

# **SET Commands**

This chapter provides set (SET) commands for the Cisco ONS 15454, Cisco ONS 15310-CL, Cisco ONS 15310-MA, and Cisco ONS 15600.

### 23.1 SET-ALMTH-<MOD2>

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Set Alarm Threshold for 10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, EC1, ESCON, ETRCLO, ETH, GIGE, HDTV, ISC1, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OCH, OMS, OTS, T1, or T3 (SET-ALMTH-<MOD2>) command sets the alarm thresholds on the following cards/ports/channels: MXP\_2.5G\_10G, TXP\_MR\_10G, optical service channel (OSC), optical amplifier, dispersion compensation unit (DCU), multiplexer, demultiplexer, and optical add/drop multiplexing (OADM).

 Usage Guidelines
 This command is used to set the alarm thresholds on a facilities, ports, channels, for example. Not all MOD2 types are supported.

 Category
 Fault

 Security
 Provisioning

 Input Format
 SET-ALMTH-<MOD2>:[<TID>]:<AID>:<CTAG>:::<CONDTYPE>,<THLEV>[,,,];

 SET-ALMTH-{MOD2}::FAC-1-1:1::OPT-LOW,10;

Input Parameters	<aid></aid>	Access identifier from the "25.1 ALL" section on page 25-1. Must
•		not be null.
	<condtype></condtype>	Condition type for an alarm or a reported event. The parameter type is ALM_THR, which is the 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 microA as one tenth of a percentage. High Warning Threshold, Low Warning Threshold. Measured value (0.0 percent, 100.0 percent)
	• OPR-HIGH	Receive power in one tenth of a microW. Measured value (-40.0 dBm, +30.0 dBm)
	OPR-LOW	Receive power in one tenth of a microW. Measured value (-40.0 dBm, +30.0 dBm)
	• OPT-HIGH	Transmit power in one tenth of a microW. Measured value (-40.0 dBm, +30.0 dBm)
	• OPT-LOW	Transmit power in one tenth of a microW. 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
	<thlevel></thlevel>	Threshold level. THLEVEL is a float.

# 23.2 SET-ALMTH-EOPT

(Cisco ONS 15454) The Set Alarm Threshold Equipment (SET-ALMTH-EQPT) command sets the alarm thresholds to manage the power level monitoring on an NE.

Usage Guidelines None

Category	Equipment	
Security	Provisioning	
Input Format	SET-ALMTH-EQPT:[ <tid>]:[&lt;</tid>	AID>]: <ctag>::<almthtype>,<thlev>[,,,];</thlev></almthtype></ctag>
Input Example	SET-ALMTH-EQPT::SHELF-2: SET-ALMTH-EQPT:::1::BATV-2	
Input Parameters	<aid></aid>	The node or shelf access identifier from the "25.24 SHELF" section on page 25-44. If omitted it addresses the node or first shelf of the node. Must not be null
	<condtype></condtype>	Alarm threshold type. The parameter type is ALM_THR, which is the 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 microA as one tenth of a percentage High Warning Threshold, Low Warning Threshold. Measured value (0.0 percent, 100.0 percent)
	• OPR-HIGH	Receive power in one tenth of a microW. Measured value (-40.0 dBm, +30.0 dBm)
	OPR-LOW	Receive power in one tenth of a microW. Measured value (-40.0 dBm, +30.0 dBm)
	• OPT-HIGH	Transmit power in one tenth of a microW. Measured value (-40.0 dBm, +30.0 dBm)
	OPT-LOW	Transmit power in one tenth of a microW. 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
<thlevel></thlevel>	Threshold level. THLEV is a float.

### 23.3 SET-ATTR-CONT

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Set Attribute Control (SET-ATTR-CONT) 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.

• If the CONTTYPE parameter is not specified, the control specified by AID	ID is unprovisioned.
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• A control should be unprovisioned before it is reprovisioned to another type of control.

Category Environment

Security Provisioning

Input Format SET-ATTR-CONT:[<TID>]:<AID>:<CTAG>[::<CONTTYPE>];

Input Example SET-ATTR-CONT:CISCO:ENV-OUT-1:123::AIRCOND;

Input Parameters	<aid></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Identifies the external control for which attributes are being retrieved.
	<conttype></conttype>	Environmental control type. A null value is equivalent to ALL. The parameter type is CONTTYPE, which is the environmental control type.
	AIRCOND	Air conditioning
	AUDIBLE	Audible (ONS 15310-MA only)
	ENGINE	Engine
	• FAN	Fan
	• GEN	Generator
	• HEAT	Heat
	• LIGHT	Light
	MISC	Miscellaneous
	• SPKLR	Sprinkler

# 23.4 SET-ATTR-ENV

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Set Attribute Environment (SET-ATTR-ENV) command sets the attributes associated with an external control.

