



Provision Transponder and Muxponder Cards

This chapter explains how to provision transponder (TXP) and muxponder (MXP) cards. The provisioning must be performed before you provision the DWDM network and create circuits.



Note

Unless otherwise specified, “ONS 15454” refers to both ANSI and ETSI shelf assemblies.

Before You Begin

Before performing any of the following procedures, investigate all alarms and clear any trouble conditions. Refer to the *Cisco ONS 15454 Troubleshooting Guide* or the *Cisco ONS 15454 SDH Troubleshooting Guide* as necessary.



Caution

Provisioning TXPs and MXPs can be service affecting. You should make all changes during a scheduled maintenance window.

This section lists the chapter procedures (NTPs). Turn to a procedure for applicable tasks (DLPs).

1. [NTP-G128 Manage Pluggable Port Modules, page 5-2](#)—Complete this procedure to provision a multirate pluggable port module (PPM), provision or change the optical line rate of a PPM, or delete a PPM. PPMs provide the fiber interface to the TXP and MXP cards. Only the TXP_MR_10G does not accept PPMs.
2. [NTP-G96 Modify Line Settings and PM Parameter Thresholds for TXP_MR_10G and TXP_MR_10E Cards, page 5-8](#)—As needed, complete this procedure to change the transmission settings for TXP_MR_10G and TXP_MR_10E cards.
3. [NTP-G97 Modify Line Settings and PM Parameter Thresholds for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-24](#)—As needed, complete this procedure to change the transmission settings for MXP_2.5G_10G and MXP_2.5G_10E cards.
4. [NTP-G98 Modify Line Settings and PM Parameter Thresholds for TXP_MR_2.5G and TXPP_MR_2.5G Cards, page 5-38](#)—As needed, complete this procedure to change the transmission settings for TXP_MR_2.5G and TXPP_MR_2.5G cards.
5. [NTP-G99 Modify Line Settings and PM Parameter Thresholds for MXP_MR_2.5G and MXPP_MR_2.5G Cards, page 5-52](#)—As needed, complete this procedure to change the transmission settings for MXP_MR_2.5G and MXPP_MR_2.5G cards.

NTP-G128 Manage Pluggable Port Modules

Purpose	Complete this procedure to provision a multirate PPM, provision or change the optical line rate of a multirate PPM, or delete a PPM. If a single-rate PPM is installed, the PPM screen will autoprovision and no further steps are necessary.
Tools/Equipment	None
Prerequisite Procedures	DLP-G63 Install an SFP or XFP, page 3-34
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher


Note

A small-form factor pluggable (SFP) is the hardware device that plugs into a TXP or MXP card faceplate to provide a fiber interface to the card. In CTC, SFPs are called pluggable port modules (PPMs).

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- Step 1** Complete the [“DLP-G46 Log into CTC” task on page 2-24](#) to log into an ONS 15454 on the network. If you are already logged in, continue with Step 2.
- Step 2** Click the **Alarms** tab:
- Verify that the alarm filter is not turned on. See the [“DLP-G128 Disable Alarm Filtering” task on page 8-27](#) as necessary.
 - Verify that no unexplained conditions appear on the network. If unexplained conditions appear, resolve them before continuing. Refer to the *Cisco ONS 15454 Troubleshooting Guide* or the *Cisco ONS 15454 SDH Troubleshooting Guide*.
 - Complete the [“DLP-G114 Export CTC Data” task on page 8-4](#) to export alarm and condition information.
- Step 3** Complete the [“DLP-G277 Provision a Multirate PPM” task on page 5-3](#). If you preprovisioned a multirate PPM ([DLP-G273 Preprovision an SFP or XFP Slot, page 3-33](#)), skip this step and continue with [Step 5](#). Single-rate PPMs do not require provisioning.
- Step 4** If you are provisioning an IBM ETR_CLO (External Time Reference – Control Link Oscillator) or InterSystem Coupling link (ISC) service on the PPM, complete [“DLP-G274 Verify Topologies for ETR_CLO and ISC Services” task on page 5-6](#). Otherwise, continue with [Step 5](#).
- Step 5** Complete the [“DLP-G278 Provision the Optical Line Rate” task on page 5-3](#) to assign a line rate to a TXP or MXP port.
- Step 6** Complete the [“DLP-G280 Delete a PPM” task on page 5-7](#) as needed.

Stop. You have completed this procedure.

DLP-G277 Provision a Multirate PPM

Purpose	This task provisions a multirate PPM in CTC. If the PPM was preprovisioned using the “DLP-G273 Preprovision an SFP or XFP Slot” task on page 3-33 , or the SFP or XFP is physically installed, this task is unnecessary unless the PPM has an OOS-AUMA,UAS service state.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	Required
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

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- Step 1** In node view, double-click the TXP or MXP card where you want to provision PPM settings.
- Step 2** Click the **Provisioning > Pluggable Port Modules** tabs.
- Step 3** In the Pluggable Port Modules pane, click **Create**. The Create PPM dialog box appears.
- Step 4** In the Create PPM dialog box, complete the following:
- PPM—Click the slot number where the SFP is installed from the drop-down list.
 - PPM Type—Click the number of ports supported by your SFP from the drop-down list. If only one port is supported, **PPM (1 port)** is the only menu option.



Note The first port can be created only if the trunk is in the OOS-MA,DSBLD (ANSI)/Locked-enabled,disabled (ETSI) service state.

- Step 5** Click **OK**. The newly created port appears on the Pluggable Port Modules pane. The row on the Pluggable Port Modules pane turns white and the Actual Equipment Type column lists the equipment name.
- Step 6** Verify that the PPM appears in the list on the Pluggable Port Modules pane. If it does not, repeat Steps [3](#) through [5](#).
- Step 7** Repeat the task to provision a second PPM.
- Step 8** Return to your originating procedure (NTP).
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DLP-G278 Provision the Optical Line Rate

Purpose	This task provisions the line rate on a multirate pluggable port module (PPM). Single-rate PPMs do not need to be provisioned.
Tools/Equipment	None
Prerequisite Procedures	DLP-G277 Provision a Multirate PPM, page 5-3 DLP-G274 Verify Topologies for ETR_CLO and ISC Services, page 5-6 , if you are provisioning an ETR_CLO service. DLP-G46 Log into CTC, page 2-24

Required/As Needed	Required
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

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- Step 1** In node view, double-click the TXP or MXP card where you want to provision PPM ports. If the data rate you are provisioning is DV-6000, HDTV, ESCON, SDI/D1 Video, ISC-3, or ETR_CLO, complete the following steps. Otherwise, continue with [Step 2](#).
- Click the **Provisioning > OTN > OTN Lines** tabs.
 - In the G.709 OTN field, choose **Disable**.
 - In the FEC field, choose **Disable**.
 - Click **Apply**.
- Step 2** Click the **Provisioning > Pluggable Port Modules** tabs.
- Step 3** In the Pluggable Ports pane, click **Create**. The Create Port dialog box appears.
- Step 4** In the Create Port dialog box, complete the following:
- Port—Click the PPM number and port number from the drop-down list. The first number indicates the PPM and the second number indicates the port number on the PPM. For example, the first PPM with one port displays as 1-1 and the second PPM with one port displays as 2-1. The PPM number can be 1 to 4, but the port number is always 1.
 - Port Type—Click the type of port from the drop-down list. The port type menu displays the supported port rates on your PPM. See [Table 5-1](#) for definitions of the supported rates on the TXP or MXP card.
- Step 5** Click **OK**. The row on the Pluggable Ports pane turns light blue until the actual SFP is installed, and then the row turns white.
- Step 6** Repeat Steps [3](#) through [5](#) to configure the port rates as needed.

