RTRV-COND-<MOD2ALM>
REPT ALM BITS	REPT EVT SECU	RTRV-COND-ALL
REPT ALM COM	REPT EVT SESSION	RTRV-COND-BITS
REPT ALM ENV	REPT EVT SYNCN	RTRV-COND-ENV
REPT ALM EQPT	RLS-SYNCNSW	RTRV-COND-EQPT
REPT ALM SECU	RTRV-ALM-<MOD2ALM>	RTRV-NE-SYNCN
REPT ALM SYNCN	RTRV-ALM-ALL	RTRV-SYNCN
REPT EVT <MOD2ALM>		

### Input Format

RTRV-COND-SYNCN:[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,,,];

### Input Example

RTRV-COND-SYNCN:TID:SYNC-NE:229::LOS;

## Input Parameters

Table 21-59 RTRV-COND-SYNCN Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.25 SYNC_REF” section on page 25-40 that has an alarm condition. Must not be null
TYPEREQ	The type of condition to be retrieved. A null value is equivalent to ALL  Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Armed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, “Conditions” for a list of conditions

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREQ>,[<SRVEFF>],[<OCRDAT>],
[<OCR TM>],...[<DESC>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SYNC-NE,SYNCN:MJ,FRNGSYNC,SA,01-01,16-02-15,,
\FREE RUNNING SYNCHRONIZATION MODE\”
;
```

## Output Parameters

Table 21-60 RTRV-COND-SYNCN Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.23 SYN” section on page 25-39 that has an alarm condition
AIDTYPE	Type of facility, link or other addressable entity targeted by the message. The value is always SYNCN. Optional  Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm

**Table 21-60 RTRV-COND-SYNCN Output Parameters (continued)**

Parameter and Values	Description
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)

Table 21-60 RTRV-COND-SYNCN Output Parameters (continued)

Parameter and Values	Description
<b>NTFCNCDE</b>	Two-letter notification code. Optional Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>TYPERP</b>	The type of condition to be retrieved Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>SRVEFF</b>	The effect on service caused by the standing alarm or condition, Optional Parameter type is SERV_EFF—the effect of the alarm on service
• NSA	The condition is non-service affecting
• SA	The condition is service affecting
<b>OCRDAT</b>	Date when the specific event or violation occurred. Optional
<b>OCRTM</b>	Time when the specific event or violation occurred. Optional
<b>DESC</b>	Condition description. String. Optional

## 21.31 RTRV-CONSOLE-PORT

Retrieve Console Port

### Usage Guidelines

Cisco ONS 15454, 15310

This command retrieves the status of the console port from the ML-Series cards.

### Category

Security

### Security

Retrieve

Related Commands	ACT-USER	ED-CMD-SECU	REPT ALM SECU
	ALW-CONSOLE-PORT	ED-PID	REPT EVT SECU
	ALW-MSG-SECU	ED-PROTOCOL	REPT EVT SESSION
	ALW-USER-SECU	ED-USER-SECU	RTRV-AUDIT-LOG
	CANC	ENT-USER-SECU	RTRV-CMD-SECU
	CANC-USER	INH-CONSOLE-PORT	RTRV-DFLT-SECU
	CANC-USER-SECU	INH-MSG-SECU	RTRV-USER-SECU
	CLR-COND-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
	DLT-USER-SECU		

**Input Format** RTRV-CONSOLE-PORT:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-CONSOLE-PORT:CISCONODE:SLOT-2:123;

#### Input Parameters

**Table 21-61 RTRV-CONSOLE-PORT Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.13 EQPT” section on page 25-27. Must not be null

#### Output Format

SID DATE TIME  
M CTAG COMPLD  
“<EQPT>:[PORT=<PORT>]”  
;

#### Output Example

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“SLOT-2:PORT=ENABLED”  
;

#### Output Parameters

**Table 21-62 RTRV-CONSOLE-PORT Output Parameters**

Parameter and Values	Description
EQPT	Identifies the slot number for the data card. String
PORT	Status of the console port on the data card. Optional Parameter type is PORTSTAT—the status of the console port on the card
• DISABLED	The port is disabled
• ENABLED	The port is enabled

## 21.32 RTRV-CRS

Retrieve Cross-Connect

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves all the cross-connections based on the required PATH types.



### Note

- A NULL AID defaults to ALL (NE).
- A NULL PATH defaults to all the existing cross-connections.
- The LEVEL in the output field is an optional field, and is used to indicate the bandwidth of the PATH cross-connection.
- Both DRITYPE and DRINODE optional fields are available to support BLSR-DRI. DRITYPE is applied only if the cross-connect is a drop-and-continue connection (1WAYDC or 2WAYDC), and defaults to path protection for the DRI. DRINODE must be specified only if at least one end of the connection is on the BLSR, and defaults to NA.
- The DS3XM-12 card allows portless STS1/VT1.5 cross-connection provisioning on the portless ports.
- CKTID is a string of ASCII characters. The maximum length of CKTID is 48. If the CKTID is EMPTY or NULL it will not appear.

### Category

Cross Connections

### Security

Retrieve

### Related Commands

DLT-CRS-<PATH>                      ENT-CRS-<PATH>                      RTRV-CRS-<PATH>  
ED-CRS-<PATH>

### Input Format

RTRV-CRS:[<TID>]:[<AID>]:<CTAG>:::[CRSTYPE=<CRSTYPE>][:];

### Input Example

RTRV-CRS:CISCO:ALL:123:::CRSTYPE=STS;

## Input Parameters

Table 21-63 RTRV-CRS Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.10 CrossConnectId1” section on page 25-20 that can be facility, STS, VT or ALL. The ALL AID defaults to NE, which means it reports all the existing cross-connections on the NE. A null value is equivalent to ALL
CRSTYPE	The cross-connection type. Defaults to all existing cross-connections. A null value is equivalent to ALL Parameter type is PATH—modifier for path commands
• STS1	Synchronous transport signal/module level-1 (51.84 Mbps)
• STS3C	Synchronous transport signal/module level-3 concatenated (155.52 Mbps)
• STS6C	Synchronous transport signal/module level-6 (311.04 Mbps)
• STS9C	Synchronous transport signal/module level-9 concatenated (466.56 Mbps)
• STS12C	Synchronous transport signal/module level-12 concatenated (622.08 Mbps)
• STS18C	Synchronous transport signal/module level-18 concatenated (933.12 Mbps)
• STS24C	Synchronous transport signal/module level-24 concatenated (1244.16 Mbps)
• STS36C	Synchronous transport signal/module level-36 concatenated (1866.24 Mbps)
• STS48C	Synchronous transport signal/module level-48 concatenated (2488.32 Mbps)
• STS192C	Synchronous transport signal/module level-192 concatenated (9953.28 Mbps)
• VT1	Virtual Tributary 1 (SONET). Virtual Channel 11 (SDH)
• VT2	Virtual Tributary 2 (SONET). Virtual Channel 12 (SDH)

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<SRC>,<DST>:<CCT>,<CRSTYPE>:[DRITYPE=<DRITYPE>],[DRINODE=<SYNCSW>],
[CKTID=<CKTID>]:<PST_PSTQ>,[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“STS-5-1-2&STS-6-1-2,STS-12-1-2&STS-13-1-2:1WAYDC,STS1:DRITYPE=BLSR,
DRINODE=PRI,CKTID=CKTID:OOS-AU,AINS”
;

```



## Output Parameters

Table 21-64 RTRV-CRS Output Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.9 CrossConnectId” section on page 25-15. Indicates the source AID(s) of the cross-connection. Listable
DST	Destination AID of the cross-connection from the “25.1.9 CrossConnectId” section on page 25-15. Listable
CCT	Type of connection. Used for specifying one or two-way connections Parameter type is CCT—type of cross-connect to be created
<ul style="list-style-type: none"> <li>• 1WAY</li> </ul>	A unidirectional connection from a source tributary to a destination tributary
<ul style="list-style-type: none"> <li>• 1WAYDC</li> </ul>	Path Protection multicast drop with (1-way) continue
<ul style="list-style-type: none"> <li>• 1WAYEN</li> </ul>	Path Protection multicast end node (1-way continue)
<ul style="list-style-type: none"> <li>• 1WAYMON</li> </ul>	A bidirectional connection between the two tributaries <b>Note</b> Starting with ONS 15454 R3.0 and ONS 15327 R3.3, 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects that can be retrieved with TL1.
<ul style="list-style-type: none"> <li>• 1WAYPCA</li> </ul>	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
<ul style="list-style-type: none"> <li>• 2WAY</li> </ul>	A bidirectional connection between the two tributaries
<ul style="list-style-type: none"> <li>• 2WAYDC</li> </ul>	A Bidirectional Drop and Continue connection applicable only to Path Protection Traditional and Integrated Dual Ring InterConnections
<ul style="list-style-type: none"> <li>• 2WAYPCA</li> </ul>	A bidirectional connection between the two tributaries on the extra protection path/fiber
<ul style="list-style-type: none"> <li>• DIAG</li> </ul>	Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect)
CRSTYPE	The cross-connection type Parameter type is CRS_TYPE—cross-connection type
<ul style="list-style-type: none"> <li>• STS</li> </ul>	Indicates all the STS cross-connections
<ul style="list-style-type: none"> <li>• STS1</li> </ul>	STS1 cross-connect
<ul style="list-style-type: none"> <li>• STS3C</li> </ul>	STS3C cross-connect
<ul style="list-style-type: none"> <li>• STS6C</li> </ul>	STS6C cross-connect
<ul style="list-style-type: none"> <li>• STS9C</li> </ul>	STS9C cross-connect
<ul style="list-style-type: none"> <li>• STS12C</li> </ul>	STS12C cross-connect
<ul style="list-style-type: none"> <li>• STS18C</li> </ul>	STS18C cross-connect
<ul style="list-style-type: none"> <li>• STS24C</li> </ul>	STS24C cross-connect
<ul style="list-style-type: none"> <li>• STS36C</li> </ul>	STS36C cross-connect
<ul style="list-style-type: none"> <li>• STS48C</li> </ul>	STS48C cross-connect

**Table 21-64 RTRV-CRS Output Parameters (continued)**

Parameter and Values	Description
• STS192C	STS192C cross-connect
• VT	Indicates all the VT1 cross-connections
• VT1	VT1 cross-connect
• VT2	VT2 cross-connect
<b>DRITYPE</b>	The DRI connection type. It is applied only if the cross-connection is a drop-and-continue connection type (1WAYDC or 2WAYDC), and defaults to path protection for the DRI configuration. Optional Parameter type is DRITYPE—DRI type
• BLRS	BLSR DRI type
• Path Protection	Path Protection DRI type
• Path Protection-BLSR	Path Protection-BLSR hand off DRI type
<b>SYNCSW</b>	Synchronization switch AID from the <a href="#">“25.1.26 SYNCSW”</a> section on page 25-40. Optional
<b>CKTID</b>	Circuit identification parameter that contains a common language ID or other alias of the circuit being provisioned. It cannot contain blank spaces. String. Optional
<b>PST_PSTQ</b>	Primary state and primary state qualifier separated by a colon Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	One or more secondary states separated by “&”, in alphabetical order. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.33 RTRV-CRS-<PATH>

Retrieve Cross-Connect (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves any connections associated with the entered AID(s) or AID range. The information on both ends is returned along with the type of connection.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



### Note

- The Path Protection STS cross-connection can be retrieved by using “&” in the AID fields of this command.
  - To retrieve a 1-way selector or 2-way selector and bridge cross-connection with:
    - from points: F1, F2
    - to points: T1
    - the output will be:
      - 1-way
      - “F1&F2,T1:CCT,STS3C”
      - 2-way
    - If retrieved on point F1 or F2, the output format is the same as the 1-way output.
    - If retrieved on point T1, the output will be:
      - “T1,F1&F2:CCT,STS3C”
  - To retrieve a 1-way bridge or 2-way selector and bridge cross-connection with:
    - from point: F1
    - to points: T1, T2
    - the output will be:
      - 1-way
      - “F1,T1&T2:CCT,STS3C”
      - 2-way
      - “T1&T2,F1:CCT,STS3C”

- To retrieve a 1-way subtending path protection connection or 2-way subtending path protection cross-connection with:
    - from point: F1, F2
    - to points: T1, T2
    - the output will be:
      - 1-way:
        - “F1&F2,T1&T2:CCT,STS3C”
      - 2-way:
        - If retrieved on point F1 or F2, the output format is the same as the 1-way output.
        - If retrieved on point T1 or T2, the output will be:
          - “T1&T2,F1&F2:CCT,STS3C”
  - To retrieve a 2-way selector and bridge cross-connection with:
    - ENT-CRS-<PATH>:F1&F2,S1&S2:<CTAG>::2WAY;
    - from points: F1, F2 (F1 is the working side, F2 is the protect side)
    - selector: S1, S2 (S1 is the working side, S2 is the protect side)
    - the output will be:
      - If retrieved on point F1 or F2, the output will be:
        - “F1&F2,S1&S2:CCT,STS3C”
      - If retrieved on selector S1 or S2, the output will be:
        - “S1&S2,F1&F2:CCT,STS3C”
  - To retrieve a path protection IDRI cross-connect with:
    - from points: F1, F2
    - to points: T1, T2
    - the output will be:
      - “F1&F2,T1&T2:CCT,STS3C”
  - To retrieve a path protection DRI cross-connect with:
    - from points: F1, F2
    - to points: T1
    - the output will be:
      - “F1&F2,T1:CCT,STS3C”
- All A&B AIDs in the TL1 cross-connection command are in the format of WorkingAID&ProtectAID.
  - <STS\_PATH> does not include STS for the RTRV-CRS command because STS is not a standard designator as defined by GR-833 A-2.
  - Both the 1WAYPCA and 2WAYPCA is used to specify a PCA cross-connection.
  - The facility AID is only valid on slots with a G1K-4 card.
  - The virtual facility AID (VFAC) is only valid on slots holding the ML-Series card.

- Both DRITYPE and DRINODE optional fields are available to support BLSR-DRI. DRITYPE is applied only if the cross-connect is a drop-and-continue connection (1WAYDC or 2WAYDC), and defaults to path protection for the DRI. DRINODE must be specified only if at least one end of the connection is on the BLSR, and defaults to NA.
- The DS3XM-12 card allows portless STS1/VT1.5 cross-connection provisioning on the PORTLESS ports.

**Category**

Cross Connections

**Security**

Retrieve

**Related Commands**

DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-CRS
DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-NE-PATH
ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-NE-PATH	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>

**Input Format**

RTRV-CRS-&lt;PATH&gt;:[&lt;TID&gt;]:&lt;SRC&gt;:&lt;CTAG&gt;[:::];

**Input Example**

RTRV-CRS-ST33C:KENWOOD:STS-6-1-1:223;

**Input Parameters****Table 21-65 RTRV-CRS-<PATH> Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the <a href="#">“25.1.10 CrossConnectId1”</a> section on page 25-20. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<SRC>,<DST>:<CCT>,<MOD>:[DRITYPE=<DRITYPE>],[DRINODE=<SYNCSW>],
[CKTID=<CKTID>]:<PST_PSTQ>,[<SSTQ>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“STS-5-1-2&STS-6-1-2,STS-12-1-2&STS-13-1-2:1WAYDC,STS1:DRITYPE=BLSR,
DRINODE=PRI,CKTID=CKTID:OOS-AU,AINS”
;
```

## Output Parameters

Table 21-66 RTRV-CRS-&lt;PATH&gt; Output Parameters

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the “ <a href="#">25.1.9 CrossConnectId</a> ” section on page 25-15. Indicates the source AID(s) of the cross-connection. Listable
<b>DST</b>	Destination AID of the cross-connection from the “ <a href="#">25.1.9 CrossConnectId</a> ” section on page 25-15. Listable
<b>CCT</b>	Type of connection. Used for specifying one or two-way connections Parameter type is CCT—type of cross-connect to be created
• 1WAY	A unidirectional connection from a source tributary to a destination tributary
• 1WAYDC	Path Protection multicast drop with (1-way) continue
• 1WAYEN	Path Protection multicast end node (1-way continue)
• 1WAYMON	A bidirectional connection between the two tributaries <b>Note</b> Starting with ONS 15454 R3.0 and ONS 15327 R3.3, 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects and can be retrieved by TL1.
• 1WAYPCA	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
• 2WAY	A bidirectional connection between the two tributaries
• 2WAYDC	A Bidirectional Drop and Continue connection applicable only to Path Protection Traditional and Integrated Dual Ring InterConnections
• 2WAYPCA	A bidirectional connection between the two tributaries on the extra protection path/fiber
• DIAG	Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect)
<b>MOD</b>	The connection path bandwidth Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000

Table 21-66 RTRV-CRS-&lt;PATH&gt; Output Parameters (continued)

Parameter and Values	Description
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC3 facility
• OC12	OC12 facility
• OC48	OC48 facility
• OC192	OC192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>DRITYPE</b>	The DRI connection type. It is applied only if the cross-connection is a drop-and-continue connection type (1WAYDC or 2WAYDC), and defaults to path protection for the DRI configuration. Optional Parameter type is DRITYPE—DRI type
• BLRS	BLSR DRI type

Table 21-66 RTRV-CRS-&lt;PATH&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• Path Protection</li> </ul>	Path Protection DRI type
<ul style="list-style-type: none"> <li>• Path Protection-BLSR</li> </ul>	Path Protection-BLSR hand off DRI type
<b>SYNCSW</b>	Synchronization switch AID from the “25.1.26 SYNCSW” section on page 25-40. Optional
<b>CKTID</b>	A string of ASCII characters. Maximum length is 48. String. Optional
<b>PST_PSTQ</b>	Primary state and primary state qualifier separated by a colon Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
<ul style="list-style-type: none"> <li>• IS-NR</li> </ul>	In service - normal
<ul style="list-style-type: none"> <li>• OOS-AU</li> </ul>	Out of service - autonomous
<ul style="list-style-type: none"> <li>• OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>• OOS-MA</li> </ul>	Out of service - management
<b>SSTQ</b>	One or more secondary states separated by “&”, in alphabetical order. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>• AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>• DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>• LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>• MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>• MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>• OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>• SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>• UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>• UEQ</li> </ul>	Unequipped



## 21.34 RTRV-DFLT-SECU

Retrieve Default Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the system-wide default values associated with several security parameters.

### Category

Security

### Security

Superuser

### Related Commands

ACT-USER	DLT-USER-SECU	REPT ALM SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SECU
ALW-USER-SECU	ED-PID	REPT EVT SESSION
CANC	ED-USER-SECU	RTRV-CMD-SECU
CANC-USER	ENT-USER-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-MSG-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	INH-USER-SECU	

### Input Format

RTRV-DFLT-SECU:[<TID>]:<AID>:<CTAG>;

### Input Example

RTRV-DFLT-SECU:CISCO:ALL:123;

### Input Parameters

**Table 21-67 RTRV-DFLT-SECU Input Parameters**

Parameter and Values	Description
AID	Access identifier. ALL is the only acceptable value. String. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<NE>:PAGE=<PAGE>,PCND=<PCND>,MXINV=<MXINV>,DURAL=<DURAL>,
TMOUT=<TMOUT>,UOUT=<UOUT>,PFRCD=<PFRCD>,POLD=<POLD>,PINT=<PINT>,
LOGIN=<LOGIN>,PRIVLVL=<PRIVLVL>],[PDIF=<PDIF>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "TCC2:PAGE=40,PCND=5,MXINV=5,DURAL=30,TMOUT=0,UOUT=60,PFRCD=NO,
  POLD=5,PINT=20,LOGIN=MULTIPLE,PRIVLVL=RTRV,PDIF=1"
;
```

**Output Parameters****Table 21-68 RTRV-DFLT-SECU Output Parameters**

Parameter and Values	Description
<b>NE</b>	The node name of the NE where the system values are to be retrieved
<b>PAGE</b>	Password aging interval. It is the number of days before a user is prompted to change his/her password. 0 indicates the policy is turned off and is the default. If PAGE is turned on for all privilege levels and is not specified for each privilege level, it defaults to 45 days. PAGE ranges from 20 to 90 days. Integer
<b>PCND</b>	Number of days a password can be used before a new one is mandatory (for example, the warning period). Default is 5 days. PCND ranges from 2 to 20 days. Integer
<b>MXINV</b>	Maximum number of consecutive and invalid session set up attempts allowed to occur before an intrusion attempt is suspected (for example, "Failed Logins Before Lockout" from CTC). 0 indicates the policy is turned off. Default is 5. MXINV ranges from 0 to 10. Integer
<b>DURAL</b>	Time interval (in seconds) during which a userid is locked out when an intrusion attempt is suspected (for example, the "Lockout Duration"). If the user is locked out until unlocked by a superuser, DURAL=INFINITE. Default is 30 seconds. DURAL ranges from 0 to 600 seconds. DURAL is 0 for RTRV users, 60 minutes for MAINT users, 30 minutes for PROV users, and 15 minutes for SUPER users. String
<b>TMOUT</b>	Interval (in minutes) after which a session is terminated if no messages are exchanged between the user and the NE. 0 indicates that the session will not timeout. Integer
<b>UOUT</b>	UID aging interval, expressed in days. If a userid has not been used in UOUT days, the user will be forced to change his/her password (or logout) at the next login. No other command is allowed until the password has been changed. 0 indicates the policy is turned off and is the default. UOUT ranges from 1 to 99 days. Integer

**Table 21-68 RTRV-DFLT-SECU Output Parameters (continued)**

Parameter and Values	Description
<b>PFRCD</b>	Indicates a password change is required when a new user establishes a session to the NE for the first time (for example, “Require password change on 1st login”). Default is NO  Parameter type is YES_NO—indicates whether the user’s password is about to expire, the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes
<b>POLD</b>	Number of prior passwords that cannot be reused (for example, “Prevent reusing last X passwords”). Default is 1. POLD ranges from 0 to 10. Integer.
<b>PINT</b>	Number of days that must pass before a password can be changed. If PINT is 0, the policy is turned off. Default is off. PINT ranges from 20 to 95 days. Integer
<b>LOGIN</b>	Number of times a user can log into an NE. LOGIN is either SINGLE or MULTIPLE. If LOGIN is SINGLE, a user can only log into an NE one time with any given userid, regardless of the method of login (for example, CTC, TL1, etc.). Default is MULTIPLE  Parameter type is USER_LOGINS—the number of times a user can log into the same NE with the same userid
• MULTIPLE	A user can log into the same NE many times
• SINGLE	A user can log into the NE only once (includes both CTC and TL1 sessions)
<b>PRIVLVL</b>	Parameter type is PRIVILEGE—security level
• MAINT	Maintenance security level. Unlimited idle time
• PROV	Provision security level. 60 minutes of idle time
• RTRV	Retrieve security level. 30 minutes of idle time
• SUPER	Superuser security level. 15 minutes of idle time
<b>PDIF</b>	Indicates how many characters must differ between old and new passwords. Default minimum character difference is 1. Ranges from 0 to 5 characters. Integer. Optional

## 21.35 RTRV-DS1

Retrieve DS1

### Usage Guidelines

Cisco ONS 15454

This command retrieves the test access attributes on a DS1 layer of a DS3XM card.



### Note

- Both MODE and FMT fields of this command are applied for the DS3XM-12 card only.
- If the DS1 mode of the DS3XM-12 is in ATT mode, the DS1 path can retrieve AT&T/54016 FEND PM counts up to 96 15-minute intervals; if the DS1 mode of the DS3XM-12 is in FDL mode, the DS1 path can retrieve FDL/T1-403 FEND PM counts up to 32 15-minute intervals in RTRV-PM-DS1.
- For the DS3XM-12 card, the DS1 frame format NE default is “AUTO\_PROV\_FMT” for the first 30 seconds to determine the real format. After 30 seconds, the DS1 frame format will be the detected frame. If the frame format is not determined, it will be in the “UNFRAMED” format.
- For the preprovisioning DS3XM-12 card, its DS1 frame format defaults to “UNFRAMED” format.
- For the DS3XM-12 card, the DS1-configurable attributes; PM, TH, alarm etc. only apply to the ported ports (1-12) and the VT-mapped (odd) portless ports in xxx-xxx-DS1 commands. Provisioning or retrieving DS1 attributes on the DS3-mapped (even) portless ports in xxx-xxx-DS1 commands is not allowed.

### Category

Ports

### Security

Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<OCN_TYPE>	RMV-<MOD2>
	ED-<GIGE_TYPE>	RST-<MOD2>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
	ED-ALS	RTRV-10GIGE
	ED-DS1	RTRV-ALMTH-<MOD2>
	ED-EC1	RTRV-ALS
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GFP RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1 RTRV-T3
	INIT-REG-<MOD2>	RTRV-TH-<MOD2>
	OPR-ALS OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-ALMTH-<MOD2>
	RLS-LPBK-<MOD2>	SET-TH-<MOD2>

**Input Format** RTRV-DS1:[<TID>]:<DS1AID>:<CTAG>[:::];

**Input Example** RTRV-DS1:PETALUMA:DS1-2-1-6-12:123;

## Input Parameters

Table 21-69 RTRV-DS1 Input Parameters

Parameter and Values	Description
DS1AID	The DS1 path access identifier of the DS3XM card from the <a href="#">“25.1.11 DS1” section on page 25-26</a> . Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<DS1AID>::[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[MODE=<MODE>],[FMT=<FMT>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“DS1-2-1-6-12::TACC=8,TAPTYPE=SINGLE,MODE=FDL,FMT=ESF”
;
```

## Output Parameters

Table 21-70 RTRV-DS1 Output Parameters

Parameter and Values	Description
DS1AID	The DS1 path access identifier of the DS3XM card from the <a href="#">“25.1.11 DS1” section on page 25-26</a>
TACC	Indicates whether the digroup being provisioned is to be used as a test access digroup. Default is N. Integer. Optional
TAPTYPE	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
MODE	Mode with which the command is to be implemented. DS1 path mode of the DS3XM-12 card. Optional Parameter type is DS1MODE—the DS1 path mode of the DS3XM-12 card
• ATT	The DS1 path of the DS3XM-12 card is in AT&T 54016 mode
• FDL	The DS1 path of the DS3XM-12 card is in FDL T1-403 mode
FMT	Digital signal format. The DS1 path frame format of the DS3XM-12 card. Optional Parameter type is FRAME_FORMAT—frame format for a T1 port
• D4	Frame format is D4
• ESF	Frame format is ESF
• UNFRAMED	Frame format is unframed

## 21.36 RTRV-EC1

Retrieve Electrical Carrier

---

**Usage Guidelines**

Cisco ONS 15454

This command retrieves the facility status of an EC1 card.

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**Category**

Ports

---

**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

```
RTRV-EC1:[<TID>]:<AID>:<CTAG>[:::];
```

**Input Example**

```
RTRV-EC1:CISCO:FAC-1-1:1234;
```



## Input Parameters

Table 21-71 RTRV-EC1 Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[PJMON=<PJMON>],[LBO=<LBO>],[RXEQUAL=<RXEQUAL>],[SOAK=<SOAK>],
[SOAKLEFT=<SOAKLEFT>],[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],
[EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],
[TRCFORMAT=<TRCFORMAT>],[AISONLPBK=<AISONLPBK>]:<PSTPSTQ>,[<SSTQ>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1::PJMON=0,LBO=0-225,RXEQUAL=Y,SOAK=52,SOAKLEFT=12-25,SFBER=1E-4,
SDBER=1E-7,NAME=“EC1 PORT”,EXPTRC=“AAA”,TRC=“AAA”,TRCMODE=MAN,
TRCFORMAT=16-BYTE,AISONLPBK=AIS_ON_LPBK_ALL:IS-NR,AINS”
;
```

## Output Parameters

Table 21-72 RTRV-EC1 Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>PJMON</b>	A SONET pointer monitor attribute of an EC1 port. Integer. Optional
<b>LBO</b>	Line build out settings. Integer. Optional Parameter type is E_LBO—electrical signal line buildout
• 0–225	Electrical signal line buildout range is 0–225
• 226–450	Electrical signal line buildout range is 226–450
<b>RXEQUAL</b>	Optional Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>SOAK</b>	IS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional

Table 21-72 RTRV-EC1 Output Parameters (continued)

Parameter and Values	Description
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1-minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT, or IS state, the parameter will not appear.</li> <li>• When the port is in IS-AINS, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in IS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>SFBER</b>	Signal failure threshold. The default value is 1E-4. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Signal degrade threshold. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>NAME</b>	String. Optional
<b>EXPTRC</b>	String. Optional
<b>TRC</b>	String. Optional
<b>TRCMODE</b>	Trace mode. Optional Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP is detected
• MAN	Use the provisioned expected string as the expected string
• MAN-NO-AIS	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected
• OFF	Turn off path trace capability. Nothing will be reported

**Table 21-72 RTRV-EC1 Output Parameters (continued)**

Parameter and Values	Description
<b>TRCFORMAT</b>	Trace message size. Optional Parameter type is TRCFORMAT—trace format
• 1-BYTE	1-byte trace message
• 16-BYTE	16-byte trace message
• 64-BYTE	64-byte trace message
• Y	Enable an attribute
<b>AISSLPBK</b>	AIS on loopback. Optional Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ON_LPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks
<b>PST_PSTQ</b>	Admin state in the PST_PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.37 RTRV-EQPT

Retrieve Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the data parameters and state parameters associated to an equipment unit.

This command returns the PRTYPE, PROTID, RVTM, and RVRTV parameters for a card inside of a protection group by the following scenario:

1. A working AID/card within a 1:1 protection group will return PRTYPE, PROTID, RVTM and RVRTV.
2. A protection/AID card within a 1:1 protection group will return PRTYPE, RVTM and RVRTV.
3. A working AID/card within a 1:N protection group will return PRTYPE, PROTID, RVTM and RVRTV=Y.
4. A protection AID/card of a 1:1 protection group will return PRTYPE, RVTM and RVRTV=Y.
5. An unprotected AID/card will return the AID type, equip (equip/unequip), status (act/standby) and state (IS/OOS) values.
6. Preprovisioned cards (without being plugged in) will display OOS,AINS for PST and SST. Once the card is plugged in and has gone through its initialization sequence the card automatically goes to IS (PST).
7. CARDMODE parameter is displayed for ML-Series and FC\_MR-4 cards.
8. RETIME and TRANSMODE parameters are only displayed for the DS1/E1-56 card.

Error conditions:

- The equipment is not provisioned.

### Category

Equipment

### Security

Retrieve

### Related Commands

ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-ALMTH-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOWKG-EQPT	INH-SWTOWKG-EQPT	SET-ALMTH-EQPT
DLT-EQPT	REPT ALM EQPT	SW-DX-EQPT
ED-EQPT	REPT EVT EQPT	SW-TOPROTN-EQPT
ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT

### Input Format

RTRV-EQPT:[<TID>]:<AID>:<CTAG>[:::];

### Input Example

RTRV-EQPT:MIRABEL:SLOT-12:230;

## Input Parameters

Table 21-73 RTRV-EQPT Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.13 EQPT” section on page 25-27. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>:<AIDTYPE>,<EQUIP>,[<ROLE>],[<STATUS>]:[PROTID=<PROTID>],
[PRTYPE=<PRTYPE>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],
[CARDNAME=<CARDNAME>],[IOSCFG=<IOSCFG>],[CARDMODE=<CARDMODE>],
[PEERID=<PEERID>],[REGENNAME=<REGENNAME>],
[PWL=<PWL>],[TRANSMODE=<TRANSMODE>],
[RETIME=<RETIME>]:[<PST_PSTQ>],[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SLOT-12:DS1,EQUIP,,ACT:PROTID=SLOT-13,PRTYPE=1-1,RVRTV=Y,RVTM=8.5,
CARDNAME=DESCRIPTION,IOSCFG=“IOS CONFIG INFO FOR ML SERIES CARD”,
CARDMODE=DS3XM12-STS48,PEERID=SLOT-1,REGENNAME=“THIS GROUP”,
PWL=1530.33,TRANSMODE=SONET,RETIME=Y:OOS-AU,AINS&UEQ”
;

```

## Output Parameters

Table 21-74 RTRV-EQPT Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.13 EQPT” section on page 25-27
<b>AIDTYPE</b>	The type of facility, link or other addressable entity targeted by the message Parameter type is EQUIPMENT_TYPE—equipment type
• 32-DMX-O	Unidirectional optical demultiplexer with 32 channels
• 32-MUX-O	Unidirectional optical multiplexer with 32 channels
• 32-WSS	Optical wavelength selective switch with 32 channels
• AD-1B	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
• AD-1C	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
• AD-2C	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
• AD-4B	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
• AD-4C	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
• AICI	AICI card
• ASAP-4	Any Service Any Port (ASAP) Carrier card with 4 PIM slots

**Table 21-74 RTRV-EQPT Output Parameters (continued)**

Parameter and Values	Description
• CE-100T-8	8-Port 100T card on ONS 15454 and ONS 15310-CL
• CXC	Cross-Connect Card (ONS 15600 only)
• DS1	DS1 card
• DS1-E1-56	DS1-E1-56 card
• DS1I	DS1I card
• DS1N	DS1N card
• DS3	DS3 card
• DS3E	DS3E card
• DS3-EC1-48	DS3-EC1-48 card
• DS3I	DS3I card
• DS3IN	DS3IN card
• DS3N	DS3N card
• DS3NE	DS3NE card
• DS3XM	DS3XM card
• DS3XM-12	DS3XM-12 card
• E1000T	E1000T card
• E100T	E100T card
• EC1	EC1 card
• FC_MR-4	FC_MR-4 card
• FILLER-CARD	Blank Filler card (ONS 15600)
• G1000-2	2-port G1000 card (ONS 15327)
• G1K-4	4-port G1000 card (ONS 15454)
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC	ONS 15327 MIC card
• MIC-EXT	ONS 15327 MIC-EXT card
• ML100FX	ML100FX card
• ML100T-8	15454-LI+ Mapper card and 15310-CL ML-100T8 card
• ML1000-2	ML-Series 2-Port GigE card
• ML100T-12	ML-Series 12-Port FSTE card
• MRC-12	12-port multirate optical card (ONS 15454)
• MXP-2.5G-10E	10G (4 * 2.5G) muxponder card with Enhanced FEC
• MXP-2.5G-10G	10G (4 * 2.5G) muxponder card
• MXP-MR-2.5G	Multirate 2.5G muxponder unprotected
• MXPP-MR-2.5G	Multirate 2.5G muxponder protected
• OC3	OC3 card
• OC3-8	8-Port OC3 card

**Table 21-74 RTRV-EQPT Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• OC12	OC12 card
• OC12-4	4-port OC12 card
• OC48	OC48 card
• OC48_16	16-port OC48 card
• OC192	OC192 card
• OC192-4	4-port OC192 card
• OC192-XFP	1-port OC192 XFP
• OPT-BST	Optical booster amplifier
• OPT-PRE	Optical preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	4-port Pluggable Interface Module (ONS 15600)
• PPM-1	Pluggable Port Module with 1 SFP port (ONS 15600 ASAP, ONS 15310-CL, ONS 15454 MXP/MXPP, TXP/TXPP, MRC-12 and OC192-XFP)
• SSXC	Cross-connect card (ONS 15600)
• TCC	TCC card
• TXP-MR-10E	10G Multirate Transponder Card with Enhanced FEC
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XC10G	XC10G card
• XCVT	XCVT card
• XCVXC-10G	XCVXC-10G card
• XCVXC-2.5G	XCVXC-2.5G card
• XCVXL-10G	XCVXL-10G card
• XCVXL-2.5G	XCVXL-2.5G card
• XTC	ONS 15327 XTC card
<b>EQUIP</b>	Indicates if the equipment is physically present Parameter type is EQUIP—the presence of a plug-in unit
• EQUIP	The unit is equipped - present
• UNEQUIP	The unit is unequipped - absent
<b>ROLE</b>	Indicates if the card is a working unit or the protecting unit. Optional Parameter type is SIDE—the role the unit is playing in the protection group

Table 21-74 RTRV-EQPT Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• PROT</li> </ul>	The entity is a protection unit in the protection group
<ul style="list-style-type: none"> <li>• WORK</li> </ul>	The entity is a working unit in the protection group
<b>STATUS</b>	Indicates a status. SONET card status is shown on its card level. Optional Parameter type is STATUS—status
<ul style="list-style-type: none"> <li>• ACT</li> </ul>	The entity is the active unit in the shelf
<ul style="list-style-type: none"> <li>• NA</li> </ul>	Status is unavailable
<ul style="list-style-type: none"> <li>• STBY</li> </ul>	The entity is the standby unit on the shelf
<b>PROTID</b>	Protecting identifier AID from the “25.1.20 PRSLOT” section on page 25-33. Optional
<b>PRTYPE</b>	Protection type. Optional Parameter type is PROTECTION_GROUP—protection group type
<ul style="list-style-type: none"> <li>• 1-1</li> </ul>	1 to 1 protection
<ul style="list-style-type: none"> <li>• 1-N</li> </ul>	1 to N protection
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>• Y</li> </ul>	Enable an attribute
<b>RVTM</b>	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>• 0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>CARDNAME</b>	The card name of the card, PIM or PPM equipment. String. Optional
<b>IOSCFG</b>	Displays the information about the startup Cisco IOS config file for the ML-Series cards. An example of this field is “TL1,11.22.33.44//DIR/IOS.CONF,2002/1/1 9:1:1 EST”. The following information is included in this field: 1) Where the config file is from: TL1, or CTC/CTM/CLI/TCC; 2) The host (IP address)/directory/file name, if the config file is downloaded from the network; 3) When the startup config file is created (by copying from the network, for example). This field only applies to ML-Series cards. String. Optional.



Table 21-74 RTRV-EQPT Output Parameters (continued)

Parameter and Values	Description
<b>CARDMODE</b>	Card mode. Optional Parameter type is CARDMODE—card mode. Card mode is applicable to cards that have multiple capabilities, for example, the ML card can operate in two distinct modes: Linear Mapper Mode and L2/L3 Mode
• DS3XM12-ST512	The DS3XM-12 card in the STS12 back plane rate mode
• DS3XM12-ST548	The DS3XM-12 card in the STS48 back plane rate mode
• DWDM-LINE	Line terminating mode
• DWDM-SEC	Section terminating mode
• DWDM-TRANS-AIS	Transparent mode AIS
• DWDM-TRANS-SQUELCH	Transparent mode SQUELCH
• FCMR-DISTEXTN	FC_MR-4 card with distance extension support
• FCMR-LINERATE	FC_MR-4 card without distance extension support
• ML-GFP	ML-Series card in DOS FPGA using GFP framing type
• ML-HDLC	ML-Series card in DOS FPGA using HDLC framing type
• MXPMR25G-FCGE	Fibre channel or GIGE mode for the MXP-MR-2.5G card
<b>PEERID</b>	The regeneration group peer slot identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27. Optional
<b>REGENNAME</b>	Name of a regeneration group. String. Optional
<b>PWL</b>	Provisioned wavelength. Optional Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16

Table 21-74 RTRV-EQPT Output Parameters (continued)

Parameter and Values	Description
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>TRANSMODE</b>	Transport mode. Applicable only to the DS1/E1-56 card on ONS 15454. Defaults to SONET. Optional Parameter type is TRANSMODE—transition mode
• AU3	AU3 mode
• AU4	AU4 mode
• SONET	SONET mode
<b>RETIME</b>	Indicates the retime function for all the ports on this card. Applicable only to the DS1/E1-56 card on the ONS 15454. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>PST_PSTQ</b>	Admin state in the PST_PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management

Table 21-74 RTRV-EQPT Output Parameters (continued)

Parameter and Values	Description
SSTQ	Secondary state of the entity. Listable Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.38 RTRV-ESCON

Retrieve Enterprise System Connection

### Usage Guidelines

Cisco ONS 15454

This command retrieves the fibre channel-specific settings for ports that have been configured to carry ESCON traffic using the ENT-ESCON command.

### Category

Ports

### Security

Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	OPR-WDMANS	RTRV-TRC-OCH
	ED-OSC	RLS-LASER-OTS	RTRV-WDMANS
	ED-OTS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-ESCON:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-ESCON::CISCO:FAC-1-1:123;

#### Input Parameters

*Table 21-75 RTRV-ESCON Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. Must not be null

**Output Format** SID DATE TIME  
M CTAG COMPLD  
“<AID>:.,[<ROLE>],[<STATUS>]:[ENCAP=<ENCAP>]”  
;

**Output Example** TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“FAC-1-1:.,WORK,ACT:ENCAP=GFP-T”  
;

## Output Parameters

Table 21-76 RTRV-ESCON Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>ROLE</b>	The port role in Y-cable protection (WORK or PROT). Optional Parameter type is SIDE—the role the unit is playing in the protection group
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group
<b>STATUS</b>	A port status in Y-cable protection (ACT or STBY). Optional Parameter type is STATUS—the status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
<b>ENCAP</b>	Encapsulation frame type. Optional Parameter type is ENCAP—frame encapsulation type
• GFP_F	GFP Frame Mode
• GFP_T	GFP Transparent Mode
• HDLC	HDLC Frame Mode
• HDLC_LEX	HDLC LAN Extension Frame Mode
• HDLC_X86	HDLC X.86 Frame Mode

## 21.39 RTRV-EXT-CONT

Retrieve External Control

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the control state of an external control. The command can be used to audit the result of an OPR-EXT-CONT or a RLS-EXT-CONT command.



#### Note

If the CONTTYPER is null, the existing conntype on this AID will be returned.



#### Note

The duration is not supported, it defaults to CONTS.

### Category

Environment

**Security** Retrieve

Related Commands	OPR-ACO-ALL	RLS-EXT-CONT	RTRV-COND-ENV
	OPR-EXT-CONT	RTRV-ALM-ENV	SET-ATTR-CONT
	REPT ALM ENV	RTRV-ATTR-CONT	SET-ATTR-ENV
	REPT EVT ENV	RTRV-ATTR-ENV	SET-ATTR-SECUDFLT

**Input Format** RTRV-EXT-CONT:[<TID>]:<AID>:<CTAG>[:<CONTTYPE>];

**Input Example** RTRV-EXT-CONT:CISCO:ENV-OUT-2:123::AIRCOND;

**Input Parameters**

*Table 21-77 RTRV-EXT-CONT Input Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26. The only valid AID for RTRV-EXT-CONT is ENV-OUT-{1-2}. Must not be null
<b>CONTTYPE</b>	Environmental control type. A null value is equivalent to ALL Parameter type is CONTTYPE—Environmental control types
• AIRCOND	Air conditioning
• ENGINE	Engine
• FAN	Fan
• GEN	Generator
• HEAT	Heat
• LIGHT	Light
• MISC	Miscellaneous
• SPKLR	Sprinkler

**Output Format** SID DATE TIME  
M CTAG COMPLD  
“<AID>:[<CONTTYPE>],<DUR>,[<CONTSTATE>]”  
;

**Output Example** TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“ENV-OUT-2:AIRCOND,CONTS,OPEN”  
;

## Output Parameters

Table 21-78 RTRV-EXT-CONT Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26. Identifies the external control for which the control state is being retrieved
<b>CONTTYPE</b>	Environmental control type. Optional Parameter type is CONTTYPE—Environmental control types
• AIRCOND	Air conditioning
• ENGINE	Engine
• FAN	Fan
• GEN	Generator
• HEAT	Heat
• LIGHT	Light
• MISC	Miscellaneous
• SPKLR	Sprinkler
<b>DUR</b>	Duration of operation. The duration for which the external control can be operated Parameter type is Duration—Duration
• CONTS	Continuous duration
<b>CONSTSTATE</b>	Control state of the external control. Optional Parameter type is CONT_MODE—current state of the environmental control
• NA	Not applicable (for example, duration is MNTRY)
• OPER	The environmental control state is CLOSE
• RLS	The environmental control state is OPEN

## 21.40 RTRV-FAC

Retrieve Facility

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the payload type of the facility. It can also dump all the facilities on a given card and is applicable to all cards.

### Category

Ports

### Security

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EQPT
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

RTRV-FAC:[<TID>]:<SRC>:<CTAG>[:::];

**Input Example**

RTRV-FAC:CISCO:FAC-2-9:2223;



**Input Parameters****Table 21-79 RTRV-FAC Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<SRC>::PAYLOAD=<PAYLOAD>:<PST_PSTQ>,[<SSTQ>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-2-9::PAYLOAD=E4-FRAMED:OOS-AU,AINS”
;
```

**Output Parameters****Table 21-80 RTRV-FAC Output Parameters**

Parameter and Values	Description
SRC	Source access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
PAYLOAD	Payload type of the facility. Optional Parameter type is PAYLOAD—identifies payload type
• 10GFC	10 Gigabit Ethernet fibre channel mode
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel mode
• 1GFICON	1 Gigabit FICON mode
• 2GFC	2 Gigabit fibre channel mode
• 2GFICON	2 Gigabit FICON mode
• DS3	DS3 mode
• DS3XM	DS3XM payload mode for DS3XM card
• DV6000	Video mode
• EC1	EC1 mode
• ESCON	ESCON mode
• ETRCLO	ETR_CLO payload mode
• GIGE	Gigabit Ethernet Payload
• HDTV	HDTV mode
• ISC1	ISC1 Mode
• ISC3	ISC3 Mode

**Table 21-80 RTRV-FAC Output Parameters (continued)**

Parameter and Values	Description
• OC12	SONET OC12 mode
• OC3	SONET OC3 mode
• OC48	SONET OC48 mode
• PASS-THROUGH	Pass through mode
• SDI-D1-VIDEO	SDI-D1-Video mode
• SONET	SONET Payload Mode
<b>PST_PSTQ</b>	Admin state in the PST-PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state. String. Optional

## 21.41 RTRV-FFP

Retrieve Facility Protection Group

### Usage Guidelines

This command retrieves all optical 1+1 protection groups.

### Category

Protection

### Security

Retrieve

**Related Commands**

ALW-SWDX-EQPT	INH-SWTOPROTN-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT
ALW-SWTOWKG-EQPT	OPR-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	REPT SW
DLT-FFP-<OCN_TYPE>	RLS-PROTNSW-<OCN_TYPE>
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FFP-OCH	RTRV-FFP-OCH
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	SW-DX-EQPT
EX-SW-<OCN_BLSR>	SW-TOPROTN-EQPT
INH-SWDX-EQPT	SW-TOWKG-EQPT

**Input Format**

RTRV-FFP:[<TID>]:<AID>:<CTAG>[:::];

**Input Example**

RTRV-FFP:HERNDON:FAC-1-1:1;

**Input Parameters**

**Table 21-81 RTRV-FFP Input Parameters**

Parameter and Values	Description
<b>AID</b>	Optical facility access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. Must not be null

**Output Format**

SID DATE TIME  
M CTAG COMPLD  
“<WORK>,<PROTECT>:<LEVEL>:[PROTID=<PROTID>],[RVRTV=<RVRTV>],  
[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>],  
[DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>],[OPOTYPE=<OPOTYPE>]”  
;

**Output Example**

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“FAC-2-1,FAC-1-1:OC48:PROTID="PROT\_NAME",RVRTV=Y,RVTM=1.0,PSDIRN=BI,  
VRGRDTM=0.5,DTGRDTM=1.0,RCGRDTM=1.0,OPOTYPE=OPTIMIZED”  
;

**Output Parameters**

Table 21-82 RTRV-FFP Output Parameters

Parameter and Values	Description
<b>WORK</b>	The working port access identifier from the <a href="#">“25.1.14 FACILITY” section on page 25-28</a>
<b>PROTECT</b>	The protected port access identifier from the <a href="#">“25.1.14 FACILITY” section on page 25-28</a>
<b>PROTOTYPE</b>	Protection group type. String. Optional
<b>LEVEL</b>	Optical rate the protection group was defined against Parameter type is OCN_TYPE—modifier used to differentiate various levels of OC-N
• OC12	Optical Carrier level-12 (622Mbs)
• OC192	Optical Carrier level-192 (10Gbs)
• OC3	Optical Carrier level-3 (155Mbs)
• OC48	Optical Carrier level-48 (2.4Gbs)
<b>PROTID</b>	Protection group name. String. Optional
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Defaults to N. Null defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Direction of reversion. Optional Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching
<b>VRGRDTM</b>	Verification guard timer. Only applies to optimized 1+1. Optional Parameter type is VERIFICATION_GUARD_TIMER—optimized 1+1 verification guard timer
• 0.5	500 ms
• 1.0	1 second
<b>DTGRDTM</b>	Detection guard timer. Only applies to optimized 1+1. Optional Parameter type is DETECTION_GUARD_TIMER—optimized 1+1 detection guard timer
• 0.0	0 seconds

**Table 21-82 RTRV-FFP Output Parameters (continued)**

Parameter and Values	Description
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 seconds
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
<b>RCGRDTM</b>	Recovery guard timer. Only applies to optimized 1+1. Optional Parameter type is RECOVERY_GUARD_TIMER—optimized 1+1 recovery guard timer
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 seconds
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
• 6.0	6 seconds
• 7.0	7 seconds
• 8.0	8 seconds
• 9.0	9 seconds
• 10.0	10 seconds
<b>OPOTYPE</b>	1+1 protection type. Optional Parameter type is ONE_PLUS_ONE— one plus one protection type
• OPTIMIZED	Optimized 1+1
• STANDARD	Standard 1+1

## 21.42 RTRV-FFP-<MOD2DWDMPAYLOAD>

Retrieve Facility Protection Group (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

---

**Usage Guidelines**

Cisco ONS 15454

This command retrieves Y-cable protection on client facilities.

---

**Category**

DWDM

---

**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EQPT
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

RTRV-FFP-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>:<CTAG>[:::];

**Input Example**

RTRV-FFP-HDTV:CISCO:FAC-1-1-1:100;

## Input Parameters

Table 21-83 RTRV-FFP-&lt;MOD2DWDMPAYLOAD&gt; Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AIDUNIONID>,<AIDUNIONID1>::[PROTOTYPE=<PROTOTYPE>],[PROTID=<PROTID>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1-1,FAC-2-1-1::PROTOTYPE=Y-CABLE,PROTID=\“DC-METRO\”,
RVRTV=N,RVTM=1.0,PSDIRN=BI”
;
```

## Output Parameters

Table 21-84 RTRV-FFP-&lt;MOD2DWDMPAYLOAD&gt; Output Parameters

Parameter and Values	Description
AIDUNIONID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
AIDUNIONID1	Access identifier from the “25.1.14 FACILITY” section on page 25-28
PROTOTYPE	The type of facility protection. Optional Parameter type is PROTOTYPE—protection type for DWDM client facilities
<ul style="list-style-type: none"> <li>Y-CABLE</li> </ul>	Y-cable protection for the client ports on TXP_MR_10G/MXP_2.5G_10G and TXP_MR_2.5G/TXPP_MR_2.5G cards
PROTID	Y-cable protection group identifier. String. Optional
RVRTV	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Optional
	Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> <li>Y</li> </ul>	Disable an attribute Enable an attribute
RVTM	Revertive time. Defaults to 5.0 minutes. Optional



Table 21-84 RTRV-FFP-&lt;MOD2DWDMPAYLOAD&gt; Output Parameters (continued)

Parameter and Values	Description
	Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Identifies the switching mode. Defaults to UNI. Optional
	Parameter type is UNI_BI—unidirectional and bidirectional switch operations
<ul style="list-style-type: none"> <li>BI</li> </ul>	Bidirectional protection switching
<ul style="list-style-type: none"> <li>UNI</li> </ul>	Unidirectional protection switching

## 21.43 RTRV-FFP-<OCN\_TYPE>

Retrieve Facility Protection Group (OC3, OC12, OC48, OC192)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the optical facility protection information.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



#### Note

Optimized 1+1 and related attributes only apply to the ONS 15454.



#### Note

ONS 15310-CL does not support OC48 and OC192.

### Category

Protection

### Security

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EQPT
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

RTRV-FFP-<OCN\_TYPE>:[<TID>]:<AID>:<CTAG>[:::];

**Input Example**

RTRV-FFP-OC3:PETALUMA:OC3-1-1:1;

**Input Parameters****Table 21-85 RTRV-FFP-<OCN\_TYPE> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<WORK>,<PROTECT>:::[PROTOTYPE=<PROTOTYPE>],[PROTID=<PROTID>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>],
[DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>],[OPOTYPE=<OPOTYPE>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-2-1,FAC-1-1::PROTOTYPE=Y-CABLE,PROTID="PROT_NAME",RVRTV=Y,RVTM=1.0,
PSDIRN=BI,VRGRDTM=0.5,DTGRDTM=1.0,RCGRDTM=1.0,OPOTYPE=OPTIMIZED”
;
```

**Output Parameters****Table 21-86 RTRV-FFP-<OCN\_TYPE> Output Parameters**

Parameter and Values	Description
<b>WORK</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Identifies the working port
<b>PROTECT</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Identifies the protection port
<b>PROTOTYPE</b>	Protection group type. Applicable only to DWDM cards. Optional Parameter type is PROTOTYPE—protection type for DWDM client facilities
• Y-CABLE	Y-cable protection for the client ports on TXP_MR_10G/MXP_2.5G_10G and TXP_MR_2.5G/TXPP_MR_2.5G cards
<b>PROTID</b>	Free form text string name given to the 1+1 protection group. String. Optional

Table 21-86 RTRV-FFP-&lt;OCN\_TYPE&gt; Output Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Defaults to N. Null defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Defaults to 5.0 minutes. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Identifies the switching mode. Defaults to UNI. Optional Parameter type is TRANS_MODE—G1000 transponder mode
• BI	Bidirectional
• NONE	Not in transponder mode
• UNI	Unidirectional
<b>VRGRDTM</b>	Verification guard timer. Only applies to optimized 1+1. Optional Parameter type is VERIFICATION_GUARD_TIMER—optimized 1+1 verification guard timer
• 0.5	500 ms
• 1.0	1 second
<b>DTGRDTM</b>	Detection guard timer. Only applies to optimized 1+1. Optional Parameter type is DETECTION_GUARD_TIMER—optimized 1+1 detection guard timer
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 seconds
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
<b>RCGRDTM</b>	Recovery guard timer. Only applies to optimized 1+1. Optional Parameter type is RECOVERY_GUARD_TIMER—optimized 1+1 recovery guard timer

**Table 21-86** RTRV-FFP-<OCN\_TYPE> Output Parameters (continued)

Parameter and Values	Description
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 seconds
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
• 6.0	6 seconds
• 7.0	7 seconds
• 8.0	8 seconds
• 9.0	9 seconds
• 10.0	10 seconds
<b>OPOTYPE</b>	1+1 protection type. Optional Parameter type is ONE_PLUS_ONE— one plus one protection type
• OPTIMIZED	Optimized 1+1
• STANDARD	Standard 1+1

## 21.44 RTRV-FFP-OCH

Retrieve Facility Protection Group Optical Channel

### Usage Guidelines

Cisco ONS 15454

This command retrieves the protection group information for the TXP\_MR\_2.5G and the TXPP-MR-2.5G card trunk port.