Usage Guidelines	• If the NTFCNCDE, A specified by AID is un	LMTYPE, and ALMMSG parameters are omitted, the environmental alarm provisioned.
		nprovisioned and you should wait for any raised alarm to clear before rm to another alarm type.
	• CL in NOTIF_CODE messages.	is not valid for provisioning commands. It is only valid for autonomous
Category	Environment	
Security	Provisioning	
Input Format	SET-ATTR-ENV:[ <tid>]</tid>	: <aid>:<ctag>::[<ntfcncde>],[<almtype>],[<almmsg>];</almmsg></almtype></ntfcncde></ctag></aid>
Input Example	SET-ATTR-ENV:CISCO:H	ENV-IN-1:123::MJ,OPENDR,\"OPEN DOOR\";
Input Example Input Parameters	SET-ATTR-ENV:CISCO:I	ENV-IN-1:123::MJ,OPENDR,\"OPEN DOOR\"; Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.
		Access identifier from the "25.13 ENV" section on page 25-32. Must not be null. Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code
	<aid></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null. Two-letter notification code. Must not be null. The parameter type
	<aid> <ntfcncde></ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null. Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.
	<aid> <ntfcncde> • CL</ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null. Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message. The condition causing the alarm has cleared.
	<aid> <ntfcncde> • CL • CR</ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null. Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message. The condition causing the alarm has cleared. A critical alarm.
	<aid> <ntfcncde> • CL • CR • MJ</ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.         Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.         The condition causing the alarm has cleared.         A critical alarm.         A major alarm.
	<aid> <ntfcncde> • CL • CR • MJ • MN</ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.         Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.         The condition causing the alarm has cleared.         A critical alarm.         A major alarm.         A minor alarm.
	<aid> <ntfcncde> • CL • CR • MJ • MN • NA</ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.The condition causing the alarm has cleared.A critical alarm.A major alarm.A minor alarm.The condition is not alarmed.
	<aid> <ntfcncde> • CL • CR • MJ • MN • NA • NR</ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.         Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.         The condition causing the alarm has cleared.         A critical alarm.         A major alarm.         A minor alarm.         The condition is not alarmed.         The alarm is not reported.         The alarm type for the environmental alarm. Must not be null. The parameter type is ENV_ALM, which is the environmental alarm
	<aid> <ul> <li>CL</li> <li>CR</li> <li>MJ</li> <li>MN</li> <li>NA</li> <li>NR</li> <li><almtype></almtype></li> </ul></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.         Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.         The condition causing the alarm has cleared.         A critical alarm.         A major alarm.         A minor alarm.         The condition is not alarmed.         The alarm type for the environmental alarm. Must not be null. The parameter type is ENV_ALM, which is the environmental alarm type.
	<aid> <ntfcncde>   • CL   • CR   • MJ   • MA   • NA   • NR   <almtype>   • AIRCOMPR</almtype></ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.         Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.         The condition causing the alarm has cleared.         A critical alarm.         A major alarm.         A minor alarm.         The condition is not alarmed.         The alarm is not reported.         The alarm type for the environmental alarm. Must not be null. The parameter type is ENV_ALM, which is the environmental alarm type.         Air compressor failure
	<aid> <ntfcncde>   • CL   • CR   • MJ   • MN   • NA   • NR   <almtype>   • AIRCOMPR   • AIRCOND</almtype></ntfcncde></aid>	Access identifier from the "25.13 ENV" section on page 25-32. Must not be null.         Two-letter notification code. Must not be null. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.         The condition causing the alarm has cleared.         A critical alarm.         A major alarm.         A minor alarm.         The condition is not alarmed.         The alarm is not reported.         The alarm type for the environmental alarm. Must not be null. The parameter type is ENV_ALM, which is the environmental alarm type.         Air compressor failure         Air conditioning failure

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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	Controlled Environment Vault (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	48 V power supply failure
• PWR-139	-139 V power converter
• PWR-190	-190 V power converter
• PWRMJ	Power supply major
PWRMN	Power supply minor
• RECT	Rectifier failure
• RECTHI	Rectifier high voltage
• RECTLO	Rectifier low voltage
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RINGGENMJ	Ringing generator major
RINGENMN	Ringing 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. ALMMSG is a string. Must not be null.

