CHAPTER 21

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-<MOD1FCPAYLOAD> 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>]: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-<MOD1FCPAYLOAD> 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
LINKRATE	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-<MOD1FCPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
• 1GFC	The rate is 1 G fibre channel
• 1GFICON	The rate is 1 G FICON
• 2GFC	The rate is 2 G fibre channel
• 2GFICON	The rate is 2 G FICON
• UNKNOWN	The rate is unknown
• UNPLUGGED	The SFP is not plugged into the fibre channel port so the link rate cannot be detected
LINKSTATE	Link state Parameter type is DIRN—specifies the discriminating level for the requested monitored parameter
• DN	Monitored parameter with values equal to or greater than the level of LEV will be reported
• UP	Monitored parameter with values equal or less than the value of LEV will be reported
LINKRCVRY	Link recovery Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
DISTEXTN	Distance extension. Optional Parameter type is DISTANCE_EXTENSION—distance extension
• B2B	Buffer to buffer flow control
• NONE	No distance extension
LINKCREDITS	Number of link credits. Integer. Optional
MFS	Maximum frame size. Integer. Optional
ENCAP	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
NAME	Identifies the port name. String. Optional
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional

Table 21-2 RTRV-<MOD1FCPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
SOAKLEFT	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: • When the port is in OOS, OOS_MT or IS state, the parameter will not appear. • 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. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
FREQ	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-<MOD1FCPAYLOAD> 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
LOSSB	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
PST_PSTQ	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
• 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

21.2 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-<MOD1FICONPAYLOAD> 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>]:[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-<MOD1FICONPAYLOAD> 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
LINKRATE	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
• 1GFC	The rate is 1 G fibre channel

Table 21-4 RTRV-<MOD1FICONPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
• 1GFICON	The rate is 1 G FICON
• 2GFC	The rate is 2 G fibre channel
• 2GFICON	The rate is 2 G FICON
• UNKNOWN	The rate is unknown
• UNPLUGGED	The SFP is not plugged into the fibre channel port so the link rate cannot be detected
LINKSTATE	Link state Parameter type is DIRN—specifies the discriminating level for the requested monitored parameter
• DN	Monitored parameter with values equal to or greater than the level of LEV will be reported
• UP	Monitored parameter with values equal or less than the value of LEV will be reported
LINKRCVRY	Link recovery Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
DISTEXTN	Distance extension. Optional Parameter type is DISTANCE_EXTENSION—distance extension
• B2B	Buffer to buffer flow control
• NONE	No distance extension
LINKCREDITS	Number of link credits. Integer. Optional
MFS	Maximum frame size. Integer. Optional
ENCAP	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
NAME	Identifies the port name. String. Optional
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional

Table 21-4 RTRV-<MOD1FICONPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
SOAKLEFT	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: • When the port is in OOS, OOS_MT, or IS state, the parameter will not appear. • 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. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
FREQ	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-<MOD1FICONPAYLOAD> 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
LOSSB	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
PST_PSTQ	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-<MOD2DWDMPAYLOAD> 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-<MOD2DWDMPAYLOAD> 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	D1Video 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-<MOD2DWDMPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
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	Identifies the port name. 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
OPR	Displays the current value of the received optical power. Float. Optional
FREQ	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

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
LOSSB	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-<MOD2DWDMPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
• VX	Reach VX
• ZX	Reach ZX
PST_PSTQ	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
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

21.4 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 "25.1.3 AidUnionId1" section on page 25-12. 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
AID	Access identifier from the "25.1.3 AidUnionId1" section on page 25-12. Identifies the BLSR of the NE. Optional
RINGID	The BLSR ID of the NE up to six characters. Valid characters are A-Z and 0-9. String. Optional
NODEID	The BLSR node ID of the NE. NODEID ranges from 0 to 31. String. Optional
MODE	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
• 2F	Two-fiber BLSR
• 4F	Four-fiber BLSR
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 Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
RVTM	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

Table 21-8 RTRV-<MOD_RING> Output Parameters (continued)

Parameter and Values	Description
SRVRTV	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
SRVTM	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
EASTWORK	East working facility. AID from the "25.1.14 FACILITY" section on page 25-28
WESTWORK	West working facility. AID from the "25.1.14 FACILITY" section on page 25-28
EASTPROT	East protecting facility. AID from the "25.1.14 FACILITY" section on page 25-28
WESTPROT	West protecting facility. AID from the "25.1.14 FACILITY" 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.

Category BLSR

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-<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>:,,[<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-<OCN_TYPE> 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-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
STATUS	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
DCC	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
AREA	Area ID. Shows up only if the DCC is enabled. String. Optional
TMGREF	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
SYNCMSG	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
SENDDUS	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
PJMON	Identifies an OC-N port PJMON. PJMON is an integer. It defaults to 0 (zero). Set a valid STS number of the optical port. **Note** 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.
SFBER	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-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
• 1E-5	SFBER is 1E-5
SDBER	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
• 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
MODE	OCn port mode. Defaults to SONET. Optional 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
WVLEN	An OCn port wavelength in nanometers. For example, WVLEN=1310.00 means it operates at 1310 nm in the DWDM application. Float. Optional
RINGID	The BLSR RINGID with which the port is connected. RINGID ranges from 0 to 9999. Integer. Optional
BLSRTYPE	The BLSR type with which the port is connected. Optional Parameter type is BLSR_TYPE—BLSR type of an OCn port
• EASTPROT	The OCn port is an east protecting port
• EASTWORK	The OCn port is an east working port
• WESTPROT	The OCn port is an west protecting port
• WESTWORK	The OCn port is an west working port
MUX	BLSR extension byte. Optional Parameter type is MUX_TYPE—BLSR extension byte
• E2	E2 byte (orderwire)
• F1	F1 byte (user)
• K3	K3 byte
• Z2	Z2 byte
UNIC	Indicates if the port connects to the UCP. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional

Table 21-10 RTRV-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
SOAKLEFT	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: • When the port is in OOS, OOS_MT, or IS state, the parameter will not appear. • When the port is in OOS_AINS, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
SSMRCV	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)
OSPF	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
LDCC	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
NAME	Name. String. Optional
LBCL	Displays the current value of the laser current. Float. Optional
OPT	Displays the current value of the transmitted optical power. OPT is only displayed for DWDM cards. Float. Optional
OPR	Received optical power. Float. Optional

Table 21-10 RTRV-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
EXPTRC	Expected path trace content. String. Optional
TRC	Path trace message to be transmitted. String. Optional
TRCMODE	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
TRCFORMAT	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
ADMSSM	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-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
SENDDUSFF	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
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
FREQ	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-<OCN_TYPE> 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
LOSSB	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-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
FOREIGNFEND	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
FOREIGNIPADDRESS	The IP address of the far-end NE on the DCC. Used only if FOREIGNFEND is Y. String. Optional
PST_PSTQ	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
SSTQ	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-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 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 BLSRPTHTYPE=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 BLSRPTHTYPE 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 BLSRPTHTYPE 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-<PATH>:[<TID>]:<AID>:<CTAG>[:::BLSRPTHTYPE=<BLSRPTHTYPE>][:];

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
AID	Access identifier from the "25.1.10 CrossConnectId1" section on page 25-20. Must not be null
BLSRPTHTYPE	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
• NON-PCA	The AID is on the working path, or the cross-connection card protection path
• PCA	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=PROTPTHACT:OOS-AU,AINS"
;
```

Output Parameters

Table 21-12 RTRV-<PATH> Output Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.10 CrossConnectId1" section on page 25-20
LEVEL	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-<PATH> Output Parameters (continued)

Parameter and Values	Description
• STS192C	Synchronous transport signal/module level-192 concatenated (9953.28 Mbps)
SFBER	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
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
SDBER	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
• 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
RVRTV	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
• N	Disable an attribute
• Y	Enable an attribute
RVTM	Revertive time. 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
SWPDIP	Switch on PDI-P. Applicable only to STS-level paths in SONET. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
HOLDOFFTIMER	Hold off timer. Integer. Optional

Table 21-12 RTRV-<PATH> Output Parameters (continued)

Parameter and Values	Description
EXPTRC	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
TRC	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
INCTRC	The incoming path trace message contents. INCTRC is any combination of 64 characters. Applicable only to STS-level paths in SONET (STSn). 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
TRCMODE	Path trace mode. Applicable only to STS-level paths in SONET (STSn). 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
TRCFORMAT	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
TACC	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
TAPTYPE	TAP type. Not applicable to the ONS 15310-CL. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
UPSRPTHSTATE	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
C2	The c2 byte hex code. Applicable only to STS-level paths in SONET (STSn). 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-<PATH> 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
BLSRPTHSTATE	The BLSR path state only if the port is on the BLSR. Applicable only to STS-level paths in SONET (STSn). 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
PST_PSTQ	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
SSTQ	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
OPR	Displays the current value of the received optical power. Float. Optional
FREQ	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)

Parameter and Values	Description
LOSSB	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
PST_PSTQ	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
SSTQ	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
AID	Access identifier from the "25.1.2 AidUnionId" section on page 25-9. Must not be null
NTFCNCDE	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
CONDTYPE	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-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, "Conditions" for a list of conditions
SRVEFF	The effect on service caused by the standing alarm or condition

Table 21-15 RTRV-ALM-<MOD2ALM> 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
• 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
   "FAC-5-1,OC12:MJ,SD,SA,09-05,12-30-20,,:\"BER AT SIGNAL DEGRADE LEVEL\","
;
```