### Category

DWDM

### Security

Retrieve

**Related Commands**

DLT-FFP-<MOD2DWDMPAYLOAD>	EX-SW-<OCN_BLSR>
DLT-FFP-<OCN_TYPE>	OPR-LASER-OTS
DLT-LNK-<MOD2O>	OPR-PROTNSW-<OCN_TYPE>
DLT-LNKTERM	OPR-PROTNSW-OCH
DLT-OSC	OPR-SLV-WDMANS
DLT-WLEN	OPR-WDMANS
ED-DWDM	RLS-LASER-OTS
ED-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
ED-FFP-<OCN_TYPE>	RLS-PROTNSW-OCH
ED-FFP-OCH	RTRV-DWDM
ED-LNK-<MOD2O>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-LNKTERM	RTRV-FFP-<OCN_TYPE>
ED-OCH	RTRV-LNK-<MOD2O>
ED-OMS	RTRV-LNKTERM
ED-OSC	RTRV-NE-WDMANS
ED-OTS	RTRV-OCH
ED-SLV-WDMANS	RTRV-OMS
ED-TRC-OCH	RTRV-OSC
ED-WDMANS	RTRV-OTS
ED-WLEN	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-OCH
ENT-FFP-<OCN_TYPE>	RTRV-SLV-WDMANS
ENT-LNK-<MOD2O>	RTRV-TRC-OCH
ENT-LNKTERM	RTRV-WDMANS
ENT-OSC	RTRV-WLEN
ENT-WLEN	

**Input Format**

RTRV-FFP-OCH:[<TID>]:<AID>:<CTAG>[:::];

**Input Example**

RTRV-FFP-OCH:VA454-22:CHAN-2-2:100;

**Input Parameters**

**Table 21-87 RTRV-FFP-OCH Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<WORK>,<PROTECT>::[PROTOTYPE=<PROTOTYPE>],[PROTID=<PROTID>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"CHAN-2-2,CHAN-2-3::PROTOTYPE=SPLITTER,PROTID=\`TRUNK PROT`,RVRTV=Y,
RVTM=1.0,PSDIRN=UNI"
;
```

**Output Parameters****Table 21-88 RTRV-FFP-OCH Output Parameters**

Parameter and Values	Description
<b>WORK</b>	The working port access identifier from the <a href="#">“25.1.7 CHANNEL” section on page 25-14</a>
<b>PROTECT</b>	The protected port access identifier from the <a href="#">“25.1.7 CHANNEL” section on page 25-14</a>
<b>PROTOTYPE</b>	Protection group type. String. Optional
<b>PROTID</b>	Protection group name. String. Optional
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Defaults to N. Null defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>PSDIRN</b>	Protection switch operation. Direction of reversion. Optional Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching

## 21.45 RTRV-FSTE

Retrieve Fast Ethernet

---

**Usage Guidelines**

Cisco ONS 15454, 15310-CL

This command retrieves the front end port information of fast (10/100 Mbps) Ethernet card. MTU is not displayed for the ML-100T-8 and CE-100T-8 cards. RTRV-POS will display the MTU which is common for both front and back-end ports.

---

**Category**

Ports

---

**Security**

Retrieve



Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-ALMTH-<MOD2>
	RLS-LPBK-<MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format** RTRV-FSTE:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-FSTE:TID:FAC-1-1:CTAG;

## Input Parameters

Table 21-89 RTRV-FSTE Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>::[ADMINSTATE=<ADMINSTATE>],[LINKSTATE=<LINKSTATE>],[MTU=<MTU>],
[FLOWCTRL=<FLOWCTRL>],[DUPLEX=<DUPLEX>],[SPEED=<SPEED>],[FLOW=<FLOW>],
[EXPDUPLICATE=<EXPDUPLICATE>],[EXPSPEED=<EXPSPEED>],[VLANCOS=<VLANCOS>],
[IPTOS=<IPTOS>],[OPTICS=<OPTICS>],[NAME=<NAME>],[SOAK=<SOAK>],
[SOAKLEFT=<SOAKLEFT>]:<PST_PSTQ>,[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1::ADMINSTATE=DOWN,LINKSTATE=DOWN,MTU=1500,
FLOWCTRL=SYMMETRIC,DUPLEX=AUTO,SPEED=AUTO,FLOW=FLOW,
EXPDUPLICATE=EXPDUPLICATE,EXPSPEED=EXPSPEED,VLANCOS=VLANCOS,
IPTOS=IPTOS,OPTICS=1000-BASE-LX,NAME=“FSTEPOR”,SOAK=32,
SOAKLEFT=“12-25”:OOS-AU,AINS”
;

```

## Output Parameters

Table 21-90 RTRV-FSTE Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
ADMINSTATE	Administration type. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up
LINKSTATE	Link protocol. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up
MTU	Maximum transmission unit. Integer. Optional
FLOWCTRL	Flow control. Optional Parameter type is FLOW—the type of flow control that has been negotiated for an Ethernet port
• ASYMMETRIC	Asymmetric flow control

**Table 21-90 RTRV-FSTE Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
<ul style="list-style-type: none"> <li>• ASYMMETRIC_LOCAL</li> </ul>	Asymmetric local flow control
<ul style="list-style-type: none"> <li>• NONE</li> </ul>	No flow control
<ul style="list-style-type: none"> <li>• SYMMETRIC</li> </ul>	Symmetric flow control
<b>DUPLEX</b>	Duplex mode. Optional Parameter type is ETHER_DUPLEX—duplex mode
<ul style="list-style-type: none"> <li>• AUTO</li> </ul>	Auto mode
<ul style="list-style-type: none"> <li>• FULL</li> </ul>	Full mode
<ul style="list-style-type: none"> <li>• HALF</li> </ul>	Half mode
<b>SPEED</b>	Speed. Optional Parameter type is ETHER_SPEED—Ethernet speed
<ul style="list-style-type: none"> <li>• 100_MBPS</li> </ul>	100 Mbps
<ul style="list-style-type: none"> <li>• 10_GBPS</li> </ul>	10 Gbps
<ul style="list-style-type: none"> <li>• 10_MBPS</li> </ul>	10 Mbps
<ul style="list-style-type: none"> <li>• 1_GBPS</li> </ul>	1 Gbps
<ul style="list-style-type: none"> <li>• AUTO</li> </ul>	Auto
<b>FLOW</b>	Flow. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>• N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>• Y</li> </ul>	Enable an attribute
<b>EXPDUPLX</b>	Ethernet duplex mode. Optional Parameter type is ETHER_DUPLEX—duplex mode
<ul style="list-style-type: none"> <li>• AUTO</li> </ul>	Auto mode
<ul style="list-style-type: none"> <li>• FULL</li> </ul>	Full mode
<ul style="list-style-type: none"> <li>• HALF</li> </ul>	Half mode
<b>EXPSPEED</b>	Ethernet speed. Optional Parameter type is ETHER_SPEED—Ethernet speed
<ul style="list-style-type: none"> <li>• 100_MBPS</li> </ul>	100 Mbps
<ul style="list-style-type: none"> <li>• 10_GBPS</li> </ul>	10 Gbps
<ul style="list-style-type: none"> <li>• 10_MBPS</li> </ul>	10 Mbps
<ul style="list-style-type: none"> <li>• 1_GBPS</li> </ul>	1 Gbps
<ul style="list-style-type: none"> <li>• AUTO</li> </ul>	Auto
<b>VLANCOS</b>	Priority queing threshold based on VLAN class of service of incoming Ethernet packets. Integer. Optional
<b>IPTOS</b>	Priority queing threshold based on IP type of service of incoming Ethernet packets. Integer. Optional

**Table 21-90 RTRV-FSTE Output Parameters (continued)**

Parameter and Values	Description
<b>OPTICS</b>	GBIC type. Optional Parameter type is OPTICS—type of Gigabit Ethernet optics being used
• 1000_BASE_CX	1000 Base CX
• 1000_BASE_LX	1000 Base LX
• 1000_BASE_SX	1000 Base SX
• 1000_BASE_ZX	1000 Base ZX
• CWDM_1470	CWDM 1470
• CWDM_1490	CWDM 1490
• CWDM_1510	CWDM 1510
• CWDM_1530	CWDM 1530
• CWDM_1550	CWDM 1550
• CWDM_1570	CWDM 1570
• CWDM_1590	CWDM 1590
• CWDM_1610	CWDM 1610
• ITU_100G_1530_33	ITU-100G 1530.33
• ITU_100G_1531_12	ITU-100G 1531.12
• ITU_100G_1531_90	ITU-100G 1531.90
• ITU_100G_1532_68	ITU-100G 1532.68
• ITU_100G_1534_25	ITU-100G 1534.25
• ITU_100G_1535_04	ITU-100G 1535.04
• ITU_100G_1535_82	ITU-100G 1535.82
• ITU_100G_1536_61	ITU-100G 1536.61
• ITU_100G_1538_19	ITU-100G 1538.19
• ITU_100G_1538_98	ITU-100G 1538.98
• ITU_100G_1539_77	ITU-100G 1539.77
• ITU_100G_1540_56	ITU-100G 1540.56
• ITU_100G_1542_14	ITU-100G 1542.14
• ITU_100G_1542_94	ITU-100G 1542.94
• ITU_100G_1543_73	ITU-100G 1543.73
• ITU_100G_1544_53	ITU-100G 1544.53
• ITU_100G_1546_12	ITU-100G 1546.12
• ITU_100G_1546_92	ITU-100G 1546.92
• ITU_100G_1547_72	ITU-100G 1547.72
• ITU_100G_1548_51	ITU-100G 1548.51
• ITU_100G_1550_12	ITU-100G 1550.12

**Table 21-90 RTRV-FSTE Output Parameters (continued)**

Parameter and Values	Description
• ITU_100G_1550_92	ITU-100G 1550.92
• ITU_100G_1551_72	ITU-100G 1551.72
• ITU_100G_1552_52	ITU-100G 1552.52
• ITU_100G_1554_13	ITU-100G 1554.13
• ITU_100G_1554_94	ITU-100G 1554.94
• ITU_100G_1555_75	ITU-100G 1555.75
• ITU_100G_1556_55	ITU-100G 156.55
• ITU_100G_1558_17	ITU-100G 1558.17
• ITU_100G_1558_98	ITU-100G 1558.98
• ITU_100G_1559_79	ITU-100G 1559.79
• ITU_100G_1560_61	ITU-100G 1560.61
• UNKNOWN	Unknown Optical Type
• UNPLUGGED	Unplugged
<b>NAME</b>	Name. String. Optional
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1 minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS state, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>PST_PSTQ</b>	Admin state in the PST-PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled

**Table 21-90** RTRV-FSTE Output Parameters (continued)

Parameter and Values	Description
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.46 RTRV-G1000

Retrieve G1000 Facility

### Usage Guidelines

Cisco ONS 15454

This command retrieves the G1000 facilities configuration.

### Category

Ports

### Security

Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-ALMTH-<MOD2>
	RLS-LPBK-<MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format** RTRV-G1000:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-G1000:TID:FAC-1-1:CTAG;

## Input Parameters

Table 21-91 RTRV-G1000 Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[MFS=<MFS>],[FLOW=<FLOW>],[LAN=<LAN>],[OPTICS=<OPTICS>],
[TRANS=<TRANS>],[TPORT=<TPORT>],[LOWMRK=<LOWMRK>],
[HIWMRK=<HIWMRK>],[AUTONEG=<AUTONEG>],[ENCAP=<ENCAP>],
[NAME=<NAME>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>]:<PST_PSTQ>,<SSTQ>”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1::MFS=9032,FLOW=N,LAN=ASYMMETRIC,OPTICS=UNKNOWN,TRANS=NONE,
TPORT=FAC-5-1,LOWMRK=20,HIWMRK=492,AUTONEG=Y,ENCAP=GFP_T,
NAME=\“G1000 PORT\”,SOAK=32,SOAKLEFT=\“12-25\”:OOS-AU,AINS”
;
```

## Output Parameters

Table 21-92 RTRV-G1000 Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
MFS	Maximum frame size Parameter type is MFS_TYPE—maximum frame size used by an Ethernet card
• 1548	Normal frame size
• JUMBO	Jumbo frame size
FLOW	Flow control Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
LAN	Local-area network. Optional Parameter type is FLOW—the type of flow control that has been negotiated for an Ethernet port
• ASYMMETRIC	Asymmetric flow control
• ASYMMETRIC_LOCAL	Asymmetric local flow control
• NONE	No flow control



**Table 21-92 RTRV-G1000 Output Parameters (continued)**

Parameter and Values	Description
• SYMMETRIC	Symmetric flow control
<b>OPTICS</b>	GBIC type. Optional Parameter type is OPTICS—type of Gigabit Ethernet optics being used
• 1000_BASE_CX	1000 Base CX
• 1000_BASE_LX	1000 Base LX
• 1000_BASE_SX	1000 Base SX
• 1000_BASE_ZX	1000 Base ZX
• CWDM_1470	CWDM 1470
• CWDM_1490	CWDM 1490
• CWDM_1510	CWDM 1510
• CWDM_1530	CWDM 1530
• CWDM_1550	CWDM 1550
• CWDM_1570	CWDM 1570
• CWDM_1590	CWDM 1590
• CWDM_1610	CWDM 1610
• ITU_100G_1530_33	ITU-100G 1530.33
• ITU_100G_1531_12	ITU-100G 1531.12
• ITU_100G_1531_90	ITU-100G 1531.90
• ITU_100G_1532_68	ITU-100G 1532.68
• ITU_100G_1534_25	ITU-100G 1534.25
• ITU_100G_1535_04	ITU-100G 1535.04
• ITU_100G_1535_82	ITU-100G 1535.82
• ITU_100G_1536_61	ITU-100G 1536.61
• ITU_100G_1538_19	ITU-100G 1538.19
• ITU_100G_1538_98	ITU-100G 1538.98
• ITU_100G_1539_77	ITU-100G 1539.77
• ITU_100G_1540_56	ITU-100G 1540.56
• ITU_100G_1542_14	ITU-100G 1542.14
• ITU_100G_1542_94	ITU-100G 1542.94
• ITU_100G_1543_73	ITU-100G 1543.73
• ITU_100G_1544_53	ITU-100G 1544.53
• ITU_100G_1546_12	ITU-100G 1546.12
• ITU_100G_1546_92	ITU-100G 1546.92
• ITU_100G_1547_72	ITU-100G 1547.72
• ITU_100G_1548_51	ITU-100G 1548.51

Table 21-92 RTRV-G1000 Output Parameters (continued)

Parameter and Values	Description
• ITU_100G_1550_12	ITU-100G 1550.12
• ITU_100G_1550_92	ITU-100G 1550.92
• ITU_100G_1551_72	ITU-100G 1551.72
• ITU_100G_1552_52	ITU-100G 1552.52
• ITU_100G_1554_13	ITU-100G 1554.13
• ITU_100G_1554_94	ITU-100G 1554.94
• ITU_100G_1555_75	ITU-100G 1555.75
• ITU_100G_1556_55	ITU-100G 156.55
• ITU_100G_1558_17	ITU-100G 1558.17
• ITU_100G_1558_98	ITU-100G 1558.98
• ITU_100G_1559_79	ITU-100G 1559.79
• ITU_100G_1560_61	ITU-100G 1560.61
• UNKNOWN	Unknown Optical Type
• UNPLUGGED	Unplugged
<b>TRANS</b>	Transponder mode. Optional Parameter type is TRANS_MODE—G1000 transponder mode
• BI	Bidirectional
• NONE	Not in transponder mode
• UNI	Unidirectional
<b>TPORT</b>	Transponding port access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. Optional
<b>LOWMRK</b>	Low watermark value. Integer. Optional
<b>HIWMRK</b>	High watermark value. Integer. Optional
<b>AUTONEG</b>	Automatic negotiation. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>ENCAP</b>	Frame encapsulation type. Optional Parameter type is ENCAP—frame encapsulation type
• GFP_F	GFP frame mode
• GFP_T	GFP transparent mode
• HDLC	HDLC frame mode
• HDLC_LEX	HDLC LAN extension frame mode
• HDLC_X86	HDLC X.86 frame mode
<b>NAME</b>	Name. String. Optional
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional

Table 21-92 RTRV-G1000 Output Parameters (continued)

Parameter and Values	Description
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1-minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS state, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>PSTPSTQ</b>	Admin state in the PST-PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.47 RTRV-GFP

Retrieve Generic Framing Protocol

### Usage Guidelines

Cisco ONS 15454, 15310-CL, 15600

This command applies to the ONS 15454 CE-100T-8 card, the ONS 15454 FC\_MR-4 card, and the 15310-CL CE-100T-8 card.

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**Category** Ports

---

**Security** Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-ALMTH-<MOD2>
	RLS-LPBK-<MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format** RTRV-GFP:[<TID>]:<SRC>:<CTAG>;

**Input Example** RTRV-GFP:CISCO:FAC-1-1:123;

## Input Parameters

Table 21-93 RTRV-GFP Input Parameters

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null  <b>Note</b> VFAC AID is used for the CE-100T-8 cards on 15310-CL and 15454. ML-100T-8 GFP management is done by the Cisco IOS CLI and not by the TL1 interface. FAC AID is used for 15454 FC_MR-4

## Output Format

```
SID DATE TIME
M CTAG COMPLD
"<AID>::[FCS=<FCS>],[AUTOTHGFPBUF=<AUTOTHGFPBUF>],
[GFPBUF=<GFPBUF>],[FILTER=<FILTER>]"
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"FAC-1-1::FCS=FCS-32,AUTOTHGFPBUF=Y,GFPBUF=16,FILTER=EGRESS"
;
```

## Output Parameters

Table 21-94 RTRV-GFP Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>FCS</b>	Payload frame check sequence. Optional Parameter type is FCS—frame check sequence
<ul style="list-style-type: none"> <li>FCS-16</li> <li>FCS-32</li> <li>NONE</li> </ul>	<ul style="list-style-type: none"> <li>Frame check sequencing using 16 bits</li> <li>Frame check sequencing using 32 bits</li> <li>No frame check sequence</li> </ul>
<b>AUTOTHGFPBUF</b>	Flag used to indicate whether PDI-P should be generated on the outgoing VT-structured STSs. Optional Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> <li>N</li> <li>Y</li> </ul>	<ul style="list-style-type: none"> <li>Disable an attribute</li> <li>Enable an attribute</li> </ul>
<b>GFPBUF</b>	Integer. Optional
<b>FILTER</b>	Optional. Parameter type is GFP_FILTER—filter
<ul style="list-style-type: none"> <li>EGRESS</li> <li>NONE</li> </ul>	<ul style="list-style-type: none"> <li>Activate filter on egress port</li> <li>Turn off filter</li> </ul>

## 21.48 RTRV-GIGE

Retrieve Gigabit Ethernet

---

**Usage Guidelines**

Cisco ONS 15454, 15600

This command retrieves the front end port information for a 1 GIG Ethernet card.

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**Category**

Ports

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**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<OCN_TYPE>	RMV-<MOD2>
ED-<GIGE_TYPE>	RST-<MOD2>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
ED-ALS	RTRV-10GIGE
ED-DS1	RTRV-ALMTH-<MOD2>
ED-EC1	RTRV-ALS
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-DS1
ED-FFP-<OCN_TYPE>	RTRV-EC1
ED-FSTE	RTRV-FAC
ED-G1000	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-GFP	RTRV-FFP-<OCN_TYPE>
ED-HDLC	RTRV-FSTE
ED-POS	RTRV-G1000
ED-T1	RTRV-GFP
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>

**Input Format**

RTRV-GIGE:[<TID>]:<AID>:<CTAG>;

**Input Example**

RTRV-GIGE:TID:FAC-1-1:CTAG;



## Input Parameters

Table 21-95 RTRV-GIGE Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>:.,<ROLE>,<STATUS>:[ADMINSTATE=<ADMINSTATE>],
[LINKSTATE=<LINKSTATE>],[MTU=<MTU>],[ENCAP=<ENCAP>],
[FLOWCTRL=<FLOWCTRL>],[OPTICS=<OPTICS>],[DUPLEX=<DUPLEX>],
[SPEED=<SPEED>],[NAME=<NAME>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1:.,WORK,ACT:ADMINSTATE=DOWN,LINKSTATE=DOWN,MTU=1500,
ENCAP=GFP-F,FLOWCTRL=SYMMETRIC,OPTICS=1000_BASE_SX,DUPLEX=AUTO,
SPEED=AUTO,NAME="GIGE PORT",FREQ=1550,LOSSB=SX”
;
```

## Output Parameters

Table 21-96 RTRV-GIGE Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
ROLE	Identifies the port role in a Y-cable protection scheme Parameter type is SIDE—the role the unit is playing in the protection group
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group
STATUS	Identifies a port status in a Y-cable protection scheme Parameter type is STATUS—the status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
ADMINSTATE	Administration type. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up

**Table 21-96 RTRV-GIGE Output Parameters (continued)**

Parameter and Values	Description
<b>LINKSTATE</b>	Link protocol. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up
<b>MTU</b>	Maximum transmission unit. Integer. Optional
<b>ENCAP</b>	Encapsulation frame type. Optional Parameter type is ENCAP—frame encapsulation type
• GFP_F	GFP Frame Mode
• GFP_T	GFP Transparent Mode
• HDLC	HDLC Frame Mode
• HDLC_LEX	HDLC LAN Extension Frame Mode
• HDLC_X86	HDLC X.86 Frame Mode
<b>FLOWCTRL</b>	Flow control. Optional Parameter type is FLOW—the type of flow control that has been negotiated for an Ethernet port
• ASYMMETRIC	Asymmetric flow control
• ASYMMETRIC_LOCAL	Asymmetric local flow control
• NONE	No flow control
• SYMMETRIC	Symmetric flow control
<b>OPTICS</b>	Optics type. Optional Parameter type is OPTICS—type of Gigabit Ethernet optics being used
• 1000_BASE_CX	1000 Base CX
• 1000_BASE_LX	1000 Base LX
• 1000_BASE_SX	1000 Base SX
• 1000_BASE_ZX	1000 Base ZX
• CWDM_1470	CWDM 1470
• CWDM_1490	CWDM 1490
• CWDM_1510	CWDM 1510
• CWDM_1530	CWDM 1530
• CWDM_1550	CWDM 1550
• CWDM_1570	CWDM 1570
• CWDM_1590	CWDM 1590
• CWDM_1610	CWDM 1610
• ITU_100G_1530_33	ITU-100G 1530.33
• ITU_100G_1531_12	ITU-100G 1531.12
• ITU_100G_1531_90	ITU-100G 1531.90

**Table 21-96 RTRV-GIGE Output Parameters (continued)**

Parameter and Values	Description
• ITU_100G_1532_68	ITU-100G 1532.68
• ITU_100G_1534_25	ITU-100G 1534.25
• ITU_100G_1535_04	ITU-100G 1535.04
• ITU_100G_1535_82	ITU-100G 1535.82
• ITU_100G_1536_61	ITU-100G 1536.61
• ITU_100G_1538_19	ITU-100G 1538.19
• ITU_100G_1538_98	ITU-100G 1538.98
• ITU_100G_1539_77	ITU-100G 1539.77
• ITU_100G_1540_56	ITU-100G 1540.56
• ITU_100G_1542_14	ITU-100G 1542.14
• ITU_100G_1542_94	ITU-100G 1542.94
• ITU_100G_1543_73	ITU-100G 1543.73
• ITU_100G_1544_53	ITU-100G 1544.53
• ITU_100G_1546_12	ITU-100G 1546.12
• ITU_100G_1546_92	ITU-100G 1546.92
• ITU_100G_1547_72	ITU-100G 1547.72
• ITU_100G_1548_51	ITU-100G 1548.51
• ITU_100G_1550_12	ITU-100G 1550.12
• ITU_100G_1550_92	ITU-100G 1550.92
• ITU_100G_1551_72	ITU-100G 1551.72
• ITU_100G_1552_52	ITU-100G 1552.52
• ITU_100G_1554_13	ITU-100G 1554.13
• ITU_100G_1554_94	ITU-100G 1554.94
• ITU_100G_1555_75	ITU-100G 1555.75
• ITU_100G_1556_55	ITU-100G 156.55
• ITU_100G_1558_17	ITU-100G 1558.17
• ITU_100G_1558_98	ITU-100G 1558.98
• ITU_100G_1559_79	ITU-100G 1559.79
• ITU_100G_1560_61	ITU-100G 1560.61
• UNKNOWN	Unknown Optical Type
• UNPLUGGED	Unplugged
<b>DUPLEX</b>	Duplex mode. Optional Parameter type is ETHER_DUPLEX—duplex mode
• AUTO	Auto mode
• FULL	Full mode
• HALF	Half mode

**Table 21-96 RTRV-GIGE Output Parameters (continued)**

Parameter and Values	Description
<b>SPEED</b>	Speed. Optional Parameter type is ALS_MODE—automatic laser shutdown
• AUTO	Automatic
• DISABLED	Disabled
• MAN	Manual
• MAN-RESTART	Manual restart for test
<b>NAME</b>	Name. String. Optional
<b>FREQ</b>	Optional. Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27

**Table 21-96 RTRV-GIGE Output Parameters (continued)**

<b>Parameter and Values</b>	<b>Description</b>
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>LOSSB</b>	Optional. Parameter type is REACH—reach values
• AUTOPROV	Autoprovisioning
• CX	Reach CX
• DX	Reach DX
• HX	Reach HX
• I1	Reach I1
• IR-1	Reach IR-1
• IR-2	Reach IR-2
• L1	Reach L1
• L2	Reach L2
• L3	Reach L3
• LR-1	Reach LR-1
• LR-2	Reach LR-2
• LR-3	Reach LR-3
• LX	Reach LX
• S1	Reach S1
• S2	Reach S2
• SR	Reach SR
• SR-1	Reach SR-1
• SX	Reach SX
• T	Reach T
• VX	Reach VX
• ZX	Reach ZX

## 21.49 RTRV-HDLC

Retrieve High-Level Data Link Control

---

**Usage Guidelines**

Cisco ONS 15600

This command retrieves HDLC-related attributes.

---

**Category**

Ports

---

**Security**

Retrieve

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GFP
	ED-T1	RTRV-GIGE
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-ALMTH-<MOD2>
	RLS-LPBK-<MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format** RTRV-HDLC:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-HDLC:TID:VFAC-SLOT-PORT:CTAG;

**Input Parameters****Table 21-97 RTRV-HDLC Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. The ONS 15600 ASAP card uses the VFAC AID

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[FCS=<FCS>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“VFAC-SLOT-PORT::FCS=FCS-16”
;
```

**Output Parameters****Table 21-98 RTRV-HDLC Output Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. The ONS 15600 ASAP card uses the VFAC AID
FCS	Payload frame check sequence. Optional Parameter type is FCS—frame check sequence
<ul style="list-style-type: none"> <li>FCS-16</li> <li>FCS-32</li> <li>NONE</li> </ul>	<ul style="list-style-type: none"> <li>Frame check sequencing using 16 bits</li> <li>Frame check sequencing using 32 bits</li> <li>No frame check sequence</li> </ul>

## 21.50 RTRV-HDR

Retrieve Header

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the header of a TL1 response message. It is used by TL1 clients to determine if the link to the NE is still active and if the NE is responding to commands.

**Category**

System

**Security**

Retrieve



Related Commands	ACT-USER	ED-TRAPTABLE	RTRV-NE-APC
	ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-GEN
	ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-IPMAP
	ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-PATH
	COPY-RFILE	INH-MSG-SECU	RTRV-NE-SYNCN
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	REPT EVT FXFR	RTRV-TOD
	ED-NE-GEN	RTRV-INV	RTRV-TRAPTABLE
	ED-NE-PATH	RTRV-MAP-NETWORK	SET-TOD
	ED-NE-SYNCN		

**Input Format** RTRV-HDR:[<TID>]::<CTAG>;

**Input Example** RTRV-HDR:SONOMA::232;

#### Input Parameters

**Table 21-99 RTRV-HDR Input Parameters**

Parameter and Values	Description
—	

## 21.51 RTRV-INV

Retrieve Inventory

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves a list of the equipment inventory. For each unit in the system, the list identifies the unit's firmware numbers and CLEI codes, and the system's product ID and version ID. This command also retrieves the inventory information from pluggable modules using the AID PPM-SLOT-PORT format.

**Category** System

**Security** Retrieve

Related Commands			
	ACT-USER	ED-TRAPTABLE	RTRV-NE-APC
	ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-GEN
	ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-IPMAP
	ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-PATH
	COPY-RFILE	INH-MSG-SECU	RTRV-NE-SYNCN
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	REPT EVT FXFR	RTRV-TOD
	ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
	ED-NE-PATH	RTRV-MAP-NETWORK	SET-TOD
	ED-NE-SYNCN		

**Input Format** RTRV-INV:[<TID>]:<AID>:<CTAG>[:::];

**Input Example** RTRV-INV:OCCIDENTAL:SLOT-15:301;

### Input Parameters

**Table 21-100 RTRV-INV Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.13 EQPT” section on page 25-27 or the “25.1.1 ALL” section on page 25-1. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>,<AIDTYPE>::[PLUGTYPE=<PLUGTYPE>],[PN=<PN>],[HWREV=<HWREV>],
[FWREV=<FWREV>],[SN=<SN>],[CLEI=<CLEI>],[TWL1=<TWL>],[TWL2=<TWL1>],
[TWL3=<TWL2>],[TWL4=<TWL3>],[PLUGINVENDORID=<PLUGINVENDORID>],
[PLUGINPN=<PLUGINPN>],[PLUGINHWREV=<PLUGINHWREV>],
[PLUGINFWREV=<PLUGINFWREV>],[PLUGINSN=<PLUGINSN>],
[ILOSSREF=<ILOSSREF>],[PID=<PID>],[VID=<VID>],[FPGA=<FPGA>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SLOT-15,OC3-IR-4::PLUGTYPE=SX-IR-SW-SN,PN=87-31-00002,HWREV=004K,
FWREV=76-99-00009-004A,SN=013510,CLEI=NOCLEI,TWL1=1546.12,TWL2=1546.92,
TWL3=1547.72,TWL4=1548.51,PLUGINVENDORID=012345,PLUGINPN=ABCDE,
PLUGINHWREV=ABCDE,PLUGINFWREV=01-02-03,PLUGINSN=01234,ILOSSREF=1.0,
PID=CISCO_ONS15454,VID=V01,FPGA=F451”
;
```

**Output Parameters****Table 21-101 RTRV-INV Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27
<b>AIDTYPE</b>	Specifies the type of (AID) facility, link or other addressable entity targeted by the message. String
<b>PLUGTYPE</b>	The type of plug-in. String. Optional
<b>PN</b>	Hardware part number. String. Optional
<b>HWREV</b>	Hardware revision. String. Optional
<b>FWREV</b>	Firmware revision. String. Optional
<b>SN</b>	Serial number. String. Optional
<b>CLEI</b>	Common language equipment identifier code for the equipment. String. Optional
<b>TWL1</b>	Tunable wavelength 1. Optional. (See OPTICAL_WLEN parameter below)
<b>TWL2</b>	Tunable wavelength 2. Optional. (See OPTICAL_WLEN parameter below)
<b>TWL3</b>	Tunable wavelength 3. Optional. (See OPTICAL_WLEN parameter below)
<b>TWL4</b>	Tunable wavelength 4. Optional Parameter type for TWL1, TWL2, TWL3, and TW4 is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10

Table 21-101 RTRV-INV Output Parameters (continued)

Parameter and Values	Description
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>PLUGINVENDORID</b>	Plugin vendor ID. Integer. Optional
<b>PLUGINPN</b>	Third-party plug-in module HW part number. Applicable only to the following cards: optical service channel cards, optical amplifier cards, dispersion compensation units, multiplexer and demultiplexer cards and OADM cards. String. Optional
<b>PLUGINHWREV</b>	Third-party plug-in module hardware revision. Applicable only to the following cards: optical service channel cards, optical amplifier cards, dispersion compensation units, multiplexer and demultiplexer cards and OADM cards. String. Optional
<b>PLUGINFWREV</b>	Third-party plug-in module firmware. Applicable only to the following cards: optical service channel cards, optical amplifier cards, dispersion compensation units, multiplexer and demultiplexer cards and OADM cards. String. Optional

**Table 21-101 RTRV-INV Output Parameters (continued)**

Parameter and Values	Description
<b>PLUGINSN</b>	Third-party plug-in module serial number. Applicable only to the following cards: optical service channel cards, optical amplifier cards, dispersion compensation units, multiplexer and demultiplexer cards and OADM cards. String. Optional
<b>ILOSSREF</b>	The insertion loss reference calculated by the unit as worst insertion loss of all the unit. Optional Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>• 0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>PID</b>	Product ID of the module. String. Optional
<b>VID</b>	Vendor ID. String. Optional
<b>FPGA</b>	FPGA version. String. Optional

## 21.52 RTRV-LNK

Retrieve Link

### Usage Guidelines

Cisco ONS 15454

This command retrieves all the (optical) links created in the NE. The end information is returned along with the type of (optical) link.

### Category

DWDM

### Security

Retrieve

### Related Commands

DLT-LNK-<MOD2O>      ENT-LNK-<MOD2O>      OPR-LNK  
ED-LNK-<MOD2O>

### Input Format

RTRV-LNK:[<TID>]::<CTAG>;

### Input Example

RTRV-LNK:PENNGROVE::114;

### Input Parameters

**Table 21-102 RTRV-LNK Input Parameters**

Parameter and Values	Description
—	

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<FROM>,<TO>::[OLNKT=<OLNKT>],[CTYPE=<CTYPE>],[RDIRN=<RDIRN>],
[BAND=<BAND>],[WLEN=<WLEN>]:<PST_PSTQ>,[<SST>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
"BAND=6-1-TX,BAND=13-1-RX::OLNKT=HITLESS,CTYPE=PROV,RDIRN=W_E,
BAND=1530.32-1532.68,WLEN=1530.32:OOS-AU,AINS"
;

```

**Output Parameters****Table 21-103 RTRV-LNK Output Parameters**

Parameter and Values	Description
<b>FROM</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Identifies an entity at one end of the optical link
<b>TO</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Identifies an entity at the other end of the optical link
<b>OLNKT</b>	Optical link type. Optional Parameter type is OPTICAL_LINK_TYPE—type of optical link between two optical facilities
<ul style="list-style-type: none"> <li>• ADD-DROP</li> </ul>	Link between two points that results in an add/drop connection from a drop point to an add point
<ul style="list-style-type: none"> <li>• HITLESS</li> </ul>	Link between two OMS points that results in a hitless connection from a drop point to an add point of a consecutive band/channel filter
<ul style="list-style-type: none"> <li>• OTS</li> </ul>	Link between two OTS points
<b>CTYPE</b>	The type of cross-connection. Indicates if the optical link is provisioned by the user or automatically created by the NE. Optional Parameter type is CREATION_TYPE—optical link creation type
<ul style="list-style-type: none"> <li>• AUTO</li> </ul>	Automatically created by the NE
<ul style="list-style-type: none"> <li>• PROV</li> </ul>	Provisioned by the user
<b>RDIRN</b>	Ring directionality of the optical line. Optional Parameter type is RDIRN_MODE—the optical ring directionality
<ul style="list-style-type: none"> <li>• E-W</li> </ul>	The direction of the signal is from east to west (clockwise)
<ul style="list-style-type: none"> <li>• W-E</li> </ul>	The direction of the signal is from west to east (counterclockwise)
<b>BAND</b>	The optical band (group of four contiguous wavelengths) for this optical link. BAND is optional and present only when there is a link between two OMS entities Parameter type is OPTICAL_BAND—optical band

**Table 21-103 RTRV-LNK Output Parameters (continued)**

Parameter and Values	Description
• 1530.33 to 1532.68	Band 1
• 1534.25 to 1536.61	Band 2
• 1538.19 to 1540.56	Band 3
• 1542.14 to 1544.53	Band 4
• 1546.12 to 1548.51	Band 5
• 1550.12 to 1552.52	Band 6
• 1554.13 to 1556.55	Band 7
• 1558.17 to 1560.61	Band 8
• USE-DEFAULT	This band is not yet configured/retrieved from unit
<b>WLEN</b>	Optical wavelength for this optical link. WLEN is present only when there is a link between two OCH entities. Option
	Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24

Table 21-103 RTRV-LNK Output Parameters (continued)

Parameter and Values	Description
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
• IS_NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SST</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.53 RTRV-LNK-<MOD20>

Retrieve Optical Link (OCH, OMS, OTS)

### Usage Guidelines

Cisco ONS 15454

This command retrieves any optical link associated with the entered AIDs or AID range. The end information is returned along with the type of optical link.



**Category** DWDM

**Security** Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-SLV-WDMANS	RLS-PROTNSW-OCH
	ED-LNK-<MOD2O>	ENT-LNK-<MOD2O>	RTRV-DWDM
	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNKTERM
	DLT-OSC	ED-WLEN	RTRV-NE-WDMANS
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-OCH
	ED-DWDM	ENT-LNKTERM	RTRV-OMS
	ED-FFP-OCH	ENT-OSC	RTRV-OSC
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OTS
	ED-LNKTERM	OPR-LASER-OTS	RTRV-PROTNSW-OCH
	ED-OCH	OPR-PROTNSW-OCH	RTRV-SLV-WDMANS
	ED-OMS	OPR-SLV-WDMANS	RTRV-TRC-OCH
	ED-OSC	OPR-WDMANS	RTRV-WDMANS
	ED-OTS	RLS-LASER-OTS	RTRV-WLEN

**Input Format** RTRV-LNK-<MOD2O>:[<TID>]:<AID>:<CTAG>:::[OLNKT=<OLNKT>],[CTYPE=<CTYPE>],[RDIRN=<RDIRN>];

**Input Example** RTRV-LNK-OMS:PENNGROVE:ALL:114:::OLNKT=HITLESS,CTYPE=AUTO,RDIRN=W-E;

### Input Parameters

**Table 21-104 RTRV-LNK-<MOD2O> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.4 BAND</a> ” section on page 25-13. Identifies facilities to check for optical link membership. It can be an OPTICAL_AID AID or an ALL AID. The ALL AID defaults to NE, which reports all the existing optical links of the NE. Must not be null
<b>OLNKT</b>	Optical link type. A null value is equivalent to ALL Parameter type is OPTICAL_LINK_TYPE—type of optical link between two optical facilities
<ul style="list-style-type: none"> <li>• ADD-DROP</li> </ul>	Link between two points that results in an add/drop connection from a drop point to an add point

**Table 21-104** RTRV-LNK-*<MOD20>* Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>HITLESS</li> </ul>	Link between two OMS points that results in a hitless connection from a drop point to an add point of a consecutive band/channel filter
<ul style="list-style-type: none"> <li>OTS</li> </ul>	Link between two OTS points
<b>CTYPE</b>	The type of cross-connection. Indicates if the optical link is provisioned by the user or automatically created by the NE. A null value is equivalent to ALL Parameter type is CREATION_TYPE—optical link creation type
<ul style="list-style-type: none"> <li>AUTO</li> <li>PROV</li> </ul>	Automatically created by the NE Provisioned by the user
<b>RDIRN</b>	Ring directionality of the optical line. A null value is equivalent to ALL Parameter type is RDIRN_MODE—the optical ring directionality
<ul style="list-style-type: none"> <li>E-W</li> <li>W-E</li> </ul>	The direction of the signal is from east to west (clockwise) The direction of the signal is from west to east (counterclockwise)

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<FROM>,<TO>::[OLNKT=<OPTICALLINKTYPE>],[CTYPE=<CREATIONTYPE>],
[RDIRN=<RDIRN>],[BAND=<BAND>],[WLEN=<WLEN>]:<PST_PSTQ>,<SST>"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
"BAND-6-1-TX,BAND-13-1-RX::OLNKT=HITLESS,CTYPE=PROV,RDIRN=W_E,
BAND=1530.32-1532.68,WLEN=1530.32:OOS-AU,AINS"
;

```

**Output Parameters****Table 21-105** RTRV-LNK-*<MOD20>* Output Parameters

Parameter and Values	Description
<b>FROM</b>	Access identifier from the <a href="#">“25.1.4 BAND”</a> section on page 25-13. Identifies an entity at one end of the optical link
<b>TO</b>	Access identifier from the <a href="#">“25.1.4 BAND”</a> section on page 25-13. Identifies an entity at the other end of the optical link
<b>OPTICALLINKTYPE</b>	Optical link type. Optional Parameter type is OPTICAL_LINK_TYPE—type of optical link between two optical facilities

Table 21-105 RTRV-LNK-&lt;MOD20&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>ADD-DROP</li> </ul>	Link between two points that results in an add/drop connection from a drop point to an add point
<ul style="list-style-type: none"> <li>HITLESS</li> </ul>	Link between two OMS points that results in a hitless connection from a drop point to an add point of a consecutive band/channel filter
<ul style="list-style-type: none"> <li>OTS</li> </ul>	Link between two OTS points
<b>CREATIONTYPE</b>	Indicates if the optical link is provisioned by the user or automatically created by the NE. Optional Parameter type is CREATION_TYPE—optical link creation type
<ul style="list-style-type: none"> <li>AUTO</li> </ul>	Automatically created by the NE
<ul style="list-style-type: none"> <li>PROV</li> </ul>	Provisioned by the user
<b>RDIRN</b>	Ring directionality of the optical line. Optional Parameter type is RDIRN_MODE—the optical ring directionality
<ul style="list-style-type: none"> <li>E-W</li> </ul>	The direction of the signal is from east to west (clockwise)
<ul style="list-style-type: none"> <li>W-E</li> </ul>	The direction of the signal is from west to east (counterclockwise)
<b>BAND</b>	The optical band (group of four contiguous wavelengths) for this optical link. BAND is optional and present only when there is a link between two OMS entities Parameter type is OPTICAL_BAND—optical band
<ul style="list-style-type: none"> <li>1530.33 to 1532.68</li> </ul>	Band 1
<ul style="list-style-type: none"> <li>1534.25 to 1536.61</li> </ul>	Band 2
<ul style="list-style-type: none"> <li>1538.19 to 1540.56</li> </ul>	Band 3
<ul style="list-style-type: none"> <li>1542.14 to 1544.53</li> </ul>	Band 4
<ul style="list-style-type: none"> <li>1546.12 to 1548.51</li> </ul>	Band 5
<ul style="list-style-type: none"> <li>1550.12 to 1552.52</li> </ul>	Band 6
<ul style="list-style-type: none"> <li>1554.13 to 1556.55</li> </ul>	Band 7
<ul style="list-style-type: none"> <li>1558.17 to 1560.61</li> </ul>	Band 8
<ul style="list-style-type: none"> <li>USE-DEFAULT</li> </ul>	This band is not yet configured/retrieved from unit
<b>WLEN</b>	Optical wavelength for this optical link. WLEN is present only when there is a link between two OCH entities. Optional Parameter type is OPTICAL_WLEN—optical wavelength
<ul style="list-style-type: none"> <li>1530.33</li> </ul>	Wavelength 1
<ul style="list-style-type: none"> <li>1531.12</li> </ul>	Wavelength 2
<ul style="list-style-type: none"> <li>1531.90</li> </ul>	Wavelength 3
<ul style="list-style-type: none"> <li>1532.68</li> </ul>	Wavelength 4
<ul style="list-style-type: none"> <li>1534.25</li> </ul>	Wavelength 5
<ul style="list-style-type: none"> <li>1535.04</li> </ul>	Wavelength 6
<ul style="list-style-type: none"> <li>1535.82</li> </ul>	Wavelength 7

Table 21-105 RTRV-LNK-&lt;MOD20&gt; Output Parameters (continued)

Parameter and Values	Description
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
• IS_NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SST</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service

Table 21-105 RTRV-LNK-&lt;MOD20&gt; Output Parameters (continued)

Parameter and Values	Description
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.54 RTRV-LNKTERM

Retrieve Provisionable Patchcord Termination

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves information about one or more provisionable patchcord (PP) terminations.



#### Note

All the terminations can be retrieved using ALL or LNKTERM-ALL as the AID.



#### Note

If the PP termination does not exist, an error message will be returned.

### Category

Provisionable Patchcords

### Security

Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
	DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
	DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
	ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
	ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
	ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-LNKTERM:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-LNKTERM::LNKTERM-2:CTAG;

### Input Parameters

**Table 21-106 RTRV-LNKTERM Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.17 LNKTERM</a> ” section on <a href="#">page 25-32</a> . Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::PORT=<PORT>,[RE MOTENODE=<RE MOTENODE>],
[RE MOTELNKTERMID=<RE MOTELNKTERMID>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“LNKTERM-2::PORT=FAC-3-1,RE MOTENODE=172.20.221.225,RE MOTELNKTERMID=21”
;
```

**Output Parameters****Table 21-107 RTRV-LNKTERM Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.17 LNKTERM” section on page 25-32. Must not be null
<b>PORT</b>	Access identifier from the “25.1.2 AidUnionId” section on page 25-9
<b>REMOTENODE</b>	Remote node. String. Optional
<b>REMOTELNKTERMID</b>	Remote link term ID. Integer. Optional

## 21.55 RTRV-LOG

Retrieve Log

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the alarm log of the NE.

**Note**

The only option reported for LOGNM is ALARM.

**Category**

Log

**Security**

Retrieve

**Related Commands**

ALW-MSG-DBCHG                      INH-MSG-DBCHG                      REPT DBCHG

**Input Format**

RTRV-LOG:[&lt;TID&gt;]::&lt;CTAG&gt;::&lt;LOGNM&gt;;

**Input Example**

RTRV-LOG:CERENT::123::ALARM;

**Input Parameters****Table 21-108 RTRV-LOG Input Parameters**

Parameter and Values	Description
<b>LOGNM</b>	Log to be retrieved. Log name - ALARM. String. Must not be null

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AID>,<ALMNUMBER>:CURRENT=<CURRENT>,[PREVIOUS=<PREVIOUS>],
<CONDITION>,<SRVEFF>,[TIME=<OCRTIME>],[DATE=<OCRDAT>]:<ALMDESCR>"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
"FAC-3-1,18:CURRENT=MJ,PREVIOUS=CL,EOC,NSA,TIME=16-33-04,
DATE=1971-02-03:\“SDCC TERMINATION FAILURE\”"
;

```

**Output Parameters****Table 21-109 RTRV-LOG Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a>
<b>ALMNUMBER</b>	Alarm number of the log. Integer
<b>CURRENT</b>	Current severity Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
• CL	The condition causing the alarm has cleared
• CR	A critical alarm
• MJ	A major alarm
• MN	A minor alarm
• NA	The condition is not alarmed
• NR	The alarm is not reported
<b>PREVIOUS</b>	Previous severity. Optional Parameter type is COND_EFF—the state of the condition upon the affected unit
• CL	Standing condition cleared
• SC	Standing condition raised
• TC	Transient condition
<b>CONDITION</b>	Condition type for an alarm or a reported event Parameter type is CONDITION—any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, or ONS 15600 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 26, “Conditions”</a> for a list of conditions
<b>OCRTIME</b>	Time when alarm was triggered. Optional



**Table 21-109 RTRV-LOG Output Parameters (continued)**

Parameter and Values	Description
OCRDATE	Date when the specific event or violation occurred. Date when alarm was triggered. Optional
ALMDESCR	Alarm description. String

## 21.56 RTRV-MAP-NETWORK

Retrieve Map Network

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves all the NE attributes which are accessible from the GNE (gateway NE). The NE attributes include the node IP address (IPADDR), node name (TID), and the product type of the NE (PRODUCT).



### Note

The product type field in the response will appear as “unknown” for nodes that are not running the same version of software.

### Category

System

### Security

Retrieve

### Related Commands

ACT-USER	ED-TRAPTABLE	RTRV-NE-APC
ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-GEN
ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-IPMAP
ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-PATH
COPY-RFILE	INH-MSG-SECU	RTRV-NE-SYNCN
DLT-TRAPTABLE	INIT-SYS	RTRV-NE-WDMANS
ED-DAT	REPT EVT FXFR	RTRV-TOD
ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-INV	SET-TOD
ED-NE-SYNCN		

### Input Format

RTRV-MAP-NETWORK:[<TID>]::<CTAG>;

### Input Example

RTRV-MAP-NETWORK:CISCO::123;

**Input Parameters****Table 21-110 RTRV-MAP-NETWORK Input Parameters**

Parameter and Values	Description
—	

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<IPADDR>,<NODENAME>,<PRODUCT>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"172.20.222.225,TID-000,15454"
;
```

**Output Parameters****Table 21-111 RTRV-MAP-NETWORK Output Parameters**

Parameter and Values	Description
<b>IPADDR</b>	Node IP address. String
<b>NODENAME</b>	Node name (TID). String
<b>PRODUCT</b>	Product type of the NE Parameter type is PRODUCT_TYPE—product (NE) type
• ONS15310-CL	ONS 15310-CL
• ONS15327	ONS 15327
• ONS15454	ONS 15454
• ONS15455	ONS 15454 SDH
• ONS15600	ONS 15600
• UNKNOWN	Unknown product type

## 21.57 RTRV-NE-APC

Retrieve Network Amplification Power Control

**Usage Guidelines**

Cisco ONS 15454

This command retrieves the APC application ports involved in node set up regulation.

**Category**

System

**Security** Maintenance

Related Commands			
	ACT-USER	ED-TRAPTABLE	RTRV-MAP-NETWORK
	ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-GEN
	ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-IPMAP
	ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-PATH
	COPY-RFILE	INH-MSG-SECU	RTRV-NE-SYNCN
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	REPT EVT FXFR	RTRV-TOD
	ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
	ED-NE-PATH	RTRV-INV	SET-TOD
	ED-NE-SYNCN		

**Input Format** RTRV-NE-APC:[<TID>]:[<AID>]:<CTAG>;

**Input Example** RTRV-NE-APC:PENNGROVE:CHAN-16-1-RX:114;

### Input Parameters

**Table 21-112 RTRV-NE-APC Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14. A null value is equivalent to ALL

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>,<MOD>::[MODIFDAT=<MODIFDAT>],[MODIFTM=<MODIFTM>],
[CHECKDAT=<CHECKDAT>],[CHECKTM=<CHECKTM>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“CHAN-16-1-RX,OCH::MODIFDAT=04-11-02,MODIFTM=12-35-00,
CHECKDAT=04-11-02,CHECKTM=12-55-00”
;
```

## Output Parameters

Table 21-113 RTRV-NE-APC Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.7 CHANNEL” section on page 25-14
MOD	AID type Parameter type is MOD2O—facility types for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B cards
• OCH	Optical channel
• OMS	Optical multiplexer section
• OTS	Optical trace section
MODIFDAT	The last date when the APC application modified this port. The format of MODIFDAT is MM-DD, where MM (month of year) ranges from 1 to 12 and DD (day of month) ranges from 1 to 31. MODIFDAT is a Date. Optional
MODIFTM	The last time when the APC application modified this port. The format of MODIFTM is HH-MM, where HH (hour of day) ranges from 0 to 23 and MM (minute of hour) ranges from 0 to 59. MODIFTM is a time. Optional
CHECKDAT	The last date when the APC application controlled and validated this port. The format of CHECKDAT is MM-DD, where MM (month of year) ranges from 1 to 12 and DD (day of month) ranges from 1 to 31. CHECKDAT is a date. Optional
CHECKTM	The last time when the APC application controlled and validated this port. The format of CHECKTM is HH-MM, where HH (hour of day) ranges from 0 to 23 and MM (minute of hour) ranges from 0 to 59. CHECKTM is a time. Optional

## 21.58 RTRV-NE-GEN

Retrieve Network Element General

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the general NE attributes.



### Note

ETHIPADDR and ETHIPMASK are disabled in this command. ETHIPADDR and ETHIPMASK are used to show the Ethernet interface address and mask. Both default to the nodes' IP address and masks.

### Category

System

**Security** Retrieve

Related Commands	ACT-USER	INH-MSG-ALL	RTRV-NE-IPMAP
	ALW-MSG-ALL	INH-MSG-DBCHG	RTRV-NE-PATH
	ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-NE-SYCN
	ALW-MSG-SECU	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	RTRV-HDR	RTRV-TOD
	ED-NE-PATH	RTRV-INV	RTRV-TRAPTABLE
	ED-NE-SYCN	RTRV-NE-APC	SET-TOD

**Input Format** RTRV-NE-GEN:[<TID>]::<CTAG>;

**Input Example** RTRV-NE-GEN:CISCO::123;

#### Input Parameters

**Table 21-114 RTRV-NE-GEN Input Parameters**

Parameter and Values	Description
—	

#### Output Format

```
SID DATE TIME
M CTAG COMPLD
"[IPADDR=<IPADDR>],[IPMASK=<IPMASK>],[DEFRTR=<DEFRTR>],
[IOPPORT=<IOPPORT>],[NTP=<NTP>],[ETHIPADDR=<ETHIPADDR>],
[ETHIPMASK=<ETHIPMASK>],[NAME=<NAME>],[SWVER=<SWVER>],[LOAD=<LOAD>],
[PROTSWVER=<PROTSWVER>],[PROTLOAD=<PROTLOAD>],[DEFDESC=<DEFDESC>],
[PLATFORM=<PLATFORM>],[SECUMODE=<SECUMODE>],[SUPPRESSIP=<SUPPRESSIP>]"
;
```

#### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"IPADDR=192.168.100.52,IPMASK=255.255.255.0,DEFRTR=192.168.100.1,
IOPPORT=57970,NTP=192.168.100.52,ETHIPADDR=172.20.208.225,
ETHIPMASK=255.255.255.0,NAME="NODENAME",SWVER=2.01.03,
LOAD=02.13-E09A-08.15,PROTSWVER=2.01.02,PROTLOAD=02.12-E09A-09.25,
DEFDESC="\NE DEFAULTS FEATURE\ ",PLATFORM=15454-ANSI,SECUMODE=NORMAL,
SUPPRESSIP=YES"
;
```

## Output Parameters

Table 21-115 RTRV-NE-GEN Output Parameters

Parameter and Values	Description
IPADDR	Node IP address. String. Optional
IPMASK	Node IP mask. String. Optional
DEFRTR	Node default router. String. Optional
IIOPPORT	Node IIO port. Integer. Optional
NTP	Node NTP timing source address. String. Optional
ETHIPADDR	Not supported in this release
ETHIPMASK	Not supported in this release
NAME	Name. String. Optional
SWVER	Software version. String. Optional
LOAD	Load. String. Optional
PROTSWVER	Protect software version. String. Optional
PROTLOAD	Protect load. String. Optional
DEFDESC	Provides a default description for the NE String. Optional
PLATFORM	Platform. String. Optional
SECUMODE	Security mode of the NE. Optional Parameter type is NE_SECURE_MODE—security mode of the NE
<ul style="list-style-type: none"> <li>• REPEATER</li> </ul>	The front port and backplane are sharing the same IP network
<ul style="list-style-type: none"> <li>• SECURE</li> </ul>	The front port and backplane are independent and in different IP sub-networks
SUPPRESSIP	Optional. Parameter type is YES_NO—whether the user's password is about to expire, the user is logged into the NE, or the user is locked out of the NE
<ul style="list-style-type: none"> <li>• NO</li> </ul>	No
<ul style="list-style-type: none"> <li>• YES</li> </ul>	Yes

## 21.59 RTRV-NE-IPMAP

Retrieve Network Element Internet Protocol MAP

This command retrieves the IP address and node name of the NEs that have the DCC connection with this NE.



### Note

This command only reports the discovered DCC link. If there is no discovered DCC link on the port (or the node), the command will return COMPLD without IPMAP information.

### Category

Network

**Security** Retrieve

Related Commands	ACT-USER	INH-MSG-ALL	RTRV-NE-GEN
	ALW-MSG-ALL	INH-MSG-DBCHG	RTRV-NE-PATH
	ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-NE-SYNCN
	ALW-MSG-SECU	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	RTRV-HDR	RTRV-TOD
	ED-NE-PATH	RTRV-INV	RTRV-TRAPTABLE
	ED-NE-SYNCN	RTRV-NE-APC	SET-TOD

**Input Format** RTRV-NE-IPMAP:[<TID>]:[<AID>]:<CTAG>;

**Input Example** RTRV-NE-IPMAP:CISCO:FAC-12-1:123;

#### Input Parameters

**Table 21-116 RTRV-NE-IPMAP Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on <a href="#">page 25-28</a> . The port of an NE carrying the DCC connection. A null value defaults to the whole NE. A null value is equivalent to ALL

#### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>:<IPADDR>,<NODENAME>”
;
```

#### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-12-1:172.20.208.225,NODENAME2”
;
```

#### Output Parameters

**Table 21-117 RTRV-NE-IPMAP Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.14 FACILITY</a> ” section on <a href="#">page 25-28</a> . Port of an NE carrying the DCC connection
<b>IPADDR</b>	Node IP address. String
<b>NODENAME</b>	Network element name. String

## 21.60 RTRV-NE-PATH

Retrieve Network Element Path

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves the path-level attributes on an NE.

### Category

System

### Security

Retrieve

### Related Commands

ACT-USER	ED-TRAPTABLE	RTRV-INV
ALW-MSG-ALL	ENT-CRS-<PATH>	RTRV-MAP-NETWORK
ALW-MSG-DBCHG	ENT-ROLL-<MOD_PATH>	RTRV-NE-APC
ALW-MSG-SECU	ENT-TRAPTABLE	RTRV-NE-GEN
COPY-RFILE	INH-MSG-ALL	RTRV-NE-IPMAP
DLT-CRS-<PATH>	INH-MSG-DBCHG	RTRV-NE-SYNCN
DLT-ROLL-<MOD_PATH>	INH-MSG-SECU	RTRV-NE-WDMANS
DLT-TRAPTABLE	INIT-SYS	RTRV-PROTNSW-<PATH>
ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-CRS-<PATH>	REPT EVT FXFR	RTRV-ROLL-<MOD_PATH>
ED-DAT	RLS-PROTNSW-<PATH>	RTRV-TOD
ED-NE-GEN	RTRV-<PATH>	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-CRS-<PATH>	SET-TOD
ED-NE-SYNCN	RTRV-HDR	

### Input Format

RTRV-NE-PATH:[<TID>]::<CTAG>[:::];

### Input Example

RTRV-NE-PATH:::CTAG;

### Input Parameters

**Table 21-118 RTRV-NE-PATH Input Parameters**

Parameter and Values	Description
—	



**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“[PDIP=<PDIP>],[XCMODE=<XCMODE>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“PDIP=Y,XCMODE=MIXED”
;
```

**Output Parameters****Table 21-119 RTRV-NE-PATH Output Parameters**

Parameter and Values	Description
<b>PDIP</b>	Flag used to indicate whether PDI-P should be generated on the outgoing VT-structured STSs. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>XCMODE</b>	Cross-connect mode. Optional Parameter type is XCMODE—applicable only to a node with cross-connect cards that support cross-connect mode change
• MIXED	Both VT1 and VT2 cross-connects can be provisioned on the node
• VT1	Only VT1 cross-connects can be provisioned on the node
• VT2	Only VT2 cross-connects can be provisioned on the node

## 21.61 RTRV-NE-SYCN

Retrieve Network Element Synchronization

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the synchronization attributes of the NE.



### Note

- Although mixed mode timing is supported in this release, it is not recommended. Refer to the [Cisco ONS SONET TLI Reference Guide](#) for more information.
- The timing modes are:
  - External mode: the node derives its timing from the BITS inputs.
  - Line mode: the node derives its timing from the SONET line(s).
  - Mixed mode: the node derives its timing from the BITS input or SONET lines.