## 23.5 SET-ATTR-SECUDFLT

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Set Attribute Security Default (SET-ATTR-SECUDFLT) command sets the system-wide default values associated with several security parameters.

#### **Usage Guidelines**

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	
Input Format	[MXINV= <mxinv>],[</mxinv>	C:[ <tid>]::<ctag>::[PAGE=<page>],[PCND=<pcnd>], DURAL=<dural>],[TMOUT=<tmout>],[UOUT=<uout>], POLD=<pold>],[PINT=<pint>],[LOGIN=<login>], &gt;],[PDIF=<pdif>];</pdif></login></pint></pold></uout></tmout></dural></pcnd></page></ctag></tid>
Input Example		C:CISCO::123::PAGE=45,PCND=5,MXINV=5,DURAL=30, PFRCD=NO,POLD=5,PINT=20,LOGIN=MULTIPLE, =1;
Input Parameters	<page></page>	Password aging interval. It is the number of days before a user is prompted to change his/her password. 0 indicates that 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. PAGE is an integer.
	<pcnd></pcnd>	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. PCND is an integer.
	<mxinv></mxinv>	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 Cisco Transport Controller [CTC]). 0 indicates the policy is turned off. Default is 5. MXINV ranges from 0 to 10. MXINV is an integer.
	<dural></dural>	Time interval (in seconds) during which a user ID is locked out when an intrusion attempt is suspected (for example, "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 a string.
	<tmout></tmout>	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. TMOUT is an integer.
	<uout></uout>	UID aging interval, expressed in days. If a user ID 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. UOUT is an integer.
	<pfrcd></pfrcd>	Indicates that 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. The parameter type is YES_NO, which 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
<pold></pold>	Number of prior passwords that cannot be reused (for example, "Prevent reusing last X passwords"). Default is 1. POLD ranges from 1 to 10. POLD is an integer.
<pint></pint>	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. PINT is an integer.
<login></login>	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 user ID, regardless of the method of login (for example, CTC, TL1, etc.). Default is MULTIPLE. The parameter type is USER_LOGINS, which is the number of times a user can log into the same NE with the same user ID.
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).
<privlvl></privlvl>	User's access privilege. The parameter type is PRIVILEGE, which is the 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.
<pdif></pdif>	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. PDIF is a rangeable integer.

# 23.6 SET-PMMODE-<STS\_PATH>

(Cisco ONS 15454) The Set Performance Mode of PM Data Collection for STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, or STS9C (SET-PMMODE-<STS\_PATH>) command sets the mode and turns the performance monitoring (PM) data collection mode on or off.

**Usage Guidelines** 

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. ٠
- The near-end monitoring of the intermediate-path performance monitoring (IPPM) only supports ٠ OC3, OC12, OC48, OC192, and EC-1 on STS Path.
- The far-end IPPM data collection is supported by the MRC-12 card only. ٠

	command, that is, thi	are will support only the Path (P) mode type PM parameters with this s command is not applicable for Line (L) and Section (S) mode types. PM (L) and Section (S) are supported by the ONS 15454, and the storing PM data
Category	Performance	
Security	Provisioning	
Input Format		ATH>:[ <tid>]:<src>:<ctag>::<locn>,<modetype>,</modetype></locn></ctag></src></tid>
Input Example	SET-PMMODE-STS1:CI	SCO:STS-4-1-2:123::NEND,P,ON;
Input Example Input Parameters	SET-PMMODE-STS1:CI	SCO:STS-4-1-2:123::NEND,P,ON; Source access identifier from the "25.10 CrossConnectId" section on page 25-22.
		Source access identifier from the "25.10 CrossConnectId" section
	<src></src>	Source access identifier from the "25.10 CrossConnectId" section on page 25-22. Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Only near-end PM data collection is supported. The parameter type is LOCATION,
	<src> <locn></locn></src>	Source access identifier from the "25.10 CrossConnectId" section on page 25-22. Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Only near-end PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place.
	<src> <locn> • NEND</locn></src>	Source access identifier from the "25.10 CrossConnectId" section on page 25-22.Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Only near-end PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place.Action occurs on the near end of the facility.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. The parameter type is PM_MODE, which is the type of
	<src> <locn> • NEND <modetype></modetype></locn></src>	Source access identifier from the "25.10 CrossConnectId" section on page 25-22.Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Only near-end PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place.Action occurs on the near end of the facility.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. The parameter.
	<src> <locn> • NEND <modetype> • P</modetype></locn></src>	Source access identifier from the "25.10 CrossConnectId" section on page 25-22.Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. Only near-end PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place.Action occurs on the near end of the facility.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. The parametersTransport Path PM parametersDirects the named PM mode type to turn on or off. A null value defaults to on. The parameter type is PM_STATE, which directs the

