CHAPTER 18

RLS 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 release (RLS) commands for the Cisco ONS 15454, Cisco ONS 15454 M2, and Cisco ONS 15454 M6.

Note All commands supported on the Cisco ONS 15454 platform are also supported on Cisco ONS 15454 M2 and Cisco ONS 15454 M6 platforms.

18.1 RLS-CPS

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Release Control Plane Service (RLS-CPS) command is used to deactivate a Control Plane Service parameter.

Usage Guidelines

- Specify only the source port to identify the CPS
- Specify both the source AIDs, if the CPS is of type ADD 2WAY
- If the AID is invalid, an IIAC (invalid AID) error message is returned
- The ALL AID is invalid for this command
- CLIENT cps type support FAC and VFAC AID type.
- TRUNK cps type support CHAN AID type.
- ADD cps type support CHAN, PCHAN, and LINEWL AID type.

Category DWDM

Security Provisioning

Input Format RLS-CPS:[<TID>]:<SRC>:<CTAG>::[:CKTID=<CKTID>][:];

Input Example RLS-CPS::PCHAN-8-8-RX&PCHAN-8-8-TX:8::;

Input Parameters

<SRC>	Source AID from the "26.12 CrossConnectId1" section on page 26-30.
<CKTID>	Circuit identification parameter can be used to filter this command

18.2 RLS-EXT-CONT

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Release External Control (RLS-EXT-CONT) 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 network element (NE). Therefore, issuing an RLS might not produce any contact state change.

Usage Guidelines 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.

Category Environment

Security Maintenance

Input Format RLS-EXT-CONT:[<TID>]:<AID>:<CTAG>[::,];

Input Example RLS-EXT-CONT:CISCO:ENV-OUT-2:123;

Input Parameters		
	<AID>	Access identifier from the "26.14 ENV" section on page 26-38. Identifies the external control being released.

18.3 RLS-LPBK-<MOD2DWDMPAYLOAD>

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Release Loopback for 10GFC, 10GIGE, 40GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, 5GIB, 8GFC, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, ETH, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OC768, OCH, OMS, OTS, OTU3, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS96C, STS6C, STS9C, 3GVIDEO, SDSDI, HDSDI, AUTO, OTU1, ISC3STP1G, or ISC3STP2G (RLS-LPBK-<MOD2>) command releases a signal loopback on a multiservice or a cross-connect card.

Usage Guidelines

The command supports the modifier 3GVIDEO, SDSDI, HDSDI, AUTO, OTU1, ISC3STP1G, and ISC3STP2G.

See Table 1-1 on page 1-1 for supported modifiers by platform.

- 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 NEND as the location.
- FEAC loopbacks on the DS1 interface of a DS3XM card can be applied only if a Virtual Tributary (VT) connection has been created on it. An attempt to operate or release FEAC loopbacks in the absence of a VT connection will result in an error message.
- Only the following MOD2 fields are supported in this release: DS1 EC1, G1000, FSTE, OC12, OC192, OC3, OC48, OCH, T1, T3, STS1, STS12C, STS192C, STS24C, STS3C, STS36C, STS48C, STS6C, STS9C, E1, 1GFC, 2GFC, 4GFC, 10GFC, 1GFICON, 2GFICON, 4GFICON, GIGE, 10GIGE, ESCON, STS18C, DV6000, ETRCLO, ISCCOMPAT, ISC3PEER1G, ISC3PEER2R, PASSTHRU, ISC3PEER2G.

Category

Troubleshooting and Test Access

Security

Maintenance

Input Format

RLS-LPBK-<MOD2>:[<TID>]:<SRC>:<CTAG>::[<LOCATION>],,,[<LPBKTYPE>];

Input Example

RLS-LPBK-3GVIDEO:PTREYES:VFAC-1-2-5-1:203::NEND,,,FACILITY;

Input Parameters

<SRC>	Source access identifier from the "26.1 ALL" section on page 26-1. The valid values for AID are FACILITY, DS1, and STS. The AR-MXP and AR-XP cards use the VFAC Access Identifier.
<LOCATION>	The location where the operation is to be carried out. LOCATION defaults to NEND. 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.
<LPBKTYPE>	Type of loopback signal. The parameter type is LPBK_TYPE, which indicates the type of loopback that is to be operated or released.
• CRS	Path level loopback which is established at the cross-connect matrix level (the XCVT/XC10G card). A synchronous transport signal (STS)-level cross-connect loopback causes a path alarm indication signal (AIS-P) to be sent in the outgoing direction of transmission.
• FACILITY	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.
• LINE	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.
• TERMINAL	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-LPBK-EFM

(Cisco ONS 15454) The Release Loopback Edit Ethernet in the First Mile (RLS-LPBK-EFM) command releases the loopback that is provisioned on the Edit Ethernet in the First Mile (EFM) enabled port.

Usage Guidelines

- This command is applicable only to GE_XP and 10GE_XP cards.
- The card should be in Layer2 over DMDM mode.

Category

Ports

Security

Provisioning

Input Format

RLS-LPBK-EFM:[<TID>]:<AID>:<CTAG>;

Input Example

RLS-LPBK-EFM::ETH-12-1-1:1;

Input Parameters		
	<AID>	Access identifier from the "26.16 ETH" section on page 26-41.