Table 5-1 PPM Port Types

Card	Port Type
TXP_MR_2.5G and TXPP_MR_2.5G	• OC-3/STM1—155 Mbps • OC-12/STM4—622 Mbps • OC-48/STM16—2.48 Gbps • ONE_GE—One Gigabit Ethernet 1.125 Gbps • ESCON—Enterprise System Connection (IBM signal) • DV6000—Proprietary signal from video vendor • SDI_D1_VIDEO—Serial Digital Interface and Digital Video signal type 1 • HDTV—High Definition Television • PASS-THRU—Not specified • FC1G—Fiber Channel 1.06 Gbps • FC2G—Fiber Channel 2.125 Gbps • FICON1G—Fiber CON 1.06 Gbps (IBM signal) • FICON2G—Fiber CON 2.125 Gbps (IBM signal) • ETR_CLO—External Time Reference – Control Link Oscillator • ISC compat—InterSystem Coupling Link 1 (ISC1) • ISC peer—InterSystem Coupling Link 3 (ISC3)
MXP_2.5G_10G and MXP_2.5G_10E	• OC-48/STM16—2.48 Gbps
TXP_MR_10E	• OC-192/STM-64—10 Gbps • 10G Ethernet LAN Phy—10 Gbps Ethernet • 10G Fiber Channel—10 Gbps Fiber Channel
MXP_MR_2.5G and MXPP_MR_2.5G	• FC1G—Fiber Channel 1.06 Gbps • FC2G—Fiber Channel 2.125 Gbps • FICON1G—Fiber CON 1.06 Gbps (IBM signal) • FICON2G—Fiber CON 2.125 Gbps (IBM signal) • ONE_GE—One Gigabit Ethernet 1.125 Gbps



Note The TXP_MR_10G is the only TXP or MXP card that does not accept PPMs.

Step 7 Return to your originating procedure (NTP).

DLP-G274 Verify Topologies for ETR_CLO and ISC Services

Purpose	This task verifies that the DWDM network topology can support the IBM ETR_CLO and ISC services. These services cannot be provisioned on all DWDM topologies.
Tools/Equipment	Cisco MetroPlanner site plan.
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

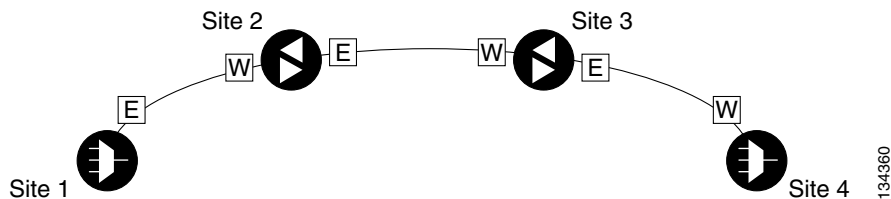
- Step 1** Display your site plan in Cisco MetroPlanner.
- Step 2** Verify that the topology where you plan to run the ETR_CLO or ISC service is one of the topologies that supports these services:
- Single span—Two terminal sites with 32MUX-O and 32DMX-O, or 32WSS and 32DMX or 32-DMX-O cards installed and no intermediate sites in between. [Figure 5-1](#) shows a single-span topology as displayed in Cisco MetroPlanner.

Figure 5-1 Single-Span Topology



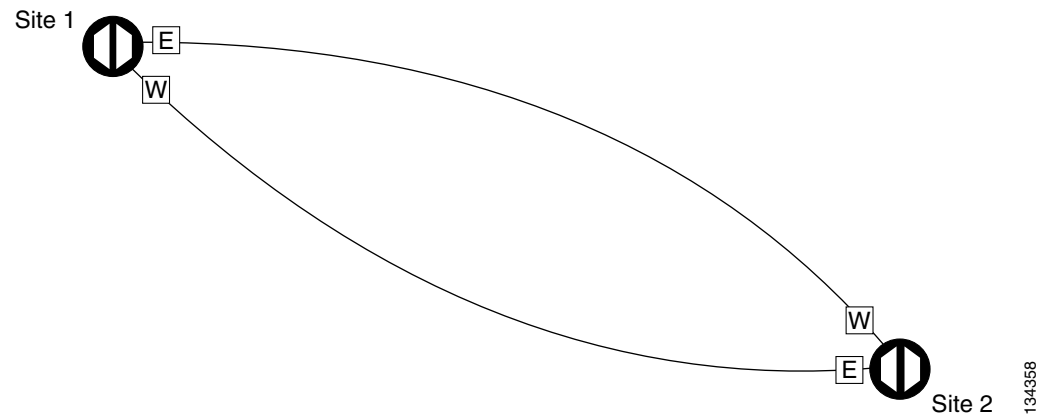
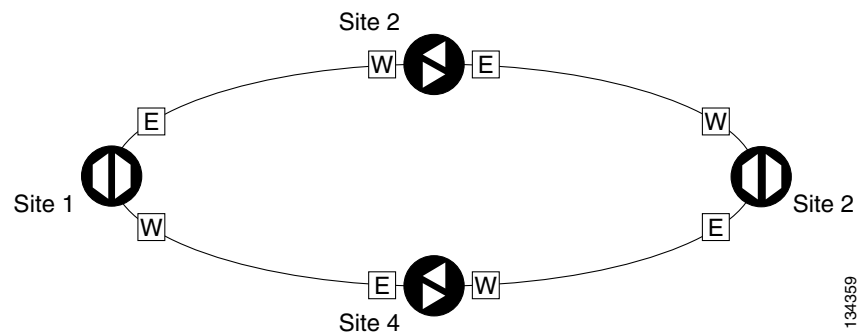
- Point-to-Point—Two terminal sites with 32MUX-O and 32DMX-O or 32WSS and 32DMX or 32-DMX-O cards installed. Line amplifiers can be installed between the terminal sites, but intermediate (traffic terminating) sites cannot be installed. [Figure 5-2](#) shows a point-to-point topology as shown in Cisco MetroPlanner.

Figure 5-2 Point-to-Point Topology



- Two hubs—Two hub nodes in a ring with 32MUX-O and 32DMX-O 32WSS and 32DMX or 32-DMX-O cards installed. Line amplifiers can be installed between the hubs.

[Figure 5-3](#) shows two hub nodes with no line amplifier nodes installed. [Figure 5-4](#) shows two hub nodes line amplifier nodes installed.

Figure 5-3 Hubs with No Line Amplifiers**Figure 5-4 Hubs with Line Amplifiers**

Step 3 Return to your originating procedure.

DLP-G280 Delete a PPM

Purpose	This task deletes PPM provisioning for SFPs or XFPs installed on TXP or MXP cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G63 Install an SFP or XFP, page 3-34 or DLP-G273 Preprovision an SFP or XFP Slot, page 3-33
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note

This task does not apply to the TXP_MR_10G card.

- Step 1** In node view, double-click the TXP or MXP card where you want to delete PPM settings.
- Step 2** Click the **Provisioning > Pluggable Port Modules** tabs.
- Step 3** To delete a PPM and the associated ports:

**Note**

You cannot delete a port if the client is in the IS-NR (ANSI)/Unlocked-enabled (ETSI) service state, is part of a protection group, has a GCC or DCC in use, is used as a timing source, has circuits, or has overhead circuits. You can delete a port if the trunk is in service and the client is in the OOS-MA,DSBLD (ANSI)/Locked-enabled,disabled (ETSI) service state, with the exception of the last port. You can delete the last port only if the trunk is in a OOS-MA,DSBLD (ANSI)/Locked-enabled,disabled (ETSI) service state.

- a. Click the PPM line that you want to delete that appears in the Pluggable Port Modules pane. The highlight changes to dark blue.
 - b. Click **Delete**. The Delete PPM dialog box appears.
 - c. Click **Yes**. The PPM provisioning is removed from the Pluggable Port Modules pane and the Pluggable Ports pane.
- Step 4** Verify that the PPM provisioning is deleted. CTC shows an empty slot after the PPM is deleted.
- Step 5** If you need to remove the PPM hardware (the SFP or XFP), complete the [“DLP-G64 Remove an SFP or XFP” task on page 3-34](#).
- Step 6** Return to your originating procedure (NTP).

NTP-G96 Modify Line Settings and PM Parameter Thresholds for TXP_MR_10G and TXP_MR_10E Cards

Purpose	This procedure changes the line and threshold settings for TXP_MR_10G and TXP_MR_10E cards.
Tools/Equipment	None
Prerequisite Procedures	NTP-G32 Install the Transponder and Muxponder Cards, page 3-31 DLP-G63 Install an SFP or XFP, page 3-34 DLP-G277 Provision a Multirate PPM, page 5-3 (if necessary) DLP-G278 Provision the Optical Line Rate, page 5-3 (if necessary)
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

**Note**

The TXP_MR_10G card does not support PPMs.