Output Parameters

Table 21-16 RTRV-ALM-<MOD2ALM> Output Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.1 ALL" section on page 25-1
AIDTYPE	Type of access identifier. 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

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
NTFCNCDE	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-<MOD2ALM> 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 Chapter 26, "Conditions" 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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. A null value is equivalent to ALL. String
NTFCNCDE	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
CONDITION	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-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, "Conditions" 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

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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. 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
• 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)

Parameter and Values	Description
• 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)
NTFCNCDE	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
• NR	The alarm is not reported
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 Chapter 26, "Conditions" 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
DESC	A condition description. String. Optional
AIDDET	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
AID	Access identifier from the "25.1.5 BITS" section on page 25-13. Must not be null
NTFCNCDE	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
CONDTYPE	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
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>,,,,:[<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
AID	Access identifier from the "25.1.5 BITS" section on page 25-13. 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
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm
• ENV	ENV alarm

Table 21-20 RTRV-ALM-BITS Output Parameters (continued)

Parameter and Values	Description
• 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)
NTFCNCDE	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
• 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
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 Chapter 26, "Conditions" 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
DESC	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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26. Must not be null **Note** 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.
NTFCNCDE	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
ALMTYPE	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	Ringing generator major
• RINGGENMN	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

Output Format

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCRDAT>],[<OCRTM>],[<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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26
NTFCNCDE	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
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 Chapter 26, "Conditions" for a list of conditions
ALMTYPE	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

Table 21-22 RTRV-ALM-ENV Output Parameters (continued)

Parameter and Values	Description
• 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	Ringing generator major
• RINGGENMN	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

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
OCRTM	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
AID	Access identifier from the "25.1.13 EQPT" section on page 25-27. Must not be null
NTFCNCDE	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-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, "Conditions" 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 "25.1.13 EQPT" 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)

Parameter and Values	Description
• 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
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
NTFCNCDE	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
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 Chapter 26, "Conditions" 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. Optional
OCRTM	Time. Optional
DESC	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
AID	Access identifier from the "25.1.25 SYNC_REF" section on page 25-40. Must not be null
NTFCNCDE	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
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-Alarmed conditions (NA), and Not-Reported (NR) conditions. See Chapter 26, "Conditions" 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
   "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
AID	Access identifier from the "25.1.23 SYN" section on page 25-39
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 21-26 RTRV-ALM-SYNCN Output Parameters (continued)

Parameter and Values	Description
• 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
• VT2	VT2 alarm
• XTC	XTC alarm (ONS 15327)
NTFCNCDE	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
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 Chapter 26, "Conditions" 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. Optional
OCRTM	Time. Optional
DESC	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-<MOD2> Input Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. Must not be null
CONDTYPE	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 "25.1.1 ALL" section on page 25-1
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
CONDTYPE	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
THLEVEL	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
AID	Access identifier from the "25.1.7 CHANNEL" section on page 25-14
CONDTYPE	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
MOD2B	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)
CONDTYPE	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
DNFIELD	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
ALSMODE	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
ALSRCINT	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
• APR	Laser is switched on but is working automatic power reduction
• OFF	Laser is switched off
• ON	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
APCENABLE	The enable/disable of the APC application. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
APCSTATE	Indicates the status of the APC application. Optional Parameter type is APC_STATE—APC status
• DISABLE	The APC is disabled by the user and is not working
• FORCED-DISABLE	The APC has been internally disabled by the node and is not working
• WORKING	The APC is enabled by the user and is working

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>[::<CONTTYPE>];

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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26. Identifies the external control for which attributes are being set. Must not be null
CONTTYPE	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

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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26. Identifies the external control for which attributes are being set. Must not be null
CONTTYPE	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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26. Must not be null
NTFCNCDE	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
ALMTYPE	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)

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 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	Ringing generator major
• RINGGENMN	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

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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26. Must not be null
NTFCNCDE	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
ALMTYPE	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	Ringing generator major
• RINGGENMN	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

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

Superuser

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
ENTRYNUM	Entry number. Integer
OCRDAT	Date
OCRTM	Time
TASKID	Task ID. String
TXSTATUS	Parameter type is TX_STATUS—indicates the status of the transferred file
• COMPLD	The file transmission is completed
• IP	The file transmission is in process
• START	The file transmission is started
DESCRIPTION	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
AID	Access identifier from the "25.1.11 DS1" section on page 25-26. Must not be null
REQTYPE	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
AID	Access identifier from the "25.1.11 DS1" section on page 25-26
MONTYPE	Monitored type which includes: BES, CSS, ES, LOFC, SES, UAS. String
MONVAL	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
BUCKET	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
AID	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>],
   [SYNCMSG=<SYNCMSG>],[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,SYNCMSG=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
AID	Access identifier from the "25.1.5 BITS" section on page 25-13
LINECDE	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)
FMT	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
LBO	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
SYNCMSG	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
AISTHRSHLD	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)
SABIT	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
• BYTE-8	SABIT is BYTE-8
IMPEDANCE	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
• 120-OHM	Impedance of 120 ohms
• 75-OHM	Impedance of 75 ohms
BITSFAC	BITS facility settings. Optional 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
ADMSSM	SSM selectable. Only applicable to BITS-IN when SSM is disabled. Optional **Note** Not applicable for the 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)
PST	Primary state. Optional Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	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 "25.1.14 FACILITY" 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
FROM	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
RFROM	The termination point of the existing cross-connect that is to be rolled. The AID is from the "25.1.10 CrossConnectId1" section on page 25-20 (except VCM and FACILITY)
RTO	The termination point that will become a leg of the new cross-connection. The AID is from the "25.1.10 CrossConnectId1" section on page 25-20 (except VCM and FACILITY)
RMODE	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
VLDSIG	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
AID	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
AID	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
CAP	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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. 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-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>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
   [<OCRTM>],,,[<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-<MOD2ALM> Output Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.1 ALL" section on page 25-1
AIDTYPE	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-<MOD2ALM> 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
NTFCNCDE	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
TYPEREP	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 Chapter 26, "Conditions" for a list of conditions
SRVEFF	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
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

21.26 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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. String. A null value is equivalent to ALL
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-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>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
   [<OCRTM>],,,[<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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1 that has an alarm condition
AIDTYPE	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
NTFCNCDE	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
TYPEREP	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 Chapter 26, "Conditions" for a list of conditions
SRVEFF	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
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

21.27 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
AID	Access identifier from the "25.1.5 BITS" section on page 25-13. 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-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>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
   [<OCRTM>],,,[<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
AID	Access identifier from the "25.1.5 BITS" section on page 25-13 that has an alarm condition
AIDTYPE	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)
NTFCNCDE	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
TYPEREP	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 Chapter 26, "Conditions" for a list of conditions
SRVEFF	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
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

21.28 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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26. Must not be null **Note** 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.
NTFCNCDE	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
ALMTYPE	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	Ringing generator major
• RINGGENMN	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

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>,[<OCRDAT>],[<OCRTM>],,,,[<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
AID	Access identifier from the "25.1.12 ENV" section on page 25-26
NTFCNCDE	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
ALMTYPE	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)

Parameter and Values	Description
• 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	Ringing generator major
• RINGGENMN	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
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

21.29 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
AID	Access identifier from the "25.1.13 EQPT" section on page 25-27 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-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>],<TYPEREP>,[<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
AID	Access identifier from the "25.1.13 EQPT" section on page 25-27 that has an alarm condition
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
• 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)
NTFCNCDE	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
TYPEREP	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 Chapter 26, "Conditions" for a list of conditions
SRVEFF	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-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>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
   [<OCRTM>],,,[<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
NTFCNCDE	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
TYPEREP	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 Chapter 26, "Conditions" for a list of conditions
SRVEFF	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
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