18.5 RLS-PROTNSW-<MOD2DWDMPAYLOAD>

(Cisco ONS 15454) The Release Protection Switch for 10GFC, 10GIGE, 40GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, 8GFC, D1VIDEO, DV6000, DVBASI, ETRCLO, FSTE, GIGE, HDTV, ISC1, ISC3, OTU3, PASSTHRU, 3GVIDEO, SDSDI, HDSDI, AUTO, OTU1, ISC3STP1G, or ISC3STP2G (RLS-PROTNSW-<MOD2DWDMPAYLOAD>) command releases a SONET line protection switch request.

Usage Guidelines

The command supports the modifier 3GVIDEO, SDSDI, HDSDI, AUTO, OTU1, ISC3STP1G, ISC3STP2G.

Category

DWDM

Security

Maintenance

Input Format

RLS-PROTNSW-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>:<CTAG>[::];

Input Example

RLS-PROTNSW-3GVIDEO:CISCO:VFAC-1-1-1:100;

Input Parameters		
	<SRC>	Source access identifier from the "26.17 FACILITY" section on page 26-41. The AR-MXP and AR-XP cards use the VFAC Access Identifier.

18.6 RLS-PROTNSW-<OCN_TYPE>

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Release Protection Switch for OC3, OC12, OC48, OC192, or OC768 (RLS-PROTNSW-<OCN_TYPE>) command releases a SONET line protection switch request.

Usage Guidelines

See Table 1-1 on page 1-1 for supported modifiers by platform.

The release of a protection switch request is applicable only to the OPR-PROTNSW protection switch commands, which are the user-initiated switch protection commands.

The following actions will return error messages:

- This command is not used for the common control (TCC2/TCC2P/TCC3 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 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. For electrical card switching, 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 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 bidirectional line switched ring (BLSR), BTH for a 1+1 bidirectional protection group, and RCV for 1+1 unidirectional 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;

  This command instructs the NE to release a line protection switch request between a working line and a protection line

Category Protection

Security Maintenance

Input Format RLS-PROTNSW-<OCN_TYPE>:[<TID>]:<AID>:<CTAG>[::<DIRECTION>];

Input Example RLS-PROTNSW-OC48:PETALUMA:FAC-6-1:209::BTH;

Input Parameters

<AID>	Access identifier from the "26.17 FACILITY" section on page 26-41. Identifies the facility in the NE to which the switch request is directed.
<DIRECTION>	Direction. Defaults to RCV. The parameter type is DIRECTION (transmit and receive direction)
• BTH	Both transmit and receive directions
• RCV	Receive direction only
• TRMT	Transmit direction only

18.7 RLS-PROTNSW-<PATH>

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Release Protection Switch for STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS96C, STS6C, STS9C, VT1, or VT2 (RLS-PROTNSW-<PATH>) 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.

Usage Guidelines

See Table 1-1 on page 1-1 for supported modifiers by platform.

Note

- This command applies to path protection configuration only.
- The VTAID should be the 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.

Category Protection

Security Maintenance

Input Format RLS-PROTNSW-<PATH>:[<TID>]:<SRC>:<CTAG>[::];

Input Example RLS-PROTNSW-STS1:CISCO:STS-2-1-1:123;

Input Parameters

MSRC>	Source access identifier from the "26.11 CrossConnectId" section on page 26-26.

18.8 RLS-PROTNSW-OCH

(Cisco ONS 15454) The Release Protection Switch Optical Channel (RLS-PROTNSW-OCH) command releases the protection switch on a TXPP_MR_2.5G card.

Usage Guidelines None

Category DWDM

Security Maintenance

Input Format RLS-PROTNSW-OCH:[<TID>]:<AID>:<CTAG>;

Input Example RLS-PROTNSW-OCH:VA454-22:CHAN-2-2:1;

Input Parameters

<AID>	Access identifier from the "26.8 CHANNEL" section on page 26-22.

18.9 RLS-PROTNSW-OTS

(Cisco ONS 15454) The Release Protection Switch OTS (RLS-PROTNSW-OTS) command releases the protection switch on a TXPP_MR_2.5G card or a protection switch unit or a OTU2-XP card.

When Y-cable protection is provisioned on the OTU2-XP, this command releases a Y-cable protection switch.

Usage Guidelines None

Category DWDM

Security Maintenance

Input Format RLS-PROTNSW-OTS:[<TID>]:<AID>:<CTAG>;

Input Example RLS-PROTNSW-OTS:VA454-22:CHAN-2-2:1;

Input Parameters

<AID>	Access identifier from the "26.8 CHANNEL" section on page 26-22.

18.10 RLS-SYNCNSW

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Release Synchronization Switch (RLS-SYNCNSW) command releases the previous synchronization reference provided by the OPR-SYNCNSW command.

Usage Guidelines In a nonrevertive 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.

When a switch is released, the MANSWTOPRI (Manual Switch to Primary Reference or Secondary...) or FRDCSWTOPRI (Forced Switch to Primary Reference or Secondary...) minor alarm will be cleared.

Category Synchronization

Security Maintenance

Input Format RLS-SYNCNSW:[<TID>]:[<AID>]:<CTAG>;

Input Example

RLS-SYNCNSW:CISCO:SYNC-NE:3;

Input Parameters

<AID>	Access identifier from the "26.30 SYNC_REF" section on page 26-60 Defaults to SYNC-NE.