# 23.7 SET-PMMODE-<VT\_PATH>

(Cisco ONS 15310-MA) The Set Performance Mode of PM Data Collection for VT1 and VT2 (SET-PMMODE-<VT\_PATH>) command sets the mode and turns the performance monitoring (PM) data collection mode on or off.

Usage Guidelines		
Note	• The PM mode and s	tate of an entity is retrieved by using the RTRV-PMMODE command.
		ware will support only the Path (P) mode type PM parameters with this is command will not be applicable for Line (L) and Section (S) mode types.
Category	Performance	
Security	Provisioning	
Input Format	SET-PMMODE- <vt_pa< td=""><td>ATH&gt;:[<tid>]:<src>:<ctag>::<locn>,<modetype>,[<pmstate>];</pmstate></modetype></locn></ctag></src></tid></td></vt_pa<>	ATH>:[ <tid>]:<src>:<ctag>::<locn>,<modetype>,[<pmstate>];</pmstate></modetype></locn></ctag></src></tid>
	SET-PMMODE-VT1:CISCO:VT1-1-1-2-2:123::NEND,P,ON;	
Input Example	SET-PMMODE-VT1:CI	SCO:VT1-1-1-2-2:123::NEND,P,ON;
· · ·	SET-PMMODE-VT1:CI	Source access identifier from the "25.11 CrossConnectId1" section
	<src></src>	Source access identifier from the "25.11 CrossConnectId1" section on page 25-26. Must not be null. Location associated with a particular command. Identifies the location from which the PM mode is to be set. Only near end (NEND)PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place.
	<src> <locn></locn></src>	Source access identifier from the "25.11 CrossConnectId1" section on page 25-26. Must not be null. Location associated with a particular command. Identifies the location from which the PM mode is to be set. Only near end (NEND)PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place. Must not be null.
	<src> <locn> • NEND</locn></src>	Source access identifier from the "25.11 CrossConnectId1" section on page 25-26. Must not be null.         Location associated with a particular command. Identifies the location from which the PM mode is to be set. Only near end (NEND)PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place. Must not be null.         Action occurs on the near end of the facility.         The type of PM parameters that the entity or the subentity is to store as a result of an attribute change. Only the path (P) type is supported. The parameter type is PM_MODE, which is the type of
Input Example Input Parameters	<src> <locn> • NEND <modetype></modetype></locn></src>	Source access identifier from the "25.11 CrossConnectId1" section on page 25-26. Must not be null.Location associated with a particular command. Identifies the location from which the PM mode is to be set. Only near end (NEND)PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place. Must not be null.Action occurs on the near end of the facility.The type of PM parameters that the entity or the subentity is to store as a result of an attribute change. Only the path (P) type is supported. The parameters.
	<src> <locn> • NEND <modetype> • P</modetype></locn></src>	Source access identifier from the "25.11 CrossConnectId1" section on page 25-26. Must not be null.         Location associated with a particular command. Identifies the location from which the PM mode is to be set. Only near end (NEND)PM data collection is supported. The parameter type is LOCATION, which is the location where the action is to take place. Must not be null.         Action occurs on the near end of the facility.         The type of PM parameters that the entity or the subentity is to store as a result of an attribute change. Only the path (P) type is supported. The parameters.         Transport Path PM parameters.         Directs the named PM mode type to turn on or off. A null value defaults to on. The parameter type is PM_STATE, which directs the

### 23.8 SET-TH-<MOD2>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Set Threshold for 10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DS3I, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, 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, or VT2 (SET-TH-<MOD2>) command sets the threshold for PMs and sets the alarm thresholds for the MXP\_2.5G\_10G and TXP\_MR\_10G cards. If this command is used to set the alarm thresholds, the time period is not applicable.