- Step 1** Complete the [“DLP-G46 Log into CTC” task on page 2-24](#) at the node where you want to change the transponder card settings. If you are already logged in, continue with [Step 2](#).

- Step 2** As needed, complete the “[NTP-G103 Back Up the Database](#)” procedure on page 12-2 to preserve the existing transmission settings.
- Step 3** Perform any of the following tasks as needed:
- [DLP-G216 Change Card Settings for TXP_MR_10G and TXP_MR_10E Cards](#), page 5-9
 - [DLP-G217 Change Line Settings for TXP_MR_10G and TXP_MR_10E Cards](#), page 5-10
 - [DLP-G219 Change the TXP_MR_10G or TXP_MR_10E Card Line Thresholds for SONET or SDH Payloads](#), page 5-15
 - [DLP-G319 Change the TXP_MR_10G or TXP_MR_10E Card Line Thresholds for 10G Ethernet LAN Phy](#), page 5-16
 - [DLP-G301 Provision the TXP_MR_10G and TXP_MR_10E Trunk Port Alarm and TCA Thresholds](#), page 5-19
 - [DLP-G302 Provision the TXP_MR_10G and TXP_MR_10E Client Port Alarm and TCA Thresholds](#), page 5-20
 - [DLP-G218 Change Section Trace Settings for the TXP_MR_10G and TXP_MR_10E Cards](#), page 5-13
 - [DLP-G221 Change OTN Settings for TXP_MR_10G and TXP_MR_10E Cards](#), page 5-21
- Stop. You have completed this procedure.**
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DLP-G216 Change Card Settings for TXP_MR_10G and TXP_MR_10E Cards

Purpose	This task changes the card settings for TXP_MR_10G and TXP_MR_10E multirate (10 Gbps) transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC , page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the card settings.
- Step 2** Click the **Provisioning > Card** tabs.
- Step 3** Modify any of the settings described in [Table 5-2](#).

Table 5-2 *TXP_MR-10G and TXP_MR_10E Card Settings*

Parameter	Description	Options – ONS 15454	Options – ONS 15454 SDH
Termination Mode	Sets the mode of operation. See the “15.12 Termination Modes” section on page 15-117 for more details.	- Transparent - Section (TXP_MR_10E only) - Line	- Transparent - Regeneration Section (TXP_MR_10E only) - Multiplex Section
AIS/Squelch Configuration	(TXP_MR_10E only) Sets the transparent termination mode configuration.	- Squelch - AIS	- Squelch - AIS
Wavelength	Sets the wavelength of the DWDM side optical transmitter.	- First Tunable Wavelength - Further wavelengths in 100-GHz ITU spacing - Supported wavelengths are in white and marked by asterisks (**); unsupported wavelengths are gray. Note The four available wavelengths are listed in the Card Parameters section of the window and also in the Maintenance > Info subtab.	- First Tunable Wavelength - Further wavelengths in 100-GHz ITU spacing - Supported wavelengths are in white and marked by asterisks (**); unsupported wavelengths are gray. Note The four available wavelengths are listed in the Card Parameters section of the window and also in the Maintenance > Info subtab.

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G217 Change Line Settings for TXP_MR_10G and TXP_MR_10E Cards

Purpose	This task changes the line settings for TXP_MR_10G and TXP_MR_10E transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the line settings.
- Step 2** Click the **Provisioning > Line > SONET (including 10G Ethernet WAN phy)** tabs.
- Step 3** Modify any of the settings described in [Table 5-3](#).

**Note**

In [Table 5-3](#), some parameter tabs do not always apply to both the TXP_MR_10G and TXP_MR_10E cards. If a tab does not apply, it will not appear in CTC.

Table 5-3 *TXP_MR_10G and TXP_MR_10E Transponder Card Line Settings*

Parameter	Description	Options – ONS 15454	Options – ONS 15454 SDH
Port	(Display only) Displays the port number.	1-1 (OC192) 2 (Trunk)	1-1 (STM64) 2 (Trunk)
Port Name	Provides the ability to assign the specified port a name.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “DLP-G104 Assign a Name to a Port” task on page 7-9.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “DLP-G104 Assign a Name to a Port” task on page 7-9.
Admin State	Sets the port service state. For more information about administrative states, see Appendix C, “DWDM Administrative and Service States.”	- IS - IS,AINS - OOS,DSBLD - OOS,MT	- Unlocked - Unlocked,automaticInService - Locked,disabled - Locked,maintenance
Service State	(Display only) Identifies the autonomously generated state that gives the overall condition of the port. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. For more information about service states, see Appendix C, “DWDM Administrative and Service States.”	- IS-NR - OOS-AU,AINS - OOS-MA,DSBLD - OOS-MA,MT	- Unlocked-enabled - Unlocked-disabled, automaticInService - Locked-enabled,disabled - Locked-enabled,maintenance
SF BER	(SONET [ANSI] or SDH [ETSI] including 10G Ethernet WAN Phy only) Sets the signal fail bit error rate.	1E-3 1E-4 1E-5	1E-3 1E-4 1E-5
SD BER	(SONET [ANSI] or SDH [ETSI] including 10G Ethernet WAN Phy only) Sets the signal degrade bit error rate.	1E-5 1E-6 1E-7 1E-8 1E-9	1E-5 1E-6 1E-7 1E-8 1E-9
AINS Soak	(SONET [ANSI] or SDH [ETSI] including 10G Ethernet WAN Phy only) Sets the automatic in-service soak period. Double click the time and use the up and down arrows to change settings.	- Duration of valid input signal, in hh.mm format, after which the card becomes in service (IS) automatically 0 to 48 hours, 15-minute increments	- Duration of valid input signal, in hh.mm format, after which the card becomes in service (IS) automatically 0 to 48 hours, 15-minute increments

Table 5-3 *TXP_MR_10G and TXP_MR_10E Transponder Card Line Settings (continued)*

Parameter	Description	Options – ONS 15454	Options – ONS 15454 SDH
Type	(SONET [ANSI] or SDH [ETSI] including 10G Ethernet WAN Phy only) The optical transport type.	- SONET - SDH	- SONET - SDH
ALS Mode	Sets the automatic laser shutdown function mode. The DWDM transmitter supports ALS according to ITU-T G.644 (06/99). ALS can be disabled or be set for three mode options.	- Disable (default): ALS is off; the laser is not automatically shut down when traffic outages (LOS) occur. - Auto Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. It automatically restarts when the conditions that caused the outage are resolved. - Manual Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. However, the laser must be manually restarted when conditions that caused the outage are resolved. - Manual Restart for Test: Manually restarts the laser for testing.	- Disable (default): ALS is off; the laser is not automatically shut down when traffic outages (LOS) occur. - Auto Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. It automatically restarts when the conditions that caused the outage are resolved. - Manual Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. However, the laser must be manually restarted when conditions that caused the outage are resolved. - Manual Restart for Test: Manually restarts the laser for testing.
ProvidesSync	(TXP_MR_10E, OC192 only) Sets the ProvidesSync card parameter. If checked, the card is provisioned as a network element timing reference.	Checked or unchecked	Checked or unchecked
SyncMsgIn	(TXP_MR_10E, OC192 only) Sets the EnableSync card parameter. Enables synchronization status messages (S1 byte), which allow the node to choose the best timing source.	Checked or unchecked	Checked or unchecked
Send DoNotUse	(TXP_MR_10E, OC192 only) Sets the Send DoNotUse card state. When checked, sends a DUS (do not use) message on the S1 byte.	Checked or unchecked	Checked or unchecked
Max Size	(TXP_MR_10E, 10_GE LAN Phy only) Sets the maximum Ethernet packet size.	1548 bytes - Jumbo (64 to 9,216 bytes)	1548 bytes - Jumbo (64 to 9,216 bytes)
Incoming MAC Address	(TXP_MR_10E, 10_GE LAN Phy only) Sets the incoming MAC address.	Value of MAC address. 6 bytes in hexadecimal format.	Value of MAC address. 6 bytes in hexadecimal format.