21.31 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
• 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 **Note** 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.
• 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)
CRSTYPE	The cross-connection type Parameter type is CRS_TYPE—cross-connection type
• STS	Indicates all the STS cross-connections
• STS1	STS1 cross-connect
• STS3C	STS3C cross-connect
• STS6C	STS6C cross-connect
• STS9C	STS9C cross-connect
• STS12C	STS12C cross-connect
• STS18C	STS18C cross-connect
• STS24C	STS24C cross-connect
• STS36C	STS36C cross-connect
• STS48C	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
DRITYPE	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
SYNCSW	Synchronization switch AID from the "25.1.26 SYNCSW" section on page 25-40. Optional
CKTID	Circuit identification parameter that contains a common language ID or other alias of the circuit being provisioned. It cannot contain blank spaces. String. Optional
PST_PSTQ	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
SSTQ	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-<PATH>:[<TID>]:<SRC>:<CTAG>[::::];

Input Example

RTRV-CRS-STS3C: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 "25.1.10 CrossConnectId1" 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-<PATH> 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
• 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 **Note** 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)
MOD	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-<PATH> 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
DRITYPE	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-<PATH> Output Parameters (continued)

Parameter and Values	Description
• Path Protection	Path Protection DRI type
• Path Protection-BLSR	Path Protection-BLSR hand off DRI type
SYNCSW	Synchronization switch AID from the "25.1.26 SYNCSW" section on page 25-40. Optional
CKTID	A string of ASCII characters. Maximum length is 48. String. Optional
PST_PSTQ	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
SSTQ	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

21.34 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
NE	The node name of the NE where the system values are to be retrieved
PAGE	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
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. Integer
MXINV	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
DURAL	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
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. Integer
UOUT	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
PFRCD	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
POLD	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.
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. Integer
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 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)
PRIVLVL	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
PDIF	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 "25.1.11 DS1" section on page 25-26. 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 "25.1.11 DS1" section on page 25-26
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.

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
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>::[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
AID	Access identifier from the "25.1.14 FACILITY" section on page 25-28
PJMON	A SONET pointer monitor attribute of an EC1 port. Integer. Optional
LBO	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
RXEQUAL	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
SOAK	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
SOAKLEFT	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: • When the port is in OOS, OOS_MT, or IS state, the parameter will not appear. • When the port is in IS-AINS, but the countdown has not started due to fault signal the value will be SOAKLEFT=NOT-STARTED. • When the port is in IS_AINS state and the countdown has started the value will be shown in HH-MM format.
SFBER	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
SDBER	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
NAME	String. Optional
EXPTRC	String. Optional
TRC	String. Optional
TRCMODE	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
TRCFORMAT	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
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	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
SSTQ	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
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
   "<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
AID	Access identifier from the "25.1.13 EQPT" section on page 25-27
AIDTYPE	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)

Parameter and Values	Description
• 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
EQUIP	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
ROLE	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
• PROT	The entity is a protection unit in the protection group
• WORK	The entity is a working unit in the protection group
STATUS	Indicates a status. SONET card status is shown on its card level. Optional Parameter type is STATUS—status
• ACT	The entity is the active unit in the shelf
• NA	Status is unavailable
• STBY	The entity is the standby unit on the shelf
PROTID	Protecting identifier AID from the "25.1.20 PRSLOT" section on page 25-33. Optional
PRTYPE	Protection type. Optional Parameter type is PROTECTION_GROUP—protection group type
• 1-1	1 to 1 protection
• 1-N	1 to N protection
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
• N	Disable an attribute
• Y	Enable an attribute
RVTM	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
CARDNAME	The card name of the card, PIM or PPM equipment. String. Optional
IOSCFG	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
CARDMODE	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-STS12	The DS3XM-12 card in the STS12 back plane rate mode
• DS3XM12-STS48	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
PEERID	The regeneration group peer slot identifier from the "25.1.13 EQPT" section on page 25-27. Optional
REGENNAME	Name of a regeneration group. String. Optional
PWL	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
TRANSMODE	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
RETIME	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
PST_PSTQ	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 "25.1.14 FACILITY" 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
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
ENCAP	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 CONTTYPE is null, the existing conttype 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
AID	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
CONTTYPE	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
AID	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
CONTTYPE	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
DUR	Duration of operation. The duration for which the external control can be operated Parameter type is Duration—Duration
• CONTS	Continuous duration
CONTSTATE	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 "25.1.14 FACILITY" 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 "25.1.14 FACILITY" 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
PST_PSTQ	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
SSTQ	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
AID	Optical facility 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>:<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
WORK	The working port access identifier from the "25.1.14 FACILITY" section on page 25-28
PROTECT	The protected port access identifier from the "25.1.14 FACILITY" section on page 25-28
PROTTYPE	Protection group type. String. Optional
LEVEL	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)
PROTID	Protection group name. 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. 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
RVTM	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
PSDIRN	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
VRGRDTM	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
DTGRDTM	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
RCGRDTM	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
OPOTYPE	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>
- DLT-FFP-<MOD2DWDMPAYLOAD>
- DLT-FFP-<OCN_TYPE>
- ED-<GIGE_TYPE>
- ED-<MOD1FCPAYLOAD>
- ED-<MOD1FICONPAYLOAD>
- ED-<MOD2DWDMPAYLOAD>
- ED-<OCN_TYPE>
- ED-ALS
- ED-DS1
- ED-EC1
- ED-FFP-<MOD2DWDMPAYLOAD>
- ED-FFP-<OCN_TYPE>
- ED-FSTE
- ED-G1000
- ED-GFP
- ED-HDLC
- ED-POS
- ED-T1
- ED-T3
- ED-TRC-<MOD2DWDMPAYLOAD>
- ED-TRC-<OCN_TYPE>
- ENT-<MOD1PAYLOAD>
- ENT-FFP-<MOD2DWDMPAYLOAD>
- ENT-FFP-<OCN_TYPE>
- INIT-REG-<MOD2>
- OPR-ALS
- OPR-LPBK-<MOD2>
- OPR-PROTNSW-<MOD2DWDMPAYLOAD>
- OPR-PROTNSW-<OCN_TYPE>
- REPT PM <MOD2>
- RLS-LPBK-<MOD2>
- RLS-PROTNSW-<MOD2DWDMPAYLOAD>
- RLS-PROTNSW-<OCN_TYPE>
- RMV-<MOD2>
- RST-<MOD2>
- RTRV-<MOD1FCPAYLOAD>
- RTRV-<MOD1FICONPAYLOAD>
- RTRV-<MOD2DWDMPAYLOAD>
- RTRV-<OCN_TYPE>
- RTRV-10GIGE
- RTRV-ALMTH-<MOD2>
- RTRV-ALS
- RTRV-DS1
- RTRV-EQPT
- RTRV-FAC
- RTRV-FFP-<OCN_TYPE>
- RTRV-FSTE
- RTRV-G1000
- RTRV-GFP
- RTRV-GIGE
- RTRV-HDLC
- RTRV-PM-<MOD2>
- RTRV-PMSCHED-<MOD2>
- RTRV-POS
- RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
- RTRV-PROTNSW-<OCN_TYPE>
- RTRV-T1
- RTRV-T3
- RTRV-TH-<MOD2>
- RTRV-TRC-<MOD2DWDMPAYLOAD>
- RTRV-TRC-<OCN_TYPE>
- SCHED-PMREPT-<MOD2>
- SET-ALMTH-<MOD2>
- SET-TH-<MOD2>

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-<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>,<AIDUNIONID1>::[PROTTYPE=<PROTTYPE>],[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::PROTTYPE=Y-CABLE,PROTID=\"DC-METRO\",
   RVRTV=N,RVTM=1.0,PSDIRN=BI"
;
```

Output Parameters

Table 21-84 RTRV-FFP-<MOD2DWDMPAYLOAD> 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
PROTTYPE	The type of facility protection. Optional Parameter type is PROTTYPE—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
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
• N	Disable an attribute
• Y	Enable an attribute
RVTM	Revertive time. Defaults to 5.0 minutes. Optional

Table 21-84 RTRV-FFP-<MOD2DWDMPAYLOAD> Output Parameters (continued)

Parameter and Values	Description
	Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
PSDIRN	Protection switch operation. Identifies the switching mode. Defaults to UNI. Optional
	Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	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
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
   "<WORK>,<PROTECT>::[PROTTYPE=<PROTTYPE>],[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::PROTTYPE=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
WORK	Access identifier from the "25.1.14 FACILITY" section on page 25-28. Identifies the working port
PROTECT	Access identifier from the "25.1.14 FACILITY" section on page 25-28. Identifies the protection port
PROTTYPE	Protection group type. Applicable only to DWDM cards. Optional Parameter type is PROTTYPE—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
PROTID	Free form text string name given to the 1+1 protection group. String. Optional

Table 21-86 RTRV-FFP-<OCN_TYPE> Output Parameters (continued)

Parameter and Values	Description
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. 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
RVTM	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
PSDIRN	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
VRGRDTM	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
DTGRDTM	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
RCGRDTM	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
OPOTYPE	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 "25.1.7 CHANNEL" section on page 25-14. Must not be null

Output Format

