



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, 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

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 “25.1.12 ENV” section on page 25-26. 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.

DWDM

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 “25.1.16 LINE” 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.

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-<MOD2> 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
• 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 Parameter type is LPBK_TYPE—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). An STS level cross-connect loopback causes an AIS-P to be sent on 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-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-<MOD2DWDMPAYLOAD> 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-<OCN_TYPE> Input Parameters

Parameter and Values	Description
AID	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
DIRECTION	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 “25.1.9 CrossConnectId” 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 “25.1.7 CHANNEL” section on page 25-14

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

Maintenance

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 “25.1.25 SYNC_REF” section on page 25-40 Defaults to SYNC-NE