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-G218 Change Section Trace Settings for the TXP_MR_10G and TXP_MR_10E Cards

Purpose	This task changes the section trace settings for the TXP_MR_10G and TXP_MR_10E transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note The Section Trace tab is available for the TXP_MR_10G and TXP_MR_10E cards only if no PPM or an OC192 PPM has been provisioned. The tab is not available if a TEN_GE LAN Phy or FC10G PPM has been provisioned.

- Step 1** In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the section trace settings.
- Step 2** Click the **Provisioning > Line > Section Trace** tabs.
- Step 3** Modify any of the settings described in [Table 5-4](#).

Table 5-4 TXP_MR_10G and TXP_MR_10E Transponder Card Section Trace Settings

Parameter	Description	Options – ONS 15454	Options — ONS 15454 SDH
Port	Sets the port number.	1-1 (OC192) 2—Trunk	1-1 (STM64) 2—Trunk
Trace Mode	Sets the trace mode.	- Off/None - Manual	- Off/None - Manual
Section Trace String Size	Sets the trace string size.	1 byte 16 byte	1 byte 16 byte

Table 5-4 *TXP_MR_10G and TXP_MR_10E Transponder Card Section Trace Settings (continued)*

Parameter	Description	Options – ONS 15454	Options — ONS 15454 SDH
Transmit	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size	String of trace string size
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or select the Auto-refresh every 5 sec check box to keep this panel updated.	String of trace string size	String of trace string size

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G219 Change the TXP_MR_10G or TXP_MR_10E Card Line Thresholds for SONET or SDH Payloads

Purpose	This task changes the line threshold settings for TXP_MR_10G and TXP_MR_10E transponder cards carrying SONET or SDH payloads, including the physical 10G Ethernet WAN payload.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the line threshold settings.
- Step 2** Click the **Provisioning > Line Thresholds > SONET Thresholds** tabs.
- Step 3** Modify any of the settings described in [Table 5-5](#).



Note You must modify Near End, and Far End independently; 15 Min and 1 Day independently; Line and Section independently. To do so choose the appropriate radio button and click **Refresh**.

Table 5-5 *TXP_MR_10G and TXP_MR_10E Transponder Card Line Threshold Settings*

Parameter	Description	Options – ONS 15454	Options – ONS 15454 SDH
Port	(Display only) Port number	1-1 (OC192) 2 (Trunk)	1-1 (STM64) 2 (Trunk)
CV	Coding violations	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section, or Regeneration Section. Select a bullet and click Refresh .
ES	Errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section, or Regeneration Section. Select a bullet and click Refresh .
SES	Severely errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section, or Regeneration Section. Select a bullet and click Refresh .

Table 5-5 *TXP_MR_10G and TXP_MR_10E Transponder Card Line Threshold Settings (continued)*

Parameter	Description	Options – ONS 15454	Options – ONS 15454 SDH
FC	Failure count	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .
UAS	Unavailable seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Line, or Section. Select a bullet and click Refresh .

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G319 Change the TXP_MR_10G or TXP_MR_10E Card Line Thresholds for 10G Ethernet LAN Phy

Purpose	This task changes the line threshold settings for TXP_MR_10G and TXP_MR_10E transponder cards carrying the physical 10G Ethernet LAN payload.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Display the TXP_MR_10G or TXP_MR_10E card where you want to change the line threshold settings in card view.
- Step 2** Click the **Provisioning > Line Thresholds > RMON Thresholds** tabs.
- Step 3** Click **Create**. The Create Threshold dialog box appears.
- Step 4** From the Port drop-down list, choose the applicable port.
- Step 5** From the Variable drop-down list, choose an Ethernet variable. See [Table 5-6](#) for a list of available Ethernet thresholds.

Table 5-6 *TXP_MR_10G and TXP_MR_10GE LAN Phy Variables*

Variable	Description
ifInOctets	Total number of octets received on the interface, including framing characters.
rxTotalPkts	Total number of received packets.
ifInMulticastPkts	Number of multicast frames received error free.

Table 5-6 *TXP_MR_10G and TXP_MR_10GE LAN Phy Variables (continued)*

ifInBroadcastPkts	Number of packets, delivered by a sub-layer to an higher sub-layer, which were addressed to a broadcast address at this sub-layer.
ifInErrors	Number of inbound packets that contained errors preventing them from being delivered to a higher-layer protocol.
ifInErrorBytePkts	Number of receive error bytes.
ifInFramingErrorPkts	Number of receive framing error counters.
ifInJunkInterPkts	Number of receive interpacket junk counters.
ifOutOctets	Total number of octets transmitted out of the interface, including framing characters.
txTotalPkts	Total number of transmit packets.
ifOutMulticastPkts	Number of multicast frames transmitted error free.
ifOutBroadcastPkts	Total number of packets that higher-level protocols requested be transmitted, and which were addressed to a broadcast address at this sub-layer, including those that were discarded or not sent.
dot3StatsFCSErrors	Number of frames with frame check errors, that is, there is an integral number of octets, but an incorrect Frame Check Sequence (FCS).
dot3StatsFrameTooLong	Number of received frames that were larger than the maximum size permitted.
etherStatsUndersizePkts	Total number of packets received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed.
etherStatsFragments	Total number of packets received that were less than 64 octets in length (excluding framing bits but including FCS octets) and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error). Note that it is entirely normal for etherStatsFragments to increment. This is because it counts both runts (which are normal occurrences due to collisions) and noise hits.
etherStatsPkts64Octets	Total number of packets (including bad packets) received that were 64 octets in length (excluding framing bits but including FCS octets).
etherStatsPkts65to127Octets	Total number of packets (including bad packets) received that were between 65 and 127 octets in length inclusive (excluding framing bits but including FCS octets).
etherStatsPkts128to255Octets	The total number of packets (including bad packets) received that were between 128 and 255 octets in length inclusive (excluding framing bits but including FCS octets).

Table 5-6 TXP_MR_10G and TXP_MR 10GE LAN Phy Variables (continued)

etherStatsPkts256to511Octets	Total number of packets (including bad packets) received that were between 256 and 511 octets in length inclusive (excluding framing bits but including FCS octets).
etherStatsPkts512to1023Octets	Total number of packets (including bad packets) received that were between 512 and 1023 octets in length inclusive (excluding framing bits but including FCS octets).
etherStatsPkts1024to1518Octets	Total number of packets (including bad packets) received that were between 1024 and 1518 octets in length inclusive (excluding framing bits but including FCS octets).
etherStatsBroadcastPkts	Total number of good packets received that were directed to the broadcast address. Note that this does not include multicast packets.
etherStatsMulticastPkts	Total number of good packets received that were directed to a multicast address. Note that this number does not include packets directed to the broadcast address.
etherStatsOversizePkts	Total number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed.
etherStatsJabbers	Total number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets), and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).
etherStatsOctets	Total number of octets of data (including those in bad packets) received on the network (excluding framing bits but including FCS octets).
etherStatsCRCAlignErrors	Total number of packets received that had a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets, inclusive, but had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).
rxPauseFrames	Number of received 802.x pause frames
rxControlFrames	Number of MAC control frames passed by the MAC sub-layer to the MAC control sub-layer.
rxUnknownOpcodeFrames	Number of MAC control frames received that contain an opcode that is not supported by the device.

- Step 6** From the Alarm Type drop-down list, indicate whether the event will be triggered by the rising threshold, falling threshold, or both the rising and falling thresholds.
- Step 7** From the Sample Type drop-down list, choose either **Relative** or **Absolute**. Relative restricts the threshold to use the number of occurrences in the user-set sample period. Absolute sets the threshold to use the total number of occurrences, regardless of time period.
- Step 8** Type in an appropriate number of seconds for the Sample Period.