```
   SID DATE TIME
M  CTAG COMPLD
   "<WORK>,<PROTECT>::[PROTTYPE=<PROTTYPE>],[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::PROTTYPE=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
WORK	The working port access identifier from the "25.1.7 CHANNEL" section on page 25-14
PROTECT	The protected port access identifier from the "25.1.7 CHANNEL" section on page 25-14
PROTTYPE	Protection group type. String. Optional
PROTID	Protection group name. 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. 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
RVTM	Revertive time. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
PSDIRN	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>],
   [EXPDUPLEX=<EXPDUPLEX>],[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,
   EXPDUPLEX=EXPDUPLEX,EXPSPEED=EXPSPEED,VLANCOS=VLANCOS,
   IPTOS=IPTOS,OPTICS=1000-BASE-LX,NAME=\"FSTEPORT\",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)

Parameter and Values	Description
• ASYMMETRIC_LOCAL	Asymmetric local flow control
• NONE	No flow control
• SYMMETRIC	Symmetric flow control
DUPLEX	Duplex mode. Optional Parameter type is ETHER_DUPLEX—duplex mode
• AUTO	Auto mode
• FULL	Full mode
• HALF	Half mode
SPEED	Speed. Optional Parameter type is ETHER_SPEED—Ethernet speed
• 100_MBPS	100 Mbps
• 10_GBPS	10 Gbps
• 10_MBPS	10 Mbps
• 1_GBPS	1 Gbps
• AUTO	Auto
FLOW	Flow. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
EXPDUPLEX	Ethernet duplex mode. Optional Parameter type is ETHER_DUPLEX—duplex mode
• AUTO	Auto mode
• FULL	Full mode
• HALF	Half mode
EXPSPEED	Ethernet speed. Optional Parameter type is ETHER_SPEED—Ethernet speed
• 100_MBPS	100 Mbps
• 10_GBPS	10 Gbps
• 10_MBPS	10 Mbps
• 1_GBPS	1 Gbps
• AUTO	Auto
VLANCOS	Priority queing threshold based on VLAN class of service of incoming Ethernet packets. Integer. Optional
IPTOS	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
OPTICS	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
NAME	Name. String. Optional
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
SOAKLEFT	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: • When the port is in OOS, OOS_MT or IS state, the parameter will not appear. • 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. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
PST_PSTQ	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
SSTQ	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
OPTICS	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
TRANS	Transponder mode. Optional Parameter type is TRANS_MODE—G1000 transponder mode
• BI	Bidirectional
• NONE	Not in transponder mode
• UNI	Unidirectional
TPORT	Transponding port access identifier from the "25.1.14 FACILITY" section on page 25-28. Optional
LOWMRK	Low watermark value. Integer. Optional
HIWMRK	High watermark value. Integer. Optional
AUTONEG	Automatic negotiation. Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
ENCAP	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
NAME	Name. String. Optional
SOAK	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
SOAKLEFT	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: • When the port is in OOS, OOS_MT or IS state, the parameter will not appear. • 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. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
PSTPSTQ	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
SSTQ	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.

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
SRC	Source access identifier from the "25.1.14 FACILITY" section on page 25-28. Must not be null **Note** 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
AID	Access identifier from the "25.1.14 FACILITY" section on page 25-28
FCS	Payload frame check sequence. Optional Parameter type is FCS—frame check sequence
• FCS-16	Frame check sequencing using 16 bits
• FCS-32	Frame check sequencing using 32 bits
• NONE	No frame check sequence
AUTOTHGFPBUF	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
GFPBUF	Integer. Optional
FILTER	Optional. Parameter type is GFP_FILTER—filter
• EGRESS	Activate filter on egress port
• NONE	Turn off filter

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.

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
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
LINKSTATE	Link protocol. Optional Parameter type is UP_DOWN—Up or down
• DOWN	Down
• UP	Up
MTU	Maximum transmission unit. Integer. Optional
ENCAP	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
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
• ASYMMETRIC_LOCAL	Asymmetric local flow control
• NONE	No flow control
• SYMMETRIC	Symmetric flow control
OPTICS	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
DUPLEX	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
SPEED	Speed. Optional Parameter type is ALS_MODE—automatic laser shutdown
• AUTO	Automatic
• DISABLED	Disabled
• MAN	Manual
• MAN-RESTART	Manual restart for test
NAME	Name. String. Optional
FREQ	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)

Parameter and Values	Description
• 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
LOSSB	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 "25.1.14 FACILITY" 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 "25.1.14 FACILITY" 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
• FCS-16	Frame check sequencing using 16 bits
• FCS-32	Frame check sequencing using 32 bits
• NONE	No frame check sequence

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
AID	Access identifier from the "25.1.13 EQPT" section on page 25-27
AIDTYPE	Specifies the type of (AID) facility, link or other addressable entity targeted by the message. String
PLUGTYPE	The type of plug-in. String. Optional
PN	Hardware part number. String. Optional
HWREV	Hardware revision. String. Optional
FWREV	Firmware revision. String. Optional
SN	Serial number. String. Optional
CLEI	Common language equipment identifier code for the equipment. String. Optional
TWL1	Tunable wavelength 1. Optional. (See OPTICAL_WLEN parameter below)
TWL2	Tunable wavelength 2. Optional. (See OPTICAL_WLEN parameter below)
TWL3	Tunable wavelength 3. Optional. (See OPTICAL_WLEN parameter below)
TWL4	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
PLUGINVENDORID	Plugin vendor ID. Integer. Optional
PLUGINPN	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
PLUGINHWREV	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
PLUGINFWREV	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
PLUGINSN	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
ILOSSREF	The insertion loss reference calculated by the unit as worst insertion loss of all the unit. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
PID	Product ID of the module. String. Optional
VID	Vendor ID. String. Optional
FPGA	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
FROM	Access identifier from the "25.1.1 ALL" section on page 25-1. Identifies an entity at one end of the optical link
TO	Access identifier from the "25.1.1 ALL" section on page 25-1. Identifies an entity at the other end of the optical link
OLNKT	Optical link type. Optional Parameter type is OPTICAL_LINK_TYPE—type of optical link between two optical facilities
• ADD-DROP	Link between two points that results in an add/drop connection from a drop point to an add point
• HITLESS	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
• OTS	Link between two OTS points
CTYPE	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
• AUTO	Automatically created by the NE
• PROV	Provisioned by the user
RDIRN	Ring directionality of the optical line. 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)
BAND	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
WLEN	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
PST_PSTQ	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
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

21.53 RTRV-LNK-<MOD2O>

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
AID	Access identifier from the "25.1.4 BAND" 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
OLNKT	Optical link type. A null value is equivalent to ALL Parameter type is OPTICAL_LINK_TYPE—type of optical link between two optical facilities
• ADD-DROP	Link between two points that results in an add/drop connection from a drop point to an add point

Table 21-104 RTRV-LNK-<MOD2O> Input Parameters (continued)

Parameter and Values	Description
• HITLESS	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
• OTS	Link between two OTS points
CTYPE	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
• AUTO	Automatically created by the NE
• PROV	Provisioned by the user
RDIRN	Ring directionality of the optical line. A null value is equivalent to ALL 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)

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-<MOD2O> Output Parameters

Parameter and Values	Description
FROM	Access identifier from the "25.1.4 BAND" section on page 25-13. Identifies an entity at one end of the optical link
TO	Access identifier from the "25.1.4 BAND" section on page 25-13. Identifies an entity at the other end of the optical link
OPTICALLINKTYPE	Optical link type. Optional Parameter type is OPTICAL_LINK_TYPE—type of optical link between two optical facilities

Table 21-105 RTRV-LNK-<MOD2O> Output Parameters (continued)

Parameter and Values	Description
• ADD-DROP	Link between two points that results in an add/drop connection from a drop point to an add point
• HITLESS	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
• OTS	Link between two OTS points
CREATIONTYPE	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
• AUTO	Automatically created by the NE
• PROV	Provisioned by the user
RDIRN	Ring directionality of the optical line. 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)
BAND	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
• 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
WLEN	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
• 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