### Category

Synchronization

### Security

Retrieve

### Related Commands

ACT-USER	INH-MSG-ALL	RTRV-COND-BITS
ALW-MSG-ALL	INH-MSG-DBCHG	RTRV-COND-SYCN
ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-HDR
ALW-MSG-SECU	INIT-SYS	RTRV-INV
COPY-RFILE	OPR-SYCNNSW	RTRV-MAP-NETWORK
DLT-TRAPTABLE	REPT ALM BITS	RTRV-NE-APC
ED-BITS	REPT ALM SYCN	RTRV-NE-GEN
ED-DAT	REPT EVT BITS	RTRV-NE-IPMAP
ED-NE-GEN	REPT EVT FXFR	RTRV-NE-PATH
ED-NE-PATH	REPT EVT SYCN	RTRV-NE-WDMANS
ED-NE-SYCN	RLS-SYCNNSW	RTRV-SYCN
ED-SYCN	RTRV-ALM-BITS	RTRV-TOD
ED-TRAPTABLE	RTRV-ALM-SYCN	RTRV-TRAPTABLE
ENT-TRAPTABLE	RTRV-BITS	SET-TOD

### Input Format

RTRV-NE-SYCN:[<TID>]::<CTAG>[:::];

### Input Example

RTRV-NE-SYCN:CISCO::123;

**Input Parameters****Table 21-120 RTRV-NE-SYCN Input Parameters**

Parameter and Values	Description
—	

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“::[TMMD=<TMMD>],[SSMGEN=<SSMGEN>],[QRES=<QRES>],[RVRTV=<RVRTV>],
[RVTM=<RVTM>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“::TMMD=LINE,SSMGEN=GEN1,QRES=ABOVE-PRS,RVRTV=Y,RVTM=8.0”
;
```

**Output Parameters****Table 21-121 RTRV-NE-SYCN Output Parameters**

Parameter and Values	Description
<b>TMMD</b>	Timing mode. Optional Parameter type is TIMING_MODE—timing mode for the current node
• EXTERNAL	The node derives its clock from the BITS input
• LINE	The node derives its clock from the SONET lines
• MIXED	The node derives its clock from the mixed timing mode
<b>SSMGEN</b>	Synchronization status message generator. Optional Parameter type is SYNC_GENERATION—synchronization status message set generation
• GEN1	First generation SSM set
• GEN2	Second generation SSM set
<b>QRES</b>	Quality of the RES. Optional Parameter type is SYNC_QUALITY_LEVEL—network synchronization quality level
• ABOVE-G811	Better than G811
• ABOVE-STU_SDH	Between STU_SDH and G811 (default setting)
• ABOVE-G812T	Between G812T and STU_SDH
• ABOVE-G812L	Between G812L and G812T
• ABOVE-SETS	Between SETS and G812L
• BELOW-SETS	Below SETS but still usable
• SAME-AS-DUS_SDH	Disable the RES message by equating to DUS_SDH

Table 21-121 RTRV-NE-SYNCN Output Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes

## 21.62 RTRV-NE-WDMANS

Retrieve Network Element Wavelength Division Multiplexing Automatic Node Set Up

### Usage Guidelines

Cisco ONS 15454

This command retrieves the optical node set up (WDMANS) application ports involved in node set up regulation.

### Category

DWDM

### Security

Retrieve

Related Commands			
	ACT-USER	ENT-OSC	RTRV-HDR
	ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-INV
	ALW-MSG-DBCHG	ENT-WLEN	RTRV-LNK-<MOD2O>
	ALW-MSG-SECU	INH-MSG-ALL	RTRV-LNKTERM
	COPY-RFILE	INH-MSG-DBCHG	RTRV-MAP-NETWORK
	DLT-LNK-<MOD2O>	INH-MSG-SECU	RTRV-NE-APC
	DLT-LNKTERMDLT-OSC	ED-TRAPTABLE	RTRV-NE-GEN
	DLT-TRAPTABLE	ED-TRC-OCH	RTRV-NE-IPMAP
	DLT-WLEN	ED-WDMANS	RTRV-NE-PATH
	ED-DAT	ED-WLEN	RTRV-NE-SYNCN
	ED-DWDM	ENT-LNK-<MOD2O>	RTRV-OCH
	ED-FFP-OCH	ENT-LNKTERM	RTRV-OMS
	ED-LNK-<MOD2O>	INIT-SYS	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-NE-GEN	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-NE-PATH	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
	ED-NE-SYNCN	OPR-WDMANS	RTRV-TOD
	ED-OCH	REPT EVT FXFR	RTRV-TRAPTABLE
	ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-OTS	RTRV-DWDM	RTRV-WLEN
	ED-SLV-WDMANS	RTRV-FFP-OCH	SET-TOD

**Input Format** RTRV-NE-WDMANS:[<TID>]::<CTAG>;

**Input Example** RTRV-NE-WDMANS:PENNGROVE::114;

### Input Parameters

**Table 21-122 RTRV-NE-WDMANS Input Parameters**

Parameter and Values	Description
—	

### Output Format

SID DATE TIME  
M CTAG COMPLD  
“<AID>,<AIDTYPE>:::[REGULATED=<REGULATED>],[PARAM=<PARAM>]”  
;

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "CHAN-16-1-RX,OCH::REGULATED=OUT-OF-RANGE,PARAM=VOAATTN"
;
```

**Output Parameters****Table 21-123 RTRV-NE-WDMANS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.1 ALL</a> ” section on page 25-1. AID is port regulated
<b>AIDTYPE</b>	Specifies the type of facility, link, or other addressable entity targeted by the message. A type of access identifier Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC-3 facility
• OC12	OC-12 facility
• OC48	OC-48 facility
• OC192	OC-192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section

**Table 21-123 RTRV-NE-WDMANS Output Parameters (continued)**

Parameter and Values	Description
• OTS	Optical Transport Section
• POS	POS port
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>REGULATED</b>	The status of the port after a node set up regulation. Optional Parameter type is REGULATED_PORT_TYPE—optical configuration types for NEs
• FAILED	WDM-ANS encountered a failure while regulating this port
• NOT-APPLICABLE	WDM-ANS does not foresee any algorithm or does not have any value to set for the parameter
• OUT-OF-RANGE	WDM-ANS cannot modify the set point because the calculated value is out of the allowed range
• PORT-IN-SERVICE	WDM-ANS cannot modify the set point because the ports are in IS state
• REGULATED	WDM-ANS has successfully regulated this port
• UNCHANGED	WDM-ANS has not changed this port
<b>PARAM</b>	The regulated parameter inside of the specified port. Optional Parameter type is REGULATED_PARAM_NAME—the name of the parameter regulated by the WDMANS application
• AMPLMODE	WDM-ANS has regulated the amplifier control mode parameter
• CHPOWER	WDM-ANS has regulated the amplifier per the channel power parameter
• GAIN	WDM-ANS has regulated the amplifier gain parameter
• OPWR-LFAIL	WDM-ANS has regulated the OPWR-LFAIL threshold parameter
• REFTILT	WDM-ANS has regulated the amplifier tilt reference parameter

**Table 21-123 RTRV-NE-WDMANS Output Parameters (continued)**

Parameter and Values	Description
• VOAREFATTN	WDM-ANS has regulated the VOA attenuation reference parameter
• VOAREFPWR	WDM-ANS has regulated the VOA power reference parameter

## 21.63 RTRV-NETTYPE

Retrieve Network Element Type

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command retrieves the NE's equipment-related information.

### Category

System

### Security

Retrieve

### Related Commands

ACT-USER	ED-TRAPTABLE	RTRV-NE-GEN
ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-PATH
ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-SYNCN
DLT-TRAPTABLE	INH-MSG-SECU	RTRV-NE-WDMANS
ED-DAT	INIT-SYS	RTRV-TOD
ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
ED-NE-PATH	RTRV-INV	SET-TOD
ED-NE-SYNCN	RTRV-NE-APC	

### Input Format

RTRV-NETTYPE:[<TID>]::<CTAG>;

### Input Example

RTRV-NETTYPE:GAUR1::1;

### Input Parameters

**Table 21-124 RTRV-NETTYPE Input Parameters**

Parameter and Values	Description
—	



**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<VENDOR>,<MODEL>,<NETYPE>,<SW_ISSUE>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"CISCO,ONS15454,ADM&MSPP&MSTP,5.00.00"
;
```

**Output Parameters****Table 21-125 RTRV-NETTYPE Output Parameters**

Parameter and Values	Description
<b>VENDOR</b>	NE equipment vendor name. String
<b>MODEL</b>	NE equipment model Parameter type is PRODUCT_TYPE—product (NE) type
• ONS15310	ONS 15310-CL
• ONS15327	ONS 15327
• ONS15454	ONS 15454
• ONS15455	ONS 15454 SDH
• ONS15600	ONS 15600
• UNKNOWN	Unknown product type
<b>NETYPE</b>	NE equipment type. Abbreviation of NE type can be used. The grouping sign "&" can be used to indicate multifunction NE type, for example, ADM&MSPP means Add-Drop Multiplexers and Multi Service Provisioning Platform. Listable Parameter type is NETYPE—NE equipment type
• ADM	Add-Drop Multiplexers
• DCS	Digital Cross-Connect System
• MSPP	Multiservice Provisioning Platform
• MSSP	Multiservice Switching Platform
• MSTP	Multiservice Transport Platform
<b>SW_ISSUE</b>	The software release issue of the NE. String

## 21.64 RTRV-OCH

Retrieve Optical Channel

### Usage Guidelines

Cisco ONS 15454

This command retrieves the attributes (service parameters) and state of an OCH facility.

Refer to the [Cisco ONS SONET TL1 Reference Guide](#) for specific card provisioning rules.



### Note

Primary=OOS and secondary=AINS states do not apply to Ethernet mode.

### Category

DWDM

### Security

Retrieve

### Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
ED-FFP-OCH	ENT-OSC	RTRV-OMS
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

### Input Format

RTRV-OCH:[<TID>]:<AID>:<CTAG>;

### Input Example

RTRV-OCH:PENNGROVE:CHAN-6-2:236;

## Input Parameters

Table 21-126 RTRV-OCH Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.7 CHANNEL” section on page 25-14. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>:.,[<ROLE>],[<STATUS>]:[RDIRN=<RDIRN>],[OPTYPE=<OPTICALPORTTYPE>],
[OPWR=<POWER>],[EXPWLEN=<EXPWLEN>],[ACTWLEN=<ACTWLEN>],
[ILOSS=<ILOSS>],[VOAMODE=<VOAMODE>],[VOAATTN=<VOAATTN>],
[VOAPWR=<VOAPWR>],[VOAREFATTN=<VOAREFATTN>],
[VOAREFPWR=<VOAREFPWR>],[REFOPWR=<REFOPWR>],[CALOPWR=<CALOPWR>],
[CHPOWER=<CHPOWER>],[NAME=<PORTNAME>],[SFBER=<SFBER>],
[SDBER=<SDBER>],[COMM=<COMM>],[GCCRATE=<GCCRATE>],[DWRAP=<DWRAP>],
[FEC=<FEC>],[PAYLOADMAP=<PAYLOADMAP>],[OSFBER=<OSFBER>],
[OSDBER=<OSDBER>],[MACADDR=<MACADDR>],[SYNCMSG=<SYNCMSG>],
[SENDDUS=<SENDDUS>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[OSPF=<OSPF>],
[LBCL=<LBCL>],[OPT=<OPT>],[OPR=<OPR>]:<PST_PSTQ>,[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“CHAN-6-1:.,WORK,ACT:RDIRN=W-E,OPTYPE=DROP,OPWR=10.0,EXPWLEN=1530.33,
ACTWLEN=1530.33,ILOSS=1.0,VOAMODE=ATTN,VOAATTN=0.5,VOAPWR=0.0,
VOAREFATTN=3.5,VOAREFPWR=5.0,REFOPWR=10.5,CALOPWR=0,CHPOWER=2.0,
NAME=“NY PORT”,SFBER=1E-4,SDBER=1E-5,COMM=GCC,GCCRATE=192K,DWRAP=Y,
FEC=STD,PAYLOADMAP=ASYNCH,OSFBER=1E-4,OSDBER=1E-5,
MACADDR=00-0E-AA-BB-CC-FF,SYNCMSG=Y,SENDDUS=Y,SOAK=52,SOAKLEFT=12-25,
OSPF=Y,LBCL=10.0,OPT=10.0,OPR=10.0:OOS-AU,AINS”
;

```

## Output Parameters

Table 21-127 RTRV-OCH Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.7 CHANNEL” section on page 25-14
ROLE	Identifies an OCH port role. Optional Parameter type is SIDE—the role the unit is playing in the protection group
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
<b>STATUS</b>	The port status. Optional Parameter type is STATUS—the status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
<b>RDIRN</b>	Ring directionality of the optical channel. Optional Parameter type is RDIRN_MODE—the optical ring directionality
• E-W	The direction of the signal is from east to west (clockwise)
• W-E	The direction of the signal is from west to east (counterclockwise)
<b>OPTICALPORTTYPE</b>	The optical port type. Only applicable to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Optional Parameter type is OPTICAL_PORT_TYPE—qualifies the optical port of a card
• ADD	The signal is added to the port
• DROP	The signal is dropped from the port
• IN-COM	COM channels (without OSC) that continue the signal from the previous card
• IN-DC	Input DCU port
• IN-EXP	The express channel that continues the signal from the previous card
• IN-LINE	All the channels that continue the signal from the previous card
• IN-OSC	OSC channel that continues the signal from the previous card
• OUT-COM	COM channels (without OSC) that continue the signal to the next card
• OUT-DC	Output DCU port
• OUT-EXP	Express channel that continues the signal to the next card
• OUT-LINE	All the channels that continue the signal to the next card
• OUT-OSC	OSC channel that continue the signal to the next card
<b>POWER</b>	The optical power measured at this port. It can be the input or output power according to port type. Only applicable to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. String. Optional
<b>EXPWLEN</b>	Optical wavelength for this port. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. String. Optional Parameter type is OPTICAL_WLEN—optical wavelength. See values below

**Table 21-127 RTRV-OCH Output Parameters (continued)**

Parameter and Values	Description
<b>ACTWLEN</b>	The manufacturing optical wavelength for this port. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Optional Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>USE-TWL1</li> </ul>	Use Tunable Wavelength 1
<b>ILOSS</b>	Insertion loss expressed in dBm. ILOSS applies to output ports only on the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. String. Optional
<b>VOAMODE</b>	The working control mode of the VOA. Applies only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Optional  Parameter type is VOA_CNTR_MODE—defines the VOA control mode
<ul style="list-style-type: none"> <li>ATTN</li> </ul>	VOA has a fixed attenuation
<ul style="list-style-type: none"> <li>POWER</li> </ul>	VOA controls the attenuation to obtain a fixed output power
<b>VOAATTN</b>	The transit power attenuation for the variable optical attenuator (VOA) expressed in dBm. The range is -24.0 to +2.0 dBm for the MXP_2.5G_10G and TXP_MR_10G cards. String. Optional
<b>VOAPWR</b>	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Float. String. Optional
<b>VOAREFATTN</b>	The value of reference attenuation for the VOA. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Float. String. Optional
<b>VOAREFPWR</b>	The value of reference output power that the VOA is going to set as a result of its attenuation. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Float. String. Optional
<b>REFOPWR</b>	The value of the calculated optical power expected for the output line added to the calibration value which equals the total expected output power. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Float. String. Optional
<b>CALOPWR</b>	The value of the calibrated optical power expected for the output added to the calculated value which equals the total expected output power. Expressed in dBm. Defaults to 0 dBm. Applicable only to the following cards: OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B. Float. String. Optional.

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
<b>CHPOWER</b>	The value of per channel optical power expected to the OCH drop port of an AD-4C unit. CHPOWER is a float expressed in dBm Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>PORTNAME</b>	Port name. String. Optional
<b>SFBER</b>	Signal failure threshold for the SONET payload. Can only be provisioned on the working port. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
<ul style="list-style-type: none"> <li>1E-3</li> </ul>	SFBER is 1E-3
<ul style="list-style-type: none"> <li>1E-4</li> </ul>	SFBER is 1E-4
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SFBER is 1E-5
<b>SDBER</b>	Signal degrade threshold for the SONET payload. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SDBER is 1E-5
<ul style="list-style-type: none"> <li>1E-6</li> </ul>	SDBER is 1E-6
<ul style="list-style-type: none"> <li>1E-7</li> </ul>	SDBER is 1E-7
<ul style="list-style-type: none"> <li>1E-8</li> </ul>	SDBER is 1E-8
<ul style="list-style-type: none"> <li>1E-9</li> </ul>	SDBER is 1E-9
<b>COMM</b>	The GCC or DCC is enabled or disabled. The GCC can be enabled only if the digital wrapper has been enabled for the card. The default is NONE. For an MXP_2.5G_10G/TXP_MR_10G client port, only the DCC can be provisioned if the termination mode is not transparent and the payload is SONET. On an MXP_2.5G_10G/TXP_MR_10G DWDM port, the DCC can be enabled only if the G.709 is not enabled and if the payload is SONET and the termination mode is not transparent. On an MXP_2.5G_10G/TXP_MR_10G DWDM port, the GCC can be enabled if there is no DCC and the G.709 flag is enabled. Optional Parameter type is COMM_TYPE—out of band communications channel termination type
<ul style="list-style-type: none"> <li>DCC</li> </ul>	Section DCC type
<ul style="list-style-type: none"> <li>GCC</li> </ul>	Generic communication channel (OTN) type
<ul style="list-style-type: none"> <li>NONE</li> </ul>	Disable DCC or GCC if enabled
<b>GCCRATE</b>	The data rate of the GCC traffic. The default is 192 kbps. For MXP_2.5G_10G/TXP_MR_10G cards this applies only to the DWDM port. The 576K option is not supported in this release. Optional Parameter type is GCCRATE—the data rate of the GCC traffic
<ul style="list-style-type: none"> <li>192K</li> </ul>	192 kbps

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>576K</li> </ul>	576 kbps
<b>DWRAP</b>	<p>The G.709 digital wrapper. It is either on or off. The system default is ON. For MXP_2.5G_10G/TXP_MR_10G cards, this applies only to the DWDM port. Optional</p> <p>To enable G.709:</p> <ul style="list-style-type: none"> <li>There should be no GCC on the DWDM port</li> <li>The payload (where the card is configured) should not be UNFRAMED</li> </ul> <p>To disable G.709:</p> <ul style="list-style-type: none"> <li>There should be no GCC on the DWDM port</li> <li>The FEC should be off</li> <li>There should be no overhead circuit created on the DWDM port</li> <li>None of the client ports on the card should be part of a Y-cable protection group (muxponder only)</li> </ul> <p>Parameter type is ON_OFF—disable or enable an attribute</p>
<ul style="list-style-type: none"> <li>N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>Y</li> </ul>	Enable an attribute
<b>FEC</b>	<p>Forward error correction. It can be enabled only if the G.709 is turned ON. It is either off or enabled in standard or enhanced mode. The system default is standard FEC enabled. The FEC level PM and thresholds apply if the FEC is turned ON. Optional</p> <p>Parameter type is FEC_MODE—specifies the type of forward error correction</p>
<ul style="list-style-type: none"> <li>ENH</li> </ul>	Enhanced FEC is enabled
<ul style="list-style-type: none"> <li>OFF</li> </ul>	FEC is disabled
<ul style="list-style-type: none"> <li>STD</li> </ul>	Standard FEC is enabled
<b>PAYLOADMAP</b>	<p>The type of payload mapping. It can be enabled only if the G.709 is turned ON and FEC is enabled. Optional</p> <p>Parameter type is PAYLOAD_MAPPING—payload mapping mode</p>
<ul style="list-style-type: none"> <li>ASYNCH</li> </ul>	Asynchronous mapping mode
<ul style="list-style-type: none"> <li>ODU</li> </ul>	ODU multiplex structure mode
<ul style="list-style-type: none"> <li>SYNCH</li> </ul>	Synchronous mapping mode
<b>OSFBER</b>	<p>The signal failure threshold at the OTN level. Optional</p> <p>Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path</p>
<ul style="list-style-type: none"> <li>1E-3</li> </ul>	SFBER is 1E-3
<ul style="list-style-type: none"> <li>1E-4</li> </ul>	SFBER is 1E-4
<ul style="list-style-type: none"> <li>1E-5</li> </ul>	SFBER is 1E-5



Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
<b>OSDBER</b>	The signal degrade threshold at the OTN level. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
<b>MACADDR</b>	MAC address for the 10GigE payload. String. Optional
<b>SYNCMSG</b>	The facility be enabled to provide the synchronization clock. This does not apply to the TXP_MR_10G card. This applies to an MXP_2.5G_10G card, only if the payload is SONET/SDH and the card termination mode is as follows: TRANSPARENT - All Client ports are available for all timing selections. All Trunk ports are not available. LINE - All ports are available for all-timing selections. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>SENDUS</b>	The facility sends out a Do not Use for Sync message. This does not apply to the TXP_MR_10G card. This applies to an MXP_2.5G_10G card, only if the payload is SONET/SDH and the card termination mode is as follows: TRANSPARENT- All Client ports are available for all timing selections. All Trunk ports are not available. LINE - All ports are available for all-timing selections Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
<b>SOAKLEFT</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals, so a value of 4 translates to a soak time of 1 hour. The allowable range is 0 to 192 intervals, 48 hours maximum. Optional
<b>OSPF</b>	Open shortest path first. Optional Parameter type is EXT_RING—indicates if the ring supports the extended K1/K2/K3 protocol
• N	The ring does not support the extended K1/K2/K3 protocol
• Y	The ring does support the extended K1/K2/K3 protocol
<b>LBCL</b>	Displays the current value of the laser current. Optional Parameter type is REVERTIVE_TIME—revertive time

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>OPT</b>	Displays the current value of the transmitted optical power. Optional Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>OPR</b>	Displays the current value of the received optical power. Optional Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
<ul style="list-style-type: none"> <li>IS_NR</li> </ul>	In service - normal
<ul style="list-style-type: none"> <li>OOS-AU</li> </ul>	Out of service - autonomous
<ul style="list-style-type: none"> <li>OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>OOS-MA</li> </ul>	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>UEQ</li> </ul>	Unequipped

## 21.65 RTRV-OMS

Retrieve Optical Multiplex Section

### Usage Guidelines

Cisco ONS 15454

This command retrieves the attributes (service parameters) and state of an OMS facility.

### Category

DWDM

**Security** Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
	DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
	DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-FFP-OCH	ENT-OSC	RTRV-OCH
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
	ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
	ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
	ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-OMS:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-OMS:PENNGROVE:BAND-6-1-RX:236;

### Input Parameters

**Table 21-128 RTRV-OMS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.4 BAND” section on page 25-13. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::RDIRN=<RDIRN>,OPTYPE=<OPTICALPORTTYPE>,[OPWR=<POWER>],
EXPBAND=<EXPBAND>,[ACTBAND=<ACTBAND>],[ILOSS=<ILOSS>],
[VOAMODE=<VOAMODE>],[VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],
[VOAREFATTN=<VOAREFATTN>],[VOAREFPWR=<VOAREFPWR>],
[REFOPWR=<REFOPWR>],[CALOPWR=<CALOPWR>],[CHPOWER=<CHPOWER>],
[NAME=<NAME>]:<PST_PSTQ>,[<SSTQ>]”
```

;

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“BAND-6-1-RX::RDIRN=W-E,OPTYPE=ADD,OPWR=10.0,EXPBAND=UNKNOWN,
ACTBAND=1530.33_1531.12,ILOSS=1.0,VOAMODE=ATTN,VOAATTN=0.5,
```

```
VOAPWR=0.0,VOAREFATN=3.5,VOAREFPWR=5.0,REFOPWR=10.5,CALOPWR=0.5,
CHPOWER=2.0,NAME=\“OMS PORT\”:OOS-AU,AINS”
```

```
;
```

## Output Parameters

**Table 21-129 RTRV-OMS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14
<b>RDIRN</b>	Ring directionality of the optical line Parameter type is RDIRN_MODE—the optical ring directionality
• E-W	The direction of the signal is from east to west (clockwise)
• W-E	The direction of the signal is from west to east (counterclockwise)
<b>OPTICALPORTTYPE</b>	The optical port type Parameter type is OPTICAL_PORT_TYPE—qualifies the optical port of a card
• ADD	The signal is added to the port
• DROP	The signal is dropped from the port
• IN-COM	COM channels (without OSC) that continue the signal from the previous card
• IN-DC	Input DCU port
• IN-EXP	The express channel that continues the signal from the previous card
• IN-LINE	All the channels that continue the signal from the previous card
• IN-OSC	OSC channel that continues the signal from the previous card
• OUT-COM	COM channels (without OSC) that continue the signal to the next card
• OUT-DC	Output DCU port
• OUT-EXP	Express channel that continues the signal to the next card
• OUT-LINE	All the channels that continue the signal to the next card
• OUT-OSC	OSC channel that continue the signal to the next card
<b>POWER</b>	The optical power measured at this port. It can be the input or output power according to port type. String. Optional
<b>EXPBAND</b>	The expected value of band for this port Parameter type is OPTICAL_BAND—optical band
• 1530.33 to 1532.68	Band 1
• 1534.25 to 1536.61	Band 2
• 1538.19 to 1540.56	Band 3
• 1542.14 to 1544.53	Band 4
• 1546.12 to 1548.51	Band 5
• 1550.12 to 1552.52	Band 6

Table 21-129 RTRV-OMS Output Parameters (continued)

Parameter and Values	Description
• 1554.13 to 1556.55	Band 7
• 1558.17 to 1560.61	Band 8
• USE-DEFAULT	This band is not yet configured/retrieved from unit
<b>ACTBAND</b>	Identifies the manufacturing optical band (group of four contiguous wavelengths) for this port. Optional Parameter type is OPTICAL_BAND—optical band
• 1530.33 to 1532.68	Band 1
• 1534.25 to 1536.61	Band 2
• 1538.19 to 1540.56	Band 3
• 1542.14 to 1544.53	Band 4
• 1546.12 to 1548.51	Band 5
• 1550.12 to 1552.52	Band 6
• 1554.13 to 1556.55	Band 7
• 1558.17 to 1560.61	Band 8
• USE-DEFAULT	This band is not yet configured/retrieved from unit
<b>ILOSS</b>	Insertion loss expressed in dBm. ILOSS applies to output ports only. Optional
<b>VOAMODE</b>	The working control mode of the VOA. Optional Parameter type is VOA_CNTR_MODE—defines the VOA control mode
• ATTN	VOA has a fixed attenuation
• POWER	VOA controls the attenuation to obtain a fixed output power
<b>VOAATTN</b>	The value of calibrated attenuation for the VOA. Float. String. Optional
<b>VOAPWR</b>	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Float. String. Optional
<b>VOAREFATTN</b>	The value of reference attenuation for the VOA. Float. String. Optional
<b>VOAREFPWR</b>	The value of reference output power that the VOA is going to set as a result of its attenuation. Float. String. Optional
<b>REFOPWR</b>	The value of the calculated optical power expected for the output line added to the calibration value which equals the total expected output power. Float. String. Optional
<b>CALOPWR</b>	The value of the calibrated optical power expected for the output added to the calculated value which equals the total expected output power. Expressed in dBm. Defaults to 0 dBm. Float. String. Optional.
<b>CHPOWER</b>	The per channel optical power. Optional Parameter type is REVERTIVE_TIME—revertive time

**Table 21-129 RTRV-OMS Output Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>0.5 to 12.0</li> </ul>	Revertive time is 0.5 to 12.0 minutes
<b>NAME</b>	Name. String. Optional
<b>PST_PSTQ</b>	Primary state of the entity Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
<ul style="list-style-type: none"> <li>IS_NR</li> </ul>	In service - normal
<ul style="list-style-type: none"> <li>OOS-AU</li> </ul>	Out of service - autonomous
<ul style="list-style-type: none"> <li>OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>OOS-MA</li> </ul>	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>UEQ</li> </ul>	Unequipped

## 21.66 RTRV-OPM

Retrieve Optical Monitoring Parameter

### Usage Guidelines

Cisco ONS 15454

This command retrieves the optical power monitoring parameters present at the OCH layer in a R-OADM node.

### Category

DWDM

### Security

Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-LNKTERM	RTRV-OCH
	ED-FFP-OCH	ENT-OSC	RTRV-OMS
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OSC
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
	ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
	ED-OMS	OPR-WDMANS	RTRV-TRC-OCH
	ED-OSC	RLS-LASER-OTS	RTRV-WDMANS
	ED-OTS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-OPM:[<TID>]:[<AID>]:<CTAG>[:::];

**Input Example** RTRV-OPM:VA454-22:OPM-5-1530.33:116;

### Input Parameters

**Table 21-130 RTRV-OPM Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.18 OPM”</a> section on page 25-32. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[POWEROUT=<POWEROUT>],[POWERADD=<POWERADD>],
[POWERPT=<POWERPT>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“OPM-5-1530.33::POWEROUT=9.0,POWERADD=10.0,POWERPT=11.0:”
;
```

## Output Parameters

Table 21-131 RTRV-OMS Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.18 OPM” section on page 25-32
POWEROUT	The value of the output power associated to the add or pass-through channel port of 32-WSS. Float. Optional
POWERADD	The value of the input power associated to the add channel port of 32-WSS. POWERADD is mutually exclusive with the POWERPT parameter. Float. Optional
POWERPT	The value of the input power associated to the pass-through channel port of 32-WSS. POWERPT is mutually exclusive with the POWERADD parameter. Float. Optional

## 21.67 RTRV-OSC

Retrieve Optical Service Channel

## Usage Guidelines

Cisco ONS 15454

This command retrieves all the OSC (optical service channel) information of the NE.

## Category

DWDM

## Security

Retrieve

## Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
ED-FFP-OCH	ENT-OSC	RTRV-OCH
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OMS
ED-LNKTERM	OPR-LASER-OTS	RTRV-OTS
ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN



**Input Format** RTRV-OSC:[<TID>]:<AID>:<CTAG

**Input Example** RTRV-OSC:PENNGROVE:OSC-1:114;

**Input Parameters**

**Table 21-132 RTRV-OSC Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.19 OSC”</a> section on page 25-33. Identifies the OSC group of the NE. Only ALL, null, or OSC-# in AID is allowed. A null value is equivalent to ALL. Must not be null

**Output Format**

SID DATE TIME  
M CTAG COMPLD  
“<AID>::[RINGID=<RINGID>],[NODEID=<NODEID>],[EAST=<EAST>],[WEST=<WEST>]”  
;

**Output Example**

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“OSC-1::RINGID=10,NODEID=1,EAST=FAC-8-1,WEST=FAC-10-1”  
;

**Output Parameters**

**Table 21-133 RTRV-OSC Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.19 OSC”</a> section on page 25-33. Identifies the OSC group of the NE
<b>RINGID</b>	OSC ring ID of the NE. It is a string of up to six characters, valid characters are [A to Z, 0 to 0]. Default value is # of AID OSC-#. Integer. Optional
<b>NODEID</b>	OSC node ID of the NE. It ranges from 0 to 31. Integer. Optional
<b>EAST</b>	The east OC3 facility from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. EAST_OC3 is the AID facility. Only one OC-3 for the east direction is supported in this release. Optional
<b>WEST</b>	The west OC3 facility from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. EAST_OC3 is the AID facility. Only one OC-3 for the west direction is supported in this release. Optional

## 21.68 RTRV-OTS

Retrieve Optical Transport System

**Usage Guidelines**

Cisco ONS 15454

This command retrieves the attributes (service parameters) and state of an OTS facility.

**Category**

DWDM

**Security**

Retrieve

**Related Commands**

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
ED-FFP-OCH	ENT-OSC	RTRV-OCH
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OMS
ED-LNKTERM	OPR-LASER-OTS	RTRV-OSC
ED-OCH	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format**

RTRV-OTS:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;;

**Input Example**

RTRV-OTS:PENNGROVE:LINE-6-1-RX:236;

**Input Parameters****Table 21-134 RTRV-OTS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.16 LINE”</a> section on page 25-31. Must not be null

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AID>:RDIRN=<RDIRN>,OPTYPE=<OPTICALPORTTYPE>,[OPWR=<POWER>],
[ILOSS=<ILOSS>],[VOAMODE=<VOAMODE>],[VOAATTN=<VOAATTN>],
[VOAPWR=<VOAPWR>],[VOAREFATTN=<VOAREFATTN>],
[VOAREFPWR=<VOAREFPWR>],[OSRI=<OSRI>],[AMPLMODE=<AMPLMODE>],
[CHPOWER=<CHPOWER>],[GAIN=<GAIN>],[EXPGAIN=<EXPGAIN>],

```

```
[REFOPWR=<REFOPWR>],[OFFSET=<OFFSET>],[REFTILT=<REFTILT>],
[CALTILT=<CALTILT>],[ASEOPWR=<ASEOPWR>],[DCULOSS=<DCULOSS>],
[AWGST=<AWGST>],[HEATST=<HEATST>],[NAME=<NAME>]:<PST_PSTQ>,<SSTQ>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"LINE-6-1-RX:RDIRN=W-E,OPTYPE=IN,OPWR=10.0,ILOSS=1.0,VOAMODE=ATTN,
VOAATTN=0.5,VOAPWR=0.0,VOAREFATTN=3.5,VOAREFPWR=5.0,OSRI=Y,
AMPLMODE=GAIN,CHPOWER=-10.0,GAIN=3.0,EXPGAIN=3.0,REFOPWR=10.0,
OFFSET=0.0,REFTILT=3.0,CALTILT=0.0,ASEOPWR=5.0,DCULOSS=1.2,
AWGST=WARM-UP,HEATST=ON,NAME=\“OTS PORT\”:OOS-AU,AINS"
;
```

**Output Parameters****Table 21-135 RTRV-OTS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.16 LINE”</a> section on page 25-31
<b>RDIRN</b>	Ring directionality of the optical line Parameter type is RDIRN_MODE—the optical ring directionality
<ul style="list-style-type: none"> <li>E-W</li> <li>W-E</li> </ul>	<p>The direction of the signal is from east to west (clockwise)</p> <p>The direction of the signal is from west to east (counterclockwise)</p>
<b>OPTICALPORTTYPE</b>	The optical port type Parameter type is OPTICAL_PORT_TYPE—qualifies the optical port of a card
<ul style="list-style-type: none"> <li>ADD</li> <li>DROP</li> <li>IN-COM</li> <li>IN-DC</li> <li>IN-EXP</li> <li>IN-LINE</li> <li>IN-OSC</li> <li>OUT-COM</li> <li>OUT-DC</li> <li>OUT-EXP</li> <li>OUT-LINE</li> <li>OUT-OSC</li> </ul>	<p>The signal is added to the port</p> <p>The signal is dropped from the port</p> <p>COM channels (without OSC) that continue the signal from the previous card</p> <p>Input DCU port</p> <p>The express channel that continues the signal from the previous card</p> <p>All the channels that continue the signal from the previous card</p> <p>OSC channel that continues the signal from the previous card</p> <p>COM channels (without OSC) that continue the signal to the next card</p> <p>Output DCU port</p> <p>Express channel that continues the signal to the next card</p> <p>All the channels that continue the signal to the next card</p> <p>OSC channel that continue the signal to the next card</p>
<b>POWER</b>	The optical power measured at this port. It can be the input or output power according to port type. Float. Optional

Table 21-135 RTRV-OTS Output Parameters (continued)

Parameter and Values	Description
<b>ILOSS</b>	Insertion loss. Optional
<b>VOAMODE</b>	The working control mode of the VOA. Optional Parameter type is VOA_CNTR_MODE—defines the VOA control mode
• ATTN	VOA has a fixed attenuation
• POWER	VOA controls the attenuation to obtain a fixed output power
<b>VOAATTN</b>	The value of calibrated attenuation for the VOA. Float. Optional
<b>VOAPWR</b>	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Float. Optional
<b>VOAREFATTN</b>	The value of reference attenuation for the VOA. Float. Optional
<b>VOAREFPWR</b>	The value of reference output power that the VOA is going to set as a result of its attenuation. Float. Optional
<b>OSRI</b>	OSRI enabled or disabled. Present only on a port where the safety is supported. Defaults to off. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>AMPLMODE</b>	The optical amplification control mode. Optional Parameter type is AMPL_MODE—defines amplifier control mode
• GAIN	The amplifier always maintains a fixed gain
• POWER	The amplifier maintains the output power to a fixed value
<b>CHPOWER</b>	The per channel optical power. Applicable only to amplified OTS ports. Optional
<b>GAIN</b>	The value of the gain of the amplifier. Defaults to 21 dB for preamplifier and 20 dB for booster amplifier. Optional
<b>EXPGAIN</b>	The expected gain value to be reached from an amplifier when the node is in a DWDM access network. Float. Optional
<b>REFOPWR</b>	The value of the calculated optical power expected for the output line added to the calibration value which equals the total expected output power. Float. Optional
<b>OFFSET</b>	The value of the calibrated optical power expected for the output line which is added to the calculated value to have the total expected output power. Float. Optional
<b>REFTILT</b>	The calculated tilt value to be added to the user provided calibration value. Float. Optional
<b>CALTILT</b>	The amplifier calibration tilt offset to be added to the calculated reference value. Float. Optional
<b>ASEOPWR</b>	The value of the calibrated optical power expected for the output line which is provided by the user, added to the calculated value to have the total expected output power. Float. Optional

Table 21-135 RTRV-OTS Output Parameters (continued)

Parameter and Values	Description
<b>DCULOSS</b>	The value of insertion loss associated to DCU in between the two stages of a preamplifier unit. Float. Optional
<b>AWGST</b>	The status assumed by AWG. Optional
	Parameter value is AWG_STATUS—AWG status list
• ON	The AWG is on
• WARM-UP	The AWG is warming up
<b>HEATST</b>	The status assumed by the heater. Optional
	Parameter type is HEATER_STATUS—heater status list
• OFF	The heater is off
• ON	The heater is on
<b>NAME</b>	Name of the port. String. Optional
<b>PST_PSTQ</b>	Primary state of the entity
	Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)
• IS_NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional
	Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.69 RTRV-PM-<MOD2>

Retrieve Performance (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the values of PM parameters for a specified card type.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

<MONTYPE>, <MONLEV>, <MONDAT> and <MONTM> are supported in this release.

<MONLEV> is in the format of LEV-DIRN.

The format of <MONDAT> is MM-DD, where MM (month of the year) ranges from 1–12 and DD (day of the month) ranges from 1–31.

The format for <MONTM> is HH-MM, where HH (hour of the day) ranges from 0–23 and MM (minute of the hour) ranges from 0–59.

**Note**

- If there are no errors to report, the response will be COMPLD (completed).
- If the <TMPER> is 1-DAY, <MONTM> is not applicable (null), and is treated as null if <MONTM> is not null.
- A null value for <MONLEV> defaults to 1-UP.
- A null value for <MONDAT> defaults to the current date (MM-DD).
- A null value for <MONTM> defaults to the current time (HH-MM).
- Unless otherwise stated, DS-1 cards are the only cards that support the RCV, and TRMT directions. All other cards only support the RCV direction.
- After the BLSR switching, the working path is switched out, the traffic goes through the protection path, and the IPPM can be retrieved from the protection STS path.
- If there is a STS PCA on the protection path, during the BLSR switching, the PCA path is preemptive; sending this command on the protection path after BLSR switch, the command returns the PMs off the protection path, not from the PCA path.
- Some MOD2 entities; for example, OCH, CLNT, and Optical (OCn), support negative MONTYPE values. By default, this command defaults to 0–UP (return MONTYPES where the MONVAL is 0 or higher). To retrieve the negative values, you must issue 0–DN in the MONLEV field.

The rules are as follows: Client port only–Laser and SONET PM's are applicable and will appear. If the card payload is in SONET mode, then SONET PM's will appear, provided the MONLEV criteria is met.

Trunk port Laser PMs are always available. Laser PMs are only for Near End. If G.709 is enabled, then the OTN PMs will appear. If G.709 is enabled and FEC is enabled, then the FEC PMs will appear. If the card payload is in SONET mode, then SONET PM's will appear. All PM MONVALUES should pass the MONLEV filter criteria.

- For DWDM cards, the MONLEV filter criteria will not support a floating point. It will be returned and interpreted as an integer.
- If the DS-1 mode of the DS3XM-12 card is FDL, the DS-1 path can retrieve FDL/T.403 FEND PM counts up to 32 15-minute intervals in the RTRV-PM-DS1 command.
- RTRV-PM-<MOD2> can also be used to retrieve the RMON-managed PM data.

**Category**

Performance

**Security** Retrieve

**Related Commands**


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ALW-PMREPT-ALL	RLS-PROTNSW-<OCN_TYPE>
DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
DLT-RMONTH-<MOD2_RMON>	RTRV-<MOD1FICONPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
ED-<OCN_TYPE>	RTRV-ALS
ED-ALS	RTRV-DS1
ED-DS1	RTRV-EC1
ED-EC1	RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PMMODE-<STS_PATH>
ED-T3	RTRV-PMSCHED-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-ALL
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-RMONTH-<MOD2_RMON>
ENT-RMONTH-<MOD2_RMON>	RTRV-T1
INH-PMREPT-ALL	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS	RTRV-TH-ALL
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-PMMODE-<STS_PATH>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

---



**Input Format**

RTRV-PM-<MOD2>:[<TID>]:<AID>:<CTAG>::[<MONTYPE>],[<MONLEV>],[<LOCN>],[<DIRECTION>],[<TMPER>],[<DATE>],[<TIME>];

**Input Example**

RTRV-PM-T1:TID:FAC-2-1:123::CVL,10-UP,NEND,RCV,15-MIN,04-11,12-45;

**Input Parameters**

**Table 21-136 RTRV-PM-<MOD2> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. All of the STS, VT1, Facility, and DS1 AIDs are supported. Must not be null
<b>MONTYPE</b>	Monitored type. A null value defaults to “all montypes applicable to the modifier” Parameter type is ALL_MONTYPE—monitoring type list
<ul style="list-style-type: none"> <li>• AISSP</li> <li>• ALL</li> <li>• BBE-PM</li> <li>• BBE-SM</li> <li>• BBER-PM</li> <li>• BBER-SM</li> <li>• BIEC</li> <li>• CGV</li> <li>• CSSP</li> <li>• CVCPP</li> <li>• CVL</li> <li>• CVP</li> <li>• CVS</li> <li>• CVV</li> <li>• DCG</li> <li>• ESAP</li> <li>• ESBP</li> <li>• ESCPP</li> <li>• ESL</li> <li>• ESNPFE</li> <li>• ESP</li> <li>• ES-PM</li> <li>• ES-SM</li> </ul>	<ul style="list-style-type: none"> <li>Alarm Indication Signal Seconds—Path</li> <li>All possible values</li> <li>OTN—Background Block Errors—Path Monitor Point</li> <li>OTN—Background Block Errors—Section Monitor Point</li> <li>OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.</li> <li>OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.</li> <li>FEC—Bit Errors Corrected</li> <li>8B10B—Code Group Violations</li> <li>Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)</li> <li>Coding Violations—CP-Bit Path</li> <li>Coding Violations—Line</li> <li>Coding Violations—Path</li> <li>Coding Violations—Section</li> <li>Coding Violations—Section</li> <li>8B10B—Data Code Groups</li> <li>Errored Second Type A-Path (DS3XM-12 DS1 PM count)</li> <li>Errored Second Type B-Path (DS3XM-12 DS1 PM count)</li> <li>Errored Seconds—CP—Bit Path</li> <li>Errored Seconds—Line</li> <li>Errored Second -Network Path (DS3XM-12 DS1 PM count)</li> <li>Errored Seconds—Path</li> <li>OTN—Errored Seconds—Path Monitor Point</li> <li>OTN—Errored Seconds—Section Monitor Point</li> </ul>

Table 21-136 RTRV-PM-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity

**Table 21-136 RTRV-PM-<MOD2> Input Parameters (continued)**

Parameter and Values	Description
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio

Table 21-136 RTRV-PM-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification

**Table 21-136 RTRV-PM-<MOD2> Input Parameters (continued)**

Parameter and Values	Description
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count

Table 21-136 RTRV-PM-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
<b>MONLEV</b>	The discriminating level of the requested monitored parameter in the format of LEVEL-DIRN, where LEVEL is the measured value of the monitored parameter (MONVAL) and DIRN is the type of direction. A null value defaults to 1-UP. String
<b>LOCN</b>	Location associated with a particular command in reference to the entity identified by the AID. A null value defaults to NEND Parameter type is LOCATION—the location where the action is to take place
<ul style="list-style-type: none"> <li>• FEND</li> </ul>	Action occurs on the Far End of the facility
<ul style="list-style-type: none"> <li>• NEND</li> </ul>	Action occurs on the Near End of the facility
<b>DIRECTION</b>	Type of direction. Must not be null Parameter type is DIRECTION—transmit and receive directions
<ul style="list-style-type: none"> <li>• BTH</li> </ul>	Both transmit and receive directions
<ul style="list-style-type: none"> <li>• RCV</li> </ul>	Receive direction only
<ul style="list-style-type: none"> <li>• TRMT</li> </ul>	Transmit direction only
<b>TMPER</b>	Accumulation time period for performance counters. If TMPER is 1-DAY, MONTM is not applicable (null), and is treated as null. A null value defaults to 15-MIN Parameter type is TMPER—accumulation time period for the performance management center
<ul style="list-style-type: none"> <li>• 1-DAY</li> </ul>	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
<ul style="list-style-type: none"> <li>• 1-HR</li> </ul>	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
<ul style="list-style-type: none"> <li>• 1-MIN</li> </ul>	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
<ul style="list-style-type: none"> <li>• 15-MIN</li> </ul>	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
<ul style="list-style-type: none"> <li>• RAW-DATA</li> </ul>	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.

**Table 21-136 RTRV-PM-<MOD2> Input Parameters (continued)**

Parameter and Values	Description
<b>DATE</b>	The beginning date of the PM or storage register period specified in TPER. The format of DATE is MM-DD, where MM (month of year) ranges from 1 to 12 and DD (day of month) ranges from 1 to 31. A null value defaults to current date
<b>TIME</b>	The beginning time of day of the PM or storage register period specified in TPER. The format of TIME is HH-MM, where HH (hour of day) ranges from 0 to 23 and MM (minute of hour) ranges from 0 to 59. A null value defaults to current time

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AID>,[<AIDTYPE>]:<MONTYPE>,<MONVAL>,[<VLDTY>],[<LOCN>],
 [<DIRECTION>],[<TPER>],[<MONDAT>],[<MONTM>]"
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
"FAC-2-1,DS1-14:CVL,21,COMPL,NEND,RCV,15-MIN,04-11,12-45"
;

```

**Output Parameters****Table 21-137 RTRV-PM-<MOD2> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL”</a> section on page 25-1
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm

Table 21-137 RTRV-PM-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>MONTYPE</b>	Monitored type Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values



**Table 21-137 RTRV-PM-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DS3XM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second—Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets

**Table 21-137 RTRV-PM-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors

**Table 21-137 RTRV-PM-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored

Table 21-137 RTRV-PM-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)

Table 21-137 RTRV-PM-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• SESCPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second—Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count
<b>MONVAL</b>	The value to which the register identified by MONTYPE is to be initialized to or the measured value of a monitored parameter. The value is in the form of numeric counts or rates. String
<b>VLDTY</b>	Indicates whether the information for the specified time period was accumulated over the entire time period or some portion thereof. Validity indicator for the reported PM data. Optional Parameter type is VALIDITY—response validity
• COMPL	Complete response
• PRTL	Partial response
<b>LOCN</b>	Location associated with a particular command. Optional Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>DIRECTION</b>	The PM count retrieval direction Parameter type is DIRECTION—transmit and receive directions

Table 21-137 RTRV-PM-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>BTH</li> </ul>	Both transmit and receive directions
<ul style="list-style-type: none"> <li>RCV</li> </ul>	Receive direction only
<ul style="list-style-type: none"> <li>TRMT</li> </ul>	Transmit direction only
<b>TMPER</b>	Accumulation time period for performance counters, Optional Parameter type is TMPER—accumulation time period for the performance management center
<ul style="list-style-type: none"> <li>1-DAY</li> </ul>	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
<ul style="list-style-type: none"> <li>1-HR</li> </ul>	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
<ul style="list-style-type: none"> <li>1-MIN</li> </ul>	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
<ul style="list-style-type: none"> <li>15-MIN</li> </ul>	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
<ul style="list-style-type: none"> <li>RAW-DATA</li> </ul>	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.
<b>MONDAT</b>	The beginning date of the PM or storage register period specified in TMPER. The format of MONDAT is MM-DD, where MM (month of year) ranges from 1 to 12 and DD (day of month) ranges from 1 to 31. String. Optional
<b>MONTM</b>	The beginning time of day of the PM or storage register period specified in TMPER. The format of MONTM is HH-MM, where HH (hour of day) ranges from 0 to 23 and MM (minute of hour) ranges from 0 to 59. String. Optional

## 21.70 RTRV-PMMODE-<STS\_PATH>

Retrieve Performance Mode of PM Data Collection (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the type of PM mode that has been previously set in the NE. This command can be used to identify whether the PM parameters are Section, Line or Path type, and to identify whether or not the PMs are being collected by the NE.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

**Note**

- The PM mode and state of an entity is set by using the SET-PMMODE command.
- This command returns the categories that are enabled only.
- This near end monitoring of the intermediate-path PM (IPPM) only supports OC3, OC12, OC48, OC192, and EC1 on STS Path.
- The far end IPPM data collection is supported by the MRC-12 card only.
- This release of software will support only the Path (P) mode type PM parameters with this command, that is, this command will not be applicable for Line (L) and Section (S) mode types. It should be noted that the PM monitoring for Line (L) and Section (S) are supported by the ONS 15454, and the storing PM data is always performed.
- This command only returns the categories that are enabled (pmstate is ON), and does not return the categories that are disabled (pmstate is OFF).

**Category**

Performance

**Security**

Retrieve

**Related Commands**

ALW-PMREPT-ALL	RTRV-PMSCHED-ALL
DLT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
ENT-RMONTH-<MOD2_RMON>	RTRV-TH-<MOD2>
INH-PMREPT-ALL	RTRV-TH-ALL
INIT-REG-<MOD2>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-PMMODE-<STS_PATH>
RTRV-PM-<MOD2>	SET-TH-<MOD2>
RTRV-PMSCHED-<MOD2>	

**Input Format**

RTRV-PMMODE-&lt;STS\_PATH&gt;:[&lt;TID&gt;]:&lt;SRC&gt;:&lt;CTAG&gt;::&lt;LOCN&gt;;

**Input Example**

RTRV-PMMODE-STS1:CISCO:STS-4-1-2:123::NEND;

## Input Parameters

Table 21-138 RTRV-PMODE-&lt;STS\_PATH&gt; Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.9 CrossConnectId” section on page 25-15. Must not be null
LOCN	Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Must not be null Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<CROSSCONNECTID>:[<LOCN>],<MODETYPE>”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“STS-4-1-2:NEND,P”
;
```

## Output Parameters

Table 21-139 RTRV-PMODE-&lt;STS\_PATH&gt; Output Parameters

Parameter and Values	Description
CROSSCONNECTID	Access identifier from the “25.1.9 CrossConnectId” section on page 25-15
LOCN	Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Optional Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
MODETYPE	The type of PM parameters that the entity or the sub entity is to store as a result of an attribute change Parameter type is PM_MODE—the type of PM parameters
• P	Transport Path PM parameters



## 21.71 RTRV-PMSCHED-<MOD2>

Retrieve Performance Monitoring Schedule (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the PM reporting schedule that was set for the NE by the SCHED-PMREPT command.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

---

**Category**

Performance

---

**Security**

Retrieve

**Related Commands**


---

ALW-PMREPT-ALL	RLS-PROTNSW-<OCN_TYPE>
DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
DLT-RMONTH-<MOD2_RMON>	RTRV-<MOD1FICONPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
ED-<OCN_TYPE>	RTRV-ALS
ED-ALS	RTRV-DS1
ED-DS1	RTRV-EC1
ED-EC1	RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PM-<MOD2>
ED-T3	RTRV-PMMODE-<STS_PATH>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-ALL
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-RMONTH-<MOD2_RMON>
ENT-RMONTH-<MOD2_RMON>	RTRV-T1
INH-PMREPT-ALL	RTRV-T3
INIT-REG-<MOD2>	RTRV-TH-<MOD2>
OPR-ALS	RTRV-TH-ALL
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-PMMODE-<STS_PATH>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

---

**Input Format** RTRV-PMSCHED-<MOD2>:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-PMSCHED-OC3:CISCO-NODE:FAC-3-1:123;

**Input Parameters**

**Table 21-140 RTRV-PMSCHED-<MOD2> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null

**Output Format**

SID DATE TIME  
M CTAG COMPLD  
“<AID>,[<AIDTYPE>]:<REPTINVL>,<REPTDAT>,<REPTTM>,[<NUMINVL>],,  
[<MONLEV>],<LOCN>,,[<TMPER>],[<TMOFST>],[<INHMODE>]”  
;

**Output Example**

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“FAC-3-1,OC3:30-MIN,5-25,14-46,100,,1-UP,NEND,,15-MIN,0-0-15,ALW”  
;

**Output Parameters**

**Table 21-141 RTRV-PMSCHED-<MOD2> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000

Table 21-141 RTRV-PMSCHED-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC3 facility
• OC12	OC12 facility
• OC48	OC48 facility
• OC192	OC192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>REPTINVL</b>	Reporting interval. How often a report is to be generated and sent to the appropriate NE. String
<b>REPTDAT</b>	Report date. Date for the next report. String
<b>REPTTM</b>	Report time. The time of day for the next PM report. String

**Table 21-141 RTRV-PMSCHED-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
<b>NUMINVL</b>	The remaining number of intervals over which the PM will be reported. Integer. Optional
<b>LOCN</b>	Location associated with a particular command. Identifies the location from which the PM mode will be retrieved  Parameter type is LOCATION—the location where the action is to take place
<ul style="list-style-type: none"> <li>• FEND</li> </ul>	Action occurs on the Far End of the facility
<ul style="list-style-type: none"> <li>• NEND</li> </ul>	Action occurs on the Near End of the facility
<b>TMPER</b>	Accumulation time period for performance counters. Optional  Parameter type is TMPER—accumulation time period for the performance management center
<ul style="list-style-type: none"> <li>• 1-DAY</li> </ul>	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
<ul style="list-style-type: none"> <li>• 1-HR</li> </ul>	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
<ul style="list-style-type: none"> <li>• 1-MIN</li> </ul>	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
<ul style="list-style-type: none"> <li>• 15-MIN</li> </ul>	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
<ul style="list-style-type: none"> <li>• RAW-DATA</li> </ul>	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.
<b>TMOFST</b>	Time offset between reporting/diagnostics/exercises; from the end of the last complete accumulation time period to the beginning of the accumulation time period specified by TMPER. String. Optional
<b>INHMODE</b>	Indicates whether a function is inhibited by an INH command. Indicates whether the reporting of PM data is inhibited (by the INH-PMREPT-ALL command) or is allowed (by the ALW-PMREPT-ALL command). Optional  Parameter type is INH_MODE—indicates whether the function is inhibited
<ul style="list-style-type: none"> <li>• ALW</li> </ul>	Function is allowed
<ul style="list-style-type: none"> <li>• INH</li> </ul>	Function is inhibited

## 21.72 RTRV-PMSCHED-ALL

Retrieve Performance Schedule All

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves all the PM reporting schedules that were set for the NE by the SCHED-PMREPT command.

### Category

Performance

### Security

Retrieve

### Related Commands

ALW-PMREPT-ALL	RTRV-PMSCHED-<MOD2>
DLT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
ENT-RMONTH-<MOD2_RMON>	RTRV-TH-<MOD2>
INH-PMREPT-ALL	RTRV-TH-ALL
INIT-REG-<MOD2>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-PMMODE-<STS_PATH>
RTRV-PM-<MOD2>	SET-TH-<MOD2>
RTRV-PMMODE-<STS_PATH>	

### Input Format

RTRV-PMSCHED-ALL:[<TID>]::<CTAG>;

### Input Example

RTRV-PMSCHED-ALL:CISCO-NODE::123;

### Input Parameters

**Table 21-142 RTRV-PMSCHED-ALL Input Parameters**

Parameter and Values	Description
—	

### Output Format

```
SID DATE TIME
M CTAG COMPLD
"<AID>,[<AIDTYPE>]:<REPTINVL>,<REPTDAT>,<REPTTM>,[<NUMINVL>],,
[<MONLEV>],<LOCN>,,[<TMPER>],<TMOFST>,[<INHMODE>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-3-1,OC3:30-MIN,5-25,14-46,100,,1-UP,NEND,,15-MIN,0-0-15,ALW”
;
```

**Output Parameters****Table 21-143 RTRV-PMSCHED-ALL Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a>
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS-1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC-3 facility
• OC12	OC-12 facility
• OC48	OC-48 facility
• OC192	OC-192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section

Table 21-143 RTRV-PMSCHED-ALL Output Parameters (continued)

Parameter and Values	Description
• POS	POS port
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>REPTINVL</b>	Reporting interval. How often a report is to be generated and sent to the appropriate NE. String
<b>REPTDAT</b>	Report date. Date for the next report. String
<b>REPTTM</b>	Report time. The time of day for the next PM report. String
<b>NUMINVL</b>	The remaining number of intervals over which PM is to be reported. Integer. Optional
<b>LOCN</b>	Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved  Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>TMPER</b>	Accumulation time period for performance counters. Optional  Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.



**Table 21-143 RTRV-PMSCHED-ALL Output Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1-MIN</li> </ul>	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
<ul style="list-style-type: none"> <li>15-MIN</li> </ul>	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
<ul style="list-style-type: none"> <li>RAW-DATA</li> </ul>	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.
<b>TMOFST</b>	Time offset between reporting/diagnostics/exercises; from the end of the last complete accumulation time period to the beginning of the accumulation time period specified by TMPER. String. Optional
<b>INHMODE</b>	Indicates whether a function is inhibited by an INH command. Indicates whether the reporting of PM data is inhibited (by the INH-PMREPT-ALL command) or is allowed (by the ALW-PMREPT-ALL command). Optional Parameter type is INH_MODE—indicates whether the function is inhibited
<ul style="list-style-type: none"> <li>ALW</li> </ul>	Function is allowed
<ul style="list-style-type: none"> <li>INH</li> </ul>	Function is inhibited

## 21.73 RTRV-POS

Retrieve Packet Over SONET

### Usage Guidelines

Cisco ONS 15454, 15310-CL, 15600

This command retrieves the back end port information for the Ethernet card when the back end port is working in POS mode.



### Note

- This command is supported for the ML-Series cards, but for the ONS 15310-CL ML-100T-8 card, ADMINSTATE, ENCAP, SOAK and SOAKLEFT information will not appear.
- This command is supported for the ASAP card, but ADMINSTATE information will not appear.
- Because the back end port is virtual, the Virtual Facility (VFAC) AID should be used when issuing the command.