Usage Guidelines	See Table 27-1 on page 2	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.			
	<ul> <li>The TMPER is not applicable to alarm thresholds. The TMPER default is 15-MIN.</li> <li>The client ports only accept SONET, Laser, and alarm MONTYPEs. The trunk ports accept SONET, Laser, alarm, FEC, OTN, and 8B10B MONTYPEs.</li> </ul>				
	Refer to the Cisco ONS S	SONET TL1 Reference Guide for specific card provisioning rules.			
Category	Performance				
Security	Provisioning				
Input Format	SET-TH- <mod2>:[<tii< td=""><td>D&gt;]:<aid>:<ctag>::<montype>,<thlev>,[<locn>],,[<tmper>];</tmper></locn></thlev></montype></ctag></aid></td></tii<></mod2>	D>]: <aid>:<ctag>::<montype>,<thlev>,[<locn>],,[<tmper>];</tmper></locn></thlev></montype></ctag></aid>			
Input Example	SET-TH-T3:CISCO:FAC	C-1-1:123::CVL,12,NEND,,15-MIN;			
Input Parameters	<aid></aid>	Access identifier from the "25.1 ALL" section on page 25-1. All of the STS, VT1, Facility, and DS1 AIDs are supported.			
	<montype></montype>	Monitored type. The parameter type is ALL_MONTYPE, which is the 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 one tenth of a percentage			

• BBER-SM	OTN—Background Block Error Ratio—Section monitor point expressed as one tenth of a percentage
• BIEC	FEC—Bit Errors Corrected
• BIT-EC	The number of bit errors corrected by the FEC algorithm
• 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 one tenth of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor point expressed as one tenth 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
• 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 High-Order Path Severely Errored Period Intensity 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 Interpacket 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 cyclic redundancy check (CRC) errors

• ifOutUcastPkts	Number of unicest realists transmitted
	Number of unicast packets transmitted
• IOS	8B10B—Idle Ordered Sets
• IPC	Invalid Packet Count
LBCL-AVG	Average Laser Bias current in microA
LBCL-MAX	Maximum Laser Bias current in microA
LBCL-MIN	Minimum Laser Bias current in microA
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 one tenth of a microW
• OPR-MAX	Maximum Receive Power in one tenth of a microW
• OPR-MIN	Minimum Receive Power in one tenth of a microW
• 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 one tenth of a microW
• OPT-MAX	Maximum Transmit Power in one tenth of a microW
• OPT-MIN	Minimum Transmit Power in one tenth of a microW
• 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 one tenth of a dBm
OPWR-MAX	Optical Power—Maximum Interval Value in one tenth of a dBm
OPWR-MIN	Optical Power—Minimum Interval Value in one tenth of a 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
5 OLI SI	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 one tenth of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as one tenth 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

<thelv></thelv>	Threshold level. THLEV is a float.
<locn></locn>	Location associated with a particular command. The parameter type is LOCATION, which is 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
<tmper></tmper>	(Optional) Accumulation time period for performance counters. The parameter type is TMPER, which is the 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.

### 23.9 SET-TOD

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Set Time of Day (SET-TOD) 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).

Usage Guidelines	None
Category	System
Security	Provisioning
Input Format	SET-TOD:[ <tid>]::<ctag>::<year>,<month>,<day>,<hour>,<minute>,<second>, [<difference>][:DST=<dst>];</dst></difference></second></minute></hour></day></month></year></ctag></tid>

### Input Example SET-TOD:CAZADERO::240::1998,05,08,13,18,55,480:DST=Y;

Input Parameters

<year></year>	The current calendar year. YEAR is an integer.
<month></month>	The month of the year. Ranges from 01 to 12. MONTH is an integer.
<day></day>	The day of the month. Ranges from 01 to 31. DAY is an integer.
<hour></hour>	The hour of the day. Ranges from 00 to 23. HOUR is an integer.
<minute></minute>	The minute of the hour. Ranges from 00 to 59. MINUTE is an integer.
<second></second>	The second of the minute. Ranges from 00 to 59. SECOND is an integer.
<difference></difference>	The number of minutes off UTC. DIFFERENCE is an integer.
<dst></dst>	Daylight savings time. The parameter type is ON_OFF (disable or enable an attribute).
• N	Disable an attribute.
• Y	Enable an attribute.