Table 21-105 RTRV-LNK-<MOD2O> 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
PST_PSTQ	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
SST	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-<MOD2O> 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
AID	Access identifier from the "25.1.17 LNKTERM" section on page 25-32. Must not be null

Output Format

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>::PORT=<PORT>,[REMOTENODE=<REMOTENODE>],
   [REMOTELNKTERMID=<REMOTELNKTERMID>]"
;
```

Output Example

```
   TID-000 1998-06-20 14:30:00
M  001 COMPLD
   "LNKTERM-2::PORT=FAC-3-1,REMOTENODE=172.20.221.225,REMOTELNKTERMID=21"
;
```

Output Parameters

Table 21-107 RTRV-LNKTERM Output Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.17 LNKTERM" section on page 25-32. Must not be null
PORT	Access identifier from the "25.1.2 AidUnionId" section on page 25-9
REMOTENODE	Remote node. String. Optional
REMOTELNKTERMID	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:[<TID>]::<CTAG>::<LOGNM>;

Input Example

RTRV-LOG:CERENT::123::ALARM;

Input Parameters

Table 21-108 RTRV-LOG Input Parameters

Parameter and Values	Description
LOGNM	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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1
ALMNUMBER	Alarm number of the log. Integer
CURRENT	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
PREVIOUS	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
CONDITION	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
OCRTIME	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
IPADDR	Node IP address. String
NODENAME	Node name (TID). String
PRODUCT	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
AID	Access identifier from the "25.1.7 CHANNEL" 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-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-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>],
   [IIOPPORT=<IIOPPORT>],[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,
   IIOPPORT=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 IIOP 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
• REPEATER	The front port and backplane are sharing the same IP network
• SECURE	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
• NO	No
• YES	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
AID	Access identifier from the "25.1.14 FACILITY" section on page 25-28. 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
AID	Access identifier from the "25.1.14 FACILITY" section on page 25-28. Port of an NE carrying the DCC connection
IPADDR	Node IP address. String
NODENAME	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
PDIP	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
XCMODE	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-SYNCN

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 TL1 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-SYNCN
ALW-MSG-DBCHG	INH-MSG-SECU	RTRV-HDR
ALW-MSG-SECU	INIT-SYS	RTRV-INV
COPY-RFILE	OPR-SYNCNSW	RTRV-MAP-NETWORK
DLT-TRAPTABLE	REPT ALM BITS	RTRV-NE-APC
ED-BITS	REPT ALM SYNCN	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 SYNCN	RTRV-NE-WDMANS
ED-NE-SYNCN	RLS-SYNCNSW	RTRV-SYNCN
ED-SYNCN	RTRV-ALM-BITS	RTRV-TOD
ED-TRAPTABLE	RTRV-ALM-SYNCN	RTRV-TRAPTABLE
ENT-TRAPTABLE	RTRV-BITS	SET-TOD

Input Format

RTRV-NE-SYNCN:[<TID>]::<CTAG>[::::];

Input Example

RTRV-NE-SYNCN:CISCO::123;

Input Parameters

Table 21-120 RTRV-NE-SYNCN 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-SYNCN Output Parameters

Parameter and Values	Description
TMMD	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
SSMGEN	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
QRES	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
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
• N	Disable an attribute
• Y	Enable an attribute
RVTM	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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. AID is port regulated
AIDTYPE	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
REGULATED	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
PARAM	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-NETYPE

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-NETYPE:[<TID>]::<CTAG>;

Input Example

RTRV-NETYPE:GAUR1::1;

Input Parameters

Table 21-124 RTRV-NETYPE 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-NETYPE Output Parameters

Parameter and Values	Description
VENDOR	NE equipment vendor name. String
MODEL	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
NETYPE	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
SW_ISSUE	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
STATUS	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
RDIRN	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)
OPTICALPORTTYPE	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
POWER	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
EXPWLEN	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
ACTWLEN	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
• USE-TWL1	Use Tunable Wavelength 1
ILOSS	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
VOAMODE	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
• ATTN	VOA has a fixed attenuation
• POWER	VOA controls the attenuation to obtain a fixed output power
VOAATTN	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
VOAPWR	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
VOAREFATTN	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
VOAREFPWR	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
REFOPWR	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
CALOPWR	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
CHPOWER	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
PORTNAME	Port name. String. Optional
SFBER	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
• 1E-3	SFBER is 1E-3
• 1E-4	SFBER is 1E-4
• 1E-5	SFBER is 1E-5
SDBER	Signal degrade threshold for the SONET payload. 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
COMM	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
• DCC	Section DCC type
• GCC	Generic communication channel (OTN) type
• NONE	Disable DCC or GCC if enabled
GCCRATE	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
• 192K	192 kbps

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
• 576K	576 kbps
DWRAP	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 To enable G.709: • There should be no GCC on the DWDM port • The payload (where the card is configured) should not be UNFRAMED To disable G.709: • There should be no GCC on the DWDM port • The FEC should be off • There should be no overhead circuit created on the DWDM port • None of the client ports on the card should be part of a Y-cable protection group (muxponder only) Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
FEC	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 Parameter type is FEC_MODE—specifies the type of forward error correction
• ENH	Enhanced FEC is enabled
• OFF	FEC is disabled
• STD	Standard FEC is enabled
PAYLOADMAP	The type of payload mapping. It can be enabled only if the G.709 is turned ON and FEC is enabled. Optional Parameter type is PAYLOAD_MAPPING—payload mapping mode
• ASYNCH	Asynchronous mapping mode
• ODU	ODU multiplex structure mode
• SYNCH	Synchronous mapping mode
OSFBER	The signal failure threshold at the OTN level. 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

Table 21-127 RTRV-OCH Output Parameters (continued)

Parameter and Values	Description
OSDBER	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
MACADDR	MAC address for the 10GigE payload. String. Optional
SYNCMSG	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
SENDDUS	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
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
SOAKLEFT	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
OSPF	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
LBCL	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
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
OPT	Displays the current value of the transmitted optical power. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
OPR	Displays the current value of the received optical power. Optional Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
PST_PSTQ	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
SSTQ	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

21.65 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
AID	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,VOAREFATTN=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
AID	Access identifier from the “25.1.7 CHANNEL” section on page 25-14
RDIRN	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)
OPTICALPORTTYPE	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
POWER	The optical power measured at this port. It can be the input or output power according to port type. String. Optional
EXPBAND	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
ACTBAND	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
ILOSS	Insertion loss expressed in dBm. ILOSS applies to output ports only. Optional
VOAMODE	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
VOAATTN	The value of calibrated attenuation for the VOA. Float. String. Optional
VOAPWR	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Float. String. Optional
VOAREFATTN	The value of reference attenuation for the VOA. Float. String. Optional
VOAREFPWR	The value of reference output power that the VOA is going to set as a result of its attenuation. Float. String. Optional
REFOPWR	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
CALOPWR	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.
CHPOWER	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
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
NAME	Name. String. Optional
PST_PSTQ	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
SSTQ	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

21.66 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
AID	Access identifier from the "25.1.18 OPM" 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
POWERRPT	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
AID	Access identifier from the "25.1.19 OSC" 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
AID	Access identifier from the "25.1.19 OSC" section on page 25-33. Identifies the OSC group of the NE
RINGID	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
NODEID	OSC node ID of the NE. It ranges from 0 to 31. Integer. Optional
EAST	The east OC3 facility from the "25.1.14 FACILITY" 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
WEST	The west OC3 facility from the "25.1.14 FACILITY" 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:[<TID>]:<AID>:<CTAG>;

Input Example

RTRV-OTS:PENNGROVE:LINE-6-1-RX:236;

Input Parameters

Table 21-134 RTRV-OTS Input Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.16 LINE" 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
AID	Access identifier from the "25.1.16 LINE" section on page 25-31
RDIRN	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)
OPTICALPORTTYPE	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
POWER	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
ILOSS	Insertion loss. Optional
VOAMODE	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
VOAATTN	The value of calibrated attenuation for the VOA. Float. Optional
VOAPWR	The value of calibrated output power that the VOA is going to set as a result of its attenuation. Float. Optional
VOAREFATTN	The value of reference attenuation for the VOA. Float. Optional
VOAREFPWR	The value of reference output power that the VOA is going to set as a result of its attenuation. Float. Optional
OSRI	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
AMPLMODE	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
CHPOWER	The per channel optical power. Applicable only to amplified OTS ports. Optional
GAIN	The value of the gain of the amplifier. Defaults to 21 dB for preamplifier and 20 dB for booster amplifier. Optional
EXPGAIN	The expected gain value to be reached from an amplifier when the node is in a DWDM access network. Float. Optional
REFOPWR	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
OFFSET	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
REFTILT	The calculated tilt value to be added to the user provided calibration value. Float. Optional
CALTILT	The amplifier calibration tilt offset to be added to the calculated reference value. Float. Optional
ASEOPWR	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
DCULOSS	The value of insertion loss associated to DCU in between the two stages of a preamplifier unit. Float. Optional
AWGST	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
HEATST	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
NAME	Name of the port. String. Optional
PST_PSTQ	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
SSTQ	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

- ALW-PMREPT-ALL
- DLT-<MOD1PAYLOAD>
- DLT-FFP-<MOD2DWDMPAYLOAD>
- DLT-FFP-<OCN_TYPE>
- DLT-RMONTH-<MOD2_RMON>
- ED-<GIGE_TYPE>
- ED-<MOD1FCPAYLOAD>
- ED-<MOD1FICONPAYLOAD>
- ED-<MOD2DWDMPAYLOAD>
- ED-<OCN_TYPE>
- ED-ALS
- ED-DS1
- ED-EC1
- ED-FFP-<MOD2DWDMPAYLOAD>
- ED-FFP-<OCN_TYPE>
- ED-FSTE
- ED-G1000
- ED-GFP
- ED-HDLC
- ED-POS
- ED-T1
- ED-T3
- ED-TRC-<MOD2DWDMPAYLOAD>
- ED-TRC-<OCN_TYPE>
- ENT-<MOD1PAYLOAD>
- ENT-FFP-<MOD2DWDMPAYLOAD>
- ENT-FFP-<OCN_TYPE>
- ENT-RMONTH-<MOD2_RMON>
- INH-PMREPT-ALL
- INIT-REG-<MOD2>
- OPR-ALS
- OPR-LPBK-<MOD2>
- OPR-PROTNSW-<MOD2DWDMPAYLOAD>
- OPR-PROTNSW-<OCN_TYPE>
- REPT PM <MOD2>
- RLS-LPBK-<MOD2>
- RLS-PROTNSW-<MOD2DWDMPAYLOAD>
- RLS-PROTNSW-<OCN_TYPE>
- RMV-<MOD2>
- RST-<MOD2>
- RTRV-<MOD1FCPAYLOAD>
- RTRV-<MOD1FICONPAYLOAD>
- RTRV-<MOD2DWDMPAYLOAD>
- RTRV-<OCN_TYPE>
- RTRV-10GIGE
- RTRV-ALMTH-<MOD2>
- RTRV-ALS
- RTRV-DS1
- RTRV-EC1
- RTRV-FAC
- RTRV-FFP-<MOD2DWDMPAYLOAD>
- RTRV-FFP-<OCN_TYPE>
- RTRV-FSTE
- RTRV-G1000
- RTRV-GFP
- RTRV-GIGE
- RTRV-HDLC
- RTRV-PMMODE-<STS_PATH>
- RTRV-PMSCHED-<MOD2>
- RTRV-PMSCHED-ALL
- RTRV-POS
- RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
- RTRV-PROTNSW-<OCN_TYPE>
- RTRV-RMONTH-<MOD2_RMON>
- RTRV-T1
- RTRV-T3
- RTRV-TH-<MOD2>
- RTRV-TH-ALL