### Category

Ports

**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<OCN_TYPE>	RMV-<MOD2>
ED-<GIGE_TYPE>	RST-<MOD2>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
ED-ALS	RTRV-10GIGE
ED-DS1	RTRV-ALMTH-<MOD2>
ED-EC1	RTRV-ALS
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-DS1
ED-FFP-<OCN_TYPE>	RTRV-EC1
ED-FSTE	RTRV-FAC
ED-G1000	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-GFP	RTRV-FFP-<OCN_TYPE>
ED-HDLC	RTRV-FSTE RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>

**Input Format**

RTRV-POS:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;;

**Input Example**

```
RTRV-POS:TID:VFAC-1-1:CTAG;
```

**Input Parameters****Table 21-144 RTRV-POS Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AID>:[ADMINSTATE=<ADMINSTATE>],[LINKSTATE=<LINKSTATE>],
[MTU=<MTU>],[ENCAP=<ENCAP>],[NAME=<NAME>],[SOAK=<SOAK>],
[SOAKLEFT=<SOAKLEFT>]:<PST_PSTQ>,<SST>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“VFAC-1-1::ADMINSTATE=DOWN,LINKSTATE=DOWN,MTU=1500,ENCAP=HDLC,
NAME=\"POSPOrt\",SOAK=32,SOAKLEFT=\12-25\":OOS-AU,AINS”
;
```

**Output Parameters****Table 21-145 RTRV-POS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28
<b>ADMINSTATE</b>	Administration type. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up
<b>LINKSTATE</b>	Link protocol. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up
<b>MTU</b>	Maximum transmission unit. Integer. Optional
<b>ENCAP</b>	Encapsulation Parameter type is ENCAP—frame encapsulation type
• GFP_F	GFP frame mode
• GFP_T	GFP transparent mode

Table 21-145 RTRV-POS Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• HDLC</li> </ul>	HDLC frame mode
<ul style="list-style-type: none"> <li>• HDLC_LEX</li> </ul>	HDLC LAN extension frame mode
<ul style="list-style-type: none"> <li>• HDLC_X86</li> </ul>	HDLC X.86 frame mode
<b>NAME</b>	Name. String. Optional
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
<b>SOAKLEFT</b>	<p>Time remaining for the transition from OOS-AINS to IS measured in 1 minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. Optional</p> <p>Rules for &lt;SOAKLEFT&gt; are as follows:</p> <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS state, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>PST_PSTQ</b>	<p>Primary state of the entity</p> <p>Parameter type is PST_PSTQ—service state of the entity described by the primary state (PST) and a primary state qualifier (PSTQ)</p>
<ul style="list-style-type: none"> <li>• IS_NR</li> </ul>	In service - normal
<ul style="list-style-type: none"> <li>• OOS-AU</li> </ul>	Out of service - autonomous
<ul style="list-style-type: none"> <li>• OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>• OOS-MA</li> </ul>	Out of service - management
<b>SST</b>	<p>Secondary state of the entity. Optional</p> <p>Parameter type is SST—provides additional information pertaining to PST and PSTQ</p>
<ul style="list-style-type: none"> <li>• AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>• DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>• LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>• MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>• MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>• OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>• SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>• UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>• UEQ</li> </ul>	Unequipped

## 21.74 RTRV-PROTNSW-<MOD2DWDMPAYLOAD>

Retrieve Protection Switch (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

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**Usage Guidelines**

Cisco ONS 15454

This command retrieves the protection switch status of client facilities.

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**Category**

DWDM

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**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<MOD2DWDMPAYLOAD>
DLT-FFP-<MOD2DWDMPAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<OCN_TYPE>	RMV-<MOD2>
ED-<GIGE_TYPE>	RST-<MOD2>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<OCN_TYPE>	RTRV-<OCN_TYPE>
ED-ALS	RTRV-10GIGE
ED-DS1	RTRV-ALMTH-<MOD2>
ED-EC1	RTRV-ALS
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-DS1
ED-FFP-<OCN_TYPE>	RTRV-EC1
ED-FSTE	RTRV-FAC
ED-G1000	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-GFP	RTRV-FFP-<OCN_TYPE>
ED-HDLC	RTRV-FSTE RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<OCN_TYPE>
ENT-FFP-<OCN_TYPE>	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>

**Input Format**

RTRV-PROTNSW-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>:<CTAG>[::::];

**Input Example**

RTRV-PROTNSW-HDTV:CISCO:FAC-1-1-1:100;

**Input Parameters****Table 21-146 RTRV-PROTNSW-<MOD2DWDMPAYLOAD> Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AIDUNIONID>:<SC>,[<SWITCHTYPE>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-1-1:FRCD,MANWKSWBK”
;
```

**Output Parameters****Table 21-147 RTRV-PROTNSW-<MOD2DWDMPAYLOAD> Output Parameters**

Parameter and Values	Description
AIDUNIONID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
SC	Switch command to be initiated on the paths Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>• APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>• LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Requests a manual switch of the facility
SWITCHTYPE	Switch type. Optional Parameter type is SWITCH_TYPE—BLSR switch type. MANWKSWBK, MANWKSWPR, FRCDWKSWBK, FRCDWKSWPR, LOCKOUTOFPR, and LOCKOUTOFWK are retrieve-only values for RTRV-PROTNSW-OCn commands. They are not applicable for the OPR-PROTNSW-OCn commands. RING and SPAN are the only allowed values for BLSR protection
<ul style="list-style-type: none"> <li>• FRCDWKSWBK</li> </ul>	Working unit is forced to switch back to working
<ul style="list-style-type: none"> <li>• FRCDWKSWPR</li> </ul>	Working unit is forced to switch to the protection unit

**Table 21-147** RTRV-PROTNSW-<MOD2DWDMPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
• LOCKOUTOFPR	Lockout of protection
• LOCKOUTOFWK	Lockout of working
• MANWKSWBK	Manual switch of working unit back to working
• MANWKSWPR	Manual switch of working unit back to the protection unit
• RING	BLSR ring switch type
• SPAN	BLSR span switch type

## 21.75 RTRV-PROTNSW-<OCN\_TYPE>

Retrieve Protection Switch (OC3, OC12, OC48, OC192)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the switching state of a SONET line specified in the AID.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

### Category

Protection

### Security

Retrieve



Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GFP
	ED-T1	RTRV-GIGE
	ED-T3	RTRV-HDLC
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
	ENT-<MOD1PAYLOAD>	RTRV-POS
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<OCN_TYPE>	RTRV-T1
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS	RTRV-TH-<MOD2>
	OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
	OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-ALMTH-<MOD2>
	RLS-LPBK-<MOD2>	SET-TH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format** RTRV-PROTNSW-<OCN\_TYPE>:[<TID>]:<AID>:<CTAG>[:::];

**Input Example** RTRV-PROTNSW-OC48:CISCO:FAC-5-1:123;

**Input Parameters****Table 21-148 RTRV-PROTNSW-<OCN\_TYPE> Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AID>:<SC>,[<SWITCHTYPE>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-5-1:MAN,MANWKSWBK”
;
```

**Output Parameters****Table 21-149 RTRV-PROTNSW-<OCN\_TYPE> Output Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
SC	Switch command to be initiated on the paths Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>MAN</li> </ul>	Requests a manual switch of the facility
SWITCHTYPE	Switch type. Optional Parameter type is SWITCH_TYPE—BLSR switch type. MANWKSWBK, MANWKSWPR, FRCDWKSWBK, FRCDWKSWPR, LOCKOUTOFPR, and LOCKOUTOFWK are retrieve-only values for RTRV-PROTNSW-OCn commands. They are not applicable for the OPR-PROTNSW-OCn commands. RING and SPAN are the only allowed values for BLSR protection
<ul style="list-style-type: none"> <li>FRCDWKSWBK</li> </ul>	Working unit is forced to switch back to working
<ul style="list-style-type: none"> <li>FRCDWKSWPR</li> </ul>	Working unit is forced to switch to the protection unit

**Table 21-149** RTRV-PROTNSW-<OCN\_TYPE> Output Parameters (continued)

Parameter and Values	Description
• LOCKOUTOFPR	Lockout of protection
• LOCKOUTOFWK	Lockout of working
• MANWKSWBK	Manual switch of working unit back to working
• MANWKSWPR	Manual switch of working unit back to the protection unit
• RING	BLSR ring switch type
• SPAN	BLSR span switch type

## 21.76 RTRV-PROTNSW-<PATH>

Retrieve Protection Switch (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the switching state of a SONET Path Protection STS path specified in the AID. Because the GR-1400 does not allow the LOCKOUT\_OF\_WORKING on the Path Protection WORKING path/AID, the “AID:LOCKOUT,LOCKOUTOFWK” does not appear in this protection switch retrieval result.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

### Category

Protection

### Security

Retrieve

### Related Commands

DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-CRS-<PATH>
DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-NE-PATH
ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-ROLL-<MOD_PATH>
ED-NE-PATH	RTRV-<PATH>	

### Input Format

RTRV-PROTNSW-<PATH>:[<TID>]:<SRC>:<CTAG>[::::];

### Input Example

RTRV-PROTNSW-ST1:CISCO:STS-5-1-1:123;

## Input Parameters

Table 21-150 RTRV-PROTNSW-&lt;PATH&gt; Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.9 CrossConnectId” section on page 25-15. Must not be null

## Output Format

```
SID DATE TIME
M CTAG COMPLD
“<CROSSCONNECTID>:<SC>,[<SWITCHTYPE>]”
;
```

## Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“STS-5-1-1:MAN,MANWKSWBK”
;
```

## Output Parameters

Table 21-151 RTRV-PROTNSW-&lt;PATH&gt; Output Parameters

Parameter and Values	Description
CROSSCONNECTID	Access identifier from the “25.1.9 CrossConnectId” section on page 25-15
SC	Switch command that is to be initiated on the paths Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>MAN</li> </ul>	Requests a manual switch of the facility
SWITCHTYPE	Switch type. Optional Parameter type is SWITCH_TYPE—BLSR switch type. MANWKSWBK, MANWKSWPR, FRCDWKSWBK, FRCDWKSWPR, LOCKOUTOFPR, and LOCKOUTOFWK are retrieve-only values for RTRV-PROTNSW-OCn commands. They are not applicable for the OPR-PROTNSW-OCn commands. RING and SPAN are the only allowed values for BLSR protection
<ul style="list-style-type: none"> <li>FRCDWKSWBK</li> </ul>	Working unit is forced to switch back to working
<ul style="list-style-type: none"> <li>FRCDWKSWPR</li> </ul>	Working unit is forced to switch to the protection unit

**Table 21-151 RTRV-PROTNSW-<PATH> Output Parameters (continued)**

Parameter and Values	Description
• LOCKOUTOFPR	Lockout of protection
• LOCKOUTOFWK	Lockout of working
• MANWKSWBK	Manual switch of working unit back to working
• MANWKSWPR	Manual switch of working unit back to the protection unit
• RING	BLSR ring switch type
• SPAN	BLSR span switch type

## 21.77 RTRV-PROTNSW-OCH

Retrieve Protection Switch Optical Channel

### Usage Guidelines

Cisco ONS 15454

This command retrieves the protection switch status of a TXPP\_MR\_2.5G card.

### Category

DWDM

### Security

Retrieve

### Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
ED-FFP-OCH	ENT-OSC	RTRV-OCH
ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OMS
ED-LNKTERM	OPR-LASER-OTS	RTRV-OSC
ED-OCH	OPR-PROTNSW-OCH	RTRV-OTS
ED-OMS	OPR-SLV-WDMANS	RTRV-SLV-WDMANS
ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

### Input Format

RTRV-PROTNSW-OCH:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-PROTNSW-OCH:VA454-22:CHAN-2-2:100;

### Input Parameters

**Table 21-152 RTRV-PROTNSW-OCH Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.7 CHANNEL</a> ” section on <a href="#">page 25-14</a> . Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>:<SW>,<SWTYPE>”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“CHAN-2-2:FRCD,FRCDWKSWBK”
;
```

### Output Parameters

**Table 21-153 RTRV-PROTNSW-OCH Output Parameters**

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.7 CHANNEL</a> ” section on <a href="#">page 25-14</a>
SW	Indicates the switch operation Parameter type is SW—the type of switch to be initiated
<ul style="list-style-type: none"> <li>• APS-CLEAR</li> </ul>	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• CLEAR</li> </ul>	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• EXERCISE</li> </ul>	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
<ul style="list-style-type: none"> <li>• FRCD</li> </ul>	Forces a switch unless another FRCD or LOCKOUT is in effect
<ul style="list-style-type: none"> <li>• LOCKOUT</li> </ul>	Locks the facility out of switching. The system cannot switch to this facility to carry service
<ul style="list-style-type: none"> <li>• MAN</li> </ul>	Requests a manual switch of the facility

Table 21-153 RTRV-PROTNSW-OCH Output Parameters (continued)

Parameter and Values	Description
<b>SWITCHTYPE</b>	Indicates the switch type operation Parameter type is SWITCH_TYPE—BLSR switch type. MANWKSWBK, MANWKSWPR, FRCDWKSWBK, FRCDWKSWPR, LOCKOUTOFPR, and LOCKOUTOFWK are retrieve-only values for RTRV-PROTNSW-OCn commands. They are not applicable for the OPR-PROTNSW-OCn commands. RING and SPAN are the only allowed values for BLSR protection
• FRCDWKSWBK	Working unit is forced to switch back to working
• FRCDWKSWPR	Working unit is forced to switch to the protection unit
• LOCKOUTOFPR	Lockout of protection
• LOCKOUTOFWK	Lockout of working
• MANWKSWBK	Manual switch of working unit back to working
• MANWKSWPR	Manual switch of working unit back to the protection unit
• RING	BLSR ring switch type
• SPAN	BLSR span switch type

## 21.78 RTRV-PROTOCOL

Retrieve Protocol

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the status of a protocol/service supported in the NE. Valid protocols include: SHELL, EMS, TL1 and SNMP. If the AID is not specified, the status of all the protocols is retrieved.



### Note

If the AID is TL1, the status can be retrieved to show if the protocol is in SECURE or UNSECURE mode.

### Category

Security

### Security

Retrieve

### Related Commands

—

### Input Format

RTRV-PROTOCOL:[<TID>]:[<AID>]:<CTAG>;

### Input Example

RTRV-PROTOCOL::EMS:123;

## Input Parameters

Table 21-154 RTRV-PROTOCOL Input Parameters

Parameter and Values	Description
<b>AID</b>	Identifies the protocol/service to which the command pertains. Optional. Defaults to ALL. A null value is equivalent to ALL Parameter type is PROTOCOLAID—AID for the protocol/service
• EMS	CTC/CTM protocol/service
• SHELL	Shell/file system access protocol
• SNMP	SNMP protocol/service
• TL1	TL1 protocol service

## Output Format

```

SID DATE TIME
M CTAG COMPLD
  "<PROTOCOLAID>:<PROTOCOLSTAT>"
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "EMS:UNSECURE"
;

```

## Output Parameters

Table 21-155 RTRV-PROTOCOL Output Parameters

Parameter and Values	Description
<b>PROTOCOLAID</b>	Identifies the protocol/service to which the command pertains Parameter type is PROTOCOLAID—AID for the protocol/service
• EMS	CTC/CTM protocol/service
• SHELL	Shell/file system access protocol
• SNMP	SNMP protocol/service
• TL1	TL1 protocol/service
<b>PROTOCOLSTAT</b>	Identifies the status of the protocol/service Parameter type is PROTOCOLSTAT—status of the protocol
• DISABLED	The protocol cannot be used
• SECURE	The protocol is enabled and communications using the protocol are sure, for example, through SSH. Not applicable for SNMP protocols
• UNSECURE	The protocol is enabled but communication is not secure, for example, through telnet



## 21.79 RTRV-PTHTRC-<PATH>

Retrieve Path Trace (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the contents of the SONET path trace message.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

The path trace message is a 64-character string with the last two characters reserved for the terminating CR (carriage return) and the LF (line feed). The message can be an incoming path trace message, an expected incoming path trace message, or an outgoing path trace message, which is inserted into the path overhead of the outgoing signal.

The path trace mode has three modes: OFF, MANUAL, and AUTO. The path trace mode defaults to OFF mode. The MANUAL mode performs the comparison of the received string with the user-entered expected string. The AUTO mode performs the comparison of the present received string with an expected string set to a previously received string. If there is a mismatch, the TIM-P alarm is raised. When the path trace mode is in OFF mode, there is no path trace processing, and all the alarm and state conditions are reset.

When the expected string is queried under the OFF path trace mode, the expected string is a copy of the provisioned string or NULL. When an expected string is queried under the MANUAL path trace mode, the expected string is a copy of the user-entered string. When an expected string is queried under the AUTO path trace mode, the expected string is a copy of the acquired received string or NULL if the string has not been acquired.

When the incoming string is queried under the OFF path trace mode, the incoming string is NULL. When an incoming string is queried under the MANUAL or AUTO path trace mode, the incoming string is a copy of the received string or NULL if the string has not been received.

When the transmitted string is queried under the OFF, MANUAL or AUTO path trace mode, the transmitted string is the provisioned transmit string.



### Note

- A null value for the <MSGTYPE> defaults to INCTRC.
- Only the NEND of the location value is supported. A null value of the location defaults to NEND.
- Sending a FEND of the location with this command will return an “unsupported locn value” error message.
- J1 (EXPTRC/INCTRC) is implemented on the DS1/DS1N, DS3E/DS3NE, DS3XM, EC1, OC3, OC48A, OC192, OC192-XFP, and MRC-12 cards.
- TRC is supported only on DS1(N), DS3(N)E, and DS3XM cards.
- The virtual facility AID (VFAC) is only valid on slots holding ML-Series cards.
- After the BLSR switch, the working path is switched out and the traffic goes through the protection path. The J1 trace message can be retrieved from the protection STS path.
- If there is an STS PCA on the protection path during the BLSR switch, the PCA path is preemptive. If this command is sent on the protection path after a BLSR switch, the command will return the trace message off of the protection path and not from the PCA path.
- Starting with Release 5.0, the J2 path trace on the VT1.5 is supported on the VT1.5 cross-connection of the DS3XM-12 card.

- The VT2 modifier is not supported in this release.
- According to GR-833, RTRV-PTHTRC-<PATH> can only have a single output row, therefore you cannot specify multiple AIDs using '&' with this command because each AID would require it's own output row. You also cannot use the AIDs that end in 'ALL' because this might also result in multiple output rows.

**Category** Troubleshooting and Test Access

**Security** Retrieve

Related Commands	DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-CRS-<PATH>
	DLT-ROLL-<MOD_PATH>	ENT-ROLL-<MOD_PATH>	RTRV-NE-PATH
	ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
	ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-ROLL-<MOD_PATH>
	ED-NE-PATH	RTRV-<PATH>	

**Input Format** RTRV-PTHTRC-<PATH>[:<TID>]:<SRC>:<CTAG>::[:<MSGTYPE>][:<LOCN>];

**Input Example** RTRV-PTHTRC-STS1:CISCO:STS-2-1-1:123::EXPTRC:NEND;

#### Input Parameters

**Table 21-156 RTRV-PTHTRC-<PATH> Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the <a href="#">“25.1.9 CrossConnectId”</a> section on page 25-15. Must not be null
<b>MSGTYPE</b>	Type of autonomous message to be retrieved. A null value defaults to INCTRC Parameter type is MSGTYPE—type of trace message
<ul style="list-style-type: none"> <li>• EXPTRC</li> </ul>	Expected incoming path trace message
<ul style="list-style-type: none"> <li>• INCTRC</li> </ul>	Incoming path trace message
<ul style="list-style-type: none"> <li>• TRC</li> </ul>	Outgoing path trace message
<b>LOCN</b>	Location associated with a particular command in reference to the entity identified by the AID Parameter type is LOCATION—the location where the action is to take place
<ul style="list-style-type: none"> <li>• FEND</li> </ul>	Action occurs on the Far End of the facility
<ul style="list-style-type: none"> <li>• NEND</li> </ul>	Action occurs on the Near End of the facility

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<TRACMSG>"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"TRACMSG"
;
```

**Output Parameters**

*Table 21-157 RTRV-PTHTRC-<PATH> Output Parameters*

Parameter and Values	Description
TRACMSG	The path trace message returned to the requester. The message can be up to 64 characters in length with the last two characters reserved for the CR (carriage return) and the LF (line feed). String

## 21.80 RTRV-RMONTH-<MOD2\_RMON>

Retrieve Remote Monitoring Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, FSTE, G1000, GFPOS, GIGE, OCH, POS)

**Usage Guidelines** Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves the thresholds defined in the RMON alarm table.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

**Category** Performance

**Security** Retrieve

Related Commands		
	ALW-PMREPT-ALL	RTRV-PMSCHED-<MOD2>
	DLT-RMONTH-<MOD2_RMON>	RTRV-PMSCHED-ALL
	ENT-RMONTH-<MOD2_RMON>	RTRV-TH-<MOD2>
	INH-PMREPT-ALL	RTRV-TH-ALL
	INIT-REG-<MOD2>	SCHED-PMREPT-<MOD2>
	REPT PM <MOD2>	SET-PMMODE-<STS_PATH>
	RTRV-PM-<MOD2>	SET-TH-<MOD2>
	RTRV-PMMODE-<STS_PATH>	

Input Format	
	RTRV-RMONTH-<MOD2_RMON>:[<TID>]:<AID>:<CTAG>::[<MONTYPE>],,,, [<INTVL>]:[RISE=<RISE>],[FALL=<FALL>],[SAMPLE=<SAMPLE>], [STARTUP=<STARTUP>][:];

Input Example	
	RTRV-RMONTH-GIGE:CISCO:FAC-2-1:1234::ETHERSTATSOCTETS,,,,100:RISE=1000, FALL=100,SAMPLE=DELTA,STARTUP=RISING;

### Input Parameters

**Table 21-158 RTRV-RMONTH-<MOD2\_RMON> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. AID for the facility that the data statistic is managed by. Must not be null
<b>MONTYPE</b>	Monitored type. Type of RMON monitored data statistic. A null value is equivalent to ALL Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section

**Table 21-158 RTRV-RMONTH-<MOD2\_RMON> Input Parameters (continued)**

Parameter and Values	Description
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error

Table 21-158 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets

**Table 21-158 RTRV-RMONTH-<MOD2\_RMON> Input Parameters (continued)**

Parameter and Values	Description
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW

Table 21-158 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Input Parameters (continued)

Parameter and Values	Description
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path



**Table 21-158 RTRV-RMONTH-<MOD2\_RMON> Input Parameters (continued)**

Parameter and Values	Description
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count
<b>INTVL</b>	The interval in seconds during which the data is sampled and compared with the rising and falling threshold. A valid value is any integer larger than or equal to 10 (seconds). A null value is equivalent to ALL
<b>RISE</b>	The rising threshold for the sampled statistic. A valid value is any integer. A null value is equivalent to ALL
<b>FALL</b>	The falling threshold. A valid value is any integer smaller than the rising threshold. A null value is equivalent to ALL
<b>SAMPLE</b>	The method of calculating the value to be compared to the thresholds. A null value is equivalent to ALL  Parameter type is SAMPLE_TYPE—describes how the data will be calculated during the sampling period
• ABSOLUTE	Comparing directly
• DELTA	Comparing with the current value of the selected variable subtracted by the last sample
<b>STARTUP</b>	Dictates whether an event will generate if the first valid sample is greater than or equal to the rising threshold, less than or equal to the falling threshold, or both. A null value is equivalent to ALL  Parameter type is STARTUP_TYPE—indicates whether an event will be generated when the first valid sample is crossing the rising or falling threshold
• FALLING	Generates the event when the sample is smaller than or equal to the falling threshold
• RISING	Generates the event when the sample is greater than or equal to the rising threshold
• RISING-OR-FALLING	Generates the event when the sample is crossing the rising threshold, or the falling threshold

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AIDUNIONID>,<AIDTYPE>:<MONTYPE>,,,,<INTVL>:INDEX=<INDEX>,
RISE=<RISE>,FALL=<FALL>,SAMPLE=<SAMPLE>,STARTUP=<STARTUP>"
;

```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "FAC-2-1,GIGE:ETHERSTATSOCTETS,,,,100:INDEX=2,RISE=1000,FALL=100,
  SAMPLE=DELTA,STARTUP=RISING"
;
```

## Output Parameters

Table 21-159 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Output Parameters

Parameter and Values	Description
<b>AIDUNIONID</b>	Access identifier from the “25.1.14 FACILITY” section on <a href="#">page 25-28</a>
<b>AIDTYPE</b>	The type of facility, link, or other addressable entity targeted by the message Parameter type is MOD2_RMON—line modifiers
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• FSTE	Fast Ethernet (10/100 Megabits per second)
• G1000	Gigabit Ethernet (used for G1000 ports)
• GFPOS	Generic framing protocol over SONET
• GIGE	Gigabit Ethernet (used for Non-G1000 ports)
• OCH	Optical channel
• POS	Packet over SONET
<b>MONTYPE</b>	Monitored type. Type of RMON monitored data statistic Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups

**Table 21-159 RTRV-RMONTH-<MOD2\_RMON> Output Parameters (continued)**

Parameter and Values	Description
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block

Table 21-159 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Output Parameters (continued)

Parameter and Values	Description
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA

Table 21-159 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Output Parameters (continued)

Parameter and Values	Description
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW

Table 21-159 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Output Parameters (continued)

Parameter and Values	Description
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)

Table 21-159 RTRV-RMONTH-&lt;MOD2\_RMON&gt; Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>UASP</li> </ul>	Unavailable Second—Path
<ul style="list-style-type: none"> <li>UAS-PM</li> </ul>	OTN—Unavailable Second—Path Monitor Point
<ul style="list-style-type: none"> <li>UAS-SM</li> </ul>	OTN—Unavailable Second—Section Monitor Point
<ul style="list-style-type: none"> <li>UASV</li> </ul>	Unavailable Second—VT Path
<ul style="list-style-type: none"> <li>UNC-WORDS</li> </ul>	FEC—Uncorrectable Words
<ul style="list-style-type: none"> <li>VPC</li> </ul>	Valid Packet Count
<b>INTVL</b>	The interval in seconds over which the data is sampled and compared with the rising and falling threshold. A valid value is any integer larger than or equal to 10 (seconds)
<b>INDEX</b>	The index for the threshold created by the system in the RMON threshold table. Integer
<b>RISE</b>	The rising threshold for the sampled statistic. A valid value is any integer
<b>FALL</b>	The falling threshold. A valid value is any integer smaller than the rising threshold. Integer
<b>SAMPLE</b>	The method of calculating the value to be compared to the thresholds Parameter type is SAMPLE_TYPE—describes how the data will be calculated during the sampling period
<ul style="list-style-type: none"> <li>ABSOLUTE</li> </ul>	Comparing directly
<ul style="list-style-type: none"> <li>DELTA</li> </ul>	Comparing with the current value of the selected variable subtracted by the last sample
<b>STARTUP</b>	Dictates whether an event will generate if the first valid sample is greater than or equal to the rising threshold, less than or equal to the falling threshold, or both Parameter type is STARTUP_TYPE—indicates whether an event will be generated when the first valid sample is crossing the rising or falling threshold
<ul style="list-style-type: none"> <li>FALLING</li> </ul>	Generates the event when the sample is smaller than or equal to the falling threshold
<ul style="list-style-type: none"> <li>RISING</li> </ul>	Generates the event when the sample is greater than or equal to the rising threshold
<ul style="list-style-type: none"> <li>RISING-OR-FALLING</li> </ul>	Generates the event when the sample is crossing the rising threshold, or the falling threshold



## 21.81 RTRV-ROLL-<MOD\_PATH>

Retrieve Roll (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VC11, VC12, VC3, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command retrieves roll data parameters.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

### Category

Bridge and Roll

### Security

Retrieve

### Related Commands

DLT-CRS-<PATH>	OPR-PROTNSW-<PATH>
DLT-ROLL-<MOD_PATH>	RLS-PROTNSW-<PATH>
ED-<MOD_PATH>	RTRV-<PATH>
ED-CRS-<PATH>	RTRV-CRS-<PATH>
ED-NE-PATH	RTRV-NE-PATH
ENT-CRS-<PATH>	RTRV-PROTNSW-<PATH>
ENT-ROLL-<MOD_PATH>	RTRV-PTHTRC-<PATH>

### Input Format

RTRV-ROLL-<MOD\_PATH>:[<TID>]:<SRC>:<CTAG>;

### Input Example

RTRV-ROLL-STS1:CISCO:STS-1-1-1:6;

### Input Parameters

**Table 21-160 RTRV-ROLL-<MOD\_PATH> Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the <a href="#">“25.1.10 CrossConnectId1” section on page 25-20</a> (except VCM and FACILITY). Roll path (STS or VT). Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<FROM>,<TO>:RFROM=<RFROM>,RTO=<RTO>,[RMODE=<RMODE>],
VLDSIG=<VLDSIG>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "STS-1-1-1,STS-2-1-1:RFROM=STS-2-1-1,RTO=STS-3-1-1,RMODE=AUTO,VLDSIG=N"
;
```

**Output Parameters****Table 21-161 RTRV-ROLL-<MOD\_PATH> Output Parameters**

Parameter and Values	Description
<b>FROM</b>	One of the termination points (legs) of the existing cross-connection. Access identifier from the <a href="#">“25.1.10 CrossConnectId1” section on page 25-20</a> (except VCM and FACILITY)
<b>TO</b>	One of the termination points (legs) of the existing cross-connection. Access identifier from the <a href="#">“25.1.10 CrossConnectId1” section on page 25-20</a> (except VCM and FACILITY)
<b>RFROM</b>	The termination point of the existing cross-connect that is to be rolled. AID from the <a href="#">“25.1.10 CrossConnectId1” section on page 25-20</a> (except VCM and FACILITY)
<b>RTO</b>	The termination point that will become a leg of the new cross-connection. AID from the <a href="#">“25.1.10 CrossConnectId1” section on page 25-20</a> (except VCM and FACILITY)
<b>RMODE</b>	The rolling mode of operation. Optional Parameter type is ALS_MODE—specifies the working mode for the automatic laser shutdown (ALS) functionality
• AUTO	Automatic
• DISABLED	Disabled
• MAN	Manual
• MAN-RESTART	Manual Restart for Test
<b>VLDSIG</b>	Shows whether or not the roll has received a valid signal. VLDSIG is Y if the signal is valid and N if it is not Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute

## 21.82 RTRV-ROUTE

Retrieve Route

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves static routes.

**Note**

- There is no DNS service available on the node. Only numeric IP addresses will be accepted.
- The optional parameters DESTIP, IPMASK, NXTHOP, and COST are used to filter the retrieved static routes. In the absence of any optional parameter, all the static routes on the node will be retrieved.

**Category**

System

**Security**

Retrieve

**Related Commands**

DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-PROXY
DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	

**Input Format**

RTRV-ROUTE:[&lt;TID&gt;]::&lt;CTAG&gt;::[&lt;DESTIP&gt;],[&lt;IPMASK&gt;],[&lt;NXTHOP&gt;],[&lt;COST&gt;];

**Input Example**

RTRV-ROUTE:CISCO::123::10.64.72.57,255.255.255.0,10.64.10.1,200;

**Input Parameters****Table 21-162 RTRV-ROUTE Input Parameters**

Parameter and Values	Description
<b>DESTIP</b>	Destination tip. String. A null value is equivalent to ALL
<b>IPMASK</b>	IP mask. String. A null value is equivalent to ALL
<b>NXTHOP</b>	Next hop. String. A null value is equivalent to ALL
<b>COST</b>	Unsigned integer. Valid range is from 1 to 32,797. A null value is equivalent to ALL

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“;:<DESTIP>,<IPMASK>,<NXTHOP>,<COST>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“;:\“10.64.72.57\”,\“255.255.255.0\”,\“10.64.10.1\”,200”
;
```

**Output Parameters****Table 21-163 RTRV-ROUTE Output Parameters**

Parameter and Values	Description
DESTIP	Destination ip. String
IPMASK	IP mask. String
NXTHOP	Next hop. String
COST	Cost. Integer

## 21.83 RTRV-ROUTE-GRE

Retrieve Route Generic Routing Encapsulation

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command displays the existing GRE tunnels.

**Category**

System

**Security**

Retrieve

**Related Commands**

DLT-ROUTE	ENT-ROUTE	RTRV-ROUTE
DLT-ROUTE-GRE	ENT-ROUTE-GRE	RTRV-TADRMAP
DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-PROXY
DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	

**Input Format**

RTRV-ROUTE-GRE:[<TID>]::<CTAG>[:::];

**Input Example**

RTRV-ROUTE-GRE:CISCO::123;

**Input Parameters****Table 21-164 RTRV-ROUTE-GRE Input Parameters**

Parameter and Values	Description
—	

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“,:IPADDR=<IPADDR>,IPMASK=<IPMASK>,NSAP=<NSAP>,COST=<COST>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“,:IPADDR=10.64.72.57,IPMASK=255.255.255.0,
NSAP=39840F80FFFFFF0000DDDDAA000010CFB4910200,COST=110”
;
```

**Output Parameters***Table 21-165 RTRV-ROUTE-GRE Output Parameters*

Parameter and Values	Description
IPADDR	IP address of the tunnel endpoint. String
IPMASK	Subnet mask for the tunnel endpoint. String
NSAP	NSAP address for the tunnel endpoint. String
COST	Routing cost associated with the tunnel. Integer

## 21.84 RTRV-SLV-WDMANS

Retrieve Span Loss Verification Wavelength Division Multiplexing Automatic Node Set Up

**Usage Guidelines**

Cisco ONS 15454

This command retrieves the expected span loss verification provisioned by the ED-SLV-WDMANS command.

**Category**

DWDM

**Security**

Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
	DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
	DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-FFP-OCH	ENT-OSC	RTRV-OCH
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OMS
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OSC
	ED-OCH	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OMS	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
	ED-OSC	OPR-WDMANS	RTRV-TRC-OCH
	ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
	ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-SLV-WDMANS:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-SLV-WDMANS:VA454-22:WDMANS-E:116;

### Input Parameters

*Table 21-166 RTRV-SLV-WDMANS Input Parameters*

Parameter and Values	Description
AID	Access identifier from the “25.1.29 WDMANS” section on page 25-42. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[HIGHSLVEXP=<HIGHSLVEXP>],[LOWSLVEXP=<LOWSLVEXP>],
[SLVACT=<SLVACT>],[RESOLUTION=<RESOLUTION>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“WDMANS-E::HIGHSLVEXP=10.0,LOWSLVEXP=5.0,SLVACT=10.0,RESOLUTION=1.0:”
;
```

## Output Parameters

Table 21-167 RTRV-SLV-WDMANS Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.29 WDMANS” section on <a href="#">page 25-42</a>
<b>HIGHSLVEXP</b>	The high range value of the expected span loss verification. Float. Optional
<b>LOWSLVEXP</b>	The low range value of the expected span loss verification. Float. Optional
<b>SLVACT</b>	The value of the calculated span loss verification. Float. Optional
<b>RESOLUTION</b>	The value of the resolution applied to the calculated span loss verification. Float. Optional

## 21.85 RTRV-STS

Retrieve Synchronous Transport Signal

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the attributes associated with an STS path based on the granularity level of NE/SLOT-specific STSs.

Supported AIDs are ALL, SLOT-N (N=1,2,...,ALL), STS-<SLOT>[-<PORT>]-<STS NUMBER>.

The SFBER, SDBER, RVRTV, RVTM, SWPDIP, HOLDOFTIMER, and UPSRPTHSTATE parameters only apply to Path Protection.

The path trace message is a 64 character string including the terminating CR (carriage return) and LF (line feed) that is transported in the J1 byte of the SONET STS Path overhead.

The EXPTRC indicates that the contents of the expected incoming path trace are provisioned by the user in the ED-STS\_PATH command. The TRC indicates the contents of the outgoing path trace message. The INCTRC indicates the contents of the incoming path trace message.

The path trace mode has three modes: OFF, MANUAL, and AUTO. The mode defaults to OFF. The MANUAL mode compares the received string with the user entered expected string. The AUTO mode compares the present received string with an expected string set to a previously received string. If there is a mismatch, the TIM-P alarm is raised. When the path trace mode is in OFF mode, there is no path trace processing, and all the alarm and state conditions are reset.

When the expected string is queried under the OFF path trace mode, the expected string is a copy of the provisioned string or NULL. When an expected string is queried under the MANUAL path trace mode, the expected string is a copy of the user entered string. When an expected string is queried under the AUTO path trace mode, the expected string is a copy of the acquired received string or NULL if the string has not been acquired.

When the incoming string is queried under the OFF path trace mode, the incoming string is NULL. When an incoming string is queried under the MANUAL or AUTO path trace mode, the incoming string is a copy of the received string or NULL if the string has not been received.

J1 (EXPTRC) is implemented on the DS1/DS1N, DS3E/DS3NE, DS3XM, EC1, DS3-EC1-48 OC3, OC12-4, OC48AS, OC192, OC192-XFP, and MRC-12 cards.

TRC and INCTRC are supported on DS1(N), DS3(N)E, DS3-EC1-48, DS3XM, OC192-XFP and MRC-12 cards.

Beginning with Release 5.0, the ED-VT1 command is only supported to edit the J2 path trace on the VT1.5 cross-connection of the DS3XM-12 card.

**Category** Paths

**Security** Retrieve

**Related Commands** RTRV-<PATH> RTRV-VT

**Input Format** RTRV-ST5:<TID>:<AID>:<CTAG>;

**Input Example** RTRV-ST5:TID:ST5-2-1-1:1;

**Input Parameters**

*Table 21-168 RTRV-ST5 Input Parameters*

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.2 AidUnionId”</a> section on page 25-9

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[LEVEL=<LEVEL>],[SFBER=<SFBER>],[SDBER=<SDBER>],[RVRTV=<RVRTV>],
[RVTM=<RVTM>],[SWPDIP=<SWPDIP>],[HOLDOFFTIMER=<HOLDOFFTIMER>],
[EXPTRC=<EXPTRC>],[TRC=<TRC>],[INCTRC=<INCTRC>],[TRCMODE=<TRCMODE>],
[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[UPSRPTHSTATE=<UPSRPTHSTATE>],
[C2=<C>],[BLSRPTHSTATE=<BLSRPTHSTATE>]:<PST_PSTQ>,<SSTQ>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“ST5-2-1-4::LEVEL=ST53C,SFBER=1E-3,SDBER=1E-5,RVRTV=Y,RVTM=1.0,SWPDIP=Y,
HOLDOFFTIMER=2000,EXPTRC=“EXPTRCSTRING”,TRC=“TRCSTRING”,
INCTRC=“INCTRCSTRING”,TRCMODE=AUTO,TACC=8,TAPTYPE=SINGLE,
UPSRPTHSTATE=ACT,C2=0X04,BLSRPTHSTATE=PROTPHACT:OOS-AU,AINS”
;
```



## Output Parameters

Table 21-169 RTRV-ST5 Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.2 AidUnionId” section on page 25-9
<b>LEVEL</b>	The rate of the cross-connect. Applicable only to STS paths in SONET. Optional Parameter type is STS_PATH—modifier for some STS commands
• STS1	Synchronous Transport Signal level-1 (51 Mbps)
• STS12C	Synchronous Transport Signal level-12 Concatenated (622 Mbps)
• STS18C	Synchronous Transport Signal level-18 Concatenated (933 Mbps)
• STS192C	Synchronous Transport Signal level-192 (9952 Mbps)
• STS24C	Synchronous Transport Signal level-24 Concatenated (1240 Mbps)
• STS36C	Synchronous Transport Signal level-36 Concatenated (1866 Mbps)
• STS3C	Synchronous Transport Signal level-3 Concatenated (155 Mbps)
• STS48C	Synchronous Transport Signal level-48 Concatenated (2488 Mbps)
• STS6C	Synchronous Transport Signal level-3 Concatenated (310 Mbps)
• STS9C	Synchronous Transport Signal level-9 Concatenated (465 Mbps)
<b>SFBER</b>	An STS path SFBER that applies only to path protection and only to STS-level paths in SONET. Defaults to 1E-4. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	An STS path SDBER that applies only to path protection and only to STS-level paths in SONET. Defaults to 1E-6. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9

Table 21-169 RTRV-STS Output Parameters (continued)

Parameter and Values	Description
<b>RVRTV</b>	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Only applies to path protection Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. RVTM is not allowed to be set while “RVRTV” is N. Only applies to path protection Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>SWPDIP</b>	Switch on PDI-P. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>HOLDOFFTIMER</b>	Hold off timer. Integer. Optional
<b>EXPTRC</b>	Expected path trace content. A 64-character ASCII string including the terminating CR (carriage return) and LF (line feed). Indicates the expected path trace message (J1) contents. Applicable only to STS-Level Paths in SONET. Defaults to null when path protection path is created. Optional
<b>TRC</b>	The path trace message to be transmitted. The trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (hex 00) and CR and LF. A null value defaults to the NE transmitting null characters (Hex 00). Applicable to STS-level paths in SONET (STS <sub>n</sub> ). String. Optional
<b>INCTRC</b>	Identifies the incoming path trace message contents. Can be any combination of 64-characters. Applicable only to STS-level paths in SONET. Defaults to null when a path protection path is created. String. Optional
<b>TRCMODE</b>	Path trace mode. Applicable only to STS-level Paths in SONET (STS <sub>n</sub> ). Defaults to the OFF mode. Optional Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TAMP is detected
• MAN	Use the provisioned expected string as the expected string

**Table 21-169 RTRV-STS Output Parameters (continued)**

Parameter and Values	Description
<ul style="list-style-type: none"> <li>MAN-NO-AIS</li> </ul>	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TAMP is detected
<ul style="list-style-type: none"> <li>OFF</li> </ul>	Turn off path trace capability. Nothing will be reported
<b>TACC</b>	Indicates whether the digroup being provisioned is to be used as a test access digroup. Default is N. Integer. Optional
<b>TAPTYPE</b>	TAP type. Optional Parameter type is TAPTYPE—test access point type
<ul style="list-style-type: none"> <li>DUAL</li> </ul>	Dual FAD
<ul style="list-style-type: none"> <li>SINGLE</li> </ul>	Single FAD
<b>UPSRPTHSTATE</b>	Indicates whether a given AID is the working or standby path of a Path Protection cross-connect. Optional Parameter type is STATUS—status of the unit in the protection pair
<ul style="list-style-type: none"> <li>ACT</li> </ul>	The entity is the active unit in the shelf
<ul style="list-style-type: none"> <li>NA</li> </ul>	Status is unavailable
<ul style="list-style-type: none"> <li>STBY</li> </ul>	The entity is the standby unit in the shelf
<b>C</b>	The c2 byte hex code. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Optional Parameter type is C2_BYTE—c2 byte hex code
<ul style="list-style-type: none"> <li>0X00</li> </ul>	Unequipped
<ul style="list-style-type: none"> <li>0X01</li> </ul>	Equipped-Non Specific payload
<ul style="list-style-type: none"> <li>0X02</li> </ul>	VT-Structured STS-1 SPE
<ul style="list-style-type: none"> <li>0X03</li> </ul>	Locked VT Mode
<ul style="list-style-type: none"> <li>0X04</li> </ul>	Asynchronous Mapping for DS3
<ul style="list-style-type: none"> <li>0X12</li> </ul>	Asynchronous Mapping for DS4NA
<ul style="list-style-type: none"> <li>0X13</li> </ul>	Mapping for ATM
<ul style="list-style-type: none"> <li>0X14</li> </ul>	Mapping for DQDB
<ul style="list-style-type: none"> <li>0X15</li> </ul>	Asynchronous Mapping for FDDI
<ul style="list-style-type: none"> <li>0X16</li> </ul>	HDLC-Over-SONET Mapping
<ul style="list-style-type: none"> <li>0XE1</li> </ul>	VT-structured STS-1 SPE with 1VTx payload defect
<ul style="list-style-type: none"> <li>0XE2</li> </ul>	VT-structured STS-1 SPE with 2VTx payload defects
<ul style="list-style-type: none"> <li>0XE3</li> </ul>	VT-structured STS-1 SPE with 3VTx payload defects
<ul style="list-style-type: none"> <li>0XE4</li> </ul>	VT-structured STS-1 SPE with 4VTx payload defects
<ul style="list-style-type: none"> <li>0XE5</li> </ul>	VT-structured STS-1 SPE with 5VTx payload defects
<ul style="list-style-type: none"> <li>0XE6</li> </ul>	VT-structured STS-1 SPE with 6VTx payload defects
<ul style="list-style-type: none"> <li>0XE7</li> </ul>	VT-structured STS-1 SPE with 7VTx payload defects
<ul style="list-style-type: none"> <li>0XE8</li> </ul>	VT-structured STS-1 SPE with 8VTx payload defects
<ul style="list-style-type: none"> <li>0XE9</li> </ul>	VT-structured STS-1 SPE with 9VTx payload defects

Table 21-169 RTRV-STS Output Parameters (continued)

Parameter and Values	Description
• 0XEA	VT-structured STS-1 SPE with 10VTx payload defects
• 0XEB	VT-structured STS-1 SPE with 11VTx payload defects
• 0XEC	VT-structured STS-1 SPE with 12VTx payload defects
• 0XED	VT-structured STS-1 SPE with 13VTx payload defects
• 0XEE	VT-structured STS-1 SPE with 14VTx payload defects
• 0XEF	VT-structured STS-1 SPE with 15VTx payload defects
• 0XF0	VT-structured STS-1 SPE with 16VTx payload defects
• 0XF1	VT-structured STS-1 SPE with 17VTx payload defects
• 0XF2	VT-structured STS-1 SPE with 18VTx payload defects
• 0XF3	VT-structured STS-1 SPE with 19VTx payload defects
• 0XF4	VT-structured STS-1 SPE with 20VTx payload defects
• 0XF5	VT-structured STS-1 SPE with 21VTx payload defects
• 0XF6	VT-structured STS-1 SPE with 22VTx payload defects
• 0XF7	VT-structured STS-1 SPE with 23VTx payload defects
• 0XF8	VT-structured STS-1 SPE with 24VTx payload defects
• 0XF9	VT-structured STS-1 SPE with 25VTx payload defects
• 0XFA	VT-structured STS-1 SPE with 26VTx payload defects
• 0XFB	VT-structured STS-1 SPE with 27VTx payload defects
• 0XFC	VT-structured STS-1 SPE with 28VTx payload defects
• 0XFE	O.181 Test Signal (TSS1 to TSS3) Mapping
• 0XFF	Reserved, however, C2 is 0XFF if AIS-L is being generated by an optical card or cross-connect downstream
<b>BLSRPTHSTATE</b>	The BLSR path state only if the port is on the BLSR. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Optional Parameter type is BLSR_PTH_STATE—the BLSR path state only if the port is on the BLSR
• PCAPTHACT	Indicates the BLSR is not switched and its PCA path is in the active state
• PCAPTHSTB	Indicates the BLSR is switched and its PCA path is in the standby state
• PROTPTHACT	Indicates the BLSR is switched and its protection path is in the active state
• WKGPTHACT	Indicates the BLSR is not switched and its working path is in the active state
• WKGPTHSTB	Indicates the BLSR is switched and its working path is in the standby state

**Table 21-169 RTRV-STS Output Parameters (continued)**

Parameter and Values	Description
<b>PST_PSTQ</b>	Admin state in the PST_PSTQ format Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
<b>SSTQ</b>	Secondary state of the entity. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.86 RTRV-SYCN

Retrieve Synchronization

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the synchronization reference list used to determine the sources for the NE's reference clock and the BITS output clock. For each clock, up to three synchronization sources can be specified (for example, PRIMARY, SECOND, THIRD).



#### Note

To retrieve/set the timing mode, SSM message Set or Quality of RES information, use the RTRV-NE-SYCN and ED-NE-SYCN commands.



#### Note

The output example shown here is under line timing mode.

### Category

Synchronization

**Security** Retrieve

Related Commands	ED-BITS	REPT ALM SYNCN	RTRV-ALM-SYNCN
	ED-NE-SYNCN	REPT EVT BITS	RTRV-BITS
	ED-SYNCN	REPT EVT SYNCN	RTRV-COND-BITS
	OPR-SYNCNSW	RLS-SYNCNSW	RTRV-COND-SYNCN
	REPT ALM BITS	RTRV-ALM-BITS	RTRV-NE-SYNCN

**Input Format** RTRV-SYNCN:[<TID>]:<AID>:<CTAG>[:[:]];

**Input Example** RTRV-SYNCN:BOYES:SYNC-NE:234;

### Input Parameters

*Table 21-170 RTRV-SYNCH Input Parameters*

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.25 SYNC_REF</a> ” section on page 25-40. Must not be null

### Output Format

SID DATE TIME  
M CTAG COMPLD  
“<AID>:<REF>,<REFVAL>,[<QREF>],[<STATUS>],[<PROTECTSTATUS>]”  
;

### Output Example

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“SYNC-NE:PRI,FAC-1-2,WORK,ACT,PRS”  
;

### Output Parameters

*Table 21-171 RTRV-SYNCN Output Parameters*

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.25 SYNC_REF</a> ” section on page 25-40
REF	Rank of synchronization reference. Access identifier from the “ <a href="#">25.1.26 SYNCSW</a> ” section on page 25-40
REFVAL	Value of a synchronization reference. “ <a href="#">25.1.24 SYN_SRC</a> ” section on page 25-39

Table 21-171 RTRV-SYCN Output Parameters (continued)

Parameter and Values	Description
<b>QREF</b>	Indicates whether the working or protect card (in a protection group) provides timing. This parameter has no significance if the reference source is BITS or INTERNAL and is left blank. Optional  Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level for SONET
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>STATUS</b>	Status. Optional  Parameter type is STATUS—the status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
<b>PROTECTSTATUS</b>	Applicable to 1+1. Designates the role of the entity in the protection group. Either it is the working or the protect entity. Not applicable to the ONS 15600 Platform. Optional  Parameter type is SIDE—the role the unit is playing in the protection group
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group

## 21.87 RTRV-T1

Retrieve T1 Facility

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**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves the DS-1 facilities configuration.

**Note**

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T1 facilities on the ONS 15327 and the ONS 15310-CL are on the XTC/15310-CL-CTX cards.

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**Note**

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The parameters: SYNCMAP, ADMSSM, VTMAP, INHFELPBK, AND PROVIDESYNC are only displayed on the DS1-E1-56 card (ONS 15454).

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**Category**

Ports

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**Security**

Retrieve



Related Commands		
	DLT-<MOD1PAYLOAD>	RMV-<MOD2>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
	DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
	ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
	ED-ALS	RTRV-ALS
	ED-DS1	RTRV-DS1
	ED-EC1	RTRV-EC1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
	ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-FSTE ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE
	ED-HDLC	RTRV-G1000
	ED-POS	RTRV-GFP
	ED-T1	RTRV-GIGE
	ED-T3	RTRV-HDLC
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
	ENT-<MOD1PAYLOAD>	RTRV-POS
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
	INIT-REG-<MOD2>	RTRV-T3
	OPR-ALS OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
	RLS-PROTNSW-<OCN_TYPE>	

**Input Format** RTRV-T1:[<TID>]:<AID>:<CTAG>[::::];

**Input Example** RTRV-T1:TID:FAC-2-1:1223;

## Input Parameters

Table 21-172 RTRV-T1 Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],[TACC=<TAP>],
[TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],
[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],[SYNCMSG=<SYNCMSG>],
[SENDDUS=<SENDDUS>],[RETIME=<RETIME>],[AISONLPBK=<AISONLPBK>],
[AISVONAIIS=<AISVONAIIS>],[AISONLOF=<AISONLOF>],[MODE=<MODE>],
[SYNCMAP=<SYNCMAP>],[ADMSSM=<ADMSSM>],[PROVIDESYNC=<PROVIDESYNC>],
[VTMAP=<VTMAP>],[INHFELPBK=<INHFELPBK>]:<PST_PSTQ>,[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-2-1::LINECDE=AMI,FMT=ESF,LBO=0-131,TACC=8,TAPTYPE=DUAL,SOAK=52,
SOAKLEFT=12-25,SFBER=1E-4,SDBER=1E-7,NAME=“T1 PORT”,SYNCMSG=Y,
SENDDUS=Y,RETIME=Y,AISONLPBK=AIS_ON_LPBK_ALL,AISVONAIIS=Y,AISONLOF=Y,
MODE=FDL,SYNCMAP=ASYN,ADMSSM=STU,PROVIDESYNC=N,VTMAP=GR253,
INHFELPBK=N:OOS-AU,AINS”
;

```

## Output Format

Table 21-173 RTRV-T1 Output Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.14 FACILITY” section on page 25-28
LINECDE	Line code. Optional Parameter type is LINE_CODE—line code
<ul style="list-style-type: none"> <li>AMI</li> <li>B8ZS</li> </ul>	<ul style="list-style-type: none"> <li>Line code value is AMI</li> <li>Line code value is B8ZS (bipolar with three-zero substitution)</li> </ul>
FMT	Digital signal frame format. Optional Parameter type is FRAME_FORMAT—frame format for a T1 port
<ul style="list-style-type: none"> <li>D4</li> <li>ESF</li> <li>UNFRAMED</li> </ul>	<ul style="list-style-type: none"> <li>Frame format is D4</li> <li>Frame format is ESF</li> <li>Frame format is unframed</li> </ul>

**Table 21-173 RTRV-T1 Output Parameters (continued)**

Parameter and Values	Description
<b>LBO</b>	Line build out settings. Integer. Optional Parameter type is LINE_BUILDOUT—Line buildout
• 0–131	Line buildout range is 0–131
• 132–262	Line buildout range is 132–262
• 263–393	Line buildout range is 263–393
• 394–524	Line buildout range is 394–524
• 525–655	Line buildout range is 525–655
<b>TAP</b>	Defines the STS as a test access port with a selected unique TAP number. The TAP number is within a range of 0, 1 to 999. When TACC is 0 (zero), the TAP is deleted. Default is N. Optional
<b>TAPTYPE</b>	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1 minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. String. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS but the countdown has not started due to fault signal, the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.</li> </ul>
<b>SFBER</b>	The port signal failure threshold. Defaults to 1E-4. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Port signal degrade threshold. Defaults to 1E-7. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7

Table 21-173 RTRV-T1 Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1E-8</li> </ul>	SDBER is 1E-8
<ul style="list-style-type: none"> <li>1E-9</li> </ul>	SDBER is 1E-9
<b>NAME</b>	Port name. String. Optional
<b>SYNCMSG</b>	<p>Synchronization status messaging is enabled or disabled on the T1 facility.</p> <p><b>Note</b> For ONS 15310-CL, SYNCMSG defaults to N. SYNCMSG is not supported on the ONS 15454 or ONS 15327</p> <p>Parameter type is YES_NO—whether the users password is about to expire, the user is logged into the NE, or the user is locked out of the NE</p>
<ul style="list-style-type: none"> <li>NO</li> </ul>	No
<ul style="list-style-type: none"> <li>YES</li> </ul>	Yes
<b>SENDDUS</b>	<p>The facility will send the DUS (Don't use for Synchronization) value as the sync status message for that facility</p> <p><b>Note</b> For ONS 15310-CL, SENDDUS is optional and defaults to N. SENDDUS is not supported on the ONS 15454 or ONS 15327</p> <p>Parameter type is YES_NO—whether the users password is about to expire, the user is logged into the NE, or the user is locked out of the NE</p>
<b>RETIME</b>	<p>Indicates if retiming is needed. Optional</p> <p><b>Note</b> For ONS 15310-CL, RETIME is optional and defaults to N. RETIME is not supported on the ONS 15454 or ONS 15327</p> <p>Parameter type is YES_NO—whether the user's password is about to expire, the user is logged into the NE, or the user is locked out of the NE</p>
<ul style="list-style-type: none"> <li>NO</li> </ul>	No
<ul style="list-style-type: none"> <li>YES</li> </ul>	Yes
<ul style="list-style-type: none"> <li>FDL</li> </ul>	Indicates the DS1 path of the DS3XM-12 is in FDL T1-403 mode
<b>AISONLPBK</b>	<p>Defaults to AIS_ON_LPBK_ALL. Optional</p> <p>Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback</p>
<ul style="list-style-type: none"> <li>AIS_ONLPBK_FACILITY</li> </ul>	AIS is sent on facility loopbacks
<ul style="list-style-type: none"> <li>AIS_ON_LPBK_ALL</li> </ul>	AIS is sent on all loopbacks
<ul style="list-style-type: none"> <li>AIS_ON_LPBK_OFF</li> </ul>	AIS is not sent on loopbacks
<ul style="list-style-type: none"> <li>AIS_ON_LPBK_TERMINAL</li> </ul>	AIS is sent on terminal loopbacks

**Table 21-173 RTRV-T1 Output Parameters (continued)**

Parameter and Values	Description
<b>AISVONAI</b>	Defaults to N. Optional Parameter type is ON_OFF—disable/enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>AISVONLOF</b>	Optional Parameter type is ON_OFF—disable/enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>MODE</b>	Mode. Default value is FDL. Optional Parameter type is DS1MODE—the DS1 path mode of the DS3XKM-12 card
• ATT	Indicates the DS1 path of the DS3XM-12 is in AT&T 54016 mode
• FDL	Indicates the DS1 path of the DS3XM-12 is in FDL T1-403 mode
<b>SYNCMAP</b>	The synchronous mapping for the DS1 facility. Defaults to ASYNC. Only supported on ONS 15454. Optional Parameter type is SYNCMAP—synchronous mapping type
• ASYNC	Asynchronous
• BYTE	Byte
• JBYTE	Jbyte
<b>ADMSSM</b>	The administrative synchronization status message. Only supported on the ONS 15454. Optional Parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL—clock source quality level
• DUS	Do Not Use For Synchronization
• PRS	Primary Reference Source, Stratum 1 Traceable
• RES	Reserved For Network Synchronization Use
• SMC	SONET Minimum Clock Traceable
• ST2	Stratum 2 Traceable
• ST3	Stratum 3 Traceable
• ST3E	Stratum 3E Traceable
• ST4	Stratum 4 Traceable
• STU	Synchronized, Traceability Unknown
• TNC	Transit Node Clock (2nd Generation Only)
<b>PROVIDESYNC</b>	Indicates whether the facility provides synchronization. Only supported on ONS 15454. Optional Parameter type is ON_OFF—disable/enable an attribute
• N	Disable an attribute

Table 21-173 RTRV-T1 Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• Y</li> </ul>	Enable an attribute
<b>VTMAP</b>	The port to VT mapping type for that particular STS. Only supported on ONS 15454. Defaults to GR253. Optional Parameter type is VTMAP—VT mapping
<ul style="list-style-type: none"> <li>• GR253</li> </ul>	Mapping based on GR253
<ul style="list-style-type: none"> <li>• INDUSTRY</li> </ul>	Mapping based on industry standard
<b>INHFELPBK</b>	Indicates whether far end loopbacks are inhibited on the facility. Only supported on ONS 15454. Optional Parameter type is ON_OFF—disable/enable an attribute
<ul style="list-style-type: none"> <li>• N</li> </ul>	Disable an attribute
<ul style="list-style-type: none"> <li>• Y</li> </ul>	Enable an attribute
<b>PST_PSTQ</b>	Primary state Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
<ul style="list-style-type: none"> <li>• IS-NR</li> </ul>	In service - normal
<ul style="list-style-type: none"> <li>• OOS-AU</li> </ul>	Out of service - autonomous
<ul style="list-style-type: none"> <li>• OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>• OOS-MA</li> </ul>	Out of service - management
<b>SSTQ</b>	Secondary state. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> <li>• AINS</li> </ul>	Automatic in service
<ul style="list-style-type: none"> <li>• DSBLD</li> </ul>	Disabled
<ul style="list-style-type: none"> <li>• LPBK</li> </ul>	Loopback
<ul style="list-style-type: none"> <li>• MEA</li> </ul>	Mismatch of equipment and attributes
<ul style="list-style-type: none"> <li>• MT</li> </ul>	Maintenance mode
<ul style="list-style-type: none"> <li>• OOG</li> </ul>	Out of group
<ul style="list-style-type: none"> <li>• SWDL</li> </ul>	Software downloading
<ul style="list-style-type: none"> <li>• UAS</li> </ul>	Unassigned
<ul style="list-style-type: none"> <li>• UEQ</li> </ul>	Unequipped

## 21.88 RTRV-T3

Retrieve T3

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**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves the facility properties of a DS3 and a DS3XM card.