- Step 9** Type in the appropriate number of occurrences for the Rising Threshold.
- For a rising type of alarm, the measured value must move from below the falling threshold to above the rising threshold. For example, if a network is running below a rising threshold of 1000 collisions every 15 seconds and a problem causes 1001 collisions in 15 seconds, the excess occurrences trigger an alarm.
- Step 10** Enter the appropriate number of occurrences in the Falling Threshold field. In most cases a falling threshold is set lower than the rising threshold.
- A falling threshold is the counterpart to a rising threshold. When the number of occurrences is above the rising threshold and then drops below a falling threshold, it resets the rising threshold. For example, when the network problem that caused 1001 collisions in 15 minutes subsides and creates only 799 collisions in 15 minutes, occurrences fall below a falling threshold of 800 collisions. This resets the rising threshold so that if network collisions again spike over a 1000 per 15-minute period, an event again triggers when the rising threshold is crossed. An event is triggered only the first time a rising threshold is exceeded (otherwise, a single network problem might cause a rising threshold to be exceeded multiple times and cause a flood of events).
- Step 11** Click **OK** to complete the procedure.
- Step 12** Return to your originating procedure (NTP).

DLP-G301 Provision the TXP_MR_10G and TXP_MR_10E Trunk Port Alarm and TCA Thresholds

Purpose	This task provisions the TXP_MR_10G and TXP_MR_10E trunk port alarm and TCA thresholds.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the trunk port alarm and TCA settings.
- Step 2** Click the **Provisioning > Optics Thresholds** tabs.
- Step 3** Referring to [Table 5-7](#), provision the trunk port (Port 2) TCA thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.



Note Do not modify the Laser Bias parameters.

- Step 4** Click **Apply**.

Table 5-7 *TXP_MR_10G and TXP_MR_10E Trunk Port Alarm and TCA Thresholds*

Card	Alarm RX Power Low	Alarm RX Power High	TCA RX Power Low	TCA RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA TX Power Low	TCA TX Power High
TXP_MR_10G	-24 dBm	-8 dBm	-22 dBm	-8 dBm	2 dBm	4 dBm	-1 dBm	7 dBm
TXP_MR_10E	-20 dBm	-8 dBm	-18 dBm	-9 dBm	3 dBm	7 dBm	0 dBm	9 dBm

Step 5 Under Types, click the **Alarm** radio button and click **Refresh**.

Step 6 Referring to [Table 5-7](#), provision the trunk port (Port 2) Alarm thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 7 Click **Apply**.

Step 8 Return to your originating procedure (NTP).

DLP-G302 Provision the TXP_MR_10G and TXP_MR_10E Client Port Alarm and TCA Thresholds

Purpose	This task provisions the client port alarm and threshold cross alert (TCA) thresholds for the TXP_MR_10G and TXP_MR_10E Cards
Tools/Equipment	None
Prerequisite Procedures	DLP-G278 Provision the Optical Line Rate, page 5-3 DLP-G46 Log into CTC, page 2-24
Required/As Needed	Required
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the client port alarm and TCA settings.

Step 2 Click the **Provisioning > Optics Thresholds** tabs. The TCA thresholds are shown by default.

Step 3 Referring to [Table 5-8](#), provision the Port 1 (Client) TCA thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface at the other end. For additional information about client SFP and XFP interfaces, also known as Pluggable Port Modules (PPMs), refer to the [Hardware Specifications](#) chapter in the *Cisco ONS 15454 Reference Manual*.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.



Note Do not modify the Laser Bias parameters.

Step 4 Click **Apply**.

Table 5-8 Client Interfaces Alarm and TCA Thresholds: TXP_MR_10E and TXP_MR_10G Cards

Port Type (by CTC)	Pluggable Port Module (XFP)	Alarm RX Power Low	Alarm RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA RX Power Low	TCA RX Power High	TCA TX Power Low	TCA TX Power High
SONET (or SDH)	TXP_MR_10E uses ONS-XC-10G-S1	-14	2	-9	2	-11	-1	-12	5
	TXP_MR_10G (XFP not present)	-14	2	-9	2	-11	-1	-12	5
10G Ethernet LAN Phy	TXP_MR_10E uses ONS-XC-10G-S1	-17	4	-9	2	-14	1	-12	5
	TXP_MR_10G (XFP not present)	-17	4	-9	2	-14	1	-12	5
10G Ethernet WAN PHY	TXP_MR_10E uses ONS-XC-10G-S1	-17	4	-9	2	-14	1	-12	5
	TXP_MR_10G (XFP not present)	-17	4	-9	2	-14	1	-12	5

Step 5 Under Types, click the **Alarm** radio button and click **Refresh**.

Step 6 Referring to [Table 5-8](#), provision the Port 1 (Client) Alarm thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface that is provisioned.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 7 Click **Apply**.

Step 8 Return to your originating procedure.

DLP-G221 Change OTN Settings for TXP_MR_10G and TXP_MR_10E Cards

Purpose	This task changes the line optical transport network (OTN) settings for TXP_MR_10G and TXP_MR_10E transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_10G or TXP_MR_10E card where you want to change the OTN settings.
- Step 2** Click one of the **Provisioning > OTN** tabs: OTN Lines, G.709 Thresholds, FEC Thresholds, or Trail Trace Identifier.
- Step 3** Modify any of the settings described in Tables 5-9 through 5-12.



Note You must modify Near End, and Far End independently; 15 Min and 1 Day independently; SM and PM independently. To do so choose the appropriate radio button and click **Refresh**.

Table 5-9 describes the values on the Provisioning > OTN > OTN Lines tab.

Table 5-9 TXP_MR_10G and TXP_MR_10E Transponder Card OTN Settings

Parameter	Description	Options
Port #	(Display only) Port number.	2
G.709 OTN	Sets the OTN lines according to ITU-T G.709. Check box to enable.	- Enabled - Disabled
FEC	Sets the OTN lines FEC mode. FEC mode can be Disabled, Enabled or Enhanced FEC mode can be enabled (to provide greater range and lower bit error rate).	- Enabled—(TXP_MR_10G only) FEC is on - Disabled—FEC is off - Standard—(TXP_MR_10E only) Standard FEC is on. - Enhanced—(TXP_MR_10E only) Enhanced FEC is on
SD BER	Sets the signal degrade bit error rate.	1E-5 1E-6 1E-7 1E-8 1E-9
Asynch/Synch Mapping	(TXP_MR_10E only) The card can perform multiplexing per ITU-T G.709. The ODUk (client SONET/SDH payload) can be mapped to the Optical Channel (OTUk) either asynchronously or synchronously with this setting.	- Asynch mapping - Synch mapping

Table 5-10 describes the values on the Provisioning > OTN > G.709 Thresholds tab.

Table 5-10 *TXP_MR_10G and TXP_MR_10E Transponder Card ITU-T G.709 Threshold Settings*

Parameter	Description	Options
Port	(Display only) Port number.	2
ES	Severely errored seconds. Two types of thresholds can be asserted. Selecting the SM (OTUk) radio button selects FEC and overhead management and performance monitoring using OTUk. Selecting the PM radio button selects path performance monitoring using ODUk.	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
SES	Severely errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select the bullet and click Refresh .
UAS	Unavailable seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select the bullet and click Refresh .
BBE	Background block errors	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select the bullet and click Refresh .
FC	Failure counter	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select the bullet and click Refresh .

Table 5-11 describes the values on the Provisioning > OTN > FEC Thresholds tab.

Table 5-11 *TXP_MR_10G and TXP_MR_10E Transponder Card FEC Threshold Settings*

Parameter	Description	Options
Port	(Display only) Displays the port number and optional name.	2
Bit Errors Corrected	Displays the number of bit errors corrected during the selected time period.	Numeric display. Can be set for 15-minute or one-day intervals.
Uncorrectable Words	Displays the number of uncorrectable words in the selected time period.	Numeric display. Can be set for 15-minute or one-day intervals.

Table 5-12 describes the values on the Provisioning > OTN > Trail Trace Identifier tab.

