



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 RLS (release) commands for the Cisco ONS 15454 SDH.

18.1 RLS-EXT-CONT

Release External Control

Usage Guidelines

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 or might not 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 MENTRY duration. The command is allowed for the CONTS duration. The length of MENTRY 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

Table 18-1 RLS-EXT-CONT Input Parameters

| Parameter and Values | Description |
|----------------------|--|
| AID | Access identifier from the “ 25.1.10 ENV ” section on page 25-15. Identifies the external control being released |

18.2 RLS-LASER-OTS

Release Laser Optical Transport Section

Usage Guidelines This command instructs a laser to be switched off.

Category DWDM

Security Maintenance

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

Input Example 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 “ 25.1.14 LINE ” section on page 25-19. Identifies the external control being released |

18.3 RLS-LPBK-<MOD2>

Release Loopback (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS3I, DV6000, E1, E3, E4, ESCON, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, STM4, STM64, STM1, STM16, OCH, OMS, OTS, POS, STM1E, VC3, VC44C, VC38C, VC464C, VC48C, STS36C, VC4, VC416C, VC42C, VC43C, VC12)

Usage Guidelines

This command releases a signal loopback on an I/O card or a cross-connect.

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



Note

- The value CRS for the LPBKTYPE parameter is applicable only for the VC 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.
- FEAC loopbacks can be released by specifying LINE as the loopback type and FEND as the location.

Category

Troubleshooting and Test Access

Security

Maintenance

Input Format

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

Input Example

RLS-LPBK-STM4:PTREYES:FAC-4-1:203::NEND,,,FACILITY;

Input Parameters

Table 18-3 RLS-LPBK-<MOD2> Input Parameters

| Parameter and Values | Description |
|----------------------|---|
| SRC | Source access identifier from the “25.1 ALL” section on page 25-1 . The valid values for AID are FACILITY, and VC |
| 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 |

Table 18-3 RLS-LPBK-<MOD2> Input Parameters (continued)

| Parameter and Values | Description |
|--|---|
| <ul style="list-style-type: none"> FEND | Action occurs on the far end of the facility |
| <ul style="list-style-type: none"> NEND | 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"> CRS | Path level loopback which is established at the cross-connect matrix level. An VC level cross-connect loopback causes an AIS-P to be sent on the outgoing direction of transmission |
| <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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-PROTNSW-<MOD2DWDMPAYLOAD>

Release Protection Switch (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

Usage Guidelines

This command releases a Y-cable protection switch on client facilities.

Category

DWDM

Security

Maintenance

Input Format

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

Input Example

RLS-PROTNSW-HDTV:CISCO:FAC-1-1-1:100;

Input Parameters

Table 18-4 RLS-PROTNSW-<MOD2DWDMPAYLOAD> Input Parameters

| Parameter and Values | Description |
|----------------------|--|
| SRC | Source access identifier from the “25.1.12 FACILITY” section on page 25-17 |

18.5 RLS-PROTNSW-<PATH>

Release Protection Switch (VC3, VC44C, VC464C, VC48C, VC4, VC412C, VC46C, VC416C, VC42C, VC43C, VC11)

Usage Guidelines

This command releases an SDH 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.
- Sending this command on the Drop AID will return a DENY (Invalid AID, should use working/protect AID) message.
- Use the RTRV-COND-ALL or RTRV-ALM-ALL command to retrieve the protection switching state (manual, lockout, forced).

Category

Protection

Security

Maintenance

Input Format

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

Input Example

RLS-PROTNSW-VC3:CISCO:VC4-2-1-1:123;

Input Parameters

Table 18-5 RLS-PROTNSW-<PATH> Input Parameters

| Parameter and Values | Description |
|----------------------|---|
| SRC | Source access identifier from the “25.1.8 CrossConnectId” section on page 25-12 |

18.6 RLS-PROTNSW-<STM_TYPE>

Release Protection Switch (STM1, STM4, STM16, STM64)

Usage Guidelines

This command releases a 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 XCVXL-10G/XCVXL-2.5G) 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 non-SDH (STM) cards will return an IIAC (Input, Invalid Access Identifier) error message. To use this command on a non-SDH 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 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 STM line that is already in clear mode will return a SAMS (Already in Clear Maintenance State) error message.

**Note**

- Use the RTRV-COND-ALL or RTRV-ALM-ALL command to retrieve the protection switching state (manual, lockout, forced).
- DIRN is an optional parameter. A NULL value defaults to BTH for a MS-SPRing 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 MS-SPRing protection groups both the RCV and TRMT directions will fail.
- DIRN is applicable for both 1+1 and MS-SPRing protection groups. OPR-PROTNSW applies to a MS-SPRing span/ring as shown by the following command:
“RLS-PROTNSW-STM16::FAC-5-1:A::BTH;” 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-<STM_TYPE>[:<TID>]:<AID>:<CTAG>[:<DIRECTION>];

Input Example RLS-PROTNSW-STM16:PETALUMA:FAC-6-1:209::BTH;

Input Parameters

Table 18-6 RLS-PROTNSW-<STM_TYPE> Input Parameters

| Parameter and Values | Description |
|--|---|
| AID | Access identifier from the “ 25.1.12 FACILITY ” section on page 25-17 . Identifies the facility in the NE to which the switch request is directed |
| DIRECTION | Direction. Defaults to RCV Parameter type is DIRECTION—transmit and receive direction |
| <ul style="list-style-type: none"> • BTH • RCV • TRMT | <ul style="list-style-type: none"> Both transmit and receive directions Receive direction only Transmit direction only |

18.7 RLS-PROTNSW-OCH

Release Protection Switch Optical Channel

Usage Guidelines This command releases the protection switch on a TXPP_MR_2.5G card.

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

Table 18-7 RLS-PROTNSW-OCH Input Parameters

| Parameter and Values | Description |
|----------------------|---|
| AID | Access identifier from the “ 25.1.6 CHANNEL ” section on page 25-11 |

18.8 RLS-SYNCNSW

Release Synchronization Switch

Usage Guidelines

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.

Category

Synchronization

Security

Maintenance

Input Format

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

Input Example

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

Input Parameters

Table 18-8 RLS-SYNCNSW Input Parameters

| Parameter and Values | Description |
|----------------------|---|
| AID | Access identifier from the “ 25.1.25 SYNC_REF ” section on page 25-24 Defaults to SYNC-NE |