**Note**

- T3 facilities on the ONS 15327 and the ONS 15310-CL are on the XTC/15310-CL-CTX cards.
- CTC can set the FMT attribute of a DS3NE line to AUTOPROVISION, to set the framing based on the incoming framing. This would result in the FMT field being blanked out for a few seconds or blanked out forever for a preprovisioned DS3NE card on CTC.
- The autoprovision is not considered a valid DS3 framing type. It is used only to trigger an autosense and subsequent autoprovisioning of a valid DS3 framing type (unframed, M23, C-BIT).
- TL1 does not have the autoprovision mode according to GR-199. TL1 maps/returns the autoprovision to be unframed.
- For the DS3XM-12 card, the DS3/T3 configurable attributes (PM, TH, alarm, etc.) only apply on the ported ports (1-12) and the DS3-mapped (even) portless ports in xxx-xxx-T3 commands. If you attempt to provision or retrieve DS3/T3 attributes on the VT-mapped (odd) portless port in xxx-xxx-T3 commands, an error message will be returned.
- For the DS3XM-12 card, if the admin state is already set for a portless port the state setting operation over its associated ported port is an invalid operation.

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**Category**

Ports

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**Security**

Retrieve

**Related Commands**

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

**Input Format**

RTRV-T3:[<TID>]:<AID>:<CTAG>[:::];

**Input Example**

RTRV-T3:CISCO:FAC-1-2:123;



## Input Parameters

Table 21-174 RTRV-T3 Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28. Must not be null

## Output Format

```

SID DATE TIME
M CTAG COMPLD
“<AID>::[FMT=<FMT>],[LINECDE=<LINECDE>],[LBO=<LBO>],
[INHFELPBK=<INHFELPBK>],[TACC=<TAP>],[TAPTYPE=<TAPTYPE>],
[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[SFBER=<SFBER>],[SDBER=<SDBER>],
[NAME=<NAME>],[AISONLPBK=<AISONLPBK>]:<PST_PSTQ>,[<SSTQ>]”
;

```

## Output Example

```

TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-2::FMT=C-BIT,LINECDE=B3ZS,LBO=0-225,INHFELPBK=N,TACC=8,
TAPTYPE=SINGLE,SOAK=52,SOAKLEFT=12-25,SFBER=1E-4,SDBER=1E-7,
NAME=\“T3 PORT\”,AISONLPBK=AIS_ON_LPBK_ALL:OOS-AU,AINS”
;

```

## Output Parameters

Table 21-175 RTRV-T3 Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.14 FACILITY” section on page 25-28
<b>FMT</b>	Digital signal format. Optional Parameter type is DS_LINE_TYPE—DS123 line type
<ul style="list-style-type: none"> <li>C-BIT</li> <li>M13</li> <li>UNFRAMED</li> </ul>	<ul style="list-style-type: none"> <li>C-BIT line type applies to the DS3XM and DS3E cards</li> <li>M13 line type applies to the DS3XM and DS3E cards</li> <li>Line type is unframed. The old DS3 (L3M) and DS3CR cards can only run in unframed mode</li> </ul>
<b>LINECDE</b>	Line code. Optional Parameter type is DS_LINE_CODE—DS123 line code
<ul style="list-style-type: none"> <li>B3ZS</li> </ul>	Bipolar with three-zero substitution
<b>LBO</b>	Line build out settings. Integer. Optional Parameter type is E_LBO—electrical signal line buildout
<ul style="list-style-type: none"> <li>0–225</li> <li>226–450</li> </ul>	<ul style="list-style-type: none"> <li>Electrical signal line buildout range is 0–225</li> <li>Electrical signal line buildout range is 226–450</li> </ul>

Table 21-175 RTRV-T3 Output Parameters (continued)

Parameter and Values	Description
<b>INHFELPBK</b>	Far-end loopback inhibition attribute of the port. If it is Y, the automatic far-end loopbacks are inhibited. It is either on or off. The system default is N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>TAP</b>	Defines the STS as a test access port with a selected unique TAP number. The TAP number is within a range of 0, 1 to 999. When TACC is 0 (zero), the TAP is deleted. Default is N. Optional
<b>TAPTYPE</b>	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
<b>SOAK</b>	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
<b>SOAKLEFT</b>	Time remaining for the transition from OOS-AINS to IS measured in 1 minute intervals. The format is HH-MM where HH ranges from 00 to 48 and MM ranges from 00 to 59. String. Optional Rules for <SOAKLEFT> are as follows: <ul style="list-style-type: none"> <li>• When the port is in OOS, OOS_MT or IS state, the parameter will not appear.</li> <li>• When the port is in OOS_AINS but the countdown has not started due to fault signal, the value will be SOAKLEFT=NOT-STARTED.</li> <li>• When the port is in OOS_AINS state and the countdown has started, the value will be shown in HH-MM format.</li> </ul>
<b>SFBER</b>	The port signal failure threshold. Defaults to 1E-4. Optional Parameter type is SF_BER—the threshold for declaring signal failure on a facility or path
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
<b>SDBER</b>	Port signal degrade threshold. Defaults to 1E-7. Optional Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path
• 1E-5	SDBER is 1E-5
• 1E-6	SDBER is 1E-6
• 1E-7	SDBER is 1E-7
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9

Table 21-175 RTRV-T3 Output Parameters (continued)

Parameter and Values	Description
NAME	Port name. String. Optional
AISONLPBK	AIS on loopback. Optional Parameter type is AIS_ON_LPBK—Indicates if AIS is sent on a loopback
• AIS_ONLPBK_FACILITY	AIS is sent on facility loopbacks
• AIS_ON_LPBK_ALL	AIS is sent on all loopbacks
• AIS_ON_LPBK_OFF	AIS is not sent on loopbacks
• AIS_ON_LPBK_TERMINAL	AIS is sent on terminal loopbacks
PST_PSTQ	Primary state Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
• IS-NR	In-service - normal
• OOS-AU	Out of service - autonomous
• OOS-AUMA	Out of service - autonomous and management
• OOS-MA	Out of service - management
SSTQ	Secondary state. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in-service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.89 RTRV-TACC

Retrieve Test Access

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command retrieves details associated with a TAP. The TAP is identified by the TAP number. The ALL input TAP value means that the command will return all the configured TACCs in the NE.

**Category** Troubleshooting and Test Access

**Security** Retrieve

**Related Commands** CHG-ACCMD-<MOD\_TACC>      CONN-TACC-<MOD\_TACC>      DISC-TACC

**Input Format** RTRV-TACC:[<TID>]:<TAP>:<CTAG>;

**Input Example** RTRV-TACC:CISCO:241:CTAG;

**Input Parameters**

**Table 21-176 RTRV-TACC Input Parameters**

Parameter and Values	Description
TAP	The assigned number for AID being used as a test access point. TAP must be an integer within a range of 1 to 999. The ALL TAP value returns all the configured TACCs in this NE. String. TAP must not be null

**Output Format**

SID DATE TIME  
M CTAG COMPLD  
“<TAP>:<TACC\_AIDA>,<TACC\_AIDB>,[<MD>],[<CROSSCONNECTID1>],  
<AIDUNIONID>,<PATHWIDTH>”  
;

**Output Example**

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“241:STS-2-1-1,STS-2-2,MONE,STS-12-1-1,STS-13-1-1,STS48C”  
;

**Output Parameters**

**Table 21-177 RTRV-TACC Output Parameters**

Parameter and Values	Description
TAP	The assigned number for the AID being used as a test access point. Integer
TACC_AIDA	Access identifier from the <a href="#">“25.1.9 CrossConnectId”</a> section on page 25-15. The A path of the test access point. The first STS/VT path of the TAP

Table 21-177 RTRV-TACC Output Parameters (continued)

Parameter and Values	Description
TACC_AIDB	The B path of the test access point. Access identifier from the “25.1.9 CrossConnectId” section on page 25-15. The second STS/VT path of the TAP. For single FAD TAP this path will be empty
MD	Test access mode. It identifies the mode of access between the TAP and the circuit connected to the TAP. Optional Parameter type is TACC_MODE—test access mode
<ul style="list-style-type: none"> <li>• LOOPE</li> </ul>	Indicates to split both the A and B paths. Connect the line incoming from E direction to the line outgoing in the E direction, and connect this looped configuration to the FAD. The line outgoing in the F direction will have a QRS connected, and the line incoming from the F direction shall be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<ul style="list-style-type: none"> <li>• LOOPF</li> </ul>	Indicates to split both the A and B paths. Connect the line incoming from F direction to the line outgoing in the F direction, and connect this looped configuration to the FAD. The line outgoing in the E direction shall have a QRS connected, and the line incoming from the E direction shall be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<ul style="list-style-type: none"> <li>• MONE</li> </ul>	Indicates that a monitor connection is to be provided from the FAD to the A transmission path of the accessed circuit
<ul style="list-style-type: none"> <li>• MONEF</li> </ul>	Indicates that a monitor connection is to be provided from the FAD1 to a DFAD, or the odd pair of a FAP, to the A transmission path and from FAD2 of the same DFAD, or the even pair of a FAP, to the B transmission path of the accessed circuit.
<ul style="list-style-type: none"> <li>• MONF</li> </ul>	Indicates that a monitor connection is to be provided from the FAD to the B transmission path of the accessed circuit.
<ul style="list-style-type: none"> <li>• SPLTA</li> </ul>	Indicates that a connection is to be provided from both the E and F sides of the A transmission path of the circuit under test to the FAD and split the A transmission path. Intrusive test access mode
<ul style="list-style-type: none"> <li>• SPLTB</li> </ul>	Indicates that a connection is to be provided from both the E and F sides of the B transmission path of the circuit under test to the FAD and split the B transmission path. Intrusive test access mode
<ul style="list-style-type: none"> <li>• SPLTE</li> </ul>	Indicates to split both the A and B paths and connect the E side of the accessed circuit to the FAD. The line outgoing in the F direction shall have a QRS connected, and the line incoming from the F direction shall have a QRS connected, and the line incoming from the E direction shall be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<ul style="list-style-type: none"> <li>• SPLTEF</li> </ul>	Indicates to split both the A and B paths, and connect the E side of the accessed circuit to FAD1 and the F side to FAD2. Intrusive test access mode

Table 21-177 RTRV-TACC Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>SPLTF</li> </ul>	Indicates to split both the A and B paths, and connect the F side of the accessed circuit to the FAD. The line outgoing in the E direction shall have a QRS connected, and the line incoming in the E direction shall have a QRS connected, and the line incoming from the E direction shall be terminated by the nominal characteristic impedance of the line. Intrusive test access mode
<b>CROSSCONNECTID1</b>	Access identifier from the “ <a href="#">25.1.9 CrossConnectId</a> ” section on <a href="#">page 25-15</a> . The E path of the cross-connect. Optional
<b>PATHWIDTH</b>	The cross-connection width Parameter type is CRS_TYPE—cross-connection type
<ul style="list-style-type: none"> <li>STS</li> </ul>	Indicates all the STS cross-connections
<ul style="list-style-type: none"> <li>STS1</li> </ul>	STS1 cross-connect
<ul style="list-style-type: none"> <li>STS3C</li> </ul>	STS3C cross-connect
<ul style="list-style-type: none"> <li>STS6C</li> </ul>	STS6C cross-connect
<ul style="list-style-type: none"> <li>STS9C</li> </ul>	STS9C cross-connect
<ul style="list-style-type: none"> <li>STS12C</li> </ul>	STS12C cross-connect
<ul style="list-style-type: none"> <li>STS18C</li> </ul>	STS18C cross-connect
<ul style="list-style-type: none"> <li>STS24C</li> </ul>	STS24C cross-connect
<ul style="list-style-type: none"> <li>STS36C</li> </ul>	STS36C cross-connect
<ul style="list-style-type: none"> <li>STS48C</li> </ul>	STS48C cross-connect
<ul style="list-style-type: none"> <li>STS192C</li> </ul>	STS192C cross-connect
<ul style="list-style-type: none"> <li>VT</li> </ul>	Indicates all the VT1 cross-connections
<ul style="list-style-type: none"> <li>VT1</li> </ul>	VT1 cross-connect
<ul style="list-style-type: none"> <li>VT2</li> </ul>	VT2 cross-connect
<b>CROSSCONNECTID2</b>	Access identifier from the “ <a href="#">25.1.9 CrossConnectId</a> ” section on <a href="#">page 25-15</a> . The F path of the cross-connect. Optional

## 21.90 RTRV-TADRMAP

Retrieve Target Identifier Address Mapping

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the contents of the TADRMAP table.

### Category

System

**Security** Retrieve

Related Commands	DLT-ROUTE	ENT-ROUTE	RTRV-ROUTE
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	

**Input Format** RTRV-TADRMAP:[<TID>]:<SRC>:<CTAG>:::MODE=<MODE>;

**Input Example** RTRV-TADRMAP:[TID]:[AID]:CTAG:::MODE=PROV;

### Input Parameters

**Table 21-178 RTRV-TADRMAP Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null
<b>MODE</b>	Must not be null Parameter type is MODE—determines the category of addresses to return
• ALL	Discovered and provisioned addresses
• DISC	Discovered addresses
• IP	IP addresses
• NSAP	NSAP addresses
• PROV	Provisioned

**Output Format** SID DATE TIME  
M CTAG COMPLD  
“[TID=<TID>],[IP ADDRESS =<IPADDRESS>],[NSAP=<NSAP>]”  
;

**Output Example** TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“TID=RANGERS1,IP ADDRESS = 64.101.245.5,  
NSAP=39840FFFFFFFFFOOOODDDDDAA01D00F0400000700”  
;

## Output Parameters

Table 21-179 RTRV-TADRMAP Output Parameters

Parameter and Values	Description
TID	Target identifier. String. Optional
IPADDRESS	IP address. String. Optional
NSAP	NSAP address. String. Optional

## 21.91 RTRV-TH-<MOD2>

Retrieve Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

## Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the threshold level of one or more monitored parameters.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



## Note

- After the BLSR switch, the working path is switched out, the traffic goes through the protection path, and the threshold can be retrieved from the protection path.
- If there is an STS PCA on the protection path during the BLSR switching, the PCA path is preemptive; sending this command on the protection path after the BLSR switch, the command returns the PMs off the protection path, not from the PCA path.

The message is issued to retrieve the thresholds for PM and alarm thresholds. If it is used to retrieve the alarm thresholds, the time-period is not applicable.

The presentation rules are as follows: Client port only—Laser, Alarm and SONET Thresholds are applicable and will appear. Laser and alarm thresholds are only for Near End. If the card payload is in SONET mode, then SONET Thresholds will appear. The Receiver Temperature Montypes (RXT) are only applicable to the Trunk Port. The Transceiver Voltage Montypes (XCVR) are not applicable, though it is displayed or handled.

Laser and Alarm thresholds are always available. Laser and alarm thresholds are only for Near End. If G.709 is enabled, then the OTN thresholds will appear. If G.709 is enabled and FEC is enabled, then the FEC thresholds will appear. If the card payload is in SONET mode, then SONET Thresholds will appear. The Transceiver Voltage Montypes (XCVR) are not applicable, though it is displayed or handled.

- Refer to the [Cisco ONS SONET TL1 Reference Guide](#) for specific card provisioning rules.

## Category

Performance



**Security**

Retrieve

**Related Commands**

ALW-PMREPT-ALL	RLS-PROTNSW-<OCN_TYPE>
DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
DLT-RMONTH-<MOD2_RMON>	RTRV-<MOD1FICONPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
ED-<OCN_TYPE>	RTRV-ALS/RTRV-DS1/RTRV-EC1
ED-ALS/ED-DS1/ED-EC1	RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1/ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMMODE-<STS_PATH>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-PMSCHED-ALL
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-POS
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-RMONTH-<MOD2_RMON>	RTRV-PROTNSW-<OCN_TYPE>
INH-PMREPT-ALL	RTRV-RMONTH-<MOD2_RMON>
INIT-REG-<MOD2>	RTRV-T1/RTRV-T3
OPR-ALS	RTRV-TH-ALL
OPR-LPBK-<MOD2>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<OCN_TYPE>
OPR-PROTNSW-<OCN_TYPE>	SCHED-PMREPT-<MOD2>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-PMMODE-<STS_PATH>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

RTRV-TH-&lt;MOD2&gt;:[&lt;TID&gt;]:&lt;AID&gt;:&lt;CTAG&gt;::[&lt;MONTYPE&gt;],[&lt;LOCN&gt;],[&lt;TMPER&gt;][::];

**Input Example**

```
RTRV-TH-T3:CISCO:FAC-1-3:1234::CVL,NEND,15-MIN;
```

**Input Parameters****Table 21-180 RTRV-TH-<MOD2> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null
<b>MONATYPE</b>	Monitored type  <b>Note</b> MONATYPE defaults to CVL for OCN/EC1/DSN, to ESP for STSp, to UASV for VT1, and to AISSP for the DS1 layer of the DS3XM card.  A null value is equivalent to ALL Parameter type is ALL_MONATYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio

**Table 21-180 RTRV-TH-<MOD2> Input Parameters (continued)**

Parameter and Values	Description
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference

Table 21-180 RTRV-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block

Table 21-180 RTRV-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count

Table 21-180 RTRV-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count

Table 21-180 RTRV-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
<b>LOCN</b>	Location associated with a particular command in reference to the entity identified by the AID. LOCN defaults to NEND (near end). A null value is equivalent to ALL  Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>TMPER</b>	Accumulation time period for performance counters. Defaults to 15-MIN. Must not be null  Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
• RAW-DATA	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AID>,[<AIDTYPE>]:<MONTYPE>,[<LOCN>],,<THLEV>,[<TMPER>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“FAC-1-3,DS3:CVL,NEND,,1,15-MIN”
;
```

## Output Parameters

Table 21-181 RTRV-TH-&lt;MOD2&gt; Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null
<b>AIDTYPE</b>	Type of facility, link or other addressable entity targeted by the message. Optional Parameter type is MOD2B—alarm type
• 1GFC	1 Gigabit fibre channel alarm
• 1GFICON	1 Gigabit FICON alarm
• 2GFC	2 Gigabit fibre channel alarm
• 2GFICON	2 Gigabit FICON alarm
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FSTE	Fast Ethernet Port alarm
• G1000	G1000 alarm
• GIGE	GIG Ethernet port alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm



**Table 21-181 RTRV-TH-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• STS18C	STS18C alarm
• STS12C	STS12C alarm
• STS24C	STS24C alarm
• STS36C	STS36C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
<b>MONTYPE</b>	Monitored type Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)

**Table 21-181 RTRV-TH-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count

**Table 21-181 RTRV-TH-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current

Table 21-181 RTRV-TH-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm

**Table 21-181 RTRV-TH-<MOD2> Output Parameters (continued)**

Parameter and Values	Description
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words

Table 21-181 RTRV-TH-&lt;MOD2&gt; Output Parameters (continued)

Parameter and Values	Description
• VPC	Valid Packet Count
LOCN	Location associated with a particular command. Optional Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
THELV	Threshold level. Float
TMPER	Accumulation time period for performance counters. Optional Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
• RAW-DATA	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.

## 21.92 RTRV-TH-ALL

Retrieve Threshold All

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the threshold level of all monitored parameters on the NE.



### Note

- After the BLSR switch, the working path is switched out, the traffic goes through the protection path and the threshold can be retrieved from the protection STS path.
- If there is a STS PCA on the protection path, during the BLSR switching, the PCA path is preemptive; sending this command on the protection path after BLSR switch, the command returns the PMs off the protection path, not from the PCA path.

- Multiple RTRV completion codes will appear after the execution of this command according to GR-1831-CORE for bulk retrievals. The final completion code after the multiple RTRV codes is COMPLD.
- Some monitored types are not available for some cards or cross-connect types. In that case, a 0 value will appear for the monitored type. This will happen only when a user requests the thresholds of a specific monitored parameter on the NE, and the monitored type does not apply to that card or cross-connect type. When the user does not filter by monitored type, the applicable thresholds will be retrieved.
- If the user requests the thresholds of a particular monitored type and if the monitored type is not applicable to some of the entities, DENY will not be returned.
- Refer to the *Cisco ONS SONET TLI Reference Guide* for specific card provisioning rules.

**Category** Performance

**Security** Retrieve

Related Commands	ALW-PMREPT-ALL	RTRV-PM-<MOD2>	RTRV-TH-<MOD2>
	INH-PMREPT-ALL	RTRV-PMMODE-<STS_PATH>	SCHED-PMREPT-<MOD2>
	INIT-REG-<MOD2>	RTRV-PMSCHED-<MOD2>	SET-PMMODE-<STS_PATH>
	REPT PM <MOD2>	RTRV-PMSCHED-ALL	SET-TH-<MOD2>

**Input Format** RTRV-TH-ALL:[<TID>]::<CTAG>::[<MONTYPE>],[<LOCATION>],[<TMPER>][:];

**Input Example** RTRV-TH-ALL:CHARGERS6::123::CVL,NEND,15-MIN;

### Input Parameters

**Table 21-182 RTRV-TH-ALL Input Parameters**

Parameter and Values	Description
<b>MONTYPE</b>	Monitored type. A null value defaults to ALL Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.

**Table 21-182 RTRV-TH-ALL Input Parameters (continued)**

Parameter and Values	Description
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets



**Table 21-182 RTRV-TH-ALL Input Parameters (continued)**

Parameter and Values	Description
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets

**Table 21-182 RTRV-TH-ALL Input Parameters (continued)**

Parameter and Values	Description
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW

**Table 21-182 RTRV-TH-ALL Input Parameters (continued)**

Parameter and Values	Description
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage

Table 21-182 RTRV-TH-ALL Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>• SESR-SM</li> </ul>	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
<ul style="list-style-type: none"> <li>• SESS</li> </ul>	Severely Errored Second—Section
<ul style="list-style-type: none"> <li>• SES-SM</li> </ul>	OTN—Severely Errored Second—Section Monitor Point
<ul style="list-style-type: none"> <li>• SESV</li> </ul>	Severely Errored Second—VT Path
<ul style="list-style-type: none"> <li>• UASCPP</li> </ul>	Unavailable Second—CP-Bit Path
<ul style="list-style-type: none"> <li>• UASL</li> </ul>	Unavailable Second—Line
<ul style="list-style-type: none"> <li>• UASNPFE</li> </ul>	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
<ul style="list-style-type: none"> <li>• UASP</li> </ul>	Unavailable Second—Path
<ul style="list-style-type: none"> <li>• UAS-PM</li> </ul>	OTN—Unavailable Second—Path Monitor Point
<ul style="list-style-type: none"> <li>• UAS-SM</li> </ul>	OTN—Unavailable Second—Section Monitor Point
<ul style="list-style-type: none"> <li>• UASV</li> </ul>	Unavailable Second—VT Path
<ul style="list-style-type: none"> <li>• UNC-WORDS</li> </ul>	FEC—Uncorrectable Words
<ul style="list-style-type: none"> <li>• VPC</li> </ul>	Valid Packet Count
<b>LOCATION</b>	The location. A null value defaults to NEND Parameter type is LOCATION—location where the action is to take place
<ul style="list-style-type: none"> <li>• FEND</li> </ul>	Action occurs on the Far End of the facility
<ul style="list-style-type: none"> <li>• NEND</li> </ul>	Action occurs on the Near End of the facility
<b>TMPER</b>	The accumulation time period for performance counters. A null value defaults to 15-MIN Parameter type is TMPER—accumulation time period for the performance management counter
<ul style="list-style-type: none"> <li>• 1-DAY</li> </ul>	Performance parameter accumulation interval length—every 24 hours
<ul style="list-style-type: none"> <li>• 1-HR</li> </ul>	Performance parameter accumulation interval length—every 1 hour
<ul style="list-style-type: none"> <li>• 1-MIN</li> </ul>	Performance parameter accumulation interval length—every 1 minute
<ul style="list-style-type: none"> <li>• 15-MIN</li> </ul>	Performance parameter accumulation interval length—every 15 minutes
<ul style="list-style-type: none"> <li>• RAW-DATA</li> </ul>	Performance parameter accumulation interval length—starting from the last time the counters were cleared. This is only applicable to RMON-managed PMs

**Output Format**

```

SID DATE TIME
M CTAG COMPLD
"<AID>,<AIDTYPE>:<MONTYPE>,<LOCATION>,,<THLEV>,<TMPER>"
;

```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
" FAC-1-1,DS3:CVL,NEND,,1,15-MIN"
;
```

**Output Parameters****Table 21-183 RTRV-TH-ALL Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.2 AidUnionId”</a> section on <a href="#">page 25-9</a>
<b>AIDTYPE</b>	Specifies the type of facility, link, or other addressable entity targeted by the message Parameter type is MOD2B—alarm type for certain generic TL1 commands
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• BITS	BITS alarm
• CLNT	Client facility for MXP/TXP cards
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm
• EQPT	EQPT alarm
• FC	fibre channel alarm
• FSTE	FSTE alarm
• G1000	G1000 alarm
• GIGE	GIGE alarm
• MIC	MIC alarm (ONS 15327)
• MIC-EXT	MIC-EXT Alarm (ONS 15327)
• OC3	OC3 alarm
• OC12	OC12 alarm
• OC48	OC48 alarm
• OC192	OC192 alarm
• OCH	Optical channel

**Table 21-183 RTRV-TH-ALL Output Parameters (continued)**

Parameter and Values	Description
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS alarm
• STS1	STS1 alarm
• STS3C	STS3C alarm
• STS6C	STS6C alarm
• STS9C	STS9C alarm
• STS12C	STS12C alarm
• STS18C	STS18C alarm
• STS24C	STS24C alarm
• STS48C	STS48C alarm
• STS192C	STS192C alarm
• SYNCN	SYNCN alarm
• T1	T1 alarm
• T3	T3 alarm
• TCC	TCC alarm
• VT1	VT1 alarm
• VT2	VT2 alarm
• XTC	ONS 15327 XTC alarm
<b>MONTYPE</b>	Monitored type. A null value defaults to ALL Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• C SSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section

**Table 21-183 RTRV-TH-ALL Output Parameters (continued)**

Parameter and Values	Description
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second -Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio

**Table 21-183 RTRV-TH-ALL Output Parameters (continued)**

Parameter and Values	Description
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count



**Table 21-183 RTRV-TH-ALL Output Parameters (continued)**

Parameter and Values	Description
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW

Table 21-183 RTRV-TH-ALL Output Parameters (continued)

Parameter and Values	Description
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second - Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line

**Table 21-183 RTRV-TH-ALL Output Parameters (continued)**

Parameter and Values	Description
• UASNPFE	Unavailable Second - Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count
<b>LOCATION</b>	The location. A null value defaults to NEND Parameter type is LOCATION—location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>THLEV</b>	Threshold level. Indicates the threshold value. Float
<b>TMPER</b>	The accumulation time period for performance counters. A null value defaults to 15-MIN Parameter type is TMPER—accumulation time period for the performance management counter
• 1-DAY	Performance parameter accumulation interval length—every 24 hours
• 1-HR	Performance parameter accumulation interval length—every 1 hour
• 1-MIN	Performance parameter accumulation interval length—every 1 minute
• 15-MIN	Performance parameter accumulation interval length—every 15 minutes
• RAW-DATA	Performance parameter accumulation interval length—starting from the last time the counters were cleared. This is only applicable to RMON-managed PMs

## 21.93 RTRV-TOD

Retrieve Time of Day

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the system date and time at the instant when the command was executed. The time returned is in Coordinated Universal Time (UTC).

### Category

System

**Security** Retrieve

Related Commands	ACT-USER	ED-TRAPTABLE	RTRV-MAP-NETWORK
	ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-APC
	ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-GEN
	ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-IPMAP
	COPY-RFILE	INH-MSG-SECU	RTRV-NE-PATH
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-SYNCN
	ED-DAT	REPT EVT FXFR	RTRV-NE-WDMANS
	ED-NE-GEN	RTRV-HDR	RTRV-TRAPTABLE
	ED-NE-PATH	RTRV-INV	SET-TOD
	ED-NE-SYNCN		

**Input Format** RTRV-TOD:[<TID>]::<CTAG>;

**Input Example** RTRV-TOD:CAZADERO::230;

#### Input Parameters

**Table 21-184 RTRV-TOD Input Parameters**

Parameter and Values	Description
—	

#### Output Format

```
SID DATE TIME
M CTAG COMPLD
  "<YEAR>,<MONTH>,<DAY>,<HOUR>,<MINUTE>,<SECOND>,<DIFFERENCE>:<TMTYPE>"
;
```

#### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
  "2002,05,08,17,01,33,840:LINT"
;
```

#### Output Parameters

**Table 21-185 RTRV-TOD Output Parameters**

Parameter and Values	Description
<b>YEAR</b>	The current calendar year. String
<b>MONTH</b>	The month of the year. Ranges from 01 to 12. String
<b>DAY</b>	The day of the month. Ranges from 01 to 31. String

Table 21-185 RTRV-TOD Output Parameters (continued)

Parameter and Values	Description
<b>HOUR</b>	The hour of the day. Ranges from 00 to 23. String
<b>MINUTE</b>	The minute of the hour. Ranges from 00 to 59. String
<b>SECOND</b>	The second of the minute. Ranges from 00 to 59. String
<b>DIFFERENCE</b>	The number of minutes off UTC Parameter type is DIFFERENCE—number of minutes off UTC
• -120	2 hours before UTC
• -180	3 hours before UTC
• -210	3.5 hours before UTC
• -240	4 hours before UTC
• -300	5 hours before UTC
• -360	6 hours before UTC
• -420	7 hours before UTC
• -480	8 hours before UTC
• -540	9 hours before UTC
• -60	1 hour before UTC
• -600	10 hours before UTC
• -660	11 hours before UTC
• 0	UTC
• 120	2 hours after UTC
• 180	3 hours after UTC
• 210	3.5 hours after UTC
• 240	4 hours after UTC
• 270	4.5 hours after UTC
• 300	5 hours after UTC
• 330	5.5 hours after UTC
• 345	5.75 hours after UTC
• 360	6 hours after UTC
• 390	6.5 hours after UTC
• 420	7 hours after UTC
• 480	8 hours after UTC
• 540	9 hours after UTC
• 570	9.5 hours after UTC
• 60	1 hour after UTC
• 600	10 hours after UTC
• 630	10.5 hours after UTC
• 660	11 hours after UTC

**Table 21-185 RTRV-TOD Output Parameters (continued)**

Parameter and Values	Description
• 690	11.5 hours after UTC
• 720	12 hours after UTC
• 765	12.75 hours after UTC
• 780	13 hours after UTC
• 840	14 hours after UTC
<b>TMTYPE</b>	Identifies the time zone. String

## 21.94 RTRV-TRAPTABLE

Retrieve Trap Table

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves a trap destination entry identified by a specific trap destination address.

### Category

System

### Security

Retrieve

### Related Commands

ACT-USER	ED-NE-SYNCN	RTRV-INV
ALW-MSG-ALL	ED-TRAPTABLE	RTRV-NE-GEN
ALW-MSG-DBCHG	ENT-TRAPTABLE	RTRV-NE-IPMAP
ALW-MSG-SECU	INH-MSG-ALL	RTRV-NE-PATH
DLT-TRAPTABLE	INH-MSG-DBCHG	RTRV-NE-SYNCN
ED-DAT	INH-MSG-SECU	RTRV-NE-WDMANS
ED-NE-GEN	INIT-SYS	RTRV-TOD
ED-NE-PATH	RTRV-HDR	SET-TOD

### Input Format

RTRV-TRAPTABLE:[<TID>]:[<AID>]:<CTAG>;

### Input Example

RTRV-TRAPTABLE::1.2.3.4:1;

**Input Parameters****Table 21-186 RTRV-TRAPTABLE Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.15 IPADDR</a> ” section on <a href="#">page 25-31</a> . IP address identifying the trap destination. Only a numeric IP address is allowed. A null value is equivalent to ALL

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<DEST>,<TRAPPORT>,<COMMUNITY>,<SNMPVERSION>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“1.2.3.4,162,\“PRIVATE\”,SNMPV1”
;
```

**Output Parameters****Table 21-187 RTRV-TRAPTABLE Output Parameters**

Parameter and Values	Description
<b>DEST</b>	Access identifier from the “ <a href="#">25.1.15 IPADDR</a> ” section on <a href="#">page 25-31</a>
<b>TRAPPORT</b>	UDP port number associated with the trap destination. Defaults to 162. Integer
<b>COMMUNITY</b>	Community name associated to the trap destination. Maximum of 32 characters. String
<b>SNMPVERSION</b>	SNMP version number. Defaults to SNMPv1 Parameter type is SNMP_VERSION—SNMP version
• SNMPV1	SNMP version 1 (default)
• SNMPV2	SNMP version 2

## 21.95 RTRV-TRC-<OCN\_BLSR>

Retrieve Trace Client (OC12, OC192, OC48)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command retrieves the valid J1 expected trace string, retrieved trace string, trace mode, C2 byte, and STS bandwidth of the OCn port only if the port has a BLSR.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



#### Note

This command only applies to OC48AS and OC192 cards.



#### Note

Sending this command over unsupported BLSR path trace cards, or unequipped cards will result in a J1 Trace Not Supported On This Card (IIAC) error.

### Category

BLSR

### Security

Retrieve

### Related Commands

DLT-<MOD\_RING>                      ENT-<MOD\_RING>                      RTRV-<MOD\_RING>  
ED-<MOD\_RING>                      EX-SW-<OCN\_BLSR>

### Input Format

RTRV-TRC-<OCN\_BLSR>[:<TID>]:<AID>[:<CTAG>[:...]];

### Input Example

RTRV-TRC-OC48:CISCO:FAC-6-1:238;

### Input Parameters

**Table 21-188 RTRV-TRC-<OCN\_BLSR> Input Parameters**

Parameter and Values	Description
AID	Access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on <a href="#">page 25-28</a> . Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
"<AID>::[LEVEL=<LEVEL>],[EXPTRC=<EXPTRC>],[INCTRC=<INCTRC>],
[TRCMODE=<TRCMODE>],[C2=<C2>]"
;
```



**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"STS-6-1-25::LEVEL=STS1,EXPTRC="EXPTRCSTRING",INCTRC="INCTRCSTRING",
TRCMODE=AUTO,C2=0X04"
;
```

**Output Parameters****Table 21-189 RTRV-TRC-<OCN\_BLSR> Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the "25.1.22 STS" section on page 25-33
<b>LEVEL</b>	The rate of the cross-connect. Optional Parameter type is STS_PATH—modifier for some STS commands
<ul style="list-style-type: none"> <li>STS1</li> <li>STS12C</li> <li>STS18C</li> <li>STS192C</li> <li>STS24C</li> <li>STS36C</li> <li>STS3C</li> <li>STS48C</li> <li>STS6C</li> <li>STS9C</li> </ul>	<ul style="list-style-type: none"> <li>Synchronous Transport Signal level-1 (51 Mbps)</li> <li>Synchronous Transport Signal level-12 Concatenated (622 Mbps)</li> <li>Synchronous Transport Signal level-18 Concatenated (933 Mbps)</li> <li>Synchronous Transport Signal level-192 (9952 Mbps)</li> <li>Synchronous Transport Signal level-24 Concatenated (1240 Mbps)</li> <li>Synchronous Transport Signal level-36 Concatenated (1866 Mbps)</li> <li>Synchronous Transport Signal level-3 Concatenated (155 Mbps)</li> <li>Synchronous Transport Signal level-48 Concatenated (2488 Mbps)</li> <li>Synchronous Transport Signal level-3 Concatenated (310 Mbps)</li> <li>Synchronous Transport Signal level-9 Concatenated (465 Mbps)</li> </ul>
<b>EXPTRC</b>	Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). String. Optional
<b>INCTRC</b>	The incoming path trace message contents. INCTRC is any combination of 64 characters including CR and LF. String. Optional
<b>TRCMODE</b>	Trace mode. Optional Parameter type is TRCMODE—trace mode
<ul style="list-style-type: none"> <li>AUTO</li> <li>AUTO-NO-AIS</li> <li>MAN</li> <li>MAN-NO-AIS</li> <li>OFF</li> </ul>	<ul style="list-style-type: none"> <li>Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards</li> <li>Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIMP is detected</li> <li>Use the provisioned expected string as the expected string</li> <li>Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected</li> <li>Turn off path trace capability. Nothing will be reported</li> </ul>
<b>C2</b>	The c2 byte hex code. Applicable only to STS-level paths in SONET (STS <sub>n</sub> ). Optional Parameter type is C2_BYTE—c2 byte hex code

Table 21-189 RTRV-TRC-&lt;OCN\_BLSR&gt; Output Parameters (continued)

Parameter and Values	Description
• 0X00	Unequipped
• 0X01	Equipped-Non Specific payload
• 0X02	VT-Structured STS-1 SPE
• 0X03	Locked VT Mode
• 0X04	Asynchronous Mapping for DS3
• 0X12	Asynchronous Mapping for DS4NA
• 0X13	Mapping for ATM
• 0X14	Mapping for DQDB
• 0X15	Asynchronous Mapping for FDDI
• 0X16	HDLC-Over-SONET Mapping
• 0XE1	VT-structured STS-1 SPE with 1VTx payload defect
• 0XE2	VT-structured STS-1 SPE with 2VTx payload defects
• 0XE3	VT-structured STS-1 SPE with 3VTx payload defects
• 0XE4	VT-structured STS-1 SPE with 4VTx payload defects
• 0XE5	VT-structured STS-1 SPE with 5VTx payload defects
• 0XE6	VT-structured STS-1 SPE with 6VTx payload defects
• 0XE7	VT-structured STS-1 SPE with 7VTx payload defects
• 0XE8	VT-structured STS-1 SPE with 8VTx payload defects
• 0XE9	VT-structured STS-1 SPE with 9VTx payload defects
• 0XEA	VT-structured STS-1 SPE with 10VTx payload defects
• 0XEB	VT-structured STS-1 SPE with 11VTx payload defects
• 0XEC	VT-structured STS-1 SPE with 12VTx payload defects
• 0XED	VT-structured STS-1 SPE with 13VTx payload defects
• 0XEE	VT-structured STS-1 SPE with 14VTx payload defects
• 0XEF	VT-structured STS-1 SPE with 15VTx payload defects
• 0XF0	VT-structured STS-1 SPE with 16VTx payload defects
• 0XF1	VT-structured STS-1 SPE with 17VTx payload defects
• 0XF2	VT-structured STS-1 SPE with 18VTx payload defects
• 0XF3	VT-structured STS-1 SPE with 19VTx payload defects
• 0XF4	VT-structured STS-1 SPE with 20VTx payload defects
• 0XF5	VT-structured STS-1 SPE with 21VTx payload defects
• 0XF6	VT-structured STS-1 SPE with 22VTx payload defects
• 0XF7	VT-structured STS-1 SPE with 23VTx payload defects
• 0XF8	VT-structured STS-1 SPE with 24VTx payload defects
• 0XF9	VT-structured STS-1 SPE with 25VTx payload defects
• 0XFA	VT-structured STS-1 SPE with 26VTx payload defects

**Table 21-189 RTRV-TRC-<OCN\_BLSR> Output Parameters (continued)**

Parameter and Values	Description
• 0XFB	VT-structured STS-1 SPE with 27VTx payload defects
• 0XFC	VT-structured STS-1 SPE with 28VTx payload defects
• 0XFE	O.181 Test Signal (TSS1 to TSS3) Mapping
• 0XFF	Reserved, however, C2 is 0XFF if AIS-L is being generated by an optical card or cross-connect downstream

## 21.96 RTRV-TRC-OCH

Retrieve Trace Optical Channel

### Usage Guidelines

Cisco ONS 15454

This command retrieves the sent trace string, expected trace string, received trace string, trace mode, and the trace level for the SONET J0 Section, the TTI PATH and SECTION monitoring levels of the DWDM facility.

The following rules apply: Client port—only the J0 Section trace applies. The J0 Section trace applies only if the card termination mode is not transparent and the payload is SONET/SDH. On the DWDM port the J0 Section trace, the TTI Path, Section trace monitoring point traces are allowed. The J0 Section trace is allowed only if the payload for the card is set to SONET/SDH. The J0 Section trace is allowed only if the card termination mode is not transparent. The TTI Path, Section trace is allowed only if the G.709 (DWRAP) is enabled.

Depending on the settings, the following filtering applies: If no TRCLEVEL is provided, all TRCLEVELS are reported as applicable. If TRCLEVEL is provided and no MSGTYPE is provided, all applicable MSGTYPES for the given level is displayed. If no MSGTYPE is provided, all MSGTYPES are reported as applicable. If a MSGTYPE is provided with out a TRCLEVEL, then the given MSGTYPE for all TRCLEVELS are displayed.

### Category

DWDM

### Security

Retrieve

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
	DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
	DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-FFP-OCH	ENT-OSC	RTRV-OCH
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OMS
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OSC
	ED-OCH	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OMS	OPR-SLV-WDMANS	RTRV-PROTNSW-OCH
	ED-OSC	OPR-WDMANS	RTRV-SLV-WDMANS
	ED-OTS	RLS-LASER-OTS	RTRV-WDMANS
	ED-SLV-WDMANS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-TRC-OCH:[<TID>]:<SRC>:<CTAG>::[<MSGTYPE>],[<TRCLEVEL>][::];

**Input Example** RTRV-TRC-OCH:CISCO:CHAN-2-2:100::EXPTRC,TTI-PM;

### Input Parameters

**Table 21-190 RTRV-TRC-OCH Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Access identifier from the “ <a href="#">25.1.7 CHANNEL</a> ” section on <a href="#">page 25-14</a> . Must not be null
<b>MSGTYPE</b>	Type of autonomous message to be retrieved. A null value is equivalent to ALL Parameter type is MSGTYPE—type of trace message
<ul style="list-style-type: none"> <li>EXPTRC</li> </ul>	Expected incoming path trace message
<ul style="list-style-type: none"> <li>INCTRC</li> </ul>	Incoming path trace message
<ul style="list-style-type: none"> <li>TRC</li> </ul>	Outgoing path trace message
<b>TRCLEVEL</b>	The trace level to be managed. A null value is equivalent to ALL Parameter type is TRCLEVEL—the trace mode options
<ul style="list-style-type: none"> <li>J0</li> </ul>	Identifies the SONET J0 Section trace level
<ul style="list-style-type: none"> <li>TTI-PM</li> </ul>	Identifies the TTI Path monitoring point
<ul style="list-style-type: none"> <li>TTI-SM</li> </ul>	Identifies the TTI Section Monitoring point

**Output Format** SID DATE TIME  
M CTAG COMPLD  
“<CHANNEL>,<MOD>::[TRCLEVEL=<TRCLEVEL>],[EXPTRC=<EXPTRC>],

```
[TRC=<TRC>],[INCTRC=<INCTRC>],[TRCMODE=<TRCMODE>],
[TRCFORMAT=<TRCFORMAT>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“CHAN-2-2,OCH::TRCLEVEL=TTI-PM,EXPTRC=\\“AAA\\”,TRC=\\“AAA\\”,
INCTRC=\\“AAA\\”,TRCMODE=MAN,TRCFORMAT=64-BYTE”
;
```

**Output Parameters****Table 21-191 RTRV-TRC-OCH Output Parameters**

Parameter and Values	Description
<b>CHANNEL</b>	Access identifier from the <a href="#">“25.1.7 CHANNEL”</a> section on page 25-14
<b>MOD</b>	Indicates an OCH AID type Parameter type is MOD2—line/path modifier
• 10GFC	10 Gigabit fibre channel
• 10GIGE	10 Gigabit Ethernet
• 1GFC	1 Gigabit fibre channel
• 1GFICON	1 Gigabit FICON
• 2GFC	2 Gigabit fibre channel
• 2GFICON	2 Gigabit FICON
• D1VIDEO	D1 Video
• DS1	DS1 line of a DS3XM card
• DS3I	DS3I line
• DV6000	DV6000
• EC1	EC1 facility
• ESCON	ESCON
• ETRCLO	ETR_CLO
• FSTE	FSTE facility
• G1000	G1000 facility
• G1K-4	G1K-4 facility
• GFPOS	Generic Framing Protocol over Packet Over SONET. Virtual Ports partitioned using GFP's Multiplexing Capability
• GIGE	GIG Ethernet
• HDTV	HDTV
• ISC1	ISC1
• OC3	OC3 facility
• OC12	OC12 facility

Table 21-191 RTRV-TRC-OCH Output Parameters (continued)

Parameter and Values	Description
• OC48	OC48 facility
• OC192	OC192 facility
• OCH	Optical channel
• OMS	Optical Multiplex Section
• OTS	Optical Transport Section
• POS	POS port
• STS1	STS1 path
• STS3C	STS3C path
• STS6C	STS6C path
• STS9C	STS9C path
• STS18C	STS18C path
• STS12C	STS12C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS48C	STS48C path
• STS192C	STS192C path
• T1	T1/DS1 facility/line
• T3	T1/DS1 facility/line
• VT1	VT1 Path
• VT2	VT2 Path
<b>TRCLEVEL</b>	The trace level to be managed. Optional Parameter type is TRCLEVEL—the trace mode options
• J0	Identifies the SONET J0 Section trace level
• TTI-PM	Identifies the TTI Path monitoring point
• TTI-SM	Identifies the TTI Section Monitoring point
<b>EXPTRC</b>	Expected path trace content. A 64 character ASCII string. Optional
<b>TRC</b>	The path trace message to be transmitted. The trace byte continuously transmits a 64 byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (hex 00) and CR and LF. String. Optional
<b>INCTRC</b>	The incoming path trace message contents. String. Optional
<b>TRCMODE</b>	Trace mode. Optional Parameter type is TRCMODE—trace mode
• AUTO	Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards
• AUTO-NO-AIS	Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TAMP is detected

**Table 21-191 RTRV-TRC-OCH Output Parameters (continued)**

Parameter and Values	Description
• MAN	Use the provisioned expected string as the expected string
• MAN-NO-AIS	Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected
• OFF	Turn off path trace capability. Nothing will be reported
<b>TRCFORMAT</b>	The size of the trace message. If in SONET/SDH mode, only 1 or 16 bytes is applicable for the J0 section trace. The TTI level trace is only 64 bytes. Optional Parameter type is TRCFORMAT—trace format
• 1-BYTE	1 byte trace message
• 16-BYTE	16 byte trace message
• 64-BYTE	64 byte trace message
• Y	Enable an attribute

## 21.97 RTRV-TUNNEL-FIREWALL

Retrieve Tunnel Firewall

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the contents of the firewall tunnel table.

### Category

System

### Security

Retrieve

### Related Commands

DLT-ROUTE	ENT-ROUTE	RTRV-ROUTE
DLT-TADRMAP	ENT-TADRMAP	RTRV-TADRMAP
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-PROXY
DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	

### Input Format

RTRV-TUNNEL-FIREWALL:[<TID>]::<CTAG>;

### Input Example

RTRV-TUNNEL-FIREWALL:TID::CTAG;

**Input Parameters****Table 21-192 RTRV-TUNNEL-FIREWALL Input Parameters**

Parameter and Values	Description
—	

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“[SRC ADDR=<SRCADDR>],[SRC MASK=<SRCMASK>],[DEST ADDR=<DESTADDR>],
[DEST MASK=<DESTMASK>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“SRC ADDR=64.101.150.10,SRC MASK=255.255.255.0,DEST ADDR=64.101.144.7,
DEST MASK=255.255.255.0”
;
```

**Output Parameters****Table 21-193 RTRV-TUNNEL-FIREWALL Output Parameters**

Parameter and Values	Description
SRCADDR	Source IP address. String. Optional
SRCMASK	Source mask. String. Optional
DESTADDR	Destination IP address. String. Optional
DESTMASK	Destination mask. String. Optional

## 21.98 RTRV-TUNNEL-PROXY

Retrieve Tunnel Proxy

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL  
This command retrieves the contents of the proxy tunnel table.

**Category**

System

**Security**

Retrieve



<b>Related Commands</b>	DLT-ROUTE	ENT-ROUTE	RTRV-ROUTE
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TADRMAP
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-PROXY	ENT-TUNNEL-PROXY	

**Input Format** RTRV-TUNNEL-PROXY:[<TID>]::<CTAG>;

**Input Example** RTRV-TUNNEL-PROXY:TID::CTAG;

### Input Parameters

**Table 21-194 RTRV-TUNNEL-PROXY Input Parameters**

Parameter and Values	Description
—	

### Output Format

SID DATE TIME  
M CTAG COMPLD  
“[SRC ADDR=<SRCADDR>],[SRC MASK=<SRCMASK>],[DEST ADDR=<DESTADDR>],  
[DEST MASK=<DESTMASK>]”  
;

### Output Example

TID-000 1998-06-20 14:30:00  
M 001 COMPLD  
“SRC ADDR=64.101.150.10,SRC MASK=255.255.255.0,DEST ADDR=64.101.144.7,  
DEST MASK=255.255.255.0”  
;

### Output Parameters

**Table 21-195 RTRV-TUNNEL-PROXY Output Parameters**

Parameter and Values	Description
SRCADDR	Source IP address. String. Optional
SRCMASK	Source mask. String. Optional
DESTADDR	Destination IP address. String. Optional
DESTMASK	Destination mask. String. Optional

## 21.99 RTRV-USER-SECU

Retrieve User Security

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command retrieves the security information of a specified user or list of users. The keyword ALL can be used to obtain a list of all users. For security reasons the password cannot be retrieved.

A Superuser can retrieve any user's security information. A user with MAINT, PROV, or RTRV privileges can only retrieve their own information.



### Note

When using the keyword ALL, all users created for the system are displayed. This includes users created outside of the TL1 environment (for example, userids/passwords greater than 10 characters in length). Although displayed by the RTRV-USER-SECU command, these users will not be able to log into the TL1 environment.

### Category

Security

### Security

Retrieve



### Note

Maintenance, Provisioning and Retrieve users can retrieve their own information only.

### Related Commands

ACT-USER	DLT-USER-SECU	REPT ALM SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SECU
ALW-USER-SECU	ED-PID	REPT EVT SESSION
CANC	ED-USER-SECU	RTRV-CMD-SECU
CANC-USER	ENT-USER-SECU	RTRV-DFLT-SECU
CANC-USER-SECU	INH-MSG-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	INH-USER-SECU	

### Input Format

RTRV-USER-SECU:[<TID>]:<UID>:<CTAG>;

### Input Example

RTRV-USER-SECU::CISCO15:1;

**Input Parameters****Table 21-196 RTRV-USER-SECU Input Parameters**

Parameter and Values	Description
<b>UID</b>	User identifier. The userid or the keyword ALL. A non-superuser can only specify his own userid. Must not be null. String

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<UID>:,<PRIVILEGE>:LOGGEDIN=<LOGGEDIN>,[NUMSESSIONS=<NUMSESS>]
[LOCKEDOUT=<LOCKEDOUT>],[DISABLED=<DISABLED>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"CISCO15:.,SUPER:LOGGEDIN=YES,NUMSESSIONS=1,LOCKEDOUT=NO,DISABLED=NO"
;
```

**Output Parameters****Table 21-197 RTRV-USER-SECU Output Parameters**

Parameter and Values	Description
<b>UID</b>	User identifier. The userid that was retrieved. String
<b>PRIVILEGE</b>	The privilege level of the user Parameter type is PRIVILEGE—security level
• MAINT	Maintenance security level. 60 minutes of idle time
• PROV	Provision security level. 30 minutes of idle time
• RTRV	Retrieve security level. Unlimited idle time
• SUPER	Superuser security level. 15 minutes of idle time
<b>LOGGEDIN</b>	Indicates if the user is logged in to the NE Parameter type is YES_NO—indicates whether the user's password is about to expire, the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes
<b>NUMSESS</b>	The number of times the user is logged into the NE. Integer. Optional
<b>LOCKEDOUT</b>	Indicates if the user is locked out of the NE. Optional Parameter type is YES_NO—indicates whether the user's password is about to expire, the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes

**Table 21-197 RTRV-USER-SECU Output Parameters (continued)**

Parameter and Values	Description
<b>DISABLED</b>	Indicates if the user is disabled. Optional Parameter type is YES_NO—indicates whether the user’s password is about to expire, the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes

## 21.100 RTRV-VCG

Retrieve Virtual Concatenated Group

### Usage Guidelines

Cisco ONS 15454, 15310-CL

This command retrieves all the attributes provisioned for a VCG.

### Category

VCAT

### Security

Retrieve

### Related Commands

DLT-VCG	ED-VCG	ENT-VCG
---------	--------	---------

### Input Format

RTRV-VCG:[<TID>]:<SRC>:<CTAG>[::::];

### Input Example

RTRV-VCG:NODE1:FAC-1-1:1234;

### Input Parameters

**Table 21-198 RTRV-VCG Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. ML1000-2 and ML100T-12 cards use the VFAC AID. The FC_MR-4 card uses the FAC AID. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<SRC>::TYPE=<TYPE>,TXCOUNT=<TXCOUNT>,CCT=<CCT>,[LCAS=<LCAS>],
[BUFFERS=<BUFFERS>],[NAME=<NAME>]:<PST>”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
" FAC-1-1::TYPE=STS3C, TXCOUNT=8, CCT=2WAY, LCAS=LCAS, BUFFERS=DEFAULT,
NAME="VCG2":IS"
;
```

**Output Parameters****Table 21-199 RTRV-VCG Output Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the <a href="#">“25.1.14 FACILITY”</a> section on page 25-28. ML1000-2 and ML100T-12 cards use the VFAC AID. The FC_MR-4 card uses the FAC AID
<b>TYPE</b>	The type of the entity being provisioned. Null indicates not applicable. TYPE can be a common language equipment identifier (CLEI) code or another value. The type of member cross-connect. ML1000-2 and ML100T-12 cards support STS1, STS3c and STS12c. The FC_MR-4 card supports STS3c only Parameter type is MOD_PATH—STS/VT path modifier
• STS1	STS1 path
• STS12C	STS12C path
• STS18C	STS18C path
• STS192	STS192C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS3C	STS3C path
• STS48C	STS48C path
• STS6C	STS6C path
• STS9C	STS9C path
• VT1	VT1 path
• VT2	VT2 path
<b>TXCOUNT</b>	Number of VCG members in the Tx direction. For ML1000-2 and ML100T-12 cards the only valid value is 2. For the FC_MR-4 card the only valid value is 8. Integer
<b>CCT</b>	Type of connection; one-way or two-way. Cross-connect type for the VCG member cross-connects Parameter type is CCT—type of cross-connect to be created
• 1WAY	A unidirectional connection from a source tributary to a destination tributary
• 1WAYDC	Path Protection multicast drop with (1-way) continue
• 1WAYEN	Path Protection multicast end node (1-way continue)

Table 21-199 RTRV-VCG Output Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> <li>1WAYMON</li> </ul>	<p>A bidirectional connection between the two tributaries</p> <p><b>Note</b> 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects and can be retrieved by TL1.</p>
<ul style="list-style-type: none"> <li>1WAYPCA</li> </ul>	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
<ul style="list-style-type: none"> <li>2WAY</li> </ul>	A bidirectional connection between the two tributaries
<ul style="list-style-type: none"> <li>2WAYDC</li> </ul>	A Bidirectional Drop and Continue connection applicable only to Path Protection Traditional and Integrated Dual Ring InterConnections
<ul style="list-style-type: none"> <li>2WAYPCA</li> </ul>	A bidirectional connection between the two tributaries on the extra protection path/fiber
<ul style="list-style-type: none"> <li>DIAG</li> </ul>	Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect)
<b>LCAS</b>	<p>Link capacity adjustment scheme. Optional</p> <p>Parameter type is LCAS—link capacity adjustment scheme mode for the VCG created</p>
<ul style="list-style-type: none"> <li>LCAS</li> </ul>	LCAS is enabled
<ul style="list-style-type: none"> <li>NONE</li> </ul>	No LCAS
<ul style="list-style-type: none"> <li>SW-LCAS</li> </ul>	Supports the temporary removal of a VCG member during the member failure. Only supported by the ML1000-2 and ML100T-12 cards
<b>BUFFERS</b>	<p>Buffer type. The default value is DEFAULT. The FC_MR-4 card supports DEFAULT and EXPANDED buffers. Other data cards support DEFAULT buffers only. Optional</p> <p>Parameter type is BUFFER_TYPE—buffer type (used in VCAT)</p>
<ul style="list-style-type: none"> <li>DEFAULT</li> </ul>	Default buffer value
<ul style="list-style-type: none"> <li>EXPANDED</li> </ul>	Expanded buffer value
<b>NAME</b>	Name of the VCAT group. String. Optional
<b>PST</b>	<p>Primary state. Optional</p> <p>Parameter type is PST—indicates the current overall service condition of an entity</p>
<ul style="list-style-type: none"> <li>IS</li> </ul>	In service
<ul style="list-style-type: none"> <li>OOS</li> </ul>	Out of service

## 21.101 RTRV-VT

Retrieve Virtual Tributary

**Usage Guidelines**

Cisco ONS 15454

This command retrieves the attributes associated with a VT path based on the granularity level of NE/Slot-specific VTs.

Supported AIDs are ALL, SLOT-N (N=1,2,...ALL), VT-<SLOT>[-<PORT>]-<STS NUMBER>-<VT GROUP>-<VT NUMBER>.

**Note**

The RVRTV, RVTM, HOLDOFFTIMER and UPSRPTHSTATE parameters only apply to path protection.

**Category**

Paths

**Security**

Retrieve

**Related Commands**

RTRV-<PATH> RTRV-STS

**Input Format**

RTRV-VT:[<TID>]:<AID>:<CTAG>;

**Input Example**

RTRV-VT:TID:VT1-1-1-1-1:1;

**Input Parameters**

**Table 21-200 RTRV-VT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.2 AidUnionId”</a> section on <a href="#">page 25-9</a> . Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[LEVEL=<LEVEL>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],
[HOLDOFFTIMER=<HOLDOFFTIMER>],[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],
[UPSRPTHSTATE=<UPSRPTHSTATE>]:[<PST>],[<SST>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“VT1-1-1-1-1::LEVEL=VT1,RVRTV=Y,RVTM=1.0,HOLDOFFTIMER=2000,TACC=8,
TAPTYPE=SINGLE,UPSRPTHSTATE=ACT:OOS,AINS”
;
```

## Output Parameters

Table 21-201 RTRV-VT Output Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.2 AidUnionId”</a> section on page 25-9
<b>LEVEL</b>	The rate of the cross-connect. Indicates the rate of the cross-connected channel. Applicable only to VT1 path in SONET. Optional Parameter type is VT_PATH—modifier for some VT commands
• VT1	Virtual Tributary 1
• VT2	Virtual Tributary 2
<b>RVRTV</b>	Revertive mode. Only applies to path protection. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
<b>RVTM</b>	Revertive time. Only applies to path protection. Defaults to empty because RVRTV is N when a path protection path is created. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
<b>HOLDOFFTIMER</b>	Hold off timer. Integer. Optional
<b>TACC</b>	Test access. Indicates whether the digroup being provisioned is to be used as a test access digroup. Defaults to N. Optional
<b>TAPTYPE</b>	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
<b>UPSRPTHSTATE</b>	Indicates whether a given AID is the working or standby path of a path protection cross-connect. Optional Parameter type is STATUS—status of the unit in the protection pair
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit in the shelf
<b>PST</b>	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service



**Table 21-201 RTRV-VT Output Parameters (continued)**

Parameter and Values	Description
• OOS	Out of service
SST	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

## 21.102 RTRV-WDMANS

Retrieve Wavelength Division Multiplexing Automatic Node Set Up

### Usage Guidelines

Cisco ONS 15454

This command edits the automatic optical node set up (AONS) application attributes.