Table 5-12 *TXP_MR_10G and TXP_MR_10E Transponder Card Trail Trace Identifier Settings*

Parameter	Description	Options
Port	Sets the port number.	1 2
Level	Sets the level.	- Section - Path
Trace Mode	Sets the trace mode.	- Off/None - Auto - Manual
Transmit	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size; trail trace identifier is 64 bytes in length.
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or select the Auto-refresh every 5 sec check box to keep this panel updated.	String of trace string size

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

NTP-G97 Modify Line Settings and PM Parameter Thresholds for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This procedure changes the line and threshold settings for MXP_2.5G_10G and MXP_2.5G_10E muxponder cards.
Tools/Equipment	None

Prerequisite Procedures	NTP-G32 Install the Transponder and Muxponder Cards, page 3-31. DLP-G63 Install an SFP or XFP, page 3-34 DLP-G277 Provision a Multirate PPM, page 5-3 (if necessary) DLP-G278 Provision the Optical Line Rate, page 5-3 (if necessary)
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

-
- Step 1** Complete the “[DLP-G46 Log into CTC](#)” task on page 2-24 at the node where you want to change the muxponder card settings. If you are already logged in, continue with [Step 2](#).
- Step 2** As needed, complete the “[NTP-G103 Back Up the Database](#)” procedure on page 12-2 to preserve the existing transmission settings.
- Step 3** Perform any of the following tasks as needed:
- [DLP-G222 Change Card Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-25](#)
 - [DLP-G223 Change Line Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-27](#)
 - [DLP-G224 Change Section Trace Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-29](#)
 - [DLP-G225 Change Trunk Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-30](#)
 - [DLP-G226 Change Line Thresholds Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-32](#)
 - [DLP-G303 Provision the MXP_2.5G_10G and MXP_2.5G_10E Trunk Port Alarm and TCA Thresholds, page 5-33](#)
 - [DLP-G304 Provision the MXP_2.5G_10G and MXP_2.5G_10E Client Port Alarm and TCA Thresholds, page 5-34](#)
 - [DLP-G228 Change Line OTN Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards, page 5-35](#)
- Step 4** As needed, complete the “[NTP-G103 Back Up the Database](#)” procedure on page 12-2.
- Stop. You have completed this procedure.**
-

DLP-G222 Change Card Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This task changes the card settings for MXP_2.5G_10G or MXP_2.5G_10E muxponder cards, including payload type, termination mode, and wavelength.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the MXP_2.5G_10G or and MXP_2.5G_10E card where you want to change the card settings.
- Step 2** Click the **Provisioning > Card** tabs.
- Step 3** Modify any of the settings described in [Table 5-13](#).

Table 5-13 *MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Settings*

Parameter	Description	Options
Termination Mode	Sets the mode of operation. Options that do not apply to a card do not display. The MXP_2.5G_10G card is based on SONET/SDH multiplexing. The transparent mode terminates and rebuilds the B1 byte (as well as other bytes) of the incoming OC-48/STM-16 signal. The B2 byte is not touched. The MXP_2.5G_10E card is fully transparent in transparent mode based on the OTN/G.709 multiplexing scheme. It does not terminate the B1 byte or other bytes. It encapsulates OC-48/STM-16 bytes into ODU1 first, then multiplexes them into an OTU2. See the “15.12 Termination Modes” section on page 15-117 for more information.	For ANSI platforms: - Transparent - Section (MXP_2.5G_10E only) - Line (MXP_2.5g_10E only) For ETSI platforms: - Transparent - Multiplex Section (MXP_2.5G_10E only) - Regeneration Section (MXP_2.5g_10E only)
Wavelength	Set the wavelength of the DWDM side optical transmitter. You can set the wavelength to the First Tunable Wavelength or to further wavelengths in 100 GHz ITU spacing.	- First Tunable Wavelength - Further wavelengths in 100-GHz ITU grid specification - Supported wavelengths are in white and marked by asterisks (**); unsupported wavelengths are gray Note The four available wavelengths are listed in the Card Parameters section of the window and also in the Maintenance > Info subtab.
AIS/Squelch	(MXP_2.5G_10E only) Sets the transparent termination mode configuration.	- Ais - Squelch
Card Parameters	Displays the settings for the card.	Information only

- Step 4** Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G223 Change Line Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This task changes the line settings for MXP_2.5G_10G or MXP_2.5G_10E muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 Double-click the MXP_2.5G_10G or MXP_2.5G_10E card where you want to change the line settings.

Step 2 Click the **Provisioning > Line > SONET [ANSI]** or **SDH [ETSI]** tabs.



Note The SONET tab appears only if you have created a PPM for a given port.

Step 3 Modify any of the settings described in [Table 5-14](#).



Note You must modify Near End, and Far End independently; 15 Min and 1 Day independently; Line and Section independently. To do so choose the appropriate radio button and click **Refresh**.

Table 5-14 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Line Settings

Parameter	Description	Options
Port #	(Display only) Port number. Ports 1 to 4 are client ports (OC-48/STM-16). Port 5 (TXP_2.5G_10G) is the DWDM trunk (OC-192/STM-64) that provides wavelength services.	1 2 3 4 5 (MXP_2.5G_10G only)
Port Name	Provides the ability to assign the specified port a logical name.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “DLP-G104 Assign a Name to a Port” task on page 7-9 .
Admin State	Sets the port service state unless network conditions prevent the change. For more information about administrative states, see Appendix C, “DWDM Administrative and Service States.”	- IS (ANSI) or Unlocked (ETSI) - IS,AINS(ANSI) or Unlocked,automaticInService (ETSI) - OOS,DSBLD(ANSI) or Locked,disabled (ETSI) - OOS,MT(ANSI) or Locked,maintenance (ETSI)

Table 5-14 *MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Line Settings (continued)*

Parameter	Description	Options
Service State	Identifies the autonomously generated state that gives the overall condition of the port. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. For more information about service states, see Appendix C, “DWDM Administrative and Service States.”	- IS-NR (ANSI) or Unlocked-enabled (ETSI) - OOS-AU,AINS (ANSI) or Unlocked-disabled, automaticInService (ETSI) - OOS-MA,DSBLD (ANSI) or Locked-enabled,disabled (ETSI) - OOS-MA,MT (ANSI) or Locked-enabled,maintenance (ETSI)
ALS Mode	Sets the automatic laser shutdown function mode. The DWDM transmitter supports ALS according to ITU-T G.644 (06/99). ALS can be disabled or be set for three mode options.	- Disable (default): ALS is off; the laser is not automatically shut down when traffic outages (LOS) occur. - Auto Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. It automatically restarts when the conditions that caused the outage are resolved. - Manual Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. However, the laser must be manually restarted when conditions that caused the outage are resolved. - Manual Restart for Test: Manually restarts the laser for testing.
SF BER	Sets the signal fail bit error rate.	1E-3 1E-4 1E-5
SD BER	Sets the signal degrade bit error rate.	1E-5 1E-6 1E-7 1E-8 1E-9
AINS Soak	Sets the automatic in-service soak period. Double click the time and use the up and down arrows to change settings.	- Duration of valid input signal, in hh.mm format, after which the card becomes in service (IS) automatically 0 to 48 hours, 15-minute increments
Type	The optical transport type	- SONET - SDH
ProvidesSync	Sets the ProvidesSync card parameter. If checked, the card is provisioned as a network element timing reference. (This parameter does not appear for the MXP_2.5G_10E trunk port.)	Checked or unchecked

Table 5-14 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Line Settings (continued)

Parameter	Description	Options
SyncMsgIn	Enables synchronization status messages (S1 byte), which allow the node to choose the best timing source. (This parameter does not appear for the MXP_2.5G_10E trunk port.)	Checked or unchecked
Send DoNotUse	When checked, sends a DUS (do not use) message on the S1 byte. (This parameter does not appear for the MXP_2.5G_10E trunk port.)	Checked or unchecked

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G224 Change Section Trace Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This task changes the section trace settings for MXP_2.5G_10G and MXP_2.5G_10E muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note The Section Trace tab appears only if you have created a PPM for the card.

Step 6 In node view, double-click the MXP_2.5G_10G or MXP_2.5G_10E card where you want to change the section trace settings.

Step 7 Click the **Provisioning > Line > Section Trace** tabs.

Step 8 Modify any of the settings described in [Table 5-15](#).