- RTRV-TRC-<MOD2DWDMPAYLOAD>
- RTRV-TRC-<OCN_TYPE>
- SCHED-PMREPT-<MOD2>
- SET-ALMTH-<MOD2>
- SET-PMMODE-<STS_PATH>

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
AID	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
MONTYPE	Monitored type. A null value defaults to "all montypes applicable to the modifier" 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

Table 21-136 RTRV-PM-<MOD2> 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
• 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

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-<MOD2> 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)
• 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 21-136 RTRV-PM-<MOD2> Input Parameters (continued)

Parameter and Values	Description
MONLEV	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
LOCN	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
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
DIRECTION	Type of direction. Must not be null Parameter type is DIRECTION—transmit and receive directions
• BTH	Both transmit and receive directions
• RCV	Receive direction only
• TRMT	Transmit direction only
TMPER	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
• 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.

Table 21-136 RTRV-PM-<MOD2> Input Parameters (continued)

Parameter and Values	Description
DATE	The beginning date of the PM or storage register period specified in TMPER. 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
TIME	The beginning time of day of the PM or storage register period specified in TMPER. 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>],[<TMPER>],[<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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1
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
• COM	Common alarm
• DS1	DS1 alarm
• DS3I	DS3I alarm
• E100	E100 alarm
• E1000	E1000 alarm
• EC1	EC1 alarm

Table 21-137 RTRV-PM-<MOD2> 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)
MONTYPE	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 (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

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-<MOD2> 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-<MOD2> 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
MONVAL	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
VLDTY	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
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
DIRECTION	The PM count retrieval direction Parameter type is DIRECTION—transmit and receive directions

Table 21-137 RTRV-PM-<MOD2> Output Parameters (continued)

Parameter and Values	Description
• BTH	Both transmit and receive directions
• RCV	Receive direction only
• TRMT	Transmit direction only
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.
MONDAT	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
MONTM	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-<STS_PATH>:[<TID>]:<SRC>:<CTAG>::<LOCN>;

Input Example RTRV-PMMODE-STS1:CISCO:STS-4-1-2:123::NEND;

Input Parameters

Table 21-138 RTRV-PMMODE-<STS_PATH> 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-PMMODE-<STS_PATH> 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
AID	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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1
AIDTYPE	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-<MOD2> 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
REPTINVL	Reporting interval. How often a report is to be generated and sent to the appropriate NE. String
REPTDAT	Report date. Date for the next report. String
REPTTM	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
NUMINVL	The remaining number of intervals over which the PM will be reported. Integer. Optional
LOCN	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
• FEND	Action occurs on the Far End of the facility
• NEND	Action occurs on the Near End of the facility
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.
TMOFST	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
INHMODE	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
• ALW	Function is allowed
• INH	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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1
AIDTYPE	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
REPTINVL	Reporting interval. How often a report is to be generated and sent to the appropriate NE. String
REPTDAT	Report date. Date for the next report. String
REPTTM	Report time. The time of day for the next PM report. String
NUMINVL	The remaining number of intervals over which PM is to be reported. Integer. Optional
LOCN	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
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.

Table 21-143 RTRV-PMSCHED-ALL Output Parameters (continued)

Parameter and Values	Description
• 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.
TMOFST	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
INHMODE	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
• ALW	Function is allowed
• INH	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:[<TID>]:<AID>:<CTAG>;

Input Example

RTRV-POS:TID:VFAC-1-1:CTAG;

Input Parameters

Table 21-144 RTRV-POS Input Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.14 FACILITY" 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
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
ENCAP	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
• HDLC	HDLC frame mode
• HDLC_LEX	HDLC LAN extension frame mode
• HDLC_X86	HDLC X.86 frame mode
NAME	Name. String. Optional
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
SOAKLEFT	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: • When the port is in OOS, OOS_MT or IS state, the parameter will not appear. • 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. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
PST_PSTQ	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
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

21.74 RTRV-PROTNSW-<MOD2DWDMPAYLOAD>

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

Usage Guidelines

Cisco ONS 15454

This command retrieves the protection switch status of client facilities.

Category

DWDM

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
• APS-CLEAR	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
• CLEAR	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
• EXERCISE	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
• FRCD	Forces a switch unless another FRCD or LOCKOUT is in effect
• LOCKOUT	Locks the facility out of switching. The system cannot switch to this facility to carry service
• MAN	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
• FRCDWKSWBK	Working unit is forced to switch back to working
• FRCDWKSWPR	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
• APS-CLEAR	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
• CLEAR	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
• EXERCISE	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
• FRCD	Forces a switch unless another FRCD or LOCKOUT is in effect
• LOCKOUT	Locks the facility out of switching. The system cannot switch to this facility to carry service
• MAN	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
• FRCDWKSWBK	Working unit is forced to switch back to working
• FRCDWKSWPR	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-STS1:CISCO:STS-5-1-1:123;

Input Parameters

Table 21-150 RTRV-PROTNSW-<PATH> 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-<PATH> 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
• APS-CLEAR	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
• CLEAR	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
• EXERCISE	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
• FRCD	Forces a switch unless another FRCD or LOCKOUT is in effect
• LOCKOUT	Locks the facility out of switching. The system cannot switch to this facility to carry service
• MAN	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
• FRCDWKSWBK	Working unit is forced to switch back to working
• FRCDWKSWPR	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 "25.1.7 CHANNEL" section on page 25-14. 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 "25.1.7 CHANNEL" section on page 25-14
SW	Indicates the switch operation Parameter type is SW—the type of switch to be initiated
• APS-CLEAR	APS-CLEAR switch state. It is a read-only switch state and is not allowed in the OPR-PROTNSW-xxx commands
• CLEAR	CLEAR switch state. CLEAR switch state is not allowed in the OPR-PROTNSW-xxx commands
• EXERCISE	EXERCISE switch state. EXERCISE switch state is not allowed in the OPR-PROTNSW-xxx commands
• FRCD	Forces a switch unless another FRCD or LOCKOUT is in effect
• LOCKOUT	Locks the facility out of switching. The system cannot switch to this facility to carry service
• MAN	Requests a manual switch of the facility

Table 21-153 RTRV-PROTNSW-OCH Output Parameters (continued)

Parameter and Values	Description
SWITCHTYPE	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
AID	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
PROTOCOLAID	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
PROTOCOLSTAT	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
SRC	Source access identifier from the "25.1.9 CrossConnectId" section on page 25-15. Must not be null
MSGTYPE	Type of autonomous message to be retrieved. A null value defaults to INCTRC Parameter type is MSGTYPE—type of trace message
• EXPTRC	Expected incoming path trace message
• INCTRC	Incoming path trace message
• TRC	Outgoing path trace message
LOCN	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

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
AID	Access identifier from the "25.1.14 FACILITY" section on page 25-28. AID for the facility that the data statistic is managed by. Must not be null
MONTYPE	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-<MOD2_RMON> 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-<MOD2_RMON> 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)
• 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

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
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 larger than or equal to 10 (seconds). A null value is equivalent to ALL
RISE	The rising threshold for the sampled statistic. A valid value is any integer. A null value is equivalent to ALL
FALL	The falling threshold. A valid value is any integer smaller than the rising threshold. A null value is equivalent to ALL
SAMPLE	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
STARTUP	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-<MOD2_RMON> Output Parameters

Parameter and Values	Description
AIDUNIONID	Access identifier from the "25.1.14 FACILITY" section on page 25-28
AIDTYPE	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
MONTYPE	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
• 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

Table 21-159 RTRV-RMONTH-<MOD2_RMON> 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-<MOD2_RMON> 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-<MOD2_RMON> 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)
• 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)

Table 21-159 RTRV-RMONTH-<MOD2_RMON> Output Parameters (continued)

Parameter and Values	Description
• 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 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)
INDEX	The index for the threshold created by the system in the RMON threshold table. Integer
RISE	The rising threshold for the sampled statistic. A valid value is any integer
FALL	The falling threshold. A valid value is any integer smaller than the rising threshold. Integer
SAMPLE	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
• ABSOLUTE	Comparing directly
• DELTA	Comparing with the current value of the selected variable subtracted by the last sample
STARTUP	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
• 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

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 "25.1.10 CrossConnectId1" section on page 25-20 (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
FROM	One of the termination points (legs) of the existing cross-connection. Access identifier from the "25.1.10 CrossConnectId1" section on page 25-20 (except VCM and FACILITY)
TO	One of the termination points (legs) of the existing cross-connection. Access identifier from the "25.1.10 CrossConnectId1" section on page 25-20 (except VCM and FACILITY)
RFROM	The termination point of the existing cross-connect that is to be rolled. AID from the "25.1.10 CrossConnectId1" section on page 25-20 (except VCM and FACILITY)
RTO	The termination point that will become a leg of the new cross-connection. AID from the "25.1.10 CrossConnectId1" section on page 25-20 (except VCM and FACILITY)
RMODE	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
VLDSIG	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:[<TID>]::<CTAG>::[<DESTIP>],[<IPMASK>],[<NXTHOP>],[<COST>];

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
DESTIP	Destination tip. String. A null value is equivalent to ALL
IPMASK	IP mask. String. A null value is equivalent to ALL
NXTHOP	Next hop. String. A null value is equivalent to ALL
COST	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 tip. 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
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. Optional
LOWSLVEXP	The low range value of the expected span loss verification. Float. Optional
SLVACT	The value of the calculated span loss verification. Float. Optional
RESOLUTION	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, 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 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-STS:[<TID>]:<AID>:<CTAG>;

Input Example

RTRV-STS:TID:STS-2-1-1:1;

Input Parameters

Table 21-168 RTRV-STS Input Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.2 AidUnionId" 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
   "STS-2-1-4::LEVEL=STS3C,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=PROTPTHACT:OOS-AU,AINS"
;
```