### Category

DWDM

### Security

Maintenance

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-DWDM
	DLT-LNKTERM	ED-WDMANS	RTRV-FFP-OCH
	DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-LNKTERM
	ED-DWDM	ENT-LNKTERM	RTRV-NE-WDMANS
	ED-FFP-OCH	ENT-OSC	RTRV-OCH
	ED-LNK-<MOD2O>	ENT-WLEN	RTRV-OMS
	ED-LNKTERM	OPR-LASER-OTS	RTRV-OSC
	ED-OCH	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OMS	OPR-WDMANS	RTRV-PROTNSW-OCH
	ED-OSC	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OTS	RLS-PROTNSW-OCH	RTRV-WLEN

**Input Format** RTRV-WDMANS:[<TID>]:<AID>:<CTAG>;

**Input Example** RTRV-WDMANS:PENNGROVE:WDMANS-W:114;

### Input Parameters

*Table 21-202 RTRV-WDMANS Input Parameters*

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.29 WDMANS”</a> section on page 25-42. Must not be null

### Output Format

```
SID DATE TIME
M CTAG COMPLD
“<AID>::[POWERIN=<POWERIN>],[POWEROUT=<POWEROUT>],
[POWEREXP=<POWEREXP>],[NTWTYPE=<NTWTYPE>],
[OPTICALTYPE=<OPTICALTYPE>],[LASTRUNDAT=<LASTRUNDAT>],
[LASTRUNTM=<LASTRUNTM>]”
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
“WDMANS-W::POWERIN=10.0,POWEROUT=10.0,POWEREXP=10.0,
NTWTYPE=METRO-CORE,OPTICALTYPE=OADM,LASTRUNDAT=01-01-01,
LASTRUNTM=10-55-00”
;
```

### Output Parameters

**Table 21-203 RTRV-WDMANS Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “ <a href="#">25.1.29 WDMANS</a> ” section on <a href="#">page 25-42</a>
<b>POWERIN</b>	Input power for an OADM section of an OADM NE. Float. Optional
<b>POWEROUT</b>	Output power for an OADM or Mux/Demux section of HUB, TERMINAL or OADM nodes. Float. Optional
<b>POWEREXP</b>	Express power for a Mux/Demux section of a HUB or TERMINAL NE. Float. Optional
<b>NTWTYPE</b>	Type of network with DWDM node installed. Optional Parameter type is DWDM_RING_TYPE—network type where NE is installed
• METRO-ACCESS	The network where a DWDM node is installed is a metro access network
• METRO-CORE	The network where a DWDM node is installed is a metro core network
• NONE	A node that does not have a standard DWDM configuration
<b>OPTICALTYPE</b>	The optical configuration type for the NE. Optional Parameter type is OPTICAL_NODE_TYPE—optical configuration types for NEs
• HUB	A terminal site EAST, WEST or both with 32 channel mux/demux card
• LINE-AMPLIFIED	A line site with booster card
• OADM	A site with OADM cards
• OSC-REG	An OSC regeneration site with only 2 OSC-CSM cards in both sides
• ROADM	A site with R-OADM cards
• TDM-HYBRID	A TDM node with an amplifier directly connected to a TXP/MXP card
• UNKNOWN	The node type is undefined
<b>LASTRUNDAT</b>	The last date when the WDMANS application was run automatically or by user request. The format is MM-DD, where MM (month of year) ranges from 1 to 12 and DD (day of month) ranges from 1 to 31. Optional
<b>LASTRUNTM</b>	The last time when the WDMANS application was run automatically or by user request. The format is HH-MM, where HH (hour of day) ranges from 1 to 23 and MM (minute of hour) ranges from 0 to 59. Optional

## 21.103 RTRV-WLEN

Retrieve Wavelength

### Usage Guidelines

Cisco ONS 15454

This command retrieves the wavelength provisioning information.

### Category

DWDM

### Security

Retrieve

### Related Commands

DLT-LNK-<MOD2O>	ED-OTS	RTRV-DWDM
DLT-LNKTERM	ED-TRC-OCH	RTRV-FFP-OCH
DLT-OSC	ED-WLEN	RTRV-LNK-<MOD2O>
DLT-WDMANS	ENT-LNK-<MOD2O>	RTRV-LNKTERM
DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
ED-DWDM	ENT-OSC	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS

### Input Format

RTRV-WLEN:[<TID>]:<AID>:<CTAG>;

### Input Example

RTRV-WLEN:PENNGROVE:WLEN-W-ADD-1530.33:114;

### Input Parameters

*Table 21-204 RTRV-WLEN Input Parameters*

Parameter and Values	Description
AID	Access identifier from the “ <a href="#">25.1.30 WLEN</a> ” section on page 25-43. Must not be null

**Output Format**

```
SID DATE TIME
M CTAG COMPLD
"<AID>:<CCT>:[SIZE=<SIZE>],[CKTID=<CKTID>]:<PST_PSTQ>,[<SSTQ>]"
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
M 001 COMPLD
"WLEN-W-ADD-1530.33:1WAY:SIZE=MULTI-RATE,CKTID=CKTID:OOS-AU,AINS"
;
```

**Output Parameters****Table 21-205 RTRV-WLEN Output Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">"25.1.30 WLEN"</a> section on page 25-43
<b>CCT</b>	The wavelength connection type Parameter type is WCT—wavelength connection types
<ul style="list-style-type: none"> <li>1WAY</li> </ul>	A unidirectional wavelength connection for one specified ring direction
<ul style="list-style-type: none"> <li>2WAY</li> </ul>	A bidirectional wavelength connection for both ring directions
<b>SIZE</b>	Size of the switching network. Optional Parameter type is CIRCUIT_SIZE—the DWDM circuit size used on a wavelength
<ul style="list-style-type: none"> <li>10G-FEC</li> </ul>	The circuit size is 10 Gbps with FEC
<ul style="list-style-type: none"> <li>10G-NO-FEC</li> </ul>	The circuit size is 10 Gbps without FEC
<ul style="list-style-type: none"> <li>2G5-FEC</li> </ul>	The circuit size is 2.5 Gbps with FEC
<ul style="list-style-type: none"> <li>2G5-NO-FEC</li> </ul>	The circuit size is 2.5 Gbps without FEC
<ul style="list-style-type: none"> <li>MULTI-RATE</li> </ul>	The circuit size is supports multirate
<ul style="list-style-type: none"> <li>NOT-SPEC</li> </ul>	The circuit size is not equipment specific
<b>CKTID</b>	Circuit identification parameter that contains the common language circuit ID or other alias of the circuit being provisioned. Cannot contain blank spaces. CKTID is a string of ASCII characters with a maximum length of 48 characters. String. Optional
<b>PST_PSTQ</b>	The primary state and the primary state qualifier separated by a colon Parameter type is PST_PSTQ—service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ)
<ul style="list-style-type: none"> <li>IS-NR</li> </ul>	In service - normal
<ul style="list-style-type: none"> <li>OOS-AU</li> </ul>	Out of service - autonomous
<ul style="list-style-type: none"> <li>OOS-AUMA</li> </ul>	Out of service - autonomous and management
<ul style="list-style-type: none"> <li>OOS-MA</li> </ul>	Out of service - management

**Table 21-205 RTRV-WLEN Output Parameters (continued)**

Parameter and Values	Description
<b>SST</b>	One or more secondary states separated by “&” in alphabetical order. Optional Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped



## SCHED Commands

This chapter provides SCHED (schedule) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 22.1 SCHED-PMREPT-<MOD2>

Schedule Performance Monitoring Report (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

#### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command schedules/reschedules the NE to report the performance monitoring data for a line facility or for an STS/VT path periodically, using the automatic REPT PM message. This command can also remove the previously created schedule.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

The automatic performance monitoring reporting scheduled by this command is inhibited by default. ALW-PMREPT-ALL can be used to allow the NE to send the performance monitoring report. INH-PMREPT-ALL can be used to stop the NE from sending the performance monitoring report. The schedules created for the NE can be retrieved by RTRV-PMSCHED command.

The deletion of the schedule for the automatic performance monitoring reporting can be done by issuing SCHED-PMREPT-<MOD2> with the <NUMREPT> parameter equal to zero.



#### Note

- The current maximum number of schedules allowed to be created for a NE is 1000. If this number of schedules has been created for the NE, an error message “Reach Limits Of MAX Schedules Allowed. Can Not Add More” will be returned if another schedule creation is attempted on the NE. Frequent use of automatic performance monitoring reporting will significantly degrade the performance of the NE.
- A schedule cannot be created if the card associated with the schedule is not provisioned, or if the cross-connection associated with the schedule has not been created. However, a schedule is allowed to be deleted even if a card is not provisioned, or if the cross-connection has not been created.
- The number of outstanding performance monitoring reports counter <NUMREPT> will not be decremented, and the scheduled automatic performance monitoring reporting will not start if the card associated with the schedule is not physically plugged into the slot.

- An expired schedule would not be automatically removed. The SCHED-PMREPT command has to be issued with the <NUMREPT> parameter equal to zero in order to delete the expired schedule.
- Identical schedules for an NE is not allowed. Two schedules are considered identical if they have the same AID, MOD2 type, performance monitor type, performance monitor level, location, direction and time period.

An error message “Duplicate Schedule” is returned when trying to create a schedule which is a duplicate of a existing schedule. However, if the existing schedule expires (with the parameter <NUMINVL> equal to zero when retrieved by the RTRV-PMSCHED command, for example, no more performance monitoring reporting sent) the new schedule with the identical parameter will replace the existing schedule.

- When a electrical or optical card is unprovisioned by the DLT-EQPT command, or a cross-connection is deleted by the DLT-CRS command, the schedules associated with that card or that cross-connection will be removed silently by the NE. This removal prevents another type of card or cross-connection with the same AID to be provisioned on the NE, and prevents the NE from trying to send automatic performance monitoring reports based on the existing schedules.

The card or cross-connect can be unprovisioned or deleted through CTC. The schedules associated with that card or that cross-connection will also be removed silently by the NE.

- When creating schedules on an ONS 15327 XTC card, only schedules against the working XTC card (in Slot 6) are allowed. An error message “Can Not Create Schedule On Protect Card” will be returned if you try to create a schedule on protect XTC card in Slot 5.

---

**Category**

Performance

---

**Security**

Retrieve



**Related Commands**


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ALW-PMREPT-ALL	RLS-PROTNSW-<OCN_TYPE>
DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
DLT-RMONTH-<MOD2_RMON>	RTRV-<MOD1FICONPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD1FICONPAYLOAD>	RTRV-10GIGE
ED-<MOD2DWDMPAYLOAD>	RTRV-ALMTH-<MOD2>
ED-<OCN_TYPE>	RTRV-ALS
ED-ALS	RTRV-DS1
ED-DS1	RTRV-EC1
ED-EC1	RTRV-FAC
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FFP-<OCN_TYPE>	RTRV-FFP-<OCN_TYPE>
ED-FSTE	RTRV-FSTE
ED-G1000	RTRV-G1000
ED-GFP	RTRV-GFP
ED-HDLC	RTRV-GIGE
ED-POS	RTRV-HDLC
ED-T1	RTRV-PM-<MOD2>
ED-T3	RTRV-PMMODE-<STS_PATH>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-ALL
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
ENT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
INH-PMREPT-ALL	RTRV-T1
INIT-REG-<MOD2>	RTRV-T3
OPR-ALS	RTRV-TH-<MOD2>
OPR-LPBK-<MOD2>	RTRV-TH-ALL
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SET-ALMTH-<MOD2>
RLS-LPBK-<MOD2>	SET-PMMODE-<STS_PATH>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

---

**Input Format**

SCHED-PMREPT-<MOD2>:[<TID>]:<SRC>:<CTAG>:[<REPTINVL>],[<REPTSTATM>],  
[<NUMREPT>],[<MONLEV>],[<LOCN>],[<TMPER>],[<TMOFST>];

**Input Example**

SCHED-PMREPT-OC3:NE-NAME:FAC-3-1:123::60-MIN,15-30,100,,1-UP,NEND,,15-MIN,0-0-15;

**Input Parameters**

**Table 22-1 SCHED-PMREPT-<MOD2> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null
<b>REPTINVL</b>	Reporting interval. How often a report is generated and sent to the appropriate OS. Specifies how often a performance monitoring report is generated. The format is VAL-UN, where valid values for VAL (value) are: <ul style="list-style-type: none"> <li>• 1 to 31 if UN (units of time) is DAY</li> <li>• 1 to 24 if UN is HR</li> <li>• 5 to 1440 if UN is MIN</li> </ul> Examples are: 10-DAY, or 12-HR, or 100-MIN. A null value for the input defaults to 15-MIN.
<b>REPTSTATM</b>	The starting time for the performance monitoring report. The format is HOD-MOH, where HOD (hour of day) ranges from 0 to 23, and MOH (minute of hour) ranges from 0 to 59. If the input value of the starting time is smaller than the current time, for example, the input value is 5-30 (5:30 in the morning), and the current time is 10:30, the reporting will be scheduled to start at 5:30 the next day. A null value defaults to the current time of day. String
<b>NUMREPT</b>	The number of reports that the schedule is expected to produce. A value of 0 is used to delete a existing identical schedule. If NUMREPT is null, the schedule will be kept in effect until it is deleted. The value of NUMREPT will continue to be decremented even though the automatic performance monitoring reporting is inhibited. Integer
<b>MONLEV</b>	The discriminating level of the requested monitored parameter. It applies to all MONTYPE of the scheduled performance monitoring report. The format is LEV-DIRN, where valid values for LEV are decimal numbers, and valid values for DIRN are as follows: UP monitored parameter with values equal to or greater than the value of LEV will be reported. DN monitored parameter with values equal to or less than the value of LEV will be reported. The null input defaults to 1-UP. String

Table 22-1 SCHED-PMREPT-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
<b>LOCN</b>	Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. A null input defaults to NEND. FEND is not supported by all MOD2 types  Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>TMPER</b>	Accumulation time period for performance counters. Defaults to 15-MIN. Optional  Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
• RAW-DATA	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.
<b>TMOFST</b>	Time offset between reporting/diagnostics/exercises; from the end of the last complete accumulation time period to the beginning of the accumulation time period specified by TMPER. The format is DAY-HR-MIN where DAYS (days) ranges from 0 to 99, HR (hours) ranges from 0 to 23, and MIN (minutes) ranges from 1 to 59. A null value defaults to 0-0-0. Grouping of this parameter is not supported.  If the value specified is larger than the maximum length of PM history the system is saving, there will be no PM report for the PM schedule generated. For example, if a PM schedule for OC48 is created with TMOFST of 2-1-0 (format: day-hour-minute), no report will be generated because the system can only hold two days worth of PM history. For setting 15-MIN schedules, the system can only hold 32 15-MIN buckets which totals eight hours therefore a schedule greater than 0-8-0 will not result in PM schedules being generated. String





## SET Commands

---

This chapter provides SET (set) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

### 23.1 SET-ALMTH-<MOD2>

Set Alarm Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2)

---

**Usage Guidelines**

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command sets the alarm thresholds on the following cards/ports/channels:

MXP\_2.5G\_10G/TXP\_MR\_10G, optical service channel, optical amplifier, dispersion compensation units, multiplex/demultiplex and OADM.

The only applicable MOD2 values are CLNT/OCH/OMS/OTS.

---

**Category**

DWDM

---

**Security**

Provisioning

**Related Commands**

DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
DLT-FFP-<OCN_TYPE>	RST-<MOD2>
ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
ED-<OCN_TYPE>	RTRV-10GIGE
ED-ALS	RTRV-ALMTH-<MOD2>
ED-DS1	RTRV-ALS
ED-EC1	RTRV-DS1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
ED-FFP-<OCN_TYPE>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-TH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	

**Input Format**

```
SET-ALMTH-<MOD2>:[<TID>]:<AID>:<CTAG>::<CONDTYPE>,<THLEV>[,,,];
```

**Input Example**

```
SET-ALMTH-{MOD2}::FAC-1-1:1::OPT-LOW,10;
```

## Input Parameters

Table 23-1 SET-ALMTH-&lt;MOD2&gt; Input Parameters

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.1 ALL” section on page 25-1. Must not be null
<b>CONDTYPE</b>	Condition type for an alarm or a reported event Parameter type is ALM_THR—alarm threshold list for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B cards
• BATV-EHIGH	Battery Voltage - Extremely High
• BATV-ELow	Battery Voltage - Extremely Low
• BATV-HIGH	Battery Voltage - High
• BATV-LOW	Battery Voltage - Low
• GAIN-HDEG	Gain not reached—High Degrade Threshold
• GAIN-HFAIL	Gain not reached—High Failure Threshold
• GAIN-LDEG	Gain not reached—Low Degrade Threshold
• GAIN-LFAIL	Gain not reached—Low Failure Threshold
• LBCL-HIGH	Laser Bias current in uA as 1/10% High Warning Threshold, Low Warning Threshold Measured value [0.0%, 100.0%]
• OPR-HIGH	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPR-LOW	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPT-HIGH	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPT-LOW	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPWR-HDEG	Optical Power—High Degrade Threshold
• OPWR-HFAIL	Optical Power—High Failure Threshold
• OPWR-LDEG	Optical Power—Low Degrade Threshold
• OPWR-LFAIL	Optical Power—Low Failure Threshold
• VOA-HDEG	VOA Attenuation—High Degrade Threshold
• VOA-HFAIL	VOA Attenuation—High Failure Threshold
• VOA-LDEG	VOA Attenuation—Low Degrade Threshold
• VOA-LFAIL	VOA Attenuation—Low Failure Threshold
<b>THLEVEL</b>	Threshold level. Float

## 23.2 SET-ALMTH-EQPT

Set Alarm Threshold Equipment

**Usage Guidelines**

Cisco ONS 15454, ONS 15310-CL

This command sets the alarm thresholds to manage the power level monitoring on an NE.

**Category**

Equipment

**Security**

Provisioning

**Related Commands**

ALW-SWDX-EQPT	INH-SWTOPROTN-EQPT	RTRV-ALMTH-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-COND-EQPT
ALW-SWTOWKG-EQPT	REPT ALM EQPT	RTRV-EQPT
DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
ED-EQPT	REPT RMV EQPT	SW-TOPROTN-EQPT
ENT-EQPT	REPT RST EQPT	SW-TOWKG-EQPT
INH-SWDX-EQPT	RTRV-ALM-EQPT	

**Input Format**

SET-ALMTH-EQPT:[<TID>]::<CTAG>::<ALMTHTYPE>,<THLEV>[,,,];

**Input Example**

SET-ALMTH-EQPT:::1::BATV-HIGH,-53.5;

**Input Parameters**

**Table 23-2 SET-ALMTH-EQPT Input Parameters**

Parameter and Values	Description
<b>ALMTHTYPE</b>	Alarm threshold type Parameter type is ALM_THR—alarm threshold list for MXP_2.5G_10G, TXP_MR_10G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, and AD-4B cards
• BATV-EHIGH	Battery Voltage - Extremely High
• BATV-ELow	Battery Voltage - Extremely Low
• BATV-HIGH	Battery Voltage - High
• BATV-LOW	Battery Voltage - Low
• GAIN-HDEG	Gain not reached—High Degrade Threshold
• GAIN-HFAIL	Gain not reached—High Failure Threshold
• GAIN-LDEG	Gain not reached—Low Degrade Threshold
• GAIN-LFAIL	Gain not reached—Low Failure Threshold
• LBCL-HIGH	Laser Bias current in uA as 1/10% High Warning Threshold, Low Warning Threshold Measured value [0.0%, 100.0%]



Table 23-2 SET-ALMTH-EQPT Input Parameters (continued)

Parameter and Values	Description
• OPR-HIGH	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPR-LOW	Receive power in 1/10 uW Measured value [-40.0 dBm,+30.0 dBm]
• OPT-HIGH	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPT-LOW	Transmit power in 1/10 uW. Measured value [-40.0 dBm,+30.0 dBm]
• OPWR-HDEG	Optical Power—High Degrade Threshold
• OPWR-HFAIL	Optical Power—High Failure Threshold
• OPWR-LDEG	Optical Power—Low Degrade Threshold
• OPWR-LFAIL	Optical Power—Low Failure Threshold
• VOA-HDEG	VOA Attenuation—High Degrade Threshold
• VOA-HFAIL	VOA Attenuation—High Failure Threshold
• VOA-LDEG	VOA Attenuation—Low Degrade Threshold
• VOA-LFAIL	VOA Attenuation—Low Failure Threshold
<b>THLEVEL</b>	Threshold level. Float

## 23.3 SET-ATTR-CONT

Set Attribute Control

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command sets the attributes associated with an external control. The attributes are used when an external control is operated or released. To send the attributes, use the RTRV-ATTR-CONT command.



#### Note

If the <CONTTYPE> parameter is not specified, the control specified by <AID> is unprovisioned.



#### Note

A control should be unprovisioned before it is reprovisioned to another type of control.

### Category

Environment

### Security

Provisioning

Related Commands	OPR-ACO-ALL	RLS-EXT-CONT	RTRV-COND-ENV
	OPR-EXT-CONT	RTRV-ALM-ENV	RTRV-EXT-CONT
	REPT ALM ENV	RTRV-ATTR-CONT	SET-ATTR-ENV
	REPT EVT ENV	RTRV-ATTR-ENV	SET-ATTR-SECUDFLT

**Input Format** SET-ATTR-CONT:[<TID>]:<AID>:<CTAG>[::<CONTTYPER>];

**Input Example** SET-ATTR-CONT:CISCO:ENV-OUT-1:123::AIRCOND;

### Input Parameters

**Table 23-3 SET-ATTR-CONT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the “25.1.12 ENV” section on page 25-26. Identifies the external control for which attributes are being retrieved
<b>CONTTYPER</b>	Environmental control type. A null value is equivalent to ALL Parameter type is CONTTYPER—Environmental control types
• AIRCOND	Air conditioning
• ENGINE	Engine
• FAN	Fan
• GEN	Generator
• HEAT	Heat
• LIGHT	Light
• MISC	Miscellaneous
• SPKLR	Sprinkler

## 23.4 SET-ATTR-ENV

Set Attribute Environment

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command sets the attributes associated with an external control.



#### Note

- If the <NTFCNCDE>, <ALMTYPE>, and <ALMMSG> parameters are omitted, the environmental alarm specified by <AID> is unprovisioned.
- An alarm should be unprovisioned and you should wait for any raised alarm to clear before reprovisioning the alarm to another alarm type.

- CL in NOTIF\_CODE is not valid for provisioning commands. It is only valid for autonomous messages.

**Category** Environment

**Security** Provisioning

Related Commands	OPR-ACO-ALL	RLS-EXT-CONT	RTRV-COND-ENV
	OPR-EXT-CONT	RTRV-ALM-ENV	RTRV-EXT-CONT
	REPT ALM ENV	RTRV-ATTR-CONT	SET-ATTR-CONT
	REPT EVT ENV	RTRV-ATTR-ENV	SET-ATTR-SECUDFLT

**Input Format** SET-ATTR-ENV:[<TID>]:<AID>:<CTAG>:.[<NTFCNCDE>],[<ALMTYPE>],[<ALMMSG>];

**Input Example** SET-ATTR-ENV:CISCO:ENV-IN-1:123::MJ,OPENDR,\"OPEN DOOR\";

#### Input Parameters

**Table 23-4 SET-ATTR-ENV Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.12 ENV”</a> section on page 25-26. Must not be null
<b>NTFCNCDE</b>	Two-letter notification code. Must not be null Parameter type is NOTIF_CODE—two-character notification code associated with an autonomous message
<ul style="list-style-type: none"> <li>• CL</li> </ul>	The condition causing the alarm has cleared
<ul style="list-style-type: none"> <li>• CR</li> </ul>	A critical alarm
<ul style="list-style-type: none"> <li>• MJ</li> </ul>	A major alarm
<ul style="list-style-type: none"> <li>• MN</li> </ul>	A minor alarm
<ul style="list-style-type: none"> <li>• NA</li> </ul>	The condition is not alarmed
<ul style="list-style-type: none"> <li>• NR</li> </ul>	The alarm is not reported
<b>ALMTYPE</b>	The alarm type for the environmental alarm. Must not be null Parameter type is ENV_ALM—environmental alarm types
<ul style="list-style-type: none"> <li>• AIRCOMPR</li> </ul>	Air compressor failure
<ul style="list-style-type: none"> <li>• AIRCOND</li> </ul>	Air conditioning failure
<ul style="list-style-type: none"> <li>• AIRDRYR</li> </ul>	Air dryer failure
<ul style="list-style-type: none"> <li>• BATDSCHRG</li> </ul>	Battery discharging
<ul style="list-style-type: none"> <li>• BATTERY</li> </ul>	Battery failure

**Table 23-4** SET-ATTR-ENV Input Parameters (continued)

Parameter and Values	Description
• CLFAN	Cooling fan failure
• CPMAJOR	Centralized power major failure
• CPMINOR	Centralized power minor failure
• ENGINE	Engine failure
• ENGOPRG	Engine operating
• ENGTRANS	Standby engine transfer
• EXPLGS	Explosive gas
• FIRDETR	Fire detector failure
• FIRE	Fire
• FLOOD	Flood
• FUELLEAK	Fuel leak
• FUSE	Fuse failure
• GASALARM	Explosive gas, toxic gas, ventilation fail or gas monitor fail
• HATCH	CEV hatch fail
• GEN	Generator failure
• HIAIR	High airflow
• HIHUM	High humidity
• HITEMP	High temperature
• HIWTR	High water
• INTRUDER	Intrusion
• LEVELCON	Level converter
• LVDADSL	Secondary ADSL low voltage disconnect
• LVDBYPAS	Low voltage disconnected bypass
• LWBATVG	Low battery voltage
• LWFUEL	Low fuel
• LWHUM	Low humidity
• LWPRES	Low cable pressure
• LWTEMP	Low temperature
• LWWTR	Low water
• MISC	Miscellaneous
• OPENDR	Open door
• POWER	Commercial power failure
• PUMP	Pump failure
• PWR-48	48V power supply failure
• PWR-139	-139V power converter
• PWR-190	-190V power converter

**Table 23-4** SET-ATTR-ENV Input Parameters (continued)

Parameter and Values	Description
• PWRMJ	Power supply major
• PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
• RINGGENMJ	Ring generator major
• RINGGENMN	Ring generator minor
• RTACADSL	AC or AC/rectifier power fail ADSL equipment
• RTACCRIT	AC or AC/rectifier power fail DCL equipment critical site
• RTACPWR	AC or AC/rectifier power fail DCL equipment
• RTACPWRENG	Commercial AC fail, site equipped with standby engine
• RTBAYPWR	AC power loss distributed power RT bay
• RTRVENG	Retrieve standby engine, commercial AC restored
• SMOKE	Smoke
• TEMP	High-low temperature
• TOXICGAS	Toxic gas
• TREPEATER	T-repeater shelf
• VENTN	Ventilation system failure
ALMMSG	Alarm message. String. Must not be null

## 23.5 SET-ATTR-SECUDFLT

Set Attribute Security Default

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command sets the system-wide default values associated with several security parameters.

The following parameters are set on a system-wide basis for all users and all privilege levels: MXINV, DURAL, UOUT, PFRCD, POLD, PINT, and LOGIN. The PRIVLVL keyword cannot be used to set these parameters for a specific privilege level.

The following parameters are set on a privilege-level basis: PAGE, PCND, and TMOUT. If any of these values are specified, the PRIVLVL keyword must also be present. If none of these parameters are specified, the PRIVLVL keyword cannot be used.



### Note

Password aging can only be enabled/disabled for all privilege levels. The PRIVLVL keyword cannot be used with PAGE=0 to disable a specific user privilege level.

When system-level and privilege-level keywords are combined in the same command, system-level parameters are still set for all privilege levels, regardless of the value specified by PRIVLVL. Privilege-level parameters are only set for the privilege level specified by PRIVLVL.

**Note**

If PAGE and PINT both have values greater than 0, PINT must be less than PAGE.

The order of keywords is not restricted. Commas are only needed to separate keywords. If no keywords are specified, all parameters are left as is.

**Category**

Security

**Security**

Superuser

**Related Commands**

ACT-USER	ENT-USER-SECU	RTRV-ALM-ENV
ALW-MSG-SECU	INH-MSG-SECU	RTRV-ATTR-CONT
ALW-USER-SECU	INH-USER-SECU	RTRV-ATTR-ENV
CANC	OPR-ACO-ALL	RTRV-CMD-SECU
CANC-USER	OPR-EXT-CONT	RTRV-COND-ENV
CANC-USER-SECU	REPT ALM ENV	RTRV-DFLT-SECU
CLR-COND-SECU	REPT ALM SECU	RTRV-EXT-CONT
DLT-USER-SECU	REPT EVT ENV	RTRV-USER-SECU
ED-CMD-SECU	REPT EVT SECU	SET-ATTR-CONT
ED-PID	REPT EVT SESSION	SET-ATTR-ENV
ED-USER-SECU	RLS-EXT-CONT	

**Input Format**

```
SET-ATTR-SECUDFLT:[<TID>]::<CTAG>::[PAGE=<PAGE>],[PCND=<PCND>],
[MXINV=<MXINV>],[DURAL=<DURAL>],[TMOUT=<TMOUT>],[UOUT=<UOUT>],
[PFRCD=<PFRCD>],[POLD=<POLD>],[PINT=<PINT>],[LOGIN=<LOGIN>],
[PRIVLVL=<PRIVLVL>],[PDIF=<PDIF>];
```

**Input Example**

```
SET-ATTR-SECUDFLT:CISCO::123::PAGE=45,PCND=5,MXINV=5,DURAL=30,
TMOUT=0,UOUT=20,PFRCD=NO,POLD=5,PINT=20,LOGIN=MULTIPLE,
PRIVLVL=RTRV,PDIF=1;
```

## Input Parameters

Table 23-5 SET-ATTR-SECUDFLT Input Parameters

Parameter and Values	Description
<b>PAGE</b>	Password aging interval. It is the number of days before a user is prompted to change his/her password. 0 indicates the policy is turned off and is the default. If PAGE is turned on for all privilege levels and is not specified for each privilege level, it defaults to 45 days. PAGE ranges from 20 to 90 days. Integer
<b>PCND</b>	Number of days a password can be used before a new one is mandatory (for example, the warning period). Default is 5 days. PCND ranges from 2 to 20 days. Integer
<b>MXINV</b>	Maximum number of consecutive and invalid session setup attempts allowed to occur before an intrusion attempt is suspected (for example, “Failed Logins Before Lockout” from CTC). 0 indicates the policy is turned off. Default is 5. MXINV ranges from 0 to 10. Integer
<b>DURAL</b>	Time interval (in seconds) during which a userid is locked out when an intrusion attempt is suspected (for example, the “Lockout Duration”). If the user is locked out until unlocked by a superuser, DURAL=INFINITE. Default is 30 seconds. DURAL ranges from 0 to 600 seconds. String
<b>TMOUT</b>	Interval (in minutes) after which a session is terminated if no messages are exchanged between the user and the NE. 0 indicates that the session will not timeout. TMOUT ranges from 0 minutes to 999 minutes. Defaults are 0 (no timeout) for RTRV users, 60 minutes for MAINT users, 30 minutes for PROV users, and 15 minutes for SUPER users. Integer
<b>UOUT</b>	UID aging interval, expressed in days. If a userid has not been used in UOUT days, the user will be forced to change his/her password (or logout) at the next login. No other command is allowed until the password has been changed. 0 indicates the policy is turned off and is the default. UOUT ranges from 0 to 99 days. Integer
<b>PFRCD</b>	Indicates a password change is required when a new user establishes a session to the NE for the first time (for example, “Require password change on 1st login”). Default is NO  Parameter type is YES_NO—indicates whether the user’s password is about to expire, the user is logged into the NE or the user is locked out of the NE
• NO	No
• YES	Yes
<b>POLD</b>	Number of prior passwords that cannot be reused (for example, “Prevent reusing last X passwords”). Default is 1. POLD ranges from 1 to 10. Integer
<b>PINT</b>	Number of days that must pass before a password can be changed. If PINT is 0, the policy is turned off. Default is off. PINT ranges from 20 to 95 days. Integer

Table 23-5 SET-ATTR-SECUDFLT Input Parameters (continued)

Parameter and Values	Description
<b>LOGIN</b>	Number of times a user can log into an NE. LOGIN is either SINGLE or MULTIPLE. If LOGIN is SINGLE, a user can only log into an NE one time with any given userid, regardless of the method of login (for example, CTC, TL1, etc.). Default is MULTIPLE Parameter type is USER_LOGINS—the number of times a user can log into the same NE with the same userid
<ul style="list-style-type: none"> <li>MULTIPLE</li> </ul>	A user can log into the same NE many times
<ul style="list-style-type: none"> <li>SINGLE</li> </ul>	A user can log into the NE only once (includes both CTC and TL1 sessions)
<b>PRIVLVL</b>	User's access privilege Parameter type is PRIVILEGE—security level
<ul style="list-style-type: none"> <li>MAINT</li> </ul>	Maintenance security level. 60 minutes of idle time
<ul style="list-style-type: none"> <li>PROV</li> </ul>	Provision security level. 30 minutes of idle time
<ul style="list-style-type: none"> <li>RTRV</li> </ul>	Retrieve security level. Unlimited idle time
<ul style="list-style-type: none"> <li>SUPER</li> </ul>	Superuser security level. 15 minutes of idle time
<b>PDIF</b>	Indicates how many characters must differ between the old and new password. Default minimum character difference is 1. PDIF ranges from 1 to 5 characters. Integer. Rangeable

## 23.6 SET-PMMODE-<STS\_PATH>

Set Performance Mode of PM Data Collection (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C)

### Usage Guidelines

Cisco ONS 15454

This command sets the mode and turns the PM data collection mode on or off.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



### Note

- The PM mode and state of an entity are retrieved by using the RTRV-PMMODE command.
- The near end monitoring of the intermediate-path PM (IPPM) only supports OC3, OC12, OC48, OC192, and EC-1 on STS Path.
- The far end IPPM data collection is supported by the MRC-12 card only.
- This release of software will support only the Path (P) mode type PM parameters with this command, that is, this command is not applicable for Line (L) and Section (S) mode types. The PM monitoring for Line (L) and Section (S) are supported by the ONS 15454, and the storing PM data is always performed.



**Category** Performance

**Security** Provisioning

Related Commands		
ALW-PMREPT-ALL		RTRV-PMSCHED-<MOD2>
DLT-RMONTH-<MOD2_RMON>		RTRV-PMSCHED-ALL
ENT-RMONTH-<MOD2_RMON>		RTRV-RMONTH-<MOD2_RMON>
INH-PMREPT-ALL		RTRV-TH-<MOD2>
INIT-REG-<MOD2>		RTRV-TH-ALL
REPT PM <MOD2>		SCHED-PMREPT-<MOD2>
RTRV-PM-<MOD2>		SET-TH-<MOD2>
RTRV-PMMODE-<STS_PATH>		

**Input Format** SET-PMMODE-<STS\_PATH>:[<TID>]:<SRC>:<CTAG>::<LOCN>,<MODETYPE>,<PMSTATE>;

**Input Example** SET-PMMODE-STS1:CISCO:STS-4-1-2:123::NEND,P,ON;

#### Input Parameters

**Table 23-6 SET-PMMODE-<STS\_PATH> Input Parameters**

Parameter and Values	Description
<b>SRC</b>	Source access identifier from the <a href="#">“25.1.9 CrossConnectId” section on page 25-15</a>
<b>LOCN</b>	Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Only the near end PM data collection is supported Parameter type is LOCATION—the location where the action is to take place
<ul style="list-style-type: none"> <li>NEND</li> </ul>	Action occurs on the Near End of the facility
<b>MODETYPE</b>	The type of PM parameters that the entity or the sub entity is to store as a result of an attribute change. Only the path (P) PM parameter is supported Parameter type is PM_MODE—the type of PM parameters
<ul style="list-style-type: none"> <li>P</li> </ul>	Transport Path PM parameters

Table 23-6 SET-PMMODE-&lt;STS\_PATH&gt; Input Parameters (continued)

Parameter and Values	Description
PMSTATE	Directs the named PM mode type to turn on or off. A null value defaults to on  Parameter type is PM_STATE—directs the named PM mode type - path (P) state
<ul style="list-style-type: none"> <li>• OFF</li> </ul>	Disable the mode
<ul style="list-style-type: none"> <li>• ON</li> </ul>	Enable the mode

## 23.7 SET-TH-<MOD2>

Set Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DS3I, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STM1E, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC11, VC12, VC3, VT1, VT2)

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command sets the threshold for PM and sets the alarm thresholds for the MXP\_2.5G\_10G/TXP\_MR\_10G cards. If this command is used to set the alarm thresholds, the time-period is not applicable.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

The rules are as follows: The PM Thresholds have a default of NEND for the location. The Alarm Thresholds do not require or interpret the location. The TMPER is not applicable to alarm thresholds. The TMPER default is 15-MIN. The client ports only accept SONET, Laser and alarm MONTYPES. The trunk ports accept SONET, Laser, alarm, FEC, OTN and 8B10B MONTYPES.

Refer to the [Cisco ONS SONET TL1 Reference Guide](#) for specific card provisioning rules.

### Category

Performance

### Security

Provisioning

**Related Commands**

ALW-PMREPT-ALL	RTRV-PMSCHED-<MOD2>
DLT-RMONTH-<MOD2_RMON>	RTRV-PMSCHED-ALL
ENT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
INH-PMREPT-ALL	RTRV-TH-<MOD2>
INIT-REG-<MOD2>	RTRV-TH-ALL
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RTRV-PM-<MOD2>	SET-TH-<MOD2>
RTRV-PMMODE-<STS_PATH>	

**Input Format**

SET-TH-<MOD2>:[<TID>]:<AID>:<CTAG>::<MONTYPE>,<THLEV>,[<LOCN>],[<TMPER>];

**Input Example**

SET-TH-T3:CISCO:FAC-1-1:123::CVL,12,NEND,,15-MIN;

**Input Parameters**

**Table 23-7 SET-TH-<MOD2> Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.1 ALL” section on page 25-1</a> . All the STS, VT1, Facility, and DS1 AIDs are supported
<b>MONTYPE</b>	Monitored type Parameter type is ALL_MONTYPE—monitoring type list
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)

Table 23-7 SET-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second—Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FC-L	Failure Count—Line
• FC-P	Failure Count—Path
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second

**Table 23-7** SET-TH-<MOD2> Input Parameters (continued)

Parameter and Values	Description
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High-Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High-Order Path, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High-Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High-Order Path Pointer Justification Count
• HP-PJCS-PGEN	High-Order Path Pointer Justification Count Seconds
• HP-PPJC-PDET	High-Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High-Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA

Table 23-7 SET-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for OC3-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds-A
• LP-ESB	Low-Order Path Errored Seconds-B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low-Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low-Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low-Order positive Pointer Justification Count, Generated
• LP-SEP	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for OC3-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 card

**Table 23-7** SET-TH-<MOD2> Input Parameters (continued)

Parameter and Values	Description
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second—Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASNPFE	Unavailable Second—Network Path (DS3XM-12 DS1 PM count)
• UASP	Unavailable Second—Path

Table 23-7 SET-TH-&lt;MOD2&gt; Input Parameters (continued)

Parameter and Values	Description
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VT Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count
<b>THELV</b>	Threshold level. Float
<b>LOCN</b>	Location associated with a particular command Parameter type is LOCATION—the location where the action is to take place
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
<b>TMPER</b>	Accumulation time period for performance counters. Optional Parameter type is TMPER—accumulation time period for the performance management center
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
• RAW-DATA	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.

## 23.8 SET-TOD

Set Time of Day

### Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command sets the system date and time for the NE. The year should be entered using four digits while the hour should be entered using a 24-hour time period (for example, military time).



**Category** System

**Security** Provisioning

Related Commands			
	ACT-USER	ED-TRAPTABLE	RTRV-MAP-NETWORK
	ALW-MSG-ALL	ENT-TRAPTABLE	RTRV-NE-APC
	ALW-MSG-DBCHG	INH-MSG-ALL	RTRV-NE-GEN
	ALW-MSG-SECU	INH-MSG-DBCHG	RTRV-NE-IPMAP
	COPY-RFILE	INH-MSG-SECU	RTRV-NE-PATH
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-SYNCN
	ED-DAT	REPT EVT FXFR	RTRV-NE-WDMANS
	ED-NE-GEN	RTRV-HDR	RTRV-TOD
	ED-NE-PATH	RTRV-INV	RTRV-TRAPTABLE
	ED-NE-SYNCN		

**Input Format** SET-TOD:[<TID>]::<CTAG>::<YEAR>,<MONTH>,<DAY>,<HOUR>,<MINUTE>,<SECOND>,<DIFFERENCE>[:DST=<DST>];

**Input Example** SET-TOD:CAZADERO::240::1998,05,08,13,18,55,480:DST=Y;

### Input Parameters

**Table 23-8** SET-TOD Input Parameters

Parameter and Values	Description
<b>YEAR</b>	The current calendar year. Integer
<b>MONTH</b>	The month of the year. Ranges from 01 to 12. Integer
<b>DAY</b>	The day of the month. Ranges from 01 to 31. Integer
<b>HOUR</b>	The hour of the day. Ranges from 00 to 23. Integer
<b>MINUTE</b>	The minute of the hour. Ranges from 00 to 59. Integer
<b>SECOND</b>	The second of the minute. Ranges from 00 to 59. Integer
<b>DIFFERENCE</b>	The number of minutes off UTC. Integer
<b>DST</b>	Daylight savings time Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute





# SW Commands

This chapter provides SW (switch) commands for the Cisco ONS 15454 and the ONS 15600.



**Note**

SW commands do not apply to the ONS 15327 and ONS 15310-CL.

## 24.1 SW-DX-EQPT

Switch Duplex Equipment

### Usage Guidelines

Cisco ONS 15454, ONS 15600

This command switches a cross-connect card with the mate card within the NE.



**Note**

If sending a mode parameter with a value other than NORM, FRCD, or NULL, the IDNV (Input, Data Not Valid) error message will be returned.

### Category

Equipment

### Security

Maintenance

### Related Commands

ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-ALMTH-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOWKG-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
DLT-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
ED-EQPT	REPT EVT EQPT	SW-TOPROTN-EQPT
ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
EX-SW-<OCN_BLSR>		

### Input Format

SW-DX-EQPT:[<TID>]:<AID>:<CTAG>::[<MODE>],[,];

**Input Example** SW-DX-EQPT:CISCO:SLOT-1:123::FRCD;

**Input Parameters**

**Table 24-1 SW-DX-EQPT Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.13 EQPT” section on page 25-27. Identifies the equipment unit in the NE that is to be switched with it’s mate
MODE	Command mode  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
• FRCD	Force the system to override a state where the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that could make the command fail

## 24.2 SW-TOPROTN-EQPT

Switch to Protection Equipment

**Usage Guidelines**

Cisco ONS 15454

This command performs an equipment unit protection switch.

This command is used for electrical cards (for example, DS1, DS3, DS3XM, and EC1). DS1 and DS3 cards have 1:1 and 1:N equipment protection. DS3XM and EC1 cards have only 1:1 equipment protection.

This command will switch the traffic from the working card specified in the AID to the protect card.

There is a priority for the switch to protection commands. In a 1:N protection group with  $N > 1$ , consider two working cards - A and B. Card A is switched to the protect card with the SW-TOPROTN command. If card B is pulled from the system, the protect card will carry the traffic of card B and card A will raise the FAILTOSW condition and carry traffic. When card B is replaced and the revert timer expires, card B will carry traffic and card A will switch to the protect card. The FAILTOSW condition on card A will be cleared. Note: 1:N protection groups in the system are always revertive.

In a revertive protection group, the unit specified by the AID will raise the standing condition of WKSWPR if the command were executed without an error. In a non-revertive protection group, the unit specified by the AID will raise the transient condition of WKSWPR if the command were executed without an error.

The following actions will return error messages:

- Sending this command to a card that is not in a protection group will return the SNVS (Status, Not in Valid State) error message.

- Entering a <DIRN> value other than BTH or null will return an IDNV (Input, Data Not Valid) error message.
- Sending this command to a SONET (OCN) card will return an IIAC (Input, Invalid Access Identifier) error message.
- Sending this command to a missing working card will return the SWFA (Status, Working Unit Failed) error message.
- Sending this command to a protection card will return the IIAC (Input, Invalid Access Identifier) error message.
- Sending a mode parameter with a value other than NORM, FRCD, or null will return the IDNV (Input, Data Not Valid) error message.
- Sending this command to a working card when the working card has raised INHSWPR will return the SWLD (Status, Working Unit Locked) error message.
- Sending this command to a working card when the protection card has raised INHSWPR will return the SPLD (Status, Protection Unit Locked) error message.
- Sending this command to an active working card when the protect card is already carrying traffic (this only occurs in a 1:N protection group with N greater than one) will return the SNVS (Status, Not in Valid State) error message.
- Sending this command to an active working card when the protect card is failed or missing will return the SPFA (Status, Protection Unit Failed) error message.
- Sending this command to a standby working card will return the SNVS (Status, Not in Valid State) error message.

**Note**

- The default PROTID is the protecting unit if there is only one protection unit per protection group in the NE, otherwise a DENY error message will be responded.
- This command only supports one value of the <DIRN> parameter - BTH or null. A command with any other value is considered an incorrect use of the command and will return An IDNV (Input, Data Not Valid) error message.
- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. A command on a common control card will return an IIAC (Input, Invalid Access Identifier) error message. To use the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.
- This command is not used for SONET (OC-N) cards. A command on a SONET card will return an IIAC (Input, Invalid Access Identifier) error message. To use a SONET card switching command, use the OPR-PROTNSW and RLS-PROTNSW commands.

**Category**

Equipment

**Security**

Maintenance

Related Commands	ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-ALMTH-EQPT
	ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
	ALW-SWTOWKG-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
	DLT-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
	ED-EQPT	REPT EVT EQPT	SW-DX-EQPT
	ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
	EX-SW-<OCN_BLSR>		

**Input Format** SW-TOPROTN-EQPT:[<TID>]:<AID>:<CTAG>::[<MODE>],[<PROTID>],[<DIRN>];

**Input Example** SW-TOPROTN-EQPT:CISCO:SLOT-1:123::FRCD,SLOT-3,BTH;

### Input Parameters

**Table 24-2 SW-TOPROTN-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.13 EQPT”</a> section on page 25-27. Specifies the working unit which will have traffic switched to protection
<b>MODE</b>	Mode with which the command is to be implemented. The parameter will only support the NORM value. A null value defaults to NORM. Sending the FRCD value for will generate the same switching behavior as sending the NORM value  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that could make the command fail
<b>PROTID</b>	Access identifier from the <a href="#">“25.1.20 PRSLOT”</a> section on page 25-33. Identifies the protection unit to be switched when there is more than one protection unit within the NE. Optional
<b>DIRN</b>	The direction relative to the entity defined in the AID field. The direction of the switching. This command only supports the BTH value of this parameter. DIRN defaults to BTH  Parameter type is DIRECTION—transmit and receive directions
<ul style="list-style-type: none"> <li>BTH</li> </ul>	Both transmit and receive directions

## 24.3 SW-TOWKG-EQPT

Switch to Working Equipment

### Usage Guidelines

Cisco ONS 15454

This command switches the protected working unit back to working unit.

This command is used for electrical cards (for example, DS1, DS3, DS3XM, and EC1). DS1 and DS3 cards have 1:1 and 1:N equipment protection. DS3XM and EC1 cards have only 1:1 equipment protection cards.

This command will switch the traffic from the protection card to the working card specified by the AID.

In a revertive protection group, the unit specified by the AID will clear the standing condition of WKSWPR if the command were executed without an error. In a non-revertive protection group, the unit specified by the AID will raise the transient condition of WKSWBK if the command were executed without an error.

The following actions will return error messages:

- Entering a <DIRN> value other than BTH or null will return an IDNV (Input, Data Not Valid) error message.
- Sending this command to a common control card will return an IIAC (Input, Invalid Access Identifier) error message.
- Sending this command to a SONET (OCN) card will return an IIAC (Input, Invalid Access Identifier) error message.
- Sending this command to a card that is not in a protection group will return the SNVS (Status, Not in Valid State) error message.
- Sending this command to a missing working card will return the SWFA (Status, Working Unit Failed) error message.
- Sending this command to a protection card will return the IIAC (Input, Invalid Access Identifier) error message.
- Sending a mode parameter with a value other than NORM, FRCD, or null will return the IDNV (Input, Data Not Valid) error message.
- Sending this command to a working card when the working card has raised INHSWWKG will return the SWLD (Status, Working Unit Locked) error message.
- Sending this command to a working card when the protection card has raised INHSWWKG will return the SPLD (Status, Protection Unit Locked) error message.
- Sending this command to an active working card will return the SNVS (Status, Not in Valid State) error message.



### Note

- This command only supports one value of the <DIRN> parameter - BTH or null. A command with any other value is considered an incorrect use of the command and will return An IDNV (Input, Data Not Valid) error message.
- This command is not used for the common control (TCC2/TCC2P or XCVT/XC10G) cards. A command on a common control card will return an IIAC (Input, Invalid Access Identifier) error message. To use the common control card switching commands, use the SW-DX-EQPT and ALW-SWDX-EQPT commands.

- This command is not used for SONET (OC-N) cards. A command on a SONET card will return an IIAC (Input, Invalid Access Identifier) error message. To use a SONET card switching command, use the OPR-PROTNSW and RLS-PROTNSW commands.

**Category** Equipment

**Security** Maintenance

Related Commands	ALW-SWDX-EQPT	INH-SWDX-EQPT	RTRV-ALMTH-EQPT
	ALW-SWTOPROTN-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
	ALW-SWTOWKG-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
	DLT-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
	ED-EQPT	REPT EVT EQPT	SW-DX-EQPT
	ENT-EQPT	RTRV-ALM-EQPT	SW-TOWKG-EQPT
	EX-SW-<OCN_BLSR>		

**Input Format** SW-TOWKG-EQPT:[<TID>]:<AID>:<CTAG>::[<MODE>][,<DIRN>];

**Input Example** SW-TOWKG-EQPT:CISCO:SLOT-2:123::FRCD,BTH;

#### Input Parameters

**Table 24-3 SW-TOWKG-EQPT Input Parameters**

Parameter and Values	Description
<b>AID</b>	Access identifier from the <a href="#">“25.1.20 PRSLOT”</a> section on <a href="#">page 25-33</a> . Specifies the working unit which will have traffic switched to protection
<b>MODE</b>	Mode with which the command is to be implemented. The parameter will only support the NORM value. A null value defaults to NORM. Sending the FRCD value for will generate the same switching behavior as sending the NORM value  Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>FRCD</li> </ul>	Force the system to override a state where the command would normally be denied
<ul style="list-style-type: none"> <li>NORM</li> </ul>	Execute the command normally. Do not override any conditions that could make the command fail



**Table 24-3** *SW-TOWKG-EQPT Input Parameters (continued)*

<b>Parameter and Values</b>	<b>Description</b>
<b>DIRN</b>	The direction relative to the entity defined in the AID field. The direction of the switching. This command only supports the BTH value of this parameter. DIRN defaults to BTH Parameter type is DIRECTION—transmit and receive directions
• BTH	Both transmit and receive directions





# Access Identifiers

This chapter describes the access identifiers (AIDs) of TL1 commands and autonomous messages for the Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL, Release 6.0.

## 25.1 Access Identifiers

The AID code directs an input command to its intended physical or data entity inside the NE. Equipment modules and facilities are typical examples of entities addressed by the access code. The AIDs in this section apply to the SONET ONS 15454, ONS 15327, ONS 15310-CL, and ONS 15600, except where noted.