Table 5-15 TXP_MR_10G and MXP_MR_10E Card Section Trace Settings

Parameter	Description	Options
Port	Sets the port number.	1 2 3 4
Trace Mode	Sets the trace mode.	- Off/None - Manual

Table 5-15 *TXP_MR_10G and MXP_MR_10E Card Section Trace Settings (continued)*

Parameter	Description	Options
Section Trace String Size	Sets the trace string size. Select either radio button.	1 byte 16 byte
Transmit	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or select the Auto-refresh every 5 sec check box to keep this panel updated.	String of trace string size

Step 9 Click **Apply**.

Step 10 Return to your originating procedure (NTP).

DLP-G225 Change Trunk Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This task provisions the trunk settings for MXP_2.5G_10G and MXP_2.5G_10E muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the MXP_2.5G_10G or MXP_2.5G_10E card where you want to change the section trace settings.
- Step 2** Click the **Provisioning > Line > Trunk** tab.
- Step 3** Modify any of the settings described in [Table 5-16](#).

Table 5-16 *MXP_2.5G_10G and MXP_2.5G_10E Muxponder Card Trunk Settings*

Parameter	Description	Options
Port #	(Display only) Displays the port number. Port 5 is the DWDM trunk (OC-192/STM-64) that provides wavelength services.	5
Port Name	Provides the ability to assign the specified port a logical name.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “ DLP-G104 Assign a Name to a Port ” task on page 7-9.
Admin State	Sets the port service state unless network conditions prevent the change. For more information about administrative states, see Appendix C, “DWDM Administrative and Service States.”	- IS (ANSI) or Unlocked (ETSI) - IS,AINS(ANSI) or Unlocked,automaticInService (ETSI) - OOS,DSBLD(ANSI) or Locked,disabled (ETSI) - OOS,MT(ANSI) or Locked,maintenance (ETSI)
Service State	Identifies the autonomously generated state that gives the overall condition of the port. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. For more information about service states, see Appendix C, “DWDM Administrative and Service States.”	- IS-NR (ANSI) or Unlocked-enabled (ETSI) - OOS-AU,AINS (ANSI) or Unlocked-disabled, automaticInService (ETSI) - OOS-MA,DSBLD (ANSI) or Locked-enabled,disabled (ETSI) - OOS-MA,MT (ANSI) or Locked-enabled,maintenance (ETSI)
ALS Mode	Sets the automatic laser shutdown function mode. The DWDM transmitter supports ALS according to ITU-T G.644 (06/99). ALS can be disabled or be set for three mode options.	- Disable (default): ALS is off; the laser is not automatically shut down when traffic outages (LOS) occur. - Auto Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. It automatically restarts when the conditions that caused the outage are resolved. - Manual Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. However, the laser must be manually restarted when conditions that caused the outage are resolved. - Manual Restart for Test: Manually restarts the laser for testing.
AINS Soak	(OC-N and STM-N payloads only) Sets the automatic in-service soak period.	- Duration of valid input signal, in hh.mm format, after which the card becomes in service (IS) automatically 0 to 48 hours, 15-minute increments

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G226 Change Line Thresholds Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This task changes the line threshold settings for MXP_2.5G_10G or MXP_2.5G_10E muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the MXP_2.5G_10G or MXP_2.5G_10E card where you want to change the line threshold settings.

Step 2 Click the **Provisioning > Line Thresholds** tabs.

Step 3 Modify any of the settings described in [Table 5-17](#).



Note You must modify Near End, and Far End independently; 15 Min and 1 Day independently; Line and Section independently. To do so choose the appropriate radio button and click **Refresh**.



Note In [Table 5-17](#), some parameter tabs or selections do not always apply to both the MXP_2.5G_10G and MXP_2.5G_10E cards. If the tabs or selections do not apply, they do not appear in CTC.

Table 5-17 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Line Threshold Settings

Parameter	Description	Options
Port	(Display only) Port number	1 2 3 4 5 (MXP_2.5G_10G only)
CV	Coding violations	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Section, or Path. Select a bullet and click Refresh .
ES	Errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Section, or Path. Select the bullet and click Refresh .

Table 5-17 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Line Threshold Settings

Parameter	Description	Options
SES	Severely errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Section, or Path. Select the bullet and click Refresh .
FC	(Line only) Failure count	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, for Line only. Select the bullet and click Refresh .
UAS	(Line only) Unavailable seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, for Line only. Select the bullet and click Refresh .

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-G303 Provision the MXP_2.5G_10G and MXP_2.5G_10E Trunk Port Alarm and TCA Thresholds

Purpose	This task changes the MXP_2.5G_10G and MXP_2.5G_10E trunk port alarm and TCA thresholds.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the MXP_2.5G_10G or MXP_2.5G_10E card where you want to change the trunk port alarm and TCA settings.
- Step 2** Click the **Provisioning > Optics Thresholds** tabs.
- Step 3** Select a **15 Min** or **1 Day** performance monitoring interval radio button and then click **Refresh**.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

- Step 4** Referring to [Table 5-18](#), provision the trunk port (Port 5) TCA thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low.



Note Do not modify the Laser Bias parameters.

Step 5 Click **Apply**.

Table 5-18 *MXP_2.5G_10G and MXP_2.5G_10E Trunk Port Alarm and TCA Thresholds*

Card	Alarm RX Power Low	Alarm RX Power High	TCA RX Power Low	TCA RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA TX Power Low	TCA TX Power High
MXP_2.5G_10G	-24 dBm	-8 dBm	-22 dBm	-8 dBm	2 dBm	4 dBm	-1 dBm	7 dBm
MXP_2.5G_10E	-20 dBm	-8 dBm	-18 dBm	-9 dBm	3 dBm	7 dBm	0 dBm	9 dBm

Step 6 Under Types, click the **Alarm** radio button and click **Refresh**.

Step 7 Referring to [Table 5-18](#), provision the trunk port (Port 5) Alarm thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 8 Click **Apply**.

Step 9 Return to your originating procedure (NTP).

DLP-G304 Provision the MXP_2.5G_10G and MXP_2.5G_10E Client Port Alarm and TCA Thresholds

Purpose	This task provisions the client port alarm and threshold cross alert (TCA) thresholds for the MXP_2.5G_10G and MXP_2.5G_10E Cards
Tools/Equipment	None
Prerequisite Procedures	DLP-G278 Provision the Optical Line Rate, page 5-3 DLP-G46 Log into CTC, page 2-24
Required/As Needed	Required
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the MXP_2.5G_10G and MXP_2.5G_10E card where you want to change the client port alarm and TCA settings.

Step 2 Click the **Provisioning > Optics Thresholds** tabs. The TCA thresholds are shown by default.

Step 3 Referring to [Table 5-19](#), provision the Port N (where N = 1 through 4) TCA thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface at the other end. For additional information about client SFP and XFP interfaces, also known as Pluggable Port Modules (PPMs), refer to the [Hardware Specifications](#) chapter in the *Cisco ONS 15454 Reference Manual*.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 4 Click **Apply**.

Table 5-19 *Client Interfaces Alarm and TCA Thresholds: MXP_2.5G_10G and MXP_2.5G_10E Cards*

Port Type (by CTC)	Pluggable Port Module (SFP)	Alarm RX Power Low	Alarm RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA RX Power Low	TCA RX Power High	TCA TX Power Low	TCA TX Power High
OC-48	ONS-SE-2G-S1	-21	0	-13	0	-18	-3	-16	3
	15454-SFP-OC48-IR	-21	3	-8	3	-18	0	-11	6
STM-16	ONS-SE-2G-S1	-21	0	-13	0	-18	-3	-16	3
	15454E-SFP-L.16.1	-21	3	-8	3	-18	0	-11	6

Step 5 Repeat Steps 3 and 4 to provision each additional client port.

Step 6 Under Types, click the **Alarm** radio button and click **Refresh**.

Step 7 Referring to Table 5-19, provision the Port N (where N = 1 through 4) Alarm thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface that is provisioned.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 8 Click **Apply**.

Step 9 Repeat Steps 7 and 8 to provision each additional client port. Otherwise, continue with Step 10.

Step 10 Return to your originating procedure.

DLP-G228 Change Line OTN Settings for MXP_2.5G_10G and MXP_2.5G_10E Cards

Purpose	This task changes the line OTN settings for MXP_2.5G_10G or MXP_2.5G_10E muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the MXP_2.5G_10G or MXP_2.5G_10E card where you want to change the line OTN settings.