Output Parameters

Table 21-169 RTRV-STS Output Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.2 AidUnionId" section on page 25-9
LEVEL	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)
SFBER	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
SDBER	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
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. Only applies to path protection Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
RVTM	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
SWPDIP	Switch on PDI-P. Applicable only to STS-level paths in SONET (STSn). Optional Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
HOLDOFFTIMER	Hold off timer. Integer. Optional
EXPTRC	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
TRC	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 (STSn). String. Optional
INCTRC	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
TRCMODE	Path trace mode. Applicable only to STS-level Paths in SONET (STSn). 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

Table 21-169 RTRV-STS Output Parameters (continued)

Parameter and Values	Description
• 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
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
UPSRPTHSTATE	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
C	The c2 byte hex code. Applicable only to STS-level paths in SONET (STSn). 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

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
BLSRPTHSTATE	The BLSR path state only if the port is on the BLSR. Applicable only to STS-level paths in SONET (STSn). 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
PST_PSTQ	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
SSTQ	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-SYNCN

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-SYNCN and ED-NE-SYNCN 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 "25.1.25 SYNC_REF" 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 "25.1.25 SYNC_REF" section on page 25-40
REF	Rank of synchronization reference. Access identifier from the "25.1.26 SYNCSW" section on page 25-40
REFVAL	Value of a synchronization reference. "25.1.24 SYN_SRC" section on page 25-39

Table 21-171 RTRV-SYNCN Output Parameters (continued)

Parameter and Values	Description
QREF	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)
STATUS	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
PROTECTSTATUS	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

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

This command retrieves the DS-1 facilities configuration.

Note T1 facilities on the ONS 15327 and the ONS 15310-CL are on the XTC/15310-CL-CTX cards.

Note The parameters: SYNCMAP, ADMSSM, VTMAP, INHFELPBK, AND PROVIDESYNC are only displayed on the DS1-E1-56 card (ONS 15454).

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-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>],
   [AISVONAIS=<AISVONAIS>],[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,AISVONAIS=Y,,AISONLOF=Y,
   MODE=FDL,SYNCMAP=ASYNC,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
• AMI	Line code value is AMI
• B8ZS	Line code value is B8ZS (bipolar with three-zero substitution)
FMT	Digital signal frame format. 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

Table 21-173 RTRV-T1 Output Parameters (continued)

Parameter and Values	Description
LBO	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
TAP	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
TAPTYPE	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
SOAKLEFT	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: • When the port is in OOS, OOS_MT or IS state, the parameter will not appear. • When the port is in OOS_AINS but the countdown has not started due to fault signal, the value will be SOAKLEFT=NOT-STARTED. • When the port is in OOS_AINS state and the countdown has started the value will be shown in HH-MM format.
SFBER	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
SDBER	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
• 1E-8	SDBER is 1E-8
• 1E-9	SDBER is 1E-9
NAME	Port name. String. Optional
SYNCMSG	Synchronization status messaging is enabled or disabled on the T1 facility. **Note** 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 users 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
SENDDUS	The facility will send the DUS (Don't use for Synchronization) value as the sync status message for that facility **Note** For ONS 15310-CL, SENDDUS is optional and defaults to N. SENDDUS is not supported on the ONS 15454 or ONS 15327 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
RETIME	Indicates if retiming is needed. Optional **Note** 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
• FDL	Indicates the DS1 path of the DS3XM-12 is in FDL T1-403 mode
AISONLPBK	Defaults to AIS_ON_LPBK_ALL. 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

Table 21-173 RTRV-T1 Output Parameters (continued)

Parameter and Values	Description
AISVONAIS	Defaults to N. Optional Parameter type is ON_OFF—disable/enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
AISVONLOF	Optional Parameter type is ON_OFF—disable/enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
MODE	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
SYNCMAP	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
ADMSSM	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)
PROVIDESYNC	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
• Y	Enable an attribute
VTMAP	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
• GR253	Mapping based on GR253
• INDUSTRY	Mapping based on industry standard
INHFELPBK	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
• N	Disable an attribute
• Y	Enable an attribute
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

21.88 RTRV-T3

Retrieve T3

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.