### 25.1.1 ALL

**Table 25-1**     **ALL**

AID	Pattern
AidUnionId	FACILITY STS VT
AidUnionId1	BLSR
BAND	BAND-{1-6,12-17}-{1-4}-ALL BAND-{1-6,12-17}-{1-4}-{RX,TX} BAND-{1-6,12-17}-{1}-ALL BAND-{1-6,12-17}-{1}-{RX,TX}
BITS	BITS-ALL BITS-{1,2} SYNC-BITS {1,2}
BLSR	BLSR-RINGID

Table 25-1 ALL (continued)

AID	Pattern	
CHANNEL	CHAN-{1-6,12-17}-ALL CHAN-{1-6,12-17}-{1-32}-ALL CHAN-{1-6,12-17}-{1-32}-{RX,TX} CHAN-{1-6,12-17}-{1-4}-ALL CHAN-{1-6,12-17}-{1-4}-{RX,TX} CHAN-{1-6,12-17}-{2,3} CHAN-{1-6,12-17}-{2,5}	
COM	Common	
CrossConnectId	FACILITY STS	
CrossConnectId1	VCM FACILITY STS VT	
DS1	ALL DS1-{1-6,12-17}-{1-36}-{1-28} DS1-{1-6,12-17}-{1-24}-{1-28} DS1-{1-6,12-17}-{1-6}-{1-28}	
ENV	ENV-IN-ALL ENV-IN-{1-20} ENV-IN-{1-32} ENV-IN-{1-3} ENV-IN-{1-4} ENV-IN-{1-6}	ENV-OUT-ALL ENV-OUT-{1-16} ENV-OUT-{1-2} ENV-OUT-{1-4} ENV-{IN,OUT}-{1-16}

Table 25-1 ALL (continued)

AID	Pattern	
EQPT	AIP	PPM-{1-6,12-17}-{1-12}
	BIC-ALL	PPM-{1-6,12-17}-{1-4}
	BIC-{A,B}	PPM-{1-6,12-17}-{1-8}
	BP	PWR-ALL
	FAN	PWR-{A,B}
	PIM-{1-4,11-14}-ALL	SLOT-ALL
	PIM-{1-4,11-14}-{1-4}	SLOT-{1-14}
	PPM-1-{1,2}	SLOT-{1-17}
	PPM-2-{1,2}	SLOT-{1-2}
	PPM-{1-4,11-14}-{1-4}-ALL	SLOT-{1-4,11-14}
	PPM-{1-4,11-14}-{1-4}-{1-4}	SLOT-{1-6,12-17}
	PPM-{1-6,12-17}-1	SLOT-{1-8}
FACILITY	EC1-{2}-{1-3}	FAC-{1-6,12-17}-{1}
	FAC-{1-4,11-14}-ALL	FAC-{1-6}-ALL
	FAC-{1-4,11-14}-{1-16}	FAC-{5,6,12,13}-{1}
	FAC-{1-4,11-14}-{1-4}	FAC-{5-6}-{1-28}
	FAC-{1-4,11-14}-{1-4}-{1-4}-{1}	FAC-{5-6}-{1-3}
	FAC-{1-4,14-17}-{1-8}	FAC-{8,10}-{1}
	FAC-{1-4}-1	FSTE-{1}-{0-7}
	FAC-{1-4}-{1-4}	FSTE-{1}-{1-8}
	FAC-{1-6,12-17}-1	OC12-{2}-{1-2}-{1}
	FAC-{1-6,12-17}-ALL	OC3-{2}-{1-2}-{1}
	FAC-{1-6,12-17}-{0-11}	T1-{2}-{1-21}
	FAC-{1-6,12-17}-{0-1}	T3-{2}-{1-3}
	FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24,26,28,30,32,34,36}	VFAC-{1-4,11-14}-{1-4}-{1-4}-1
	FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24}	VFAC-{1-6,12-17}-{0-1}
	FAC-{1-6,12-17}-{1-12}	VFAC-{1-6,12-17}-{1,2}
	FAC-{1-6,12-17}-{1-4}	VFAC-{1-6,12-17}-{1,2}-{1,8}
	FAC-{1-6,12-17}-{1-6}	VFAC-{1}-{0-1}
		VFAC-{1}-{1-8}

Table 25-1 ALL (continued)

AID	Pattern
LINE	LINE-{1-6,12-17}-{1-2}-ALL LINE-{1-6,12-17}-{1-2}-{RX,TX} LINE-{1-6,12-17}-{1-3}-ALL LINE-{1-6,12-17}-{1-3}-{RX,TX} LINE-{8,10}-{1}-ALL LINE-{8,10}-{1}-{RX,TX}
OSC	OSC-RINGID
OPM	OPM-{1-5,12-16}--{1530.33,1531.12,1531.90,1532.68,1534.25,1535.04,1535.82, 1536.61,1538.19,1538.98,1539.77,1540.56,1542.14,1542.94,1543.73,1544.53, 1546.12,1546.92,1547.72,1548.51,1550.12,1550.92,1551.72,1552.52,1554.13, 1554.94,1555.75,1556.55,1558.17,1558.98,1559.79,1560.61}
PR SLOT	NULL SLOT-1 SLOT-13 SLOT-15 SLOT-17 SLOT-3 SLOT-5
RFILE	RFILE-DB RFILE-PKG

Table 25-1 ALL (continued)

AID	Pattern
STS	FAC-{1-4,11-14}-{1-4}-{1-4}-{1}
	FAC-{1-6,12-17}-{1-4}
	STS-{1-4,11-14}-{1-16}-1
	STS-{1-4,11-14}-{1-16}-ALL
	STS-{1-4,11-14}-{1-16}-{1,13,25,37}
	STS-{1-4,11-14}-{1-16}-{1,25}
	STS-{1-4,11-14}-{1-16}-{1,4,7,10,-,46}
	STS-{1-4,11-14}-{1-4}-1
	STS-{1-4,11-14}-{1-4}-ALL
	STS-{1-4,11-14}-{1-4}-{1,13,25,37,-,181}
	STS-{1-4,11-14}-{1-4}-{1,25,49,73,-,169}
	STS-{1-4,11-14}-{1-4}-{1,4,7,10,-,190}
	STS-{1-4,11-14}-{1-4}-{1,49,97,145}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,13,25,37}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,25}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,13,16,25,28,37,40}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,10,13,16,19,22,25,28,31,34,37,40,43,46}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-12}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-3}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-48}
	STS-{1-4,11-14}-{1-4}-{1-192}
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-ALL
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-{1,4,7,13,16,19,25,28,31,43}
	STS-{1-4,14-17}-{1-16}-{1-48}
	STS-{1-4,14-17}-{1-4}-1
	STS-{1-4,14-17}-{1-4}-ALL
	STS-{1-4,14-17}-{1-4}-{1,4,7,10}
	STS-{1-4,14-17}-{1-4}-{1,4,7}
	STS-{1-4,14-17}-{1-4}-{1-3}

Table 25-1 ALL (continued)

AID	Pattern
STS (continued)	STS-{1-4,14-17}-{1-8}-1
	STS-{1-4,14-17}-{1-8}-ALL
	STS-{1-4,14-17}-{1-8}-{1-3}
	STS-{1-4}-1-1
	STS-{1-4}-1-ALL
	STS-{1-4}-1-{1,13,25,37}
	STS-{1-4}-1-{1,4,7,10,-,46}
	STS-{1-4}-1-{1,4,7,10}
	STS-{1-4}-1-{1,7,13,19,-,43}
	STS-{1-4}-1-{1,7}
	STS-{1-4}-1-{1-12}
	STS-{1-4}-1-{1-48}
	STS-{1-6,12-17}-1
	STS-{1-6,12-17}-1-1
	STS-{1-6,12-17}-1-ALL
	STS-{1-6,12-17}-1-{1,13,25,37}
	STS-{1-6,12-17}-1-{1,4,10,13,16,19,25,28,37,40}
	STS-{1-6,12-17}-1-{1,4,7,10,13,16,19,22,25}
	STS-{1-6,12-17}-1-{1,4,7,10-46}
	STS-{1-6,12-17}-1-{1,4,7,10}
	STS-{1-6,12-17}-1-{1,4,7,13,16,19,25,28,37,40,43}
	STS-{1-6,12-17}-1-{1,4,7}
	STS-{1-6,12-17}-1-{1,4}
	STS-{1-6,12-17}-1-{1-12}
	STS-{1-6,12-17}-1-{1-48}
	STS-{1-6,12-17}-ALL
	STS-{1-6,12-17}-{1-12}-1
	STS-{1-6,12-17}-{1-24}-1
	STS-{1-6,12-17}-{1-36}-1
	STS-{1-6,12-17}-{1-4}-1
	STS-{1-6,12-17}-{1-4}-ALL
	STS-{1-6,12-17}-{1-4}-{1,4,7,10-46}
	STS-{1-6,12-17}-{1-4}-{1,4,7}
	STS-{1-6,12-17}-{1-4}-{1,4}



Table 25-1 ALL (continued)

AID	Pattern
STS (continued)	STS-{1-6,12-17}-{1-4}-{1-12} STS-{1-6,12-17}-{1-6} STS-{2}-{1-2}-{1}-{1,4,7,10} STS-{2}-{1-2}-{1}-{1,7} STS-{2}-{1-2}-{1}-{1-12} STS-{2}-{1-2}-{1}-{1-3} STS-{2}-{1-2}-{1}-{1} STS-{2}-{1-3}-{1} STS-{2}-{1} STS-{5,6,12,13}-1-1 STS-{5,6,12,13}-1-{1,13,25,37-180} STS-{5,6,12,13}-1-{1,13,25,37} STS-{5,6,12,13}-1-{1,4,7,10,13,16,19,22,25} STS-{5,6,12,13}-1-{1,4,7,10-190} STS-{5,6,12,13}-1-{1,4,7,10-46} STS-{5,6,12,13}-1-{1,4,7,13,16,19,25,28,37,40,43} STS-{5,6,12,13}-1-{1,49,97,145} STS-{5,6,12,13}-1-{1-192} STS-{5,6,12,13}-1-{1-48} STS-{5,6}-1 STS-{5,6}-{1-4}-1 STS-{5-6}-ALL VFAC-{1-6,12-17}-{0-1}
SYN	SYNC-NE
SYN_SRC	BITS-1 FAC-{5,6,12,13}-{1} BITS-2 INTERNAL FAC-{1-4,11-14}-{1-16} NONE FAC-{1-4,11-14}-{1-4} OC12-{2}-{1-2}-{1} FAC-{1-4}-1 OC3-{2}-{1-2}-{1} FAC-{1-4}-{1-4} SYNC-NE FAC-{1-6,12-17}-{1-4} T1-{2}-{1-21} FAC-{1-6,12-17}-{1}
SYNC_REF	SYNC-ALL SYNC-NE SYNC-{BITS1,BITS2}

Table 25-1 ALL (continued)

AID	Pattern
SYNCSW	INT PRI SEC THIRD
UDC	UDC-{F,DCC}-{A,B}
VT	VT1-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-4}      VT1-{2}-{1-2}-{1}-{1-3}-{1-7}-{1-4} VT1-{1-4}-1-{1-12}-{1-7}-{1-4}      VT1-{2}-{1-3}-{1}-{1-7}-{1-4} VT1-{1-4}-1-{1-48}-{1-7}-{1-4}      VT1-{2}-{1}-{1-7}-{1-3} VT1-{1-4}-{1-4}-{1-3}-{1-7}-{1-4}      VT1-{5,6,12,13}-1-{1-192}-{1-7}-{1-4} VT1-{1-6,12-17}-1-{1-12}-{1-7}-{1-4}      VT1-{5,6,12,13}-1-{1-48}-{1-7}-{1-4} VT1-{1-6,12-17}-1-{1-48}-{1-7}-{1-4}      VT1-{5-6}-1-{1-7}-{1-2} VT1-{1-6,12-17}-1-{1-7}-{1-2}      VT1-{5-6}-1-{1-7}-{1-4} VT1-{1-6,12-17}-{1-12}-1-{1-7}-{1-4}      VT2-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-3} VT1-{1-6,12-17}-{1-24}-1-{1-7}-{1-4}      VT2-{1-6,12-17}-1-{1-12}-{1-7}-{1-3} VT1-{1-6,12-17}-{1-36}-1-{1-7}-{1-4}      VT2-{1-6,12-17}-1-{1-48}-{1-7}-{1-3} VT1-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-4}      VT2-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-3} VT1-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-4}      VT2-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-3} VT1-{1-6,12-17}-{1-6}-{1-7}-{1-4}      VT2-{5,6,12,13}-1-{1-192}-{1-7}-{1-3} VT1-{2}-{1-2}-{1}-{1-12}-{1-7}-{1-4}      VT2-{5,6,12,13}-1-{1-48}-{1-7}-{1-3}
WDMANS	AONS-{E,W} WDMANS-{E,W}
WLEN	WLEN-{E,W}-{ADD,DROPE,EXP}-{1530.33,1531.12,1531.90,1532.68,1534.25,1535.04,1535.82,1536.61,1538.19,1538.98,1539.77,1540.56,1542.14,1542.94,1543.73,1544.53,1546.12,1546.92,,1547.72,1548.51,1550.12,1550.92,1551.72,1552.52,1554.13,1554.94,1555.75,1556.55,1558.17,1558.98,1559.79,1560.61}

## 25.1.2 AidUnionId

**Table 25-2** AidUnionId

AID	Patterns		
Facility	ALL	FAC-{1-6,12-17}-{1}	
	EC1-{2}-{1-3}	FAC-{1-6}-ALL	
	FAC-{1-4,11-14}-ALL	FAC-{5,6,12,13}-{1}	
	FAC-{1-4,11-14}-{1-16}	FAC-{5-6}-{1-28}	
	FAC-{1-4,11-14}-{1-4}	FAC-{5-6}-{1-3}	
	FAC-{1-4,11-14}-{1-4}-{1-4}-{1}	FAC-{8,10}-{1}	
	FAC-{1-4,14-17}-{1-8}	FSTE-{1}-{0-7}	
	FAC-{1-4}-1	FSTE-{1}-{1-8}	
	FAC-{1-4}-{1-4}	OC12-{2}-{1-2}-{1}	
	FAC-{1-6,12-17}-1	OC3-{2}-{1-2}-{1}	
	FAC-{1-6,12-17}-ALL	T1-{2}-{1-21}	
	FAC-{1-6,12-17}-{0-11}	T3-{2}-{1-3}	
	FAC-{1-6,12-17}-{0-1}	VFAC-{1-4,11-14}-{1-4}-{1-4}-1	
	FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24,26,28,30,32,34,36}	VFAC-{1-6,12-17}-{0-1}	
	FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24}	VFAC-{1-6,12-17}-{1,2}	
	FAC-{1-6,12-17}-{1-12}	VFAC-{1-6,12-17}-{1,2}-{1,8}	
	FAC-{1-6,12-17}-{1-4}	VFAC-{1}-{0-1}	
	FAC-{1-6,12-17}-{1-6}	VFAC-{1}-{1-8}	
	STS	ALL	
		FAC-{1-4,11-14}-{1-4}-{1-4}-{1}	
FAC-{1-6,12-17}-{1-4}			
STS-{1-4,11-14}-{1-16}-1			
STS-{1-4,11-14}-{1-16}-ALL			
STS-{1-4,11-14}-{1-16}-{1,13,25,37}			
STS-{1-4,11-14}-{1-16}-{1,25}			
STS-{1-4,11-14}-{1-16}-{1,4,7,10,-,46}			
STS-{1-4,11-14}-{1-4}-1			
STS-{1-4,11-14}-{1-4}-ALL			
STS-{1-4,11-14}-{1-4}-{1,13,25,37,-,181}			
STS-{1-4,11-14}-{1-4}-{1,25,49,73,-,169}			
STS-{1-4,11-14}-{1-4}-{1,4,7,10,-,190}			
STS-{1-4,11-14}-{1-4}-{1,49,97,145}			

Table 25-2 AidUnionId (continued)

AID	Patterns
STS (continued)	STS-{1-4,11-14}-{1-4}-{1,4}-{1}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,13,25,37}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,25}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,13,16,25,28,37,40}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,10,13,16,19,22,25,28,31,34,37,40,43,46}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-12}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-3}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-48}
	STS-{1-4,11-14}-{1-4}-{1-192}
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-ALL
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,13,16,19,25,28,31,43}
	STS-{1-4,14-17}-{1-16}-{1-48}
	STS-{1-4,14-17}-{1-4}-1
	STS-{1-4,14-17}-{1-4}-ALL
	STS-{1-4,14-17}-{1-4}-{1,4,7,10}
	STS-{1-4,14-17}-{1-4}-{1,4,7}
	STS-{1-4,14-17}-{1-4}-{1-3}
	STS-{1-4,14-17}-{1-8}-1
	STS-{1-4,14-17}-{1-8}-ALL
	STS-{1-4,14-17}-{1-8}-{1-3}
	STS-{1-4}-1-1
	STS-{1-4}-1-ALL
	STS-{1-4}-1-{1,13,25,37}
	STS-{1-4}-1-{1,4,7,10,-,46}
	STS-{1-4}-1-{1,4,7,10}
	STS-{1-4}-1-{1,7,13,19,-,43}
	STS-{1-4}-1-{1,7}
	STS-{1-4}-1-{1-12}
	STS-{1-4}-1-{1-48}
	STS-{1-6,12-17}-1
	STS-{1-6,12-17}-1-1
	STS-{1-6,12-17}-1-ALL

Table 25-2 AidUnionId (continued)

AID	Patterns
STS (continued)	STS-{1-6,12-17}-1-{1,13,25,37}
	STS-{1-6,12-17}-1-{1,4,10,13,16,19,25,28,37,40}
	STS-{1-6,12-17}-1-{1,4,7,10,13,16,19,22,25}
	STS-{1-6,12-17}-1-{1,4,7,10-46}
	STS-{1-6,12-17}-1-{1,4,7,10}
	STS-{1-6,12-17}-1-{1,4,7,13,16,19,25,28,37,40,43}
	STS-{1-6,12-17}-1-{1,4,7}
	STS-{1-6,12-17}-1-{1,4}
	STS-{1-6,12-17}-1-{1-12}
	STS-{1-6,12-17}-1-{1-48}
	STS-{1-6,12-17}-ALL
	STS-{1-6,12-17}-{1-12}-1
	STS-{1-6,12-17}-{1-24}-1
	STS-{1-6,12-17}-{1-36}-1
	STS-{1-6,12-17}-{1-4}-1
	STS-{1-6,12-17}-{1-4}-ALL
	STS-{1-6,12-17}-{1-4}-{1,4,7,10-46}
	STS-{1-6,12-17}-{1-4}-{1,4,7}
	STS-{1-6,12-17}-{1-4}-{1,4}
	STS-{1-6,12-17}-{1-4}-{1-12}
	STS-{1-6,12-17}-{1-6}
	STS-{2}-{1-2}-{1}-{1,4,7,10}
	STS-{2}-{1-2}-{1}-{1,7}
	STS-{2}-{1-2}-{1}-{1-12}
	STS-{2}-{1-2}-{1}-{1-3}
	STS-{2}-{1-2}-{1}-{1}
	STS-{2}-{1-3}-{1}
	STS-{2}-{1}
	STS-{5,6,12,13}-1-1
	STS-{5,6,12,13}-1-{1,13,25,37-180}
	STS-{5,6,12,13}-1-{1,13,25,37}
	STS-{5,6,12,13}-1-{1,4,7,10,13,16,19,22,25}
	STS-{5,6,12,13}-1-{1,4,7,10-190}
	STS-{5,6,12,13}-1-{1,4,7,10-46}
	STS-{5,6,12,13}-1-{1,4,7,13,16,19,25,28,37,40,43}

Table 25-2 AidUnionId (continued)

AID	Patterns																														
STS (continued)	STS-{5,6,12,13}-1-{1,49,97,145} STS-{5,6,12,13}-1-{1-192} STS-{5,6,12,13}-1-{1-48} STS-{5,6}-1 STS-{5,6}-{1-4}-1 STS-{5-6}-ALL VFAC-{1-6,12-17}-{0-1}																														
VT	<table border="0"> <tr> <td>ALL</td> <td>VT1-{2}-{1-2}-{1}-{1-3}-{1-7}-{1-4}</td> </tr> <tr> <td>VT1-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-4}</td> <td>VT1-{2}-{1-3}-{1}-{1-7}-{1-4}</td> </tr> <tr> <td>VT1-{1-4}-1-{1-12}-{1-7}-{1-4}</td> <td>VT1-{2}-{1}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-4}-1-{1-48}-{1-7}-{1-4}</td> <td>VT1-{5,6,12,13}-1-{1-192}-{1-7}-{1-4}</td> </tr> <tr> <td>VT1-{1-4}-{1-4}-{1-3}-{1-7}-{1-4}</td> <td>VT1-{5,6,12,13}-1-{1-48}-{1-7}-{1-4}</td> </tr> <tr> <td>VT1-{1-6,12-17}-1-{1-12}-{1-7}-{1-4}</td> <td>VT1-{5-6}-1-{1-7}-{1-2}</td> </tr> <tr> <td>VT1-{1-6,12-17}-1-{1-48}-{1-7}-{1-4}</td> <td>VT1-{5-6}-1-{1-7}-{1-4}</td> </tr> <tr> <td>VT1-{1-6,12-17}-1-{1-7}-{1-2}</td> <td>VT2-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-6,12-17}-{1-12}-1-{1-7}-{1-4}</td> <td>VT2-{1-6,12-17}-1-{1-12}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-6,12-17}-{1-24}-1-{1-7}-{1-4}</td> <td>VT2-{1-6,12-17}-1-{1-48}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-6,12-17}-{1-36}-1-{1-7}-{1-4}</td> <td>VT2-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-4}</td> <td>VT2-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-4}</td> <td>VT2-{5,6,12,13}-1-{1-192}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{1-6,12-17}-{1-6}-{1-7}-{1-4}</td> <td>VT2-{5,6,12,13}-1-{1-48}-{1-7}-{1-3}</td> </tr> <tr> <td>VT1-{2}-{1-2}-{1}-{1-12}-{1-7}-{1-4}</td> <td></td> </tr> </table>	ALL	VT1-{2}-{1-2}-{1}-{1-3}-{1-7}-{1-4}	VT1-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-4}	VT1-{2}-{1-3}-{1}-{1-7}-{1-4}	VT1-{1-4}-1-{1-12}-{1-7}-{1-4}	VT1-{2}-{1}-{1-7}-{1-3}	VT1-{1-4}-1-{1-48}-{1-7}-{1-4}	VT1-{5,6,12,13}-1-{1-192}-{1-7}-{1-4}	VT1-{1-4}-{1-4}-{1-3}-{1-7}-{1-4}	VT1-{5,6,12,13}-1-{1-48}-{1-7}-{1-4}	VT1-{1-6,12-17}-1-{1-12}-{1-7}-{1-4}	VT1-{5-6}-1-{1-7}-{1-2}	VT1-{1-6,12-17}-1-{1-48}-{1-7}-{1-4}	VT1-{5-6}-1-{1-7}-{1-4}	VT1-{1-6,12-17}-1-{1-7}-{1-2}	VT2-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-3}	VT1-{1-6,12-17}-{1-12}-1-{1-7}-{1-4}	VT2-{1-6,12-17}-1-{1-12}-{1-7}-{1-3}	VT1-{1-6,12-17}-{1-24}-1-{1-7}-{1-4}	VT2-{1-6,12-17}-1-{1-48}-{1-7}-{1-3}	VT1-{1-6,12-17}-{1-36}-1-{1-7}-{1-4}	VT2-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-3}	VT1-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-4}	VT2-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-3}	VT1-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-4}	VT2-{5,6,12,13}-1-{1-192}-{1-7}-{1-3}	VT1-{1-6,12-17}-{1-6}-{1-7}-{1-4}	VT2-{5,6,12,13}-1-{1-48}-{1-7}-{1-3}	VT1-{2}-{1-2}-{1}-{1-12}-{1-7}-{1-4}	
ALL	VT1-{2}-{1-2}-{1}-{1-3}-{1-7}-{1-4}																														
VT1-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-4}	VT1-{2}-{1-3}-{1}-{1-7}-{1-4}																														
VT1-{1-4}-1-{1-12}-{1-7}-{1-4}	VT1-{2}-{1}-{1-7}-{1-3}																														
VT1-{1-4}-1-{1-48}-{1-7}-{1-4}	VT1-{5,6,12,13}-1-{1-192}-{1-7}-{1-4}																														
VT1-{1-4}-{1-4}-{1-3}-{1-7}-{1-4}	VT1-{5,6,12,13}-1-{1-48}-{1-7}-{1-4}																														
VT1-{1-6,12-17}-1-{1-12}-{1-7}-{1-4}	VT1-{5-6}-1-{1-7}-{1-2}																														
VT1-{1-6,12-17}-1-{1-48}-{1-7}-{1-4}	VT1-{5-6}-1-{1-7}-{1-4}																														
VT1-{1-6,12-17}-1-{1-7}-{1-2}	VT2-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-3}																														
VT1-{1-6,12-17}-{1-12}-1-{1-7}-{1-4}	VT2-{1-6,12-17}-1-{1-12}-{1-7}-{1-3}																														
VT1-{1-6,12-17}-{1-24}-1-{1-7}-{1-4}	VT2-{1-6,12-17}-1-{1-48}-{1-7}-{1-3}																														
VT1-{1-6,12-17}-{1-36}-1-{1-7}-{1-4}	VT2-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-3}																														
VT1-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-4}	VT2-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-3}																														
VT1-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-4}	VT2-{5,6,12,13}-1-{1-192}-{1-7}-{1-3}																														
VT1-{1-6,12-17}-{1-6}-{1-7}-{1-4}	VT2-{5,6,12,13}-1-{1-48}-{1-7}-{1-3}																														
VT1-{2}-{1-2}-{1}-{1-12}-{1-7}-{1-4}																															

## 25.1.3 AidUnionId1

Table 25-3 AidUnionId1

AID	Patterns
BLSR	ALL BLSR-RINGID

## 25.1.4 BAND

(Cisco ONS 15454 only)

The BAND AID is used to access Optical Multiplex Section (OMS) layer of Optical Network units.

**Table 25-4**      **BAND**

Pattern	Description
ALL	All of the OMSs of the NE. The ALL AID is applicable for retrieve-only commands
BAND-{1-6,12-17}-{1-4}-ALL	All the Channels in a Band OADM (1Bn, 4Bn) units
BAND-{1-6,12-17}-{1-4}-{RX,TX}	The Receive/Transmit Channels in a Band OADM (1Bn, 4Bn) units
BAND-{1-6,12-17}-{1}-ALL	All the Channels in an Optical Multiplexer/Demultiplexer (4Ch) units
BAND-{1-6,12-17}-{1}-{RX,TX}	The Receive/Transmit Channels in an Optical Multiplexer/Demultiplexer (4Ch) units

## 25.1.5 BITS

AID for BITS (Building Integrated Timing Supply).

**Table 25-5**      **BITS**

Pattern	Description
ALL	The ALL AID is applicable to RTRV commands only (RTRV-BITS and RTRV-ALM/COND-BITS). The All AID is equivalent to BITS-ALL for these commands. For RTRV-ALM/COND-SYCN, the ALL AID translates to BITS-ALL, SYNC-BITS1, and SYNC-BITS2
BITS-ALL	BITS AIDS of both BITS-1 and BITS-2 in the RTRV-BITS command
BITS-{1,2}	Individual BITS AID <b>Note</b> ONS 15310-CL does not support SYNC-BITS2.
SYNC-BITS{1,2}	BITS-OUT AIDS of BITS-1 and BITS-2. These AIDS are applicable only in ED/RTRV-BITS commands and are used for setting and retrieving the BITS-OUT parameters.

## 25.1.6 BLSR

BLSR AIDS are used to access the specific BLSR of the NE. Applies to the ONS 15454 and the ONS 15600.

**Table 25-6**      **BLSR**

Pattern	Description
ALL	All the BLSRs in the NE. The ALL AID is applicable for retrieve-only commands like RTRV-<MOD_RING> (BLSR)
BLSR-RINGID	RINGID is a string of up to six characters. Valid characters are [A-Z,0-9] (case insensitive)

## 25.1.7 CHANNEL

(Cisco ONS 15454 only)

Accesses the Optical Channels (OCH) layer of Optical Network units.

**Table 25-7** CHANNEL

CHANNEL Values	Description
ALL	ALL OCHs of the NE. The ALL AID is applicable for retrieve-only commands
CHAN-{1-6,12-17}-ALL	All the Channels of an Optical Transponder/Muxponder. The format is CHAN-[SLOT]-ALL
CHAN-{1-6,12-17}-{1-32}-ALL	All the Channels in an Optical Multiplexer/Demultiplexer (32Ch) units. The format is CHAN-[SLOT]-[PORT]-ALL
CHAN-{1-6,12-17}-{1-32}-{RX,TX}	The Receive/Transmit Channels in an Optical Multiplexer/Demultiplexer (32Ch) units. The format is CHAN-[SLOT]-[PORT]-[DIRECTION]
CHAN-{1-6,12-17}-{1-4}-ALL	All the Channels in an OADM (1Ch, 2Ch, 4Ch) units and Optical and Optical Multiplexer/Demultiplexer (4Ch) units. The format is CHAN-[SLOT]-[PORT]-ALL
CHAN-{1-6,12-17}-{1-4}-{RX,TX}	The Receive/Transmit Channels in an OADM (1Ch, 2Ch, 4Ch) units and Optical Multiplexer/Demultiplexer (4Ch) units. The format is CHAN-[SLOT]-[PORT]-[DIRECTION]
CHAN-{1-6,12-17}-{2,3}	A single channel of an Optical Transponder/Muxponder. The TXP_MR_10G and TXP_MR_2.5G use CHAN-slot-2 for the 1 DWDM Facility. TXPP_MR_2.5G uses CHAN-slot-{2,3} for the 2 DWDM facilities. The format is CHAN-[SLOT]-[PORT]
CHAN-{1-6,12-17}-{2,5}	A single channel of an Optical Transponder/Muxponder. The TXP_MR_10G uses CHAN-slot-2 for the 1 DWDM facility. MXP_2.5G_10G uses the CHAN-slot-5 for the 1 DWDM facility. The format is CHAN-[SLOT]-[PORT]

## 25.1.8 COM

Common

**Table 25-8** COM

Pattern	Description
COM	Common



## 25.1.9 CrossConnectId

**Table 25-9** *CrossConnect Id*

Pattern	Description
FACILITY	ALL
	EC1-{2}-{1-3}
	FAC-{1-4,11-14}-ALL
	FAC-{1-4,11-14}-{1-16}
	FAC-{1-4,11-14}-{1-4}
	FAC-{1-4,11-14}-{1-4}-{1-4}-{1}
	FAC-{1-4,14-17}-{1-8}
	FAC-{1-4}-1
	FAC-{1-4}-{1-4}
	FAC-{1-6,12-17}-1
	FAC-{1-6,12-17}-ALL
	FAC-{1-6,12-17}-{0-11}
	FAC-{1-6,12-17}-{0-1}
	FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24,26,28,30,32,34,36}
	FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24}
	FAC-{1-6,12-17}-{1-12}
	FAC-{1-6,12-17}-{1-4}
	FAC-{1-6,12-17}-{1-6}
	FAC-{1-6,12-17}-{1}
	FAC-{1-6}-ALL
	FAC-{5,6,12,13}-{1}

Table 25-9 CrossConnect Id (continued)

Pattern	Description
Facility	FAC-{5-6}-{1-28}
	FAC-{5-6}-{1-3}
	FAC-{8,10}-{1}
	FSTE-{1}-{0-7}
	FSTE-{1}-{1-8}
	OC12-{2}-{1-2}-{1}
	OC3-{2}-{1-2}-{1}
	T1-{2}-{1-21}
	T3-{2}-{1-3}
	VFAC-{1-4,11-14}-{1-4}-{1-4}-1
	VFAC-{1-6,12-17}-{0-1}
	VFAC-{1-6,12-17}-{1,2}
	VFAC-{1-6,12-17}-{1,2}-{1,8}
	VFAC-{1}-{0-1}
VFAC-{1}-{1-8}	

Table 25-9 CrossConnect Id (continued)

Pattern	Description
STS	ALL
	FAC-{1-4,11-14}-{1-4}-{1-4}-{1}
	FAC-{1-6,12-17}-{1-4}
	STS-{1-4,11-14}-{1-16}-1
	STS-{1-4,11-14}-{1-16}-ALL
	STS-{1-4,11-14}-{1-16}-{1,13,25,37}
	STS-{1-4,11-14}-{1-16}-{1,25}
	STS-{1-4,11-14}-{1-16}-{1,4,7,10,-,46}
	STS-{1-4,11-14}-{1-4}-1
	STS-{1-4,11-14}-{1-4}-ALL
	STS-{1-4,11-14}-{1-4}-{1,13,25,37,-,181}
	STS-{1-4,11-14}-{1-4}-{1,25,49,73,-,169}
	STS-{1-4,11-14}-{1-4}-{1,4,7,10,-,190}
	STS-{1-4,11-14}-{1-4}-{1,49,97,145}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,13,25,37}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,25}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,13,16,25,28,37,40}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,10,13,16,19,22,25,28,31,34,37,40,43,46}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-12}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-3}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-48}
	STS-{1-4,11-14}-{1-4}-{1-192}
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-ALL
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-{1,4,7,13,16,19,25,28,31,43}

Table 25-9 CrossConnect Id (continued)

Pattern	Description
STS	STS-{1-4,14-17}-{1-16}-{1-48}
	STS-{1-4,14-17}-{1-4}-1
	STS-{1-4,14-17}-{1-4}-ALL
	STS-{1-4,14-17}-{1-4}-{1,4,7,10}
	STS-{1-4,14-17}-{1-4}-{1,4,7}
	STS-{1-4,14-17}-{1-4}-{1-3}
	STS-{1-4,14-17}-{1-8}-1
	STS-{1-4,14-17}-{1-8}-ALL
	STS-{1-4,14-17}-{1-8}-{1-3}
	STS-{1-4}-1-1
	STS-{1-4}-1-ALL
	STS-{1-4}-1-{1,13,25,37}
	STS-{1-4}-1-{1,4,7,10,-,46}
	STS-{1-4}-1-{1,4,7,10}
	STS-{1-4}-1-{1,7,13,19,-,43}
	STS-{1-4}-1-{1,7}
	STS-{1-4}-1-{1-12}
	STS-{1-4}-1-{1-48}
	STS-{1-6,12-17}-1
	STS-{1-6,12-17}-1-1
	STS-{1-6,12-17}-1-ALL
	STS-{1-6,12-17}-1-{1,13,25,37}
	STS-{1-6,12-17}-1-{1,4,10,13,16,19,25,28,37,40}
	STS-{1-6,12-17}-1-{1,4,7,10,13,16,19,22,25}
	STS-{1-6,12-17}-1-{1,4,7,10-46}
	STS-{1-6,12-17}-1-{1,4,7,10}
	STS-{1-6,12-17}-1-{1,4,7,13,16,19,25,28,37,40,43}
	STS-{1-6,12-17}-1-{1,4,7}
	STS-{1-6,12-17}-1-{1,4}
	STS-{1-6,12-17}-1-{1-12}
	STS-{1-6,12-17}-1-{1-48}
	STS-{1-6,12-17}-1-ALL

Table 25-9 CrossConnect Id (continued)

Pattern	Description
STS	STS-{1-6,12-17}-{1-12}-1
	STS-{1-6,12-17}-{1-24}-1
	STS-{1-6,12-17}-{1-36}-1
	STS-{1-6,12-17}-{1-4}-1
	STS-{1-6,12-17}-{1-4}-ALL
	STS-{1-6,12-17}-{1-4}-{1,4,7,10-46}
	STS-{1-6,12-17}-{1-4}-{1,4,7}
	STS-{1-6,12-17}-{1-4}-{1,4}
	STS-{1-6,12-17}-{1-4}-{1-12}
	STS-{1-6,12-17}-{1-6}
	STS-{2}-{1-2}-{1}-{1,4,7,10}
	STS-{2}-{1-2}-{1}-{1,7}
	STS-{2}-{1-2}-{1}-{1-12}
	STS-{2}-{1-2}-{1}-{1-3}
	STS-{2}-{1-2}-{1}-{1}
	STS-{2}-{1-3}-{1}
	STS-{2}-{1}
	STS-{5,6,12,13}-1-1
	STS-{5,6,12,13}-1-{1,13,25,37-180}
	STS-{5,6,12,13}-1-{1,13,25,37}
	STS-{5,6,12,13}-1-{1,4,7,10,13,16,19,22,25}
	STS-{5,6,12,13}-1-{1,4,7,10-190}
	STS-{5,6,12,13}-1-{1,4,7,10-46}
	STS-{5,6,12,13}-1-{1,4,7,13,16,19,25,28,37,40,43}
	STS-{5,6,12,13}-1-{1,49,97,145}
	STS-{5,6,12,13}-1-{1-192}
	STS-{5,6,12,13}-1-{1-48}
	STS-{5,6}-1
	STS-{5,6}-{1-4}-1
	STS-{5,6}-ALL
	VFAC-{1-6,12-17}-{0-1}

## 25.1.10 CrossConnectId1

Table 25-10 CrossConnectId1

AID	Pattern
VCM	VCM-{1-6,12-17}-{0-1}-ALL VCM-{1-6,12-17}-{0-1}-{1-256} VCM-{1-6,12-17}-{1-4}-ALL VCM-{1-6,12-17}-{1-4}-{1-256}
FACILITY	ALL EC1-{2}-{1-3} FAC-{1-4,11-14}-ALL FAC-{1-4,11-14}-{1-16} FAC-{1-4,11-14}-{1-4} FAC-{1-4,11-14}-{1-4}-{1-4}-{1} FAC-{1-4,14-17}-{1-8} FAC-{1-4}-1 FAC-{1-4}-{1-4} FAC-{1-6,12-17}-1 FAC-{1-6,12-17}-ALL FAC-{1-6,12-17}-{0-11} FAC-{1-6,12-17}-{0-1} FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24,26,28,30,32,34,36} FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24} FAC-{1-6,12-17}-{1-12} FAC-{1-6,12-17}-{1-4} FAC-{1-6,12-17}-{1-6} FAC-{1-6,12-17}-{1} FAC-{1-6}-ALL FAC-{5,6,12,13}-{1} FAC-{5-6}-{1-28} FAC-{5-6}-{1-3} FAC-{8,10}-{1}

**Table 25-10** *CrossConnectId1 (continued)*

<b>AID</b>	<b>Pattern</b>
Facility (continued)	FSTE-{1}-{0-7}
	FSTE-{1}-{1-8}
	OC12-{2}-{1-2}-{1}
	OC3-{2}-{1-2}-{1}
	T1-{2}-{1-21}
	T3-{2}-{1-3}
	VFAC-{1-4,11-14}-{1-4}-{1-4}-1
	VFAC-{1-6,12-17}-{0-1}
	VFAC-{1-6,12-17}-{1,2}
	VFAC-{1-6,12-17}-{1,2}-{1,8}
	VFAC-{1}-{0-1}
	VFAC-{1}-{1-8}

Table 25-10 CrossConnectId1 (continued)

AID	Pattern
STS	ALL
	FAC-{1-4,11-14}-{1-4}-{1-4}-{1}
	FAC-{1-6,12-17}-{1-4}
	STS-{1-4,11-14}-{1-16}-1
	STS-{1-4,11-14}-{1-16}-ALL
	STS-{1-4,11-14}-{1-16}-{1,13,25,37}
	STS-{1-4,11-14}-{1-16}-{1,25}
	STS-{1-4,11-14}-{1-16}-{1,4,7,10,-,46}
	STS-{1-4,11-14}-{1-4}-1
	STS-{1-4,11-14}-{1-4}-ALL
	STS-{1-4,11-14}-{1-4}-{1,13,25,37,-,181}
	STS-{1-4,11-14}-{1-4}-{1,25,49,73,-,169}
	STS-{1-4,11-14}-{1-4}-{1,4,7,10,-,190}
	STS-{1-4,11-14}-{1-4}-{1,49,97,145}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,13,25,37}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,25}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,13,16,25,28,37,40}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,10,13,16,19,22,25,28,31,34,37,40,43,46}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-12}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-3}
	STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-48}
	STS-{1-4,11-14}-{1-4}-{1-192}
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-ALL
	STS-{1-4,11-14}-{1-4}-{1-4}-{1}-{1,4,7,13,16,19,25,28,31,43}
	STS-{1-4,14-17}-{1-16}-{1-48}
	STS-{1-4,14-17}-{1-4}-1
	STS-{1-4,14-17}-{1-4}-ALL
	STS-{1-4,14-17}-{1-4}-{1,4,7,10}
	STS-{1-4,14-17}-{1-4}-{1,4,7}
	STS-{1-4,14-17}-{1-4}-{1-3}



Table 25-10 CrossConnectId1 (continued)

AID	Pattern
STS (continued)	STS-{1-4,14-17}-{1-8}-1
	STS-{1-4,14-17}-{1-8}-ALL
	STS-{1-4,14-17}-{1-8}-{1-3}
	STS-{1-4}-1-1
	STS-{1-4}-1-ALL
	STS-{1-4}-1-{1,13,25,37}
	STS-{1-4}-1-{1,4,7,10,-,46}
	STS-{1-4}-1-{1,4,7,10}
	STS-{1-4}-1-{1,7,13,19,-,43}
	STS-{1-4}-1-{1,7}
	STS-{1-4}-1-{1-12}
	STS-{1-4}-1-{1-48}
	STS-{1-6,12-17}-1
	STS-{1-6,12-17}-1-1
	STS-{1-6,12-17}-1-ALL
	STS-{1-6,12-17}-1-{1,13,25,37}
	STS-{1-6,12-17}-1-{1,4,10,13,16,19,25,28,37,40}
	STS-{1-6,12-17}-1-{1,4,7,10,13,16,19,22,25}
	STS-{1-6,12-17}-1-{1,4,7,10-46}
	STS-{1-6,12-17}-1-{1,4,7,10}
	STS-{1-6,12-17}-1-{1,4,7,13,16,19,25,28,37,40,43}
	STS-{1-6,12-17}-1-{1,4,7}
	STS-{1-6,12-17}-1-{1,4}
	STS-{1-6,12-17}-1-{1-12}
	STS-{1-6,12-17}-1-{1-48}
	STS-{1-6,12-17}-ALL
	STS-{1-6,12-17}-{1-12}-1
	STS-{1-6,12-17}-{1-24}-1
	STS-{1-6,12-17}-{1-36}-1
	STS-{1-6,12-17}-{1-4}-1
	STS-{1-6,12-17}-{1-4}-ALL
	STS-{1-6,12-17}-{1-4}-{1,4,7,10-46}
	STS-{1-6,12-17}-{1-4}-{1,4,7}

Table 25-10 CrossConnectId1 (continued)

AID	Pattern
STS (continued)	STS-{1-6,12-17}-{1-4}-{1,4}
	STS-{1-6,12-17}-{1-4}-{1-12}
	STS-{1-6,12-17}-{1-6}
	STS-{2}-{1-2}-{1}-{1,4,7,10}
	STS-{2}-{1-2}-{1}-{1,7}
	STS-{2}-{1-2}-{1}-{1-12}
	STS-{2}-{1-2}-{1}-{1-3}
	STS-{2}-{1-2}-{1}-{1}
	STS-{2}-{1-3}-{1}
	STS-{2}-{1}
	STS-{5,6,12,13}-1-1
	STS-{5,6,12,13}-1-{1,13,25,37-180}
	STS-{5,6,12,13}-1-{1,13,25,37}
	STS-{5,6,12,13}-1-{1,4,7,10,13,16,19,22,25}
	STS-{5,6,12,13}-1-{1,4,7,10-190}
	STS-{5,6,12,13}-1-{1,4,7,10-46}
	STS-{5,6,12,13}-1-{1,4,7,13,16,19,25,28,37,40,43}
	STS-{5,6,12,13}-1-{1,49,97,145}
	STS-{5,6,12,13}-1-{1-192}
	STS-{5,6,12,13}-1-{1-48}
	STS-{5,6}-1
	STS-{5,6}-{1-4}-1
	STS-{5-6}-ALL
	VFAC-{1-6,12-17}-{0-1}

Table 25-10 CrossConnectId1 (continued)

AID	Pattern
VT	ALL
	VT1-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-4}
	VT1-{1-4}-1-{1-12}-{1-7}-{1-4}
	VT1-{1-4}-1-{1-48}-{1-7}-{1-4}
	VT1-{1-4}-{1-4}-{1-3}-{1-7}-{1-4}
	VT1-{1-6,12-17}-1-{1-12}-{1-7}-{1-4}
	VT1-{1-6,12-17}-1-{1-48}-{1-7}-{1-4}
	VT1-{1-6,12-17}-1-{1-7}-{1-2}
	VT1-{1-6,12-17}-{1-12}-1-{1-7}-{1-4}
	VT1-{1-6,12-17}-{1-24}-1-{1-7}-{1-4}
	VT1-{1-6,12-17}-{1-36}-1-{1-7}-{1-4}
	VT1-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-4}
	VT1-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-4}
	VT1-{1-6,12-17}-{1-6}-{1-7}-{1-4}
	VT1-{2}-{1-2}-{1}-{1-12}-{1-7}-{1-4}
	VT1-{2}-{1-2}-{1}-{1-3}-{1-7}-{1-4}
	VT1-{2}-{1-3}-{1}-{1-7}-{1-4}
	VT1-{2}-{1}-{1-7}-{1-3}
	VT1-{5,6,12,13}-1-{1-192}-{1-7}-{1-4}
	VT1-{5,6,12,13}-1-{1-48}-{1-7}-{1-4}
	VT1-{5-6}-1-{1-7}-{1-2}
	VT1-{5-6}-1-{1-7}-{1-4}
	VT2-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-3}
	VT2-{1-6,12-17}-1-{1-12}-{1-7}-{1-3}
	VT2-{1-6,12-17}-1-{1-48}-{1-7}-{1-3}
	VT2-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-3}
	VT2-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-3}
	VT2-{5,6,12,13}-1-{1-192}-{1-7}-{1-3}
	VT2-{5,6,12,13}-1-{1-48}-{1-7}-{1-3}

## 25.1.11 DS1

(Cisco ONS 15454 only)

Used to access the DS-1 frame layer of the DS3XM. The format is DS1-[SLOT]-[DS3PORT]-[DS1PORT]

**Table 25-11 DS1**

Pattern	Description
ALL	The ALL AID applies to RTRV-DS1 and RTRV-ALM/COND-DS1 commands only to retrieve all DS1 facilities and DS1-level alarms/conditions on the NE
DS1-{1-6,12-17}-{1-36}-{1-28}	DS1 AIDs for DS3XM-12 (ONS 15454) STS48 Backplane Rate. Format is DS1-[SLOT]-[DS3PORT]-[DS1PORT]
DS1-{1-6,12-17}-{1-24}-{1-28}	DS1 AIDs for DS3XM-12 (ONS 15454) STS12 Backplane Rate. Format is DS1-[SLOT]-[DS3PORT]-[DS1PORT]
DS1-{1-6,12-17}-{1-6}-{1-28}	DS1 AIDs for DS3XM-6 cards on the ONS 15454 format is DS1-[SLOT]-[DS3PORT]-[DS1PORT]

## 25.1.12 ENV

The environmental AID for the AICI cards

**Table 25-12 ENV**

Pattern	Description
ALL	The ALL AID applies to retrieve-only commands: RTRV-ALM/COND-ENV, RTRV-ATTR-CONT and RTRV-ATTR-ENV
ENV-IN-ALL	Environmental AID for ALL environmental alarms on the Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL
ONS 15454 Environmental AIDs	
ENV-IN-{1-4}	Environmental AID for the AIC-I card on the ONS 15454. "IN" is used for environmental alarms
ENV-IN-{1-20}	Environmental AID for the AIC-I card on the ONS 15454. "IN" is used for environmental alarms
ENV-IN-{1-32}	Environmental AID for AIC-I card extensions on the ONS 15454. "IN" is used for environmental alarms
ENV-IN-{1-16}	Environmental AID on the ONS 15454. "IN" is used for environmental alarms
ENV-OUT-{1-4}	Environmental AID for the AIC-I cards on the ONS 15454. "OUT" is used for environmental controls
ENV-OUT-{1-16}	Environmental AID for AIC-I card extensions on the ONS 15454. "OUT" is used for environmental controls

Table 25-12 ENV (continued)

Pattern	Description
ONS 15327 Environmental AIDs	
ENV-IN-{1-6}	Environmental AID for the ONS 15327. "IN" is used for environmental alarms
ENV-OUT-{1-2}	Environmental AID for the ONS 15327. "OUT" is used for environmental controls
ONS 15600 Environmental AIDs	
ENV-IN-ALL	Environmental AID for ALL environmental alarms on the Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL
ENV-OUT-{1-16}	Environmental AID for the ONS 15600. "OUT" is used for environmental controls
ENV-OUT-ALL	All environmental control output contacts
ONS 15310-CL Environmental AIDs	
ENV-IN-{1-3}	Environmental AID for the ONS 15310-CL. "IN" is used for environmental alarms
ENV-OUT-{1-2}	Environmental AID for the ONS 15310-CL. "OUT" is used for environmental controls

## 25.1.13 EQPT

Equipment AIDs are used to access specific cards.

In the ONS 15454, the OC-48/OC-192 cards are only used in Slots 5, 6, 12, 13.

In the ONS 15327, Slots 1 through 4 are for multiservice cards (Ethernet and optical cards). Slots 5 and 6 are for the XTC cards, and Slots 7 and 8 are for the MIC cards.

In the ONS 15600, Slots 1 through 4 and Slots 11 through 14 are used for optical cards. Slots 5 and 10 are reserved for the TSC cards. Slots 6 and 7, and Slots 8 and 9 are reserved for the SSXC cards.

Table 25-13 EQPT

Pattern	Description
AIP	The AID for the AIP. It is used for RTRV-INV output only (ONS 15454)
ALL	Only used for RTRV-INV, RTRV-EQPT, and RTRV-ALM/COND-EQPT commands. RTRV-INV returns all the inventory information for the NE. The ONS 15454 includes the multiservice cards, common-control cards, and the AIP, BP, and FAN. The ONS 15327 includes the multiservice cards and common control cards. RTRV-EQPT with ALL AID returns EQPT information on all the slots. RTRV-ALM/COND-EQPT with ALL AID returns EQPT and PWR-A and PWR-B type of alarms/conditions
BIC-ALL	AIDs for the BIC (Backplane Interface Connector), BIC-A and BIC-B. These AIDs are valid only for the RTRV-ALM-EQPT and RTRV-COND-EQPT commands
BIC-{A,B}	AIDs for the BIC (Backplane Interface Connectors). These AIDs are valid only for the RTRV-ALM-EQPT and RTRV-COND-EQPT commands
BP	The AID for the backplane. It is used for RTRV-INV output only (ONS 15454 only)
FAN	The AID for the fan tray. It is used for RTRV-INV output only
PIM-{1-4,11-14}-ALL	Pluggable Interface Module. Applicable for RTRV-EQPT and RTRV-INV commands pertaining to the ONS 15600 ASAP card only. Format is PIM-[SLOT]-[PIM]-[PPM]

Table 25-13 EQPT (continued)

Pattern	Description
PIM-{1-4,11-14}-{1-4}	Pluggable Interface Module. Applicable for ENT/ED/RTRV/DLT-EQPT and RTRV-INV commands pertaining to the ONS 15600 ASAP Card only. Format is PPM-[SLOT]-[PIM]-[PPM]
PPM-1-{1,2}	Pluggable Port Module AID for the ONS 15310-CL ML-100T-8/CE-100T-8 card. Format is PPM-[SLOT]-[PPM]
PPM-2-{1,2}	PPM AID for the ONS 15310-CL. Format is PPM-[SLOT]-[PPM]
PPM-{1-4,11-14}-{1-4}-ALL	PPM. Applicable for the RTRV-EQPT and RTRV-INV commands pertaining to the ONS 15600 ASAP card only. Format is PPM-[SLOT]-[PIM]-[PPM]
PPM-{1-4,11-14}-{1-4}-{1-4}	PPM. Applicable for the ENT/ED/RTRV/DLT-EQPT and RTRV-INV commands pertaining to the ONS 15600 ASAP Card only. Format is PPM-[SLOT]-[PIM]-[PPM]
PPM-{1-6,12-17}-1	Pluggable Port Module for the OC192-XFP card. Format is PPM-[SLOT]-[PPM]
PPM-{1-6,12-17}-{1-12}	Pluggable Port Module for the MRC-12 card. Format is PPM-[SLOT]-[PPM]
PPM-{1-6,12-17}-{1-4}	PPM AID for DWDM MXP_2.5G_10G, TXP_MR_10G, TXP_MR_2.5G, TXPP_MR_2.5G, MXP_2.5G_10E, and TXP_MR_10E cards. Format of AID is PPM-[SLOT]-[PPM]
PPM-{1-6,12-17}-{1-8}	PPM AID for the ONS 15454 MXP_MR_2.5G and MXPP_MR_2.5G cards. Format of AID is PPM-[SLOT]-[PPM]
PWR-ALL	AIDs for the Power Supply Sources. These AIDs are valid only for the RTRV-ALM-EQPT and RTRV-COND-EQPT commands.
PWR-{A,B}	AIDs for the Power Supply Sources. These AIDs are valid only for the RTRV-ALM-EQPT and RTRV-COND-EQPT commands.
SLOT-ALL	All of the NE equipment AIDs
SLOT-{1-14}	EQPT AID for the ONS 15600 where format is SLOT-[SLOT]
SLOT-{1-17}	EQPT AID for the ONS 15454 where format is SLOT-[SLOT]
SLOT-{1-2}	EQPT AID for the ONS 15310-CL where format is SLOT-[SLOT]
SLOT-{1-4,11-14}	ONS 15600 optical slots only
SLOT-{1-6,12-17}	Individual equipment AID of the multiservice card units or slots for the ONS 15454 where format is SLOT-[SLOT]
SLOT-{1-8}	EQPT AID for ONS 15327 where format is SLOT-[SLOT]

## 25.1.14 FACILITY

Facilities AIDs are used to access specific ports. Applicable to Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL.



### Note

Because the ONS 15310-CL supports more than one type of facility per slot, the FAC-AID format is not supported. The format Tn-, EC1-, and OCn- is used instead.

ONS 15454, ONS 15327, and ONS 15600 Facility AID format:

- Format for Optical and EC1 facilities without PPM: FAC-[SLOT]-[PORT]

- Format for Optical facilities with PPM: FAC-[SLOT]-[PPM]-[PORT]
- Format for Optical facilities with PPM and PIM: FAC-[SLOT]-[PIM]-[PPM]-[PORT]
- Format for DS1-flavored electrical facilities: FAC-[SLOT]-[PORT]
- Format for DS3-flavored (including DS3I) Electrical Facilities: FAC-[SLOT]-[PORT]
- Format for POS Ports: VFAC-[SLOT]-[PORT]
- Format for POS Port with PIM and PPM: VFAC-[SLOT]-[PIM]-[PPM]-[PORT]

ONS 15310-CL Facility AID format:

- Format for Optical Facilities Without PPM: OCn-[SLOT]-[PORT]
- Format for Optical Facilities With PPM: OCn-[SLOT]-[PPM]-[PORT]
- Format for EC1 Facilities: EC1-[SLOT]-[PORT]
- Format for DS1-Flavored Electrical Facilities: T1-[SLOT]-[PORT]
- Format for DS3-Flavored Electrical Facilities: T3-[SLOT]-[PORT]
- Format for POS Ports: VFAC-[SLOT]-[PORT]
- Format for FSTE Ethernet Facilities: FSTE-[SLOT]-[PORT]

**Table 25-14** FACILITY

Pattern	Description
ALL	The ALL AID is applicable for RTRV-only commands (RTRV-rr type of commands), for example: RTRV-OC48 with ALL AID returns all OC48 facilities on the node. RTRV-T1 with ALL AID returns all T1 facilities on the node.
EC1-{2}-{1-3}	Facility AIDs for EC1 ports on the 15310-CL-CTX (ONS 15310-CL), where format is EC1-[SLOT]-[PORT]
FAC-{1-4,11-14}-ALL	Facility AID for all optical cards or slots on the ONS 15600, where the format is FAC-[SLOT]-ALL
FAC-{1-4,11-14}-{1-16}	Facility AIDs for the 16-port OC-48 (ONS 15600), where the format is FAC-[SLOT]-[PORT]
FAC-{1-4,11-14}-{1-4}	Facility AID for the 4-port OC-192 (ONS 15600), where the format is FAC-[SLOT]-[PORT]
FAC-{1-4,11-14}-{1-4}-{1-4}-{1}	Facility AID for the ASAP card with PIM and PPM. The format is FAC-[SLOT]-[PIM]-[PPM]-[PORT]
FAC-{1-4,14-17}-{1-8}	Facilities for an OC3-8 card (ONS 15454) where the format is FAC-[SLOT]-[PORT]
FAC-{1-4}-1	Facility AIDs for OC12, OC-48 (ONS 15327) where the format is FAC-[SLOT]-[PORT]
FAC-{1-4}-{1-4}	Facility AIDs for 4-port OC-3 (ONS 15327) where the format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-1	Facility AID for the 1 Client (CLNT) port on a TXP_MR_10G, TXP_MR_2.5G, TXP_MR_2.5G or TXPP_MR_2.5G card (ONS 15454) where the format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-ALL	All the facilities of an multiservice unit or slot (ONS 15454), where the format is FAC-[SLOT]-[ALL]

Table 25-14 FACILITY (continued)

Pattern	Description
FAC-{1-6,12-17}-{0-11}	Facilities for the Ethernet Front-end ports on the ML100T-12 card. Ports are numbered starting with 0 (i.e. the first port is FAC-SLOT-0, second port is FAC-SLOT-1, ..., last port is FAC-SLOT-11 for ML100T-12 and first port is FAC-SLOT-0 and second port is FAC-SLOT-1 for ML1000-2) (ONS 15454). The format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{0-1}	Facilities for the Ethernet back-end ports on the ML1000-2 card. Ports are 0-based, (i.e the first port is FAC-SLOT-0 and the second port is FAC-SLOT-1) (ONS 15454). The format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{1-8}	(ONS 15454 only) Facility AID for the Ethernet front-end ports on the CE-100T-8 card The format is FAC-[SLOT]-[PORT].
FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24,26,28,30,32,34,36}	Facility AIDs for the DS3XM-12 STS48 backplane rate where the format is FAC-[SLOT]-[PORT]. Ports 1 through 12 are always available, but only even ports greater than 12 are available
FAC-{1-6,12-17}-{1-12,14,16,18,20,22,24}	Facility AIDs for DS3XM-12 STS12 backplane rate where format is FAC-[SLOT]-[PORT]. Ports 1 through 12 are always available, but only even ports greater than 12 are available
FAC-{1-6,12-17}-{1-12}	Facilities AID for the EC1 and DS3 cards (ONS 15454), where the format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{1-4}	Facility AID for the four Client (CLNT) facilities on the MXP_2.5G_10G card. Facility AID for 4-port G1000/FC_MR-4 Card. Facility AID for creating/editing cross-connects (STS1/VC3, STS3C/VC4, STS6C/VC4-2C, STS9C/VC4-3C, STS12C/VC4-4C, and STS24C/VC4-8C) for the 4-port G1000/FC_MR-4 Card (ONS 15454) where format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{1-6}	Facilities for the DS3XM card (ONS 15454) where format FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{1}	Facility AID for a single-port OC12, OC48AS and OC3 in OSC-CSM cards. Facility AID for the client ports on the MXP/TXP and TXP_MR_2.5G cards (ONS 15454) where format is FAC-[SLOT]-[PORT]
FAC-{1-6}-ALL	Facility AIDs for multiservice units or slots (ONS 15327) where the format is FAC-[SLOT]-[ALL]
FAC-{5,6,12,13}-{1}	Facility AID for the OC48/OC192 cards. The OC48/OC192 cards can only use Slots 5, 6, 12, and 13) (ONS 15454) where the format is FAC-[SLOT]-[PORT]
FAC-{5-6}-{1-28}	Facility AID for the T1 Ports on the XTC-28-3 (ONS 15327) where the format is FAC-[SLOT]-[PORT]
FAC-{5-6}-{1-3}	Facility AIDs on the TR Ports in the XTC-28-3 (ONS 15327) where the format is FAC-[SLOT]-[PORT]
FAC-{8,10}-{1}	Facility AID for the OSCM card. The OSCM cards can only use the XC slots (Slot-8, Slot-10) (ONS 15454) where format is FAC-[SLOT]-[PORT]
FSTE-{1}-{0-7}	Facility AIDs for front end ports on the ML-100T-8 card (ONS 15310-CL), when provisioned in L2L3 mode. Format is FSTE-[SLOT]-[PORT]. Port numbering is 0-based
FSTE-{1}-{1-8}	Facility AIDs for front end ports on the CE-100T-8 card (ONS 15310-CL), when provisioned in Mapper mode. Format is FSTE-[SLOT]-[PORT]. Port numbering is 1-based



Table 25-14 FACILITY (continued)

Pattern	Description
OC12-{2}-{1-2}-{1}	Facility AIDs for OC12 ports on the 15310-CL-CTX (ONS 15310-CL) where format is OC12-[SLOT]-[PPM]-[PORT]
OC3-{2}-{1-2}-{1}	Facility AIDs for OC3 ports on the 15310-CL-CTX (ONS 15310-CL) where format is OC3-[SLOT]-[PPM]-[PORT]
T1-{2}-{1-21}	Facility AIDs for T1 ports on the 15310-CL-CTX (ONS 15310-CL) where format is T1-[SLOT]-[PORT]
T3-{2}-{1-3}	Facility AIDs for T3 ports on the 15310-CL-CTX (ONS 15310-CL) where format is T3-[SLOT]-[PORT]
VFAC-{1-4,11-14}-{1-4}-{1-4}-1	Facilities for the back end POS ports on the L1P_ETHERNET PORT on an ASAP Card. Applicable on the ONS 15600 only. Format is VFAC-[SLOT]-[PIM]-[PPM]-[PORT]
VFAC-{1-6,12-17}-{0-1}	Facilities for the back end POS ports on the ML-Series cards. Port numbering is 0-based (first POS port is VFAC-SLOT-0, second POS port is VFAC-SLOT-1). VC4, VC4-2C, VC4-3C, VC4-4C, VC4-8C for the ML1000 and ML100T Cards (ONS 15454). Format is VFAC-[SLOT]-[PORT]
VFAC-{1-6,12-17}-{1,2}	GFP facilities on the MXP-MR-2.5G and MXPP-MR-2.5G cards
VFAC-{1-6,12-17}-{1,2}-{1,8}	GFP Client facilities for MXP-MR-2.5G and MXPP-MR-2.5G cards
VFAC-{1}-{0-1}	Facility AIDs for back-end ports on the ML-100T-8 card (ONS 15310-CL), when provisioned in L2L3 mode. Format is VFAC-[SLOT]-[PORT]. Port numbering is 0-based
VFAC-{1}-{1-8}	Facility AIDs for back end ports on the ML-100T-8 card (ONS 15310-CL), when provisioned in L2L3 mode. Format is VFAC-[SLOT]-[PORT]. Port numbering is 1-based

## 25.1.15 IPADDR

IP Address

Table 25-15 IPADDR

Pattern	Description
111.222.333.444	Standard 4 Part IP Address Notation
ALL	ALL

## 25.1.16 LINE

(Cisco ONS 15454 only)

The LINE AID is used to access the Optical Transport Section (OTS) layer of optical network units. Applicable only to ONS 15454 AD-1B-xx.x, AD-4B-xx.x, AD-1C-xx.x, AD-2C-xx.x, AB-4C-xx.x, OSC-CSM, OSCM, OPT-BST, OPT-PRE, 4MD-xx.x, 32MUX-O and 32DMX-O cards. The format is LINE-[SLOT]-[PORT]-[DIRECTION].