Step 2 Click one of the **Provisioning > OTN** tabs: OTN Lines, OTN G.709 Thresholds, FEC Thresholds, or Trail Trace Identifier.

Step 3 Modify any of the settings described in Tables 5-20 through 5-23.

**Note**

You must modify Near End, and Far End independently; 15 Min and 1 Day independently; SM and PM independently. To do so choose the appropriate radio button and click **Refresh**.

Table 5-20 describes the values on the Provisioning > OTN > OTN Lines tab.

**Note**

In Table 5-20, some parameter tabs or values do not always apply to both the MXP_2.5G_10G and MXP_2.5G_10E cards. When the tabs or values do not apply, they do not appear to the user.

Table 5-20 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Line OTN Settings

Parameter	Description	Options
Port #	(Display only) Displays the port number.	5
G.709 OTN	Sets the OTN lines according to ITU-T G.709.	- Enabled - Disabled
FEC	Sets the OTN line FEC mode. FEC mode can be Disabled or Enabled. Enhanced FEC mode can be enabled (to provide greater range and lower bit error rate). E-FEC applies only to the MXP_2.5G_10E card.	- Enabled—(MXP_2.5G_10G only) FEC is on - Disabled—FEC is off - Standard—(MXP_2.5G_10E only) FEC is on - Enhanced—(MXP_2.5G_10E only) Enhanced FEC is on
SF BER	Sets the signal fail bit error rate.	1E-5
SD BER	Sets the signal degrade bit error rate.	1E-5 1E-6 1E-7 1E-8 1E-9
Asynch/Synch Mapping	The MXP_2.5G_10E can perform standard ODU multiplexing according to ITU-T G.709. The card uses this to aggregate the four OC-48 client signals.	ODU Multiplex

Table 5-21 describes the values on the Provisioning > OTN > OTN G.709 Thresholds tab.

Table 5-21 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card G.709 Threshold Settings

Parameter	Description	Options
Port	(Display only) Port number	5
ES	Errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .

Table 5-21 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card G.709 Threshold Settings

Parameter	Description	Options
SES	Severely errored seconds. Two types of thresholds can be asserted. Selecting the SM (OTUk) radio button selects FEC and overhead management and performance monitoring using OTUk. Selecting the PM radio button selects path performance monitoring using ODUk.	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
UAS	Unavailable seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
BBE	Background block errors	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
FC	Failure counter	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .

Table 5-22 describes the values on the Provisioning > OTN > FEC Thresholds tab.

Table 5-22 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card FEC Threshold Settings

Parameter	Description	Options
Port	(Display only) Displays the port number.	5
Bit Errors Corrected	Displays the number of bit errors corrected during the interval selected. The interval can be set for 15 minutes or one day.	Numeric
Uncorrectable Words	Displays the number of uncorrectable words during the interval selected. The interval can be set for 15 minutes or one day.	Numeric

Table 5-23 describes the values on the Provisioning > OTN > Trail Trace Identifier tab.

Table 5-23 MXP_2.5G_10G or MXP_2.5G_10E Muxponder Card Trail Trace Identifier Settings

Parameter	Description	Options
Port	Sets the port number. The trail trace identifier is applicable only to the trunk interface, which handles G.709 frames.	5
Level	Sets the level.	- Section - Path

Table 5-23 *MPX_2.5G_10G or MPX_2.5G_10E Muxponder Card Trail Trace Identifier Settings*

Parameter	Description	Options
Trace Mode	Sets the trace mode.	- Off/None - Manual
Transmit	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size; trail trace identifier is 64 bytes in length.
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or select the Auto-refresh every 5 sec box to keep this panel updated.	String of trace string size

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

NTP-G98 Modify Line Settings and PM Parameter Thresholds for TXP_MR_2.5G and TXPP_MR_2.5G Cards

Purpose	This procedure changes the line and threshold settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards.
Tools/Equipment	None
Prerequisite Procedures	NTP-G32 Install the Transponder and Muxponder Cards, page 3-31 DLP-G63 Install an SFP or XFP, page 3-34 DLP-G277 Provision a Multirate PPM, page 5-3 (if necessary) DLP-G278 Provision the Optical Line Rate, page 5-3 (if necessary)
Required/As Needed	As needed

Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

-
- Step 1** Complete the “[DLP-G46 Log into CTC](#)” task on page 2-24 at the node where you want to change the transponder card settings. If you are already logged in, continue with [Step 2](#).
- Step 2** As needed, complete the “[NTP-G103 Back Up the Database](#)” procedure on page 12-2 to preserve the existing transmission settings.
- Step 3** Perform any of the following tasks as needed:
- [DLP-G229 Change Card Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards](#), page 5-39
 - [DLP-G230 Change Line Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards](#), page 5-41
 - [DLP-G231 Change Section Trace Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards](#), page 5-42
 - [DLP-G232 Change TXP_MR_2.5G and TXPP_MR_2.5G Cards Line Threshold Settings for SONET or SDH Payloads](#), page 5-44
 - [DLP-G320 Change the TXP_MR_2.5G or TXPP_MR_2.5G Card Line Thresholds for 1G Ethernet or 1G FC/FICON Payloads](#), page 5-45
 - [DLP-G305 Provision the TXP_MR_2.5G and TXPP_MR_2.5G Trunk Port Alarm and TCA Thresholds](#), page 5-46
 - [DLP-G306 Provision the TXP_MR_2.5G and TXPP_MR_2.5G Cards Client Port Alarm and TCA Thresholds](#), page 5-47
 - [DLP-G234 Change OTN Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards](#), page 5-50
- Stop.** You have completed this procedure.
-

DLP-G229 Change Card Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards

Purpose	This task changes the card settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC , page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

-
- Step 1** In node view, double-click the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the card settings.
- Step 2** Click the **Provisioning > Card** tabs.
- Step 3** Modify any of the settings described in [Table 5-24](#).

Table 5-24 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Settings*

Parameter	Description	Options
Termination Mode	Sets the mode of operation (option only supported for SONET/SDH payloads). See the “15.12 Termination Modes” section on page 15-117 for more information.	- Transparent - Section - Line
Wavelength	Sets the wavelength of the DWDM side optical transmitter.	- First Tunable Wavelength - Further wavelengths in 100-GHz ITU spacing - Supported wavelengths are in white and marked by asterisks (**); unsupported wavelengths are gray. Note The four available wavelengths are listed in the Card Parameters section of the window and also in the Maintenance > Info subtab.
Regeneration Peer Slot	Sets the slot containing another TXP_MR_2.5G or TXPP_MR_2.5G card to create a regeneration peer group. A regeneration peer group facilitates management of two TXP_MR_2.5G or TXPP_MR_2.5G cards that are needed to perform a complete signal regeneration. The regeneration peer group synchronizes provisioning of the two cards. Payload type and G.709 OTN changes made on one TXP_MR_2.5G or TXPP_MR_2.5G card are reflected on the peer TXP_MR_2.5G or TXPP_MR_2.5G card. Note: Y-cable protection groups cannot be created on TXP_MR_2.5G or TXPP_MR_2.5G cards that are in a regeneration peer group.	- None 1 2 3 4 5 6 12 13 14 15 16 17
Regeneration Group Name	Sets the regeneration peer group name.	User defined.

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G230 Change Line Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards

Purpose	This task changes the line settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the line settings.
- Step 2** Click the **Provisioning > Line** tabs and any additional PPM tabs depending on the client interface. Tabs and parameter selections vary according to PPM provisioning.
- Step 3** Modify any of the settings described in [Table 5-25](#).

Table 5-25 TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Line Settings

Parameter	Description	Options
Port #	(Display only) Displays the port number.	1 2 3 (TXPP_MR_2.5G card only)
Port Name	The user can assign a logical name for each of the ports shown by filling in this field.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “ DLP-G104 Assign a Name to a Port ” task on page 7-9.
Admin State	Sets the port service state unless network conditions prevent the change. For more information about administrative states, see Appendix C, “DWDM Administrative and Service States.”	- IS (ANSI) or