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-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
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>::[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
AID	Access identifier from the "25.1.14 FACILITY" section on page 25-28
FMT	Digital signal format. Optional Parameter type is DS_LINE_TYPE—DS123 line type
• C-BIT	C-BIT line type applies to the DS3XM and DS3E cards
• M13	M13 line type applies to the DS3XM and DS3E cards
• UNFRAMED	Line type is unframed. The old DS3 (L3M) and DS3CR cards can only run in unframed mode
LINECDE	Line code. Optional Parameter type is DS_LINE_CODE—DS123 line code
• B3ZS	Bipolar with three-zero substitution
LBO	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

Table 21-175 RTRV-T3 Output Parameters (continued)

Parameter and Values	Description
INHFELPBK	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
TAP	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
TAPTYPE	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
SOAK	OOS-AINS to IS transition soak time as measured in 15-minute intervals. Integer. Optional
SOAKLEFT	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: • When the port is in OOS, OOS_MT or IS state, the parameter will not appear. • When the port is in OOS_AINS but the countdown has not started due to fault signal, the value will be SOAKLEFT=NOT-STARTED. • When the port is in OOS_AINS state and the countdown has started, the value will be shown in HH-MM format.
SFBER	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
SDBER	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 "25.1.9 CrossConnectId" 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
• LOOPE	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
• LOOPF	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
• 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	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
• SPLTEF	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
• SPLTF	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
CROSSCONNECTID1	Access identifier from the "25.1.9 CrossConnectId" section on page 25-15. The E path of the cross-connect. Optional
PATHWIDTH	The cross-connection width Parameter type is CRS_TYPE—cross-connection type
• STS	Indicates all the STS cross-connections
• STS1	STS1 cross-connectcross-connect
• STS3C	STS3C cross-connect
• STS6C	STS6C cross-connect
• STS9C	STS9C cross-connect
• STS12C	STS12C cross-connect
• STS18C	STS18C cross-connect
• STS24C	STS24C cross-connect
• STS36C	STS36C cross-connect
• STS48C	STS48C cross-connect
• STS192C	STS192C cross-connect
• VT	Indicates all the VT1 cross-connections
• VT1	VT1 cross-connect
• VT2	VT2 cross-connect
CROSSCONNECTID2	Access identifier from the "25.1.9 CrossConnectId" section on page 25-15. 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
SRC	Access identifier from the "25.1.1 ALL" section on page 25-1. Must not be null
MODE	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=39840FFFFFFFOOOODDDDAA01D00F0400000700"
;
```

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-<MOD2>:[<TID>]:<AID>:<CTAG>::[<MONTYPE>],[<LOCN>],[<TMPER>][::];

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
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. Must not be null
MONTYPE	Monitored type **Note** MONTYPE 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_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 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
• 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 21-180 RTRV-TH-<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 21-180 RTRV-TH-<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 21-180 RTRV-TH-<MOD2> 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)
• 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 21-180 RTRV-TH-<MOD2> Input Parameters (continued)

Parameter and Values	Description
LOCN	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
TMPER	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-<MOD2> Output Parameters

Parameter and Values	Description
AID	Access identifier from the "25.1.1 ALL" section on page 25-1. Must not be null
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
• 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)
MONTYPE	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-<MOD2> 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)
• 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

Table 21-181 RTRV-TH-<MOD2> 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 TL1 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
MONTYPE	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
• 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
LOCATION	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
TMPER	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

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
AID	Access identifier from the "25.1.2 AidUnionId" section on page 25-9
AIDTYPE	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
MONTYPE	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
• 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 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
• 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 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)
• 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

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
LOCATION	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
THLEV	Threshold level. Indicates the threshold value. Float
TMPER	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
YEAR	The current calendar year. String
MONTH	The month of the year. Ranges from 01 to 12. String
DAY	The day of the month. Ranges from 01 to 31. String

Table 21-185 RTRV-TOD Output Parameters (continued)

Parameter and Values	Description
HOUR	The hour of the day. Ranges from 00 to 23. String
MINUTE	The minute of the hour. Ranges from 00 to 59. String
SECOND	The second of the minute. Ranges from 00 to 59. String
DIFFERENCE	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
TMTYPE	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
AID	Access identifier from the "25.1.15 IPADDR" section on page 25-31. 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
DEST	Access identifier from the "25.1.15 IPADDR" section on page 25-31
TRAPPORT	UDP port number associated with the trap destination. Defaults to 162. Integer
COMMUNITY	Community name associated to the trap destination. Maximum of 32 characters. String
SNMPVERSION	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 "25.1.14 FACILITY" section on page 25-28. 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
AID	Access identifier from the "25.1.22 STS" section on page 25-33
LEVEL	The rate of the cross-connect. 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)
EXPTRC	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
INCTRC	The incoming path trace message contents. INCTRC is any combination of 64 characters including CR and LF. String. Optional
TRCMODE	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
C2	The c2 byte hex code. Applicable only to STS-level paths in SONET (STSn). Optional Parameter type is C2_BYTE—c2 byte hex code

Table 21-189 RTRV-TRC-<OCN_BLSR> 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
SRC	Access identifier from the "25.1.7 CHANNEL" section on page 25-14. Must not be null
MSGTYPE	Type of autonomous message to be retrieved. A null value is equivalent to ALL Parameter type is MSGTYPE—type of trace message
• EXPTRC	Expected incoming path trace message
• INCTRC	Incoming path trace message
• TRC	Outgoing path trace message
TRCLEVEL	The trace level to be managed. A null value is equivalent to ALL 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

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
CHANNEL	Access identifier from the "25.1.7 CHANNEL" section on page 25-14
MOD	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
TRCLEVEL	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
EXPTRC	Expected path trace content. A 64 character ASCII string. Optional
TRC	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
INCTRC	The incoming path trace message contents. String. Optional
TRCMODE	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

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
TRCFORMAT	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

Related Commands

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
UID	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
UID	User identifier. The userid that was retrieved. String
PRIVILEGE	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
LOGGEDIN	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
NUMSESS	The number of times the user is logged into the NE. Integer. Optional
LOCKEDOUT	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
DISABLED	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
SRC	Source access identifier from the "25.1.14 FACILITY" 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
SRC	Source access identifier from the "25.1.14 FACILITY" section on page 25-28. ML1000-2 and ML100T-12 cards use the VFAC AID. The FC_MR-4 card uses the FAC AID
TYPE	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
TXCOUNT	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
CCT	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
• 1WAYMON	A bidirectional connection between the two tributaries **Note** 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)
LCAS	Link capacity adjustment scheme. Optional Parameter type is LCAS—link capacity adjustment scheme mode for the VCG created
• LCAS	LCAS is enabled
• NONE	No LCAS
• SW-LCAS	Supports the temporary removal of a VCG member during the member failure. Only supported by the ML1000-2 and ML100T-12 cards
BUFFERS	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 Parameter type is BUFFER_TYPE—buffer type (used in VCAT)
• DEFAULT	Default buffer value
• EXPANDED	Expanded buffer value
NAME	Name of the VCAT group. String. Optional
PST	Primary state. Optional Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	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
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>::[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
   "VT1-1-1-1-1-1::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
AID	Access identifier from the "25.1.2 AidUnionId" section on page 25-9
LEVEL	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
RVRTV	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
RVTM	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
HOLDOFFTIMER	Hold off timer. Integer. Optional
TACC	Test access. Indicates whether the digroup being provisioned is to be used as a test access digroup. Defaults to N. Optional
TAPTYPE	TAP type. Optional Parameter type is TAPTYPE—test access point type
• DUAL	Dual FAD
• SINGLE	Single FAD
UPSRPTHSTATE	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
PST	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
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>::[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
AID	Access identifier from the "25.1.29 WDMANS" section on page 25-42
POWERIN	Input power for an OADM section of an OADM NE. Float. Optional
POWEROUT	Output power for an OADM or Mux/Demux section of HUB, TERMINAL or OADM nodes. Float. Optional
POWEREXP	Express power for a Mux/Demux section of a HUB or TERMINAL NE. Float. Optional
NTWTYPE	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
OPTICALTYPE	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
LASTRUNDAT	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
LASTRUNTM	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 "25.1.30 WLEN" 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
AID	Access identifier from the "25.1.30 WLEN" section on page 25-43
CCT	The wavelength connection type Parameter type is WCT—wavelength connection types
• 1WAY	A unidirectional wavelength connection for one specified ring direction
• 2WAY	A bidirectional wavelength connection for both ring directions
SIZE	Size of the switching network. Optional 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 is10 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
CKTID	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
PST_PSTQ	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)
• 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 21-205 RTRV-WLEN Output Parameters (continued)

Parameter and Values	Description
SST	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