Table 25-16 LINE

Values	Description
ALL	All of the OTSs of the NE. The ALL AID applies for retrieve-only commands
LINE-{1-6,12-17}-{1-2}-ALL	All the lines in a OPT-PRE, OCS-CSM, AD-1B, AD-4B, AD-1C, AD-2C, AD-4C units
LINE-{1-6,12-17}-{1-2}-{RX,TX}	The receive/transmit lines in a OPT-PRE, OCS-CSM, AD-1B, AD-4B, AD-1C, AD-2C, AD-4C units
LINE-{1-6,12-17}-{1-3}-ALL	All the lines in a OPT-BST units
LINE-{1-6,12-17}-{1-3}-{RX,TX}	The receive/transmit lines in a OPT-BST units
LINE-{8,10}-{1}-ALL	All the lines in OSCM units
LINE-{8,10}-{1}-{RX,TX}	The receive/transmit lines in OSCM units

## 25.1.17 LNKTERM

Link Termination AIDs that are used to access the termination points of a provisionable patchcord.

Table 25-17 LNKTERM

Pattern	Description
ALL	Indicates all the provisionable patchcord terminations on a node. Applicable only for the retrieve commands
LNKTERM-ALL	Indicates all the provisionable patchcord terminations on a node. Applicable only for the retrieve commands
LNKTERM-{1-65535}	Indicates a single provisionable patchcord termination point on a node, where format is LNKTERM-

## 25.1.18 OPM

OPM AIDs represent the single wavelength inside an optical power monitoring object

Table 25-18 OPM

Values	Description
OPM-{1-5,12-16}--{1530.33,1531.12,1531.90,1532.68,1534.25,1535.04,1535.82,1536.61,1538.19,1538.98,1539.77,1540.56,1542.14,1542.94,1543.73,1544.53,1546.12,1546.92,1547.72,1548.51,1550.12,1550.92,1551.72,1552.52,1554.13,1554.94,1555.75,1556.55,1558.17,1558.98,1559.79,1560.61}	The second index is the slot where the 32-WSS unit is configured. The last index of the wavelength is the value of the wavelength as described in OPTICAL_WLEN

## 25.1.19 OSC

(Cisco ONS 15454 only)

OSC AIDs are used to access the OSC of the NE

**Table 25-19** OSC

Values	Description
ALL	All of the OSCs of the NE. The ALL AID applies to the retrieve-only commands
OSC-RINGID	RINGID is a string of up to six characters. Valid characters are [A–Z,0–9] (case insensitive)

## 25.1.20 PRSLOT

(Cisco ONS 15454 only)

Valid protection slots for the electrical cards

**Table 25-20** PRSLOT

Pattern	Description
NULL	Indicates there is no protection group. Used when trying to delete a protection group.
SLOT-1	The No.1 slot of an NE
SLOT-3	The No.3 slot of an NE
SLOT-5	The No.5 slot of an NE
SLOT-13	The No.13 slot of an NE
SLOT-15	The No.15 slot of an NE
SLOT-17	The No.17 slot of an NE

## 25.1.21 RFILE

File transfer type. Applicable to ONS 15454, 15327, and 15310-CL.

**Table 25-21** RFILE

Pattern	Description
RFILE-DB	Transferring the system database
RFILE-PKG	Transferring a software package

## 25.1.22 STS

SONET frame-level AID set

- STS AID Format for Optical and EC1 Facilities Without PPM: STS-[SLOT]-[PORT]-[STS]
- STS AID Format for Optical Facilities With PPM: STS-[SLOT]-[PPM]-[PORT]-[STS]

- STS AID Format for optical facilities With PIM and PPM: STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
- STS AID Format for DS1 electrical facilities: STS-[SLOT]-[STS]
- STS AID Format for DS3 (Except DS3I) electrical facilities: STS-[SLOT]-[PORT]-[STS]
- STS AID Format for DS3I electrical facilities: STS-[SLOT]-[STS]
- STS AID Format for G1K-4 card GIGE facilities: FAC-[SLOT]-[PORT]

Table 25-22 STS

Pattern	Description
ALL	The ALL AID applies to the RTRV-only commands: RTRV-STs with ALL AID retrieves all STS interfaces on the NE. RTRV-STs1 with ALL AID retrieves all STS1 interfaces on the NE. RTRV-STs3c with ALL AID retrieves all STS3c interfaces on the NE.
FAC-{1-4,11-14}-{1-4}-{1-4}-{1}	Dynamically allocated STSs of all widths for the GIGE port on an ASAP card. Format is FAC-[SLOT]-[PIM]-[PPM]-[PORT]
FAC-{1-6,12-17}-{1-4}	Dynamically allocated STSs of all widths for the G1K-4 card (ONS 15454). Format is FAC-[SLOT]-[PORT]
STS-{1-4,11-14}-{1-16}-1	STS48c AID for 16-port OC48 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-16}-ALL	All the STS of all path width on the 16-port OC48 card (ONS 15600). Format is STS-[SLOT]-[PORT]-ALL
STS-{1-4,11-14}-{1-16}-{1,13,25,37}	STS12C AID for 16-port OC48 card (ONS 15600). Format is STS-[SLOT]-[PORT]-ALL
STS-{1-4,11-14}-{1-16}-{1,25}	STS24C AID for 16-port OC48 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-16}-{1,4,7,10,-,46}	STS3c AID for 16-port OC48 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-1	STS192c AID for 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-ALL	All the STS of all path width on 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-ALL
STS-{1-4,11-14}-{1-4}-{1,13,25,37,-,181}	STS12c AID for 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,25,49,73,-,169}	STS24c AID for 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4,7,10,-,190}	STS3c AID for 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,49,97,145}	STS48c AID for 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]

Table 25-22 STS (continued)

Pattern	Description
STS-{1-4,11-14}-{1-4}-{1,4}-{1}	StS3c AID for the ASAP card with OC3 PORT provisioned. STS12C AID for the ASAP Card with an OC12 port provisioned. STS48C AID for the ASAP card with OC48 port provisioned. Format of AID is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,13,25,37}	STS12C AID for the ASAP card with OC48 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,25}	STS24C AID for the ASAP card with OC48 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,13,16,25,28,37,40}	STS9C AID for the ASAP card with OC48 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,10,13,16,19,22,25,28,31,34,37,40,43,46}	STS3C AID for the ASAP card with OC48 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7}	STS6C AID for the ASAP card with OC12 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4}	STS9C AID for the ASAP card with OC12 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-12}	STS1 AID for the ASAP card with OC12 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-3}	STS1 AID for the ASAP card with OC3 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1-48}	STS1 AID for the ASAP card with OC48 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1-192}	STS1 AID for the 4-port OC192 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-ALL	STS1, STS3C, STS6C, STS9C, STS12C, STS24C, STS48C AID for the ASAP card with OCN Port Provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,11-14}-{1-4}-{1,4}-{1}-{1,4,7,13,16,19,25,28,31,43}	STS6C AID for the ASAP card with an OC48 port provisioned. Format is STS-[SLOT]-[PIM]-[PPM]-[PORT]-[STS]
STS-{1-4,14-17}-{1-16}-{1-48}	STS1 AID for the 16-port OC48 card (ONS 15600). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,14-17}-{1-4}-1	STS12C AIDs for a 4-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,14-17}-{1-4}-ALL	All the STSs for a given 4-port OC12 card (OSN 15454). Format is STS-[SLOT]-[PORT]-ALL
STS-{1-4,14-17}-{1-4}-{1,4,7,10}	STS3C for the 4-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,14-17}-{1-4}-{1,4,7}	STS6C AIDs for a 4-port OC12 (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]

Table 25-22 STS (continued)

Pattern	Description
STS-{1-4,14-17}-{1-4}-{1-3}	STS1 AID for the 4-port OC3 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,14-17}-{1-8}-1	STS3C for the 8-port OC3 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4,14-17}-{1-8}-ALL	All the STSs for a given 8-port OC3 card (ONS 15454). Format is STS-[SLOT]-[PORT]-ALL
STS-{1-4,14-17}-{1-8}-{1-3}	STS1 AID for the 8-port OC3 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-1	STS48c AID for a single-port OC48 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-ALL	STS ALL AID for a single-port Cards (ONS 15327). Format is STS-[SLOT]-ALL
STS-{1-4}-1-{1,13,25,37}	STS12c AID for a single-port OC48 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-{1,4,7,10,-,46}	STS3c AID for a single-port OC48 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-{1,4,7,10}	STS3c AID for 4-port OC3 and a single-port OC12 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-{1,7,13,19,-,43}	STS6c AID for a single-port OC48 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-{1,7}	STS6c AID for a single-port OC12 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-{1-12}	STS1 AID for 4-port OC3, a single-port OC12 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-4}-1-{1-48}	STS1 AID for a single-port OC48 (ONS 15327). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1	STS1 AID for a DS1 card (ONS 15454). Format is STS-[SLOT]-[STS]. There is only 1 STS for the DS1 card
STS-{1-6,12-17}-1-1	STS12C AID for a single-port OC12 card STS48C AID for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-ALL	All the STSs of an STS bandwidth on a single port optical card (ONS 15454). Format is STS-[SLOT]-[PORT]-ALL
STS-{1-6,12-17}-1-{1,13,25,37}	STS12C AIDs for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1,4,10,13,16,19,25,28,37,40}	STS9C AID for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1,4,7,10,13,16,19,22,25}	STS24C AID for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1,4,7,10-46}	STS3C AID for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]

Table 25-22 STS (continued)

Pattern	Description
STS-{1-6,12-17}-1-{1,4,7,10}	STS3C for a single-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1,4,7,13,16,19,25,28,37,40,43}	STS6C AID for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1,4,7}	STS6C AID for an OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1,4}	STS9C AID for a single-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1-12}	STS1 AID for a single-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-1-{1-48}	STS1 AID for an OC48AS card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-ALL	STS ALL AID for the card in the given slot (ONS 15454). Format is STS-[SLOT]-[ALL]
STS-{1-6,12-17}-{1-12}-1	STS1 AID for EC1 and DS3 cards (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-24}-1	STS1 AIDs for the DS3XM-12 STS12 backplane rate cards. Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-36}-1	STS1 AIDs for the DS3XM-12 STS48 backplane rate cards. Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-4}-1	STS3C AID for a 4-port OC3 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-4}-ALL	All the STSs for a 4-port OC3 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-4}-{1,4,7,10-46}	Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-4}-{1,4,7}	STS6c AID for 4-port OC12 (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-4}-{1,4}	STS9C AID for a 4-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-4}-{1-12}	STS1 AID for a 4-port OC12 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{1-6,12-17}-{1-6}	STS1 AID for a DS3XM card (ONS 15454). Format is STS-[SLOT]-[STS]
STS-{2}-{1-2}-{1}-{1,4,7,10}	STS3c AID for the OC12 port (ONS 15310-CL). Format is STS-[SLOT]-[PPM]-[PORT]-[STS]
STS-{2}-{1-2}-{1}-{1,7}	STS6c AID for the OC12 port (ONS 15310-CL). Format is STS-[SLOT]-[PPM]-[PORT]-[STS]
STS-{2}-{1-2}-{1}-{1-12}	STS1 AID for the OC12 port (ONS 15310-CL). Format is STS-[SLOT]-[PPM]-[PORT]-[STS]
STS-{2}-{1-2}-{1}-{1-3}	STS1 AID for the OC3 port. Format is STS-[SLOT]-[PPM]-[PORT]-[STS]

Table 25-22 STS (continued)

Pattern	Description
STS-{2}-{1-2}-{1}-{1}	STS3c AID for the OC3 port, or STS9C AID for the OC12 port, or STS12c AID for the OC12 port (ONS 15310-CL). Format is STS-[SLOT]-[PPM]-[PORT]-[STS]
STS-{2}-{1-3}-{1}	STS1 AID for the 15310-CL-CTX T3 ports (ONS 15310-CL). Format is STS-[SLOT]-[PORT]-[STS]. The AIDs are port-based and presented as one STS per port
STS-{2}-{1}	STS1 AID for the 15310-CL-CTX T1 port (ONS 15310-CL). Format is STS-[SLOT]-[STS]. There is only one STS for the WBE ports on the 15310-CL-CTX card
STS-{5,6,12,13}-1-1	STS48C AID for an OC48 card STS192 AID for an OC192 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,13,25,37-180}	STS12C AID for an OC192 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,13,25,37}	STS12C AIDs for an OC48 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,4,7,10,13,16,19,22,25}	STS24C AID for an OC48 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,4,7,10-190}	STS3C for an OC192 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,4,7,10-46}	STS3C AID for an OC48 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,4,7,13,16,19,25,28,37,40,43}	STS6C AID for an OC48 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1,49,97,145}	STS48C AID for an OC192 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1-192}	STS1 AID for an OC192 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6,12,13}-1-{1-48}	STS1 AID for an OC48 card (ONS 15454). Format is STS-[SLOT]-[PORT]-[STS]
STS-{5,6}-1	STS1 AID for XTC-14, XTC-28-3 for the T1 Port (ONS 15327). Format is STS-[SLOT]-[STS]. There is only 1 STS for the T1 ports
STS-{5,6}-{1-4}-1	STS1 on a DS3 port on the 327 XTC-28 card
STS-{5,6}-ALL	STS ALL AID for the T1 and T3 ports within the XTC-14 and XTC-28-3 (ONS 15327). Format is STS-[SLOT]-ALL
VFAC-{1-6,12-17}-{0-1}	Virtual facility AIDs for the ML-Series cards back end POS ports. Both the ML1000-2 and ML100T-12 have two POS ports and are 0-based (ONS 15454). Format is VFAC-[SLOT]-[PORT]



## 25.1.23 SYN

Synchronization AIDs

**Table 25-23 SYN**

Pattern	Description
SYNC-NE	NE sync AID

## 25.1.24 SYN\_SRC

Synchronization source

**Table 25-24 SYN\_SRC**

Pattern	Description
BITS-1	Sync source is BITS-1. Format is BITS-[PORT] (ONS 15454, 15327, 15600, 15310-CL)
BITS-2	Sync source is BITS-2. Format is BITS-[PORT] (ONS 15454, 15327, 15600)
FAC-{1-4,11-14}-{1-16}	Sync Source is 16-port OC48 (ONS 15600). Format is FAC-[SLOT]-[PORT]
FAC-{1-4,11-14}-{1-4}	Sync source is 4-port OC192. Format is FAC-[SLOT]-[PORT]
FAC-{1-4}-1	Sync Source is the Optical Card (single-port OC12, OC48) facility in an ONS 15327. Format is FAC-[SLOT]-[PORT]
FAC-{1-4}-{1-4}	Sync Source is the Optical Card (4-port OC3) facility in an ONS 15327. Format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{1-4}	Sync source is the optical card (four-port OC3 and four-port OC12) facility in ONS 15454. Format is FAC-[SLOT]-[PORT]
FAC-{1-6,12-17}-{1}	Sync source is the optical card (one-port OC12 and OC48AS) facility in ONS 15454. Format is FAC-[SLOT]-[PORT]
FAC-{5,6,12,13}-{1}	Sync source is the optical card (OC48,OC192) facility. Format is FAC-[SLOT]-[PORT]
INTERNAL	Set the SYN_SRC to be the system default value. The “Internal” value of the SYN_SRC is only applied for the SYNC-NE AID on the ED-SYNCN command
NONE	Set the SYNC_SRC value to the default value for BITS-OUT. The “NONE” value of SYNC_SRC only applies to the BITS-1 and BITS-2 AID of the ED-SYNCN command
OC12-{2}-{1-2}-{1}	Sync source is the OC12 facility (ONS 15310-CL). Format is OC12-[SLOT]-[PPM]-[PORT]
OC3-{2}-{1-2}-{1}	Sync source is the OC3 facility (ONS 15310-CL). Format is OC3-[SLOT]-[PPM]-[PORT]
SYNC-NE	SYNC-NE source. It is only used in the alarm report or alarm retrieve commands.
T1-{2}-{1-21}	Sync source is the T1 facility (ONS 15310-CL). Format is T1-[SLOT]-[PORT]

## 25.1.25 SYNC\_REF

Synchronization AIDs

ONS 15454 Facility AID format for line timing:

- Format for optical facilities without PPM: FAC-[SLOT]-[PORT]
- Format for optical facilities with PPM: FAC-[SLOT]-[PPM]-[PORT]

ONS 15600 facility AID format for line timing:

- Format for optical without PPM: FAC-[SLOT]-[PORT]
- Format for optical facilities with PPM: FAC-[SLOT]-[PPM]-[PORT]
- Format for optical facilities with PPM and PIM: FAC-[SLOT]-[PIM]-[PPM]-[PORT]

ONS 15310-CL facility AID format for line timing:

- Format for optical facilities with PPM: OCn-[SLOT]-[PPM]-[PORT] where n={3,12}
- Format for DS1-flavored electrical facilities: T1-[SLOT]-[PORT]

**Table 25-25** SYNC\_REF

Pattern	Description
ALL	Equivalent to a combination of SYNC-ALL, BITS-1 and BITS-2. This AID is valid only for the commands RTRV-SYNCN, RTRV-ALM-SYNCN and RTRV-COND-SYNCN
SYNC-ALL	All synchronization references
SYNC-NE	NE sync AID
SYNC-{BITS1,BITS2}	BITS1 and BITS2 sync AIDs (not supported on the ONS 15310-CL)

## 25.1.26 SYNC\_SW

New synchronization reference that will be used

**Table 25-26** SYNC\_SW

Pattern	Description
INT	Internal clock. The “INT” value of the syncsw is only applied for the SYNC-NE AID on the OPR-SYNC_SW command.
PRI	Primary timing reference
SEC	Secondary timing reference
THIRD	Third timing reference

## 25.1.27 UDC

UDC AIDs for F-UDC and DCC-UDC channels on the AIC-I card. Applicable to ONS 15454. Applicable to ONS 15310-CL (F-UDC only).

**Table 25-27 UDC**

Pattern	Description
ALL	ALL AID is applicable to RTRV-only commands, for example: RTRV-ALM/COND-UDCF and RTRV-ALM/COND-UDCDCC. It corresponds to a superset of F-UDC and DCC-UDC AIDs
UDC-{F,DCC}-{A,B}	F-UDC and DCC-UDC AIDs for A and B channels. DCC-UDC is supported on the ONS 15454 only. F-UDC is supported on the ONS 15454 and 15310-CL.

## 25.1.28 VT

Virtual tributary. Applicable to ONS 15454, ONS 15327, and ONS 15310-CL.

- VT1 AID Format for Optical and EC1 Facilities Without PPM:  
VT1-[SLOT]-[PORT]-[STS]-[VTG]-[VTN]
- VT1 AID Format for Optical Facilities With PPM:  
VT1-[SLOT]-[PPM]-[PORT]-[STS]-[VTG]-[VTN]
- VT1 AID Format for DS1 Electrical Facilities: VT1-[SLOT]-[STS]-[VTG]-[VTN]
- VT1 AID Format for DS3 Electrical Facilities: VT1-[SLOT]-[PORT]-[STS]-[VTG]-[VTN]

**Table 25-28 VT**

Pattern	Description
ALL	The ALL AID applies to RTRV-only commands; for example, RTRV-VT and RTRV-VT1 with ALL AID returns all VT1 interfaces on the node
VT1-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-4}	8-port OC3 card (ONS 15454)
VT1-{1-4}-1-{1-12}-{1-7}-{1-4}	VT AIDs for a single-port OC12 (ONS 15327)
VT1-{1-4}-1-{1-48}-{1-7}-{1-4}	VT AIDs for a single-port OC48 (ONS 15327)
VT1-{1-4}-{1-4}-{1-3}-{1-7}-{1-4}	VT AIDs for 4-port OC3 (ONS 15327)
VT1-{1-6,12-17}-1-{1-12}-{1-7}-{1-4}	Single-port OC12 card (ONS 15454)
VT1-{1-6,12-17}-1-{1-48}-{1-7}-{1-4}	OC48AS card (ONS 15454)
VT1-{1-6,12-17}-1-{1-7}-{1-2}	DS1 card (ONS 15454)
VT1-{1-6,12-17}-{1-12}-1-{1-7}-{1-4}	EC1 card (ONS 15454)
VT1-{1-6,12-17}-{1-24}-1-{1-7}-{1-4}	VT1.5 AIDs for DS3XM-12 STS12 backplane rate cards
VT1-{1-6,12-17}-{1-36}-1-{1-7}-{1-4}	VT1.5 AIDs for DS3XM-12 STS48 backplane rate cards
VT1-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-4}	4-port OC12 card (ONS 15454)
VT1-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-4}	4-port OC3 card (ONS 15454)
VT1-{1-6,12-17}-{1-6}-{1-7}-{1-4}	DS3XM-6 card (ONS 15454)

Table 25-28 VT (continued)

Pattern	Description
VT1-{2}-{1-2}-{1}-{1-12}-{1-7}-{1-4}	VT1 AIDs for OC3 Port on a 15310-CL-CTX card (ONS 15310-CL)
VT1-{2}-{1-2}-{1}-{1-3}-{1-7}-{1-4}	VT1 AIDs for OC3 Port on a 15310-CL-CTX card (ONS 15310-CL)
VT1-{2}-{1-3}-{1}-{1-7}-{1-4}	VT1 AIDs for BBE Port on a 15310-CL-CTX card (ONS 15310-CL). The AIDs are port-based and presented as one STS per port. VTs are supported only for EC1 ports
VT1-{2}-{1}-{1-7}-{1-3}	VT1 AIDs for T1 (WBE) Port on a 15310-CL-CTX card (ONS 15310-CL). There is only 1 STS for the WBE ports on the 15310-CL-CTX card. There are seven VT groups that each have three VTs within
VT1-{5,6,12,13}-1-{1-192}-{1-7}-{1-4}	OC192 Card (ONS 15454)
VT1-{5,6,12,13}-1-{1-48}-{1-7}-{1-4}	OC48 Card (ONS 15454)
VT1-{5-6}-1-{1-7}-{1-2}	VT AIDs for T1 Port within XTC-14 (ONS 15327). There is only 1 STS for the T1 ports within the XTC-14 card
VT1-{5-6}-1-{1-7}-{1-4}	VT AID for T1 Port with XTC-28-3 (ONS 15327). There is only one STS for the T1 ports within the XTC-28 card
VT2-{1-4,14-17}-{1-8}-{1-3}-{1-7}-{1-3}	Eight-port OC3 card (ONS 15454)
VT2-{1-6,12-17}-1-{1-12}-{1-7}-{1-3}	Single-port OC12 card (ONS 15454)
VT2-{1-6,12-17}-1-{1-48}-{1-7}-{1-3}	OC48AS card (ONS 15454)
VT2-{1-6,12-17}-{1-4}-{1-12}-{1-7}-{1-3}	Four-port OC12 card (ONS 15454)
VT2-{1-6,12-17}-{1-4}-{1-3}-{1-7}-{1-3}	Four-port OC3 card (ONS 15454)
VT2-{5,6,12,13}-1-{1-192}-{1-7}-{1-3}	OC192 Card (ONS 15454)
VT2-{5,6,12,13}-1-{1-48}-{1-7}-{1-3}	OC48 card (ONS 15454)

## 25.1.29 WDMANS

(Cisco ONS 15454 only)

This AID is used to access the AONS application of the NE.

Table 25-29 WDMANS

Pattern	Description
AONS-{E,W}	Automatic Optical Node Setup identifier (is per ring direction based)
WDMANS-{E,W}	Automatic Optical Node Setup identifier (is per ring direction based)

## 25.1.30 WLEN

(Cisco ONS 15454 only)

This AID represents the single wavelength inside an external facility. If the facility is of type OTS (line), the wavelengths contained are all the available in the node (currently 32). If the facility is of type OCH (CHAN) the wavelength is just one and it is the same of the correspondent wavelength customized for that channel.

**Table 25-30**     **WLEN**

Pattern	Description
WLEN-{E,W}-{ADD,DROP,EXP}-{1530.33,1531.12,1531.90,1532.68,1534.25,1535.04,1535.82,1536.61,1538.19,1538.98,1539.77,1540.56,1542.14,1542.94,1543.73,1544.53,1546.12,1546.92,,1547.72,1548.51,1550.12,1550.92,1551.72,1552.52,1554.13,1554.94,1555.75,1556.55,1558.17,1558.98,1559.79,1560.61}	Wavelength identifier





# Conditions



**Note**

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This chapter describes the conditions for TL1 commands and autonomous messages for the Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL, Release 6.0.

Conditions include any problem detected on an ONS 15454, ONS 15327, ONS 15310-CL, and ONS 15600 shelf. They can include standing or transient, notifications. A snapshot of all currently raised standing conditions on the network, node, or card can be retrieved in the CTC Conditions window or using the RTRV-COND commands. (In addition, some but not all cleared conditions are also found in the History tab in CTC.)

**Table 26-1**      **Conditions**

Condition	Description
AIS	Alarm Indication Signal
AIS-L	Alarm Indication Signal - Line
AIS-P	Alarm Indication Signal - Path
AIS-V	Alarm Indication Signal - VT
ALS	Automatic Laser Shutdown
APC-DISABLED	Automatic Power Control Disabled
APC-FAIL	Automatic Power Control Failure
APSB	Byte Failure
APSC-IMP	Improper APS Code
APSCDFLTK	Default K Byte
APSCINCON	Inconsistent APS Code
APSCM	Protection Switching Channel Match Failure
APSCNMIS	Node Id Mismatch
APSIMP	APS Invalid Mode

Table 26-1 Conditions (continued)

Condition	Description
APSM	Automatic Protection Switch Mode Mismatch
AS-CMD	Alarms Suppressed By User Command
AS-MT	Alarms Suppressed For Maintenance
AU-LOF	LOF - Administration Unit - Loss of Multi Frame
AUD-LOG-LOSS	Audit Log 100 Percent Full - Oldest records will be lost
AUD-LOG-LOW	Audit Log 80 Percent Full
AUTOLSROFF	Automatic Laser Shutoff Due To High Temperature
AUTORESET	Automatic System Reset
AUTOSW-AIS	Automatic Path Protection Switch Caused By AIS
AUTOSW-LOP	Automatic Path Protection Switch Caused By LOP
AUTOSW-PDI	Automatic Path Protection Switch Caused By PDI
AUTOSW-SDBER	Automatic Path Protection Switch Caused By SDBER
AUTOSW-SFBER	Automatic Path Protection Switch Caused By SFBER
AUTOSW-UNEQ	Automatic Path Protection Switch Caused By UNEQ
BAT-FAIL	Battery Failure
BAT-HGH-VLT	High Volt
BAT-LOW-VLT	Low Volt
BKUPMEM	Primary Non-Volatile Backup Memory Failure
BLSROSYNC	BLSR Out Of Sync
CARLOSS	Carrier Loss On The LAN
CKTDOWN	Signaling Unable to setup circuit
CLDRESTART	Cold Restart
COMIOXC	IO Slot To XCON Communication Failure
COMM-FAIL	Plug-in Module Communication Failure
CONTBUS-A-18	TCC A To DCC A Processor Communication Failure
CONTBUS-B-18	TCC B To DCC B Processor Communication Failure
CONTBUS_A	Controller A To Shelf Slot Communication Failure
CONTBUS_B	Controller B To Shelf Slot Communication Failure
CTNEQPT-MISMATCH	Connection Equipment Mismatch
CTNEQPT-PBPROT	Interconnection Equipment Failure - Protect XC Payload Bus
CTNEQPT-PBWORK	Interconnection Equipment Failure - Working XC Payload Bus
DATAFLT	Software Fault - Data Integrity Fault
DBOSYNC	Standby Database Out of Sync
DS3-MISM	DS3 Frame Format Mismatch
DSP-COMM-FAIL	DSP Communication Failure



**Table 26-1** Conditions (continued)

Condition	Description
DSP-FAIL	DSP Failure
DUP-IPADDR	IP address already in use within the same DCC Area
DUP-NODENAME	Node name already in use within the same DCC Area
E-W-MISMATCH	Both Ends Of Fiber Provisioned As East Or Both As West
EHIBATVG	Extreme High Volt
ELWBATVG	Extreme Low Volt
EOC	SDCC Termination Failure
EOC-L	Line DCC Termination Failure
EQPT	Equipment Failure
EQPT-MISS	Replaceable Equipment/Unit is Missing
ERFI-P-CONN	Enhanced Remote Failure Indication - Path - Connectivity
ERFI-P-PAYLD	Enhanced Remote Failure Indication - Path - Payload
ERFI-P-SRVR	Enhanced Remote Failure Indication - Path - Server
ERROR-CONFIG	Error in Startup Config
ETH-LINKLOSS	Rear Panel Ethernet Link Removed
EXCCOL	Excess Collisions On The LAN
EXERCISE-RING-FAIL	Exercise Request on Ring Failed
EXERCISE-RING-REQ	Exercise Request on Ring
EXERCISE-SPAN-FAIL	Exercise Request on Span Failed
EXERCISE-SPAN-REQ	Exercise Request on Span
EXT	Failure Detected External To The NE
EXTRA-TRAF-PREEMPT	Extra Traffic Preempted
FAILTOSW	Failure To Switch To Protection
FAILTOSW-PATH	Failure To Switch To Protection - Path
FAILTOSWR	Failure To Switch To Protection - Ring
FAILTOSWS	Failure To Switch To Protection - Span
FAN	Fan Failure
FANDEGRADE	Partial Fan Failure
FE-AIS	Far End AIS
FE-DS1-MULTLOS	Far End Multiple DS1 LOS Detected On DS3
FE-DS1-NSA	Far End DS1 Equipment Failure - Non Service Affecting
FE-DS1-SA	Far End DS1 Equipment Failure - Service Affecting
FE-DS1-SNGLLOS	Far End Single DS1 LOS
FE-DS3-NSA	Far End DS3 Equipment Failure - Non Service Affecting
FE-DS3-SA	Far End DS3 Equipment Failure - Service Affecting

Table 26-1 Conditions (continued)

Condition	Description
FE-EQPT-NSA	Far End Common Equipment Failure - Non Service Affecting
FE-EXERCISING-RING	Far End Exercising Ring
FE-EXERCISING-SPAN	Far End Exercising Span
FE-FRCDWKSWPR-RING	Far End Working Facility Forced To Switch To Protection - Ring
FE-FRCDWKSWPR-SPAN	Far End Working Facility Forced To Switch To Protection - Span
FE-IDLE	Far End IDLE
FE-LOCKOUTOFPR-SPAN	Far End Lockout Of Protection - Span
FE-LOF	Far End LOF
FE-LOS	Far End LOS
FE-MANWKSWPR-RING	Far End Manual Switch Of Working Facility To Protection - Ring
FE-MANWKSWPR-SPAN	Far End Manual Switch Of Working Facility To Protection - Span
FEC-MISM	FEC Mismatch
FEPRLF	Far End Protection Line Failure
FORCED-REQ	Forced Switch Request
FORCED-REQ-RING	Forced Switch Request On Ring
FORCED-REQ-SPAN	Forced Switch Request On Span
FRCDSWTOINT	Forced Switch To Internal Clock
FRCDSWTOPRI	Forced Switch To Primary Reference
FRCDSWTOSEC	Forced Switch To Second Reference
FRCDSWTOHTRD	Forced Switch To Third Reference
FRNGSYNC	Free Running Synchronization Mode
FSTSYNC	Fast Start Synchronization Mode
FULLPASSTHR-BI	Bidirectional Full Pass Through Is Active
GCC-EOC	GCC Termination Failure
GE-OOSYNC	GigaBit Ethernet Out of Sync
HI-LASERBIAS	Equipment High Laser Bias
HI-RXPOWER	Equipment High Rx power
HI-TXPOWER	Equipment High Tx power
HITEMP	High Temperature
HLDOVRSYNC	Holdover Synchronization Mode
I-HITEMP	Industrial High Temperature
IMPROPRMVL	Improper Removal

**Table 26-1** Conditions (continued)

Condition	Description
INC-GFP-OUTOFFRAME	Out Of Frame Detected by GFP Receiver
INC-GFP-SIGLOSS	Client Signal Loss Frames Detected by GFP Receiver
INC-ISD	DS3 Idle Condition
INC-SIGLOSS	Incoming Signal Loss on Fibre Channel Interface
INC-SYNCLOSS	Incoming Synchronization Loss on Fibre Channel Interface
INC_GFP_SYNCLOSS	Client Synchronization Loss Frames Detected by GFP Receiver
INHSWPR	Inhibit Switch To Protect Request On Equipment
INHSWWKG	Inhibit Switch To Working Request On Equipment
INTRUSION-PSWD	Security Intrusion Attempt Detected - See Audit Log
INVMACADR	Invalid MAC Address
IOSCFGCOPY	Ios Config Copy In Progress
KB-PASSTHR	K Bytes Pass Through Is Active
KBYTE-APS-CHANNEL-FAILURE	Kbyte Channel Failure
LAN-POL-REV	Lan Connection Polarity Reversed
LASEREOL	Laser Approaching End of Life
LKOUTPR-S	Lockout Of Protection - Span
LMP-HELLODOWN	LMP Hello FSM to Control Channel down
LMP-NDFAIL	LMP Neighbor Discovery has failed
LO-RXPOWER	Equipment Low Rx power
LO-TXPOWER	Equipment Low Tx power
LOA	Loss of Alignment
LOC	Loss of Channel
LOCKOUT-REQ	Lockout Switch Request On Facility or Equipment
LOCKOUT-REQ-RING	Lockout Switch Request On Ring
LOF	Loss Of Frame
LOM	Loss of Multi-Frame
LOP-P	Loss Of Pointer - Path
LOP-V	Loss Of Pointer - VT
LOS	Loss Of Signal
LPBKCRS	Cross-connect Loopback
LPBKDS1FEAC	DS1 Loopback Due To FEAC Command
LPBKDS1FEAC-CMD	DS1 Loopback Command Sent To Far End
LPBKDS3FEAC	DS3 Loopback Due To FEAC Command
LPBKDS3FEAC-CMD	DS3 Loopback Command Sent To Far End
LPBKFACILITY	Facility Loopback

Table 26-1 Conditions (continued)

Condition	Description
LPBKTERMINAL	Terminal Loopback
LWBATVG	Low Volt
MAN-REQ	Manual Switch Request
MANRESET	Manual System Reset
MANSWTOINT	Manual Switch To Internal Clock
MANSWTOPRI	Manual Switch To Primary Reference
MANSWTOSEC	Manual Switch To Second Reference
MANSWTO THIRD	Manual Switch To Third Reference
MANUAL-REQ-RING	Manual Switch Request On Ring
MANUAL-REQ-SPAN	Manual Switch Request On Span
MEA	Mismatch Of Equipment And Attributes
MEM-GONE	Free Memory On Card Near Zero
MEM-LOW	Free Memory On Card Very Low
MFGMEM	Manufacturing Data Memory (EEPROM Failure
NO-CONFIG	No Startup Config
NTWTPINC	Network Topology Incomplete
OCHNC-ACTIV-FAIL	Optical Channel Activation Failure
OCHNC-DEACTIV-FAIL	Optical Channel De-Activation Failure
OCHNC-FAIL	Optical Channel Connection Failure
OCHNC-INC	Optical Channel Incomplete
ODUK-AIS-PM	ODUK: Alarm Indication Signal
ODUK-BDI-PM	ODUK: PM Backward Defect Indication
ODUK-LCK-PM	ODUK: Locked Defect - PM
ODUK-OCI-PM	ODUK: Open Connection Indication
ODUK-SD-PM	ODUK: Signal Degrade
ODUK-SF-PM	ODUK: Signal Failure
ODUK-TIM-PM	ODUK: Trail Trace Identifier Mismatch
OOU-TPT	Out of Use - Transport Failure
OPTNTWMIS	Optical Network Type Mismatch
OTUK-AIS	OTUK: Alarm Indication Signal
OTUK-BDI	OTUK: Backward Defect Indication
OTUK-LOF	OTUK: Loss Of Frame
OTUK-SD	OTUK: Signal Degrade
OTUK-SF	OTUK: Signal Failure
OTUK-TIM	OTUK: Trail Trace Identifier Mismatch
OUT-OF-SYNC	8B10B Out of Sync

**Table 26-1** Conditions (continued)

Condition	Description
PDI-P	Payload Defect Indication - Path
PEER-NORESPONSE	Peer Card Not Responding
PLM-P	Payload Label Mismatch - Path
PLM-V	Signal Label Mismatch Failure - Payload Label Mismatch - VT
PORT-CODE-MISM	Pluggable Port security code mismatch
PORT-COMM-FAIL	Module Communication Failure
PORT-MISMATCH	Pluggable Port rate mismatch
PORT-MISSING	Pluggable Port missing
PRC-DUPID	Duplicate Node ID
PROTNA	Protection Unit Not Available
PTIM	Payload Type Identifier Mismatch
PWR-REDUN	Redundant Power Capability Lost
RAI	Remote Alarm Indication
RCVR-MISS	Facility Termination Equipment - Receiver Missing
RFI	Remote Failure Indication
RFI-L	Remote Failure Indication - Line
RFI-P	One-Bit Remote Failure Indication - Path
RFI-V	Remote Failure Indication - VT
RING-ID-MIS	Ring Id Mismatch
RING-MISMATCH	Far End Of Fiber Is Provisioned With Different Ring ID
RING-SW-EAST	Ring Switch Is Active On The East Side
RING-SW-WEST	Ring Switch Is Active On The West Side
RSVP-HELLODOWN	RSVP Hello FSM to Neighbor down
RUNCFG-SAVENEED	Need to Save Running Config
SD	Signal Degrade
SD-L	BER Threshold Exceeded For Signal Degrade - Line
SD-P	BER Threshold Exceeded For Signal Degrade - Path
SF	Signal Failure
SF-L	BER Threshold Exceeded For Signal Failure - Line
SF-P	BER Threshold Exceeded For Signal Failure - Path
SFTWDOWN	Software Download In Progress
SNTP-HOST	SNTP Host Failure
SPAN-SW-EAST	Span Switch Is Active On The East Side
SPAN-SW-WEST	Span Switch Is Active On The West Side
SQM	Sequence Mismatch

Table 26-1 Conditions (continued)

Condition	Description
SQUELCH	Ring Is Squelching Traffic
SQUELCHED	Equipment Squelched
SSM-DUS	Do Not Use For Synchronization
SSM-FAIL	Failed To Receive Synchronization Status Message
SSM-LNC	G812 - Local Node Clock traceable
SSM-OFF	Synchronization Status Messages Are Disabled On This Interface
SSM-PRC	G811 - Primary Reference Clock traceable
SSM-PRS	Stratum 1 Primary Reference Source Traceable
SSM-RES	Reserved For Network Synchronization Use
SSM-SDH-TN	G812 - Transit Node Clock traceable
SSM-SETS	G813 - Synchronous Equipment Timing Source traceable
SSM-SMC	SONET Minimum Clock Traceable
SSM-ST2	Stratum 2 Traceable
SSM-ST3	Stratum 3 Traceable
SSM-ST3E	Stratum 3E Traceable
SSM-ST4	Stratum 4 Traceable
SSM-STU	Synchronized - Traceability Unknown
SSM-TNC	Transit Node Clock Traceable
SWMTXMOD	Switching Matrix Module Failure
SWTOPRI	Switch To Primary Reference
SWTOSEC	Switch To Second Reference
SWTOTHIRD	Switch To Third Reference
SYNC-FREQ	Synchronization Reference Frequency Out Of Bounds
SYNCPRI	Primary Synchronization Reference Failure
SYNCSEC	Secondary Synchronization Reference Failure
SYNCTHIRD	Third Synchronization Reference Failure
SYSBOOT	System Reboot
TIM	TIM Section - Trace Identifier Mismatch Failure
TIM-MON	TIM Section Monitor - Trace Identifier Mismatch Failure
TIM-P	STS Path Trace Identifier Mismatch
TPTFAIL	Transport layer failure
TRMT	Transmit Failure
TRMT-MISS	Facility Termination Equipment - Transmitter Missing
TUNDERRUN	Ether tx underrun
TX-AIS	Alarm Indication Signal in TX

**Table 26-1**      **Conditions (continued)**

<b>Condition</b>	<b>Description</b>
TX-RAI	Remote Alarm Indication in TX
UNC-WORD	FEC Uncorrected Word
UNEQ-P	Unequipped - Path
UNEQ-V	Signal Label Mismatch Failure - Unequipped VT
VCG-DEG	VCAT Group Degraded
VCG-DOWN	VCAT Group Down
WKSWPR	Switched To Protection
WTR	Wait To Restore
WVL-MISMATCH	Equipment Wavelength Mismatch







## Modifiers

This chapter describes the modifiers for TL1 commands and autonomous messages for the Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL, Release 6.0.

### 27.1 Modifier Support by Platform

Table 27-1 details the TL1 modifiers supported on the ONS 15454, ONS 15327, ONS 15310-CL, and ONS 15600 for commands that have carets (<>) in part of their input format; for example, RTRV-<OCN\_TYPE>. A “Yes” in the platform column indicates that a particular modifier is supported in that platform. A “No” in the platform column indicates that a particular modifier is not supported in that platform. A “—” indicates that a particular modifier is not applicable to that platform.

**Table 27-1**      **Modifier Support**

Modifier	ONS 15454	ONS 15327	ONS 15310-CL	ONS 15600
10GFC	Yes	No	No	—
10GIGE	Yes	No	No	—
1GFC	Yes	No	No	—
1GFICON	Yes	No	No	—
2GFC	Yes	No	No	—
2GFICON	Yes	No	No	—
D1VIDEO	Yes	No	No	—
DS1	Yes	—	—	—
DV6000	Yes	No	No	—
E100	Yes	Yes	No	—
E1000	Yes	Yes	No	—
EC1	Yes	—	Yes	—
FSTE	Yes	No	Yes	—
G1000	Yes	Yes	No	—
GIGE	Yes	No	No	Yes
HDTV	Yes	No	No	—
ISC1	Yes	No	No	—

Table 27-1 *Modifier Support (continued)*

<b>Modifier</b>	<b>ONS 15454</b>	<b>ONS 15327</b>	<b>ONS 15310-CL</b>	<b>ONS 15600</b>
OC12	Yes	Yes	Yes	Yes
OC192	Yes	No	No	Yes
OC3	Yes	Yes	Yes	Yes
OC48	Yes	Yes	No	Yes
OCH	Yes	No	No	—
OMS	No	—	—	—
OTS	No	—	—	—
POS	Yes	Yes	No	Yes
STS1	Yes	Yes	Yes	Yes
STS12C	Yes	Yes	Yes	Yes
STS192C	Yes	No	No	Yes
STS24C	Yes	Yes	No	Yes
STS36C	Yes	Yes	No	No
STS3C	Yes	Yes	Yes	Yes
STS48C	Yes	Yes	No	Yes
STS6C	Yes	Yes	Yes	Yes
STS9C	Yes	Yes	Yes	Yes
T1	Yes	Yes	Yes	—
T3	Yes	Yes	Yes	—
VT1	Yes	Yes	Yes	—



## A

---

activate user [1-1](#)  
AID [25-1](#)  
    AidUnionId [25-9](#)  
    AidUnionId1 [25-12](#)  
    ALL [25-1](#)  
    BAND [25-13](#)  
    BITS [25-13](#)  
    BLSR [25-13](#)  
    CHANNEL [25-14](#)  
    COM [25-14](#)  
    CrossConnectId [25-15](#)  
    CrossConnectId1 [25-20](#)  
    DS1 [25-26](#)  
    ENV [25-26](#)  
    EQPT [25-27](#)  
    FACILITY [25-28](#)  
    IPADDRESS [25-31](#)  
    LINE [25-31](#)  
    LNKTERM [25-32](#)  
    OSC [25-32](#), [25-33](#)  
    PRSLOT [25-33](#)  
    RFILE [25-33](#)  
    STS [25-33](#)  
    SYN [25-39](#)  
    SYN\_SRC [25-39](#)  
    SYNC\_REF [25-40](#)  
    SYNCSW [25-40](#)  
    UDC [25-41](#)  
    VT [25-41](#)  
    WDMANS [25-42](#)  
    WLEN [25-43](#)

allow console port [2-1](#)  
allow database change message [2-3](#)  
allow message all [2-2](#)  
allow message security [2-4](#)  
allow performance report all [2-5](#)  
allow switch duplex equipment [2-5](#)  
allow switch to protection equipment [2-7](#)  
allow switch to working equipment [2-8](#)  
allow user security [2-10](#)  
apply [3-1](#)

## C

---

cancel [4-1](#)  
cancel user [4-2](#)  
cancel user security [4-3](#)  
change equipment [5-3](#)  
change test access mode [5-1](#)  
clear security condition [6-1](#)  
conditions [26-1](#)  
connect test access [7-1](#)  
copy file [8-3](#)  
copy Internet operating system configuration file [8-1](#)  
CTC  
    message log for masked passwords [1-1](#)  
    request history for masked passwords [1-1](#)

## D

---

delete bidirectional line switched ring [10-3](#)  
delete bulkroll [10-4](#)  
delete cross-connection [10-6](#)  
delete equipment [10-9](#)

delete facility protection group DWDM [10-10](#)  
 delete facility protection group OC-N [10-11](#)  
 delete optical link [10-12](#)  
 delete optical service channel [10-14](#)  
 delete port [10-1](#)  
 delete provisionable patchcord termination [10-13](#)  
 delete remote monitoring threshold [10-15](#)  
 delete roll [10-21](#)  
 delete route [10-22](#)  
 delete route generic routing encapsulation [10-23](#)  
 delete target identifier address mapping [10-25](#)  
 delete trap table [10-26](#)  
 delete tunnel firewall [10-26](#)  
 delete tunnel proxy [10-28](#)  
 delete user security [10-29](#)  
 delete virtual concatenated group [10-29](#)  
 delete wavelength [10-31](#)  
 disconnect test access [9-1](#)

## E

edit amplification power control [11-38](#)  
 edit automatic laser shutdown [11-35](#)  
 edit bidirectional line switched ring [11-26](#)  
 edit building integrated timing supply [11-39](#)  
 edit bulkroll [11-42](#)  
 edit command security [11-45](#)  
 edit cross-connect [11-46](#)  
 edit date and time [11-48](#)  
 edit digital facility T3 [11-114](#)  
 edit digital signal facility T1 [11-108](#)  
 edit DS1 [11-49](#)  
 edit DWDM [11-16](#)  
 edit electrical carrier [11-51](#)  
 edit equipment [11-54](#)  
 edit Ethernet [11-1](#)  
 edit facility [11-59](#)  
 edit facility protection group DWDM [11-63](#)  
 edit facility protection group OC-N [11-65](#)  
 edit facility protection group optical channel [11-68](#)  
 edit fast Ethernet [11-69](#)  
 edit Fibre Channel [11-5](#)  
 edit FICON [11-11](#)  
 edit G1000 [11-73](#)  
 edit generic framing protocol [11-75](#)  
 edit high-level data link control [11-77](#)  
 edit link [11-78](#)  
 edit network element general [11-81](#)  
 edit network element path [11-83](#)  
 edit network element synchronization [11-84](#)  
 edit OC-N [11-28](#)  
 edit optical channel [11-86](#)  
 edit optical multiplex section [11-93](#)  
 edit optical service channel [11-95](#)  
 edit optical transport section [11-96](#)  
 edit packet over SONET [11-100](#)  
 edit password [11-98](#)  
 edit protocol [11-103](#)  
 edit provisionable patchcord termination [11-80](#)  
 edit roll [11-104](#)  
 edit span loss verification wavelength division multiplexing automatic node set up [11-106](#)  
 edit STS and VT paths [11-20](#)  
 edit synchronization [11-107](#)  
 edit trace optical channel facility [11-120](#)  
 edit trap table [11-119](#)  
 edit user security [11-122](#)  
 edit virtual concatenated group [11-124](#)  
 edit wavelength [11-126](#)  
 edit wavelength division multiplexing automatic node set up [11-125](#)  
 enter bidirectional line switched ring [12-3](#)  
 enter bulk roll [12-6](#)  
 enter equipment [12-12](#)  
 enter facility protection group DWDM [12-20](#)  
 enter facility protection group OC-N [12-23](#)  
 enter optical link [12-27](#)  
 enter optical service channel [12-31](#)

enter port [12-1](#)  
 enter provisionable patchcord termination [12-28](#)  
 enter remote monitoring threshold [12-32](#)  
 enter roll [12-39](#)  
 enter route [12-40](#)  
 enter route generic routing encapsulation [12-41](#)  
 enter target identifier address mapping [12-42](#)  
 enter trap table [12-43](#)  
 enter tunnel firewall [12-44](#)  
 enter tunnel proxy [12-45](#)  
 enter user security [12-46](#)  
 enter virtual concatenated group [12-48](#)  
 enter wavelength [12-51](#)  
 exercise protection switch [13-1](#)

## I

---

inhibit console port [14-1](#)  
 inhibit performance report all [14-4](#)  
 inhibit switch duplex equipment [14-5](#)  
 inhibit switch to working equipment [14-8](#)  
 inhibit user security [14-10](#)  
 initialize register [15-1](#)  
 initialize system [15-8](#)

## M

---

masked passwords [1-1](#)  
 modifier support [27-1](#)

## O

---

operate alarm cutoff all [16-1](#)  
 operate amplification power control [16-5](#)  
 operate automatic laser switch [16-2](#)  
 operate external control [16-6](#)  
 operate laser optical transport section [16-7](#)  
 operate link [16-8](#)  
 operate loopback [16-9](#)

operate protection switch DWDM [16-12](#)  
 operate protection switch OC-N [16-15](#)  
 operate protection switch optical channel [16-21](#)  
 operate protection switch STS or VT [16-19](#)  
 operate span loss verification wavelength division multiplexing automatic node set up [16-22](#)  
 operate synchronization switch [16-23](#)  
 operate wavelength division multiplexing automatic node set up [16-25](#)

## P

---

password, masked *see* masked password  
 PID [1-2](#)

## R

---

release external control [18-1](#)  
 release laser optical transport section [18-2](#)  
 release loopback [18-3](#)  
 release protection switch DWDM [18-6](#)  
 release protection switch OC-N [18-8](#)  
 release protection switch optical channel [18-12](#)  
 release protection switch STS or VT [18-11](#)  
 release synchronization switch [18-13](#)  
 remove equipment [19-3](#)  
 remove facility [19-1](#)  
 report alarm [17-1](#)  
 report alarm building integrated timing supply [17-7](#)  
 report alarm common [17-8](#)  
 report alarm environment [17-10](#)  
 report alarm equipment [17-13](#)  
 report alarm security [17-18](#)  
 report alarm synchronization [17-20](#)  
 report database change message [17-22](#)  
 report event [17-23](#)  
 report event building integrated timing supply [17-29](#)  
 report event common [17-30](#)  
 report event environment [17-32](#)

- report event equipment [17-35](#)
- report event Internet operating system configuration file [17-41](#)
- report event security [17-43](#)
- report event session [17-44](#)
- report event software download [17-39](#)
- report event synchronization [17-46](#)
- report performance monitoring [17-52](#)
- report switch [17-60](#)
- restore equipment [20-3](#)
- restore facility [20-1](#)
- retrieve 10GIGE [21-39](#)
- retrieve alarm [21-44](#)
- retrieve alarm all [21-48](#)
- retrieve alarm environment [21-56](#)
- retrieve alarm equipment [21-62](#)
- retrieve alarm synchronization [21-66](#)
- retrieve alarm threshold [21-71](#)
- retrieve alarm threshold equipment [21-76](#)
- retrieve amplification power control [21-84](#)
- retrieve attribute control [21-86](#)
- retrieve attribute environment [21-88](#)
- retrieve audit log [21-93](#)
- retrieve automatic laser shutoff [21-80](#)
- retrieve BFDL performance monitoring [21-94](#)
- retrieve bidirectional line switched ring [21-18](#)
- retrieve building integrated timing supply [21-52, 21-96](#)
- retrieve bulkroll [21-100](#)
- retrieve command security [21-103](#)
- retrieve condition [21-104](#)
- retrieve condition all [21-107](#)
- retrieve condition building integrated timing supply [21-111](#)
- retrieve condition equipment [21-120](#)
- retrieve condition synchronization [21-124](#)
- retrieve console port [21-127](#)
- retrieve cross-connect [21-129](#)
- retrieve cross-connect STS or VT [21-133](#)
- retrieve default security [21-139](#)
- retrieve DS1 [21-142](#)
- retrieve DWDM [21-13](#)
- retrieve electrical carrier [21-145](#)
- retrieve enterprise system connection [21-157](#)
- retrieve environmental condition [21-115](#)
- retrieve equipment [21-150](#)
- retrieve external control [21-159](#)
- retrieve facility [21-161](#)
- retrieve facility protection group [21-164](#)
- retrieve facility protection group DWDM [21-168](#)
- retrieve facility protection group OC-N [21-171](#)
- retrieve facility protection group optical channel [21-175](#)
- retrieve fast Ethernet [21-178](#)
- retrieve Fibre Channel [21-1](#)
- retrieve FICON [21-7](#)
- retrieve G1000 [21-184](#)
- retrieve generic framing protocol [21-189](#)
- retrieve generic routing encapsulation [21-318](#)
- retrieve gigabit Ethernet [21-193](#)
- retrieve header [21-202](#)
- retrieve high-level data link control [21-200](#)
- retrieve inventory [21-203](#)
- retrieve link [21-207](#)
- retrieve log [21-217](#)
- retrieve map network [21-219](#)
- retrieve network amplification power control [21-220](#)
- retrieve network element general [21-222](#)
- retrieve network element Internet protocol map [21-224](#)
- retrieve network element path [21-226](#)
- retrieve network element synchronization [21-228](#)
- retrieve network element type [21-234](#)
- retrieve network element wavelength division multiplexing automatic node set up [21-230](#)
- retrieve OC-N [21-21](#)
- retrieve optical channel [21-236](#)
- retrieve optical link [21-210](#)
- retrieve optical monitoring parameter [21-248](#)
- retrieve optical multiplex section [21-244](#)
- retrieve optical service channel [21-250](#)

retrieve optical transport system [21-251](#)  
 retrieve packet over SONET [21-283](#)  
 retrieve path trace [21-299](#)  
 retrieve performance [21-255](#)  
 retrieve performance mode of PM data collection [21-272](#)  
 retrieve performance monitoring schedule [21-275](#)  
 retrieve performance schedule all [21-280](#)  
 retrieve protection switch DWDM [21-287](#)  
 retrieve protection switch OC-N [21-290](#)  
 retrieve protection switch optical channel [21-295](#)  
 retrieve protection switch STS or VT [21-293](#)  
 retrieve protocol [21-297](#)  
 retrieve provisionable patchcord termination [21-215](#)  
 retrieve remote monitoring threshold [21-301](#)  
 retrieve roll [21-315](#)  
 retrieve route [21-316](#)  
 retrieve span loss verification wavelength division  
 multiplexing automatic node set up [21-319](#)  
 retrieve STS or VT [21-31](#)  
 retrieve synchronization [21-327](#)  
 retrieve synchronous transport signal [21-321](#)  
 retrieve T1 [21-330](#)  
 retrieve T3 [21-337](#)  
 retrieve target identifier address mapping [21-344](#)  
 retrieve test access [21-341](#)  
 retrieve threshold [21-346](#)  
 retrieve threshold all [21-360](#)  
 retrieve time of day [21-373](#)  
 retrieve trace client [21-378](#)  
 retrieve trace optical channel [21-381](#)  
 retrieve trap table [21-376](#)  
 retrieve tunnel firewall [21-385](#)  
 retrieve tunnel proxy [21-386](#)  
 retrieve user security [21-388](#)  
 retrieve virtual concatenated group [21-390](#)  
 retrieve virtual tributary [21-392](#)  
 retrieve wavelength [21-398](#)  
 retrieve wavelength division multiplexing automatic node  
 set up [21-395](#)

---

## S

schedule performance monitoring report [22-1](#)  
 security, user [11-122](#)  
 set alarm threshold [23-1](#)  
 set alarm threshold equipment [23-3](#)  
 set attribute control [23-5](#)  
 set attribute environment [23-6](#)  
 set attribute security default [23-9](#)  
 set performance mode of PM data collection [23-12](#)  
 set threshold [23-14](#)  
 set time of day [23-20](#)  
 switch duplex equipment [24-1](#)  
 switch to protection equipment [24-2](#)  
 switch to working equipment [24-5](#)

---

## T

TACC [5-1](#)  
 timing, mixed mode [11-84](#)  
 TL1 commands [1-1 to 24-7](#)

---

## U

UID [1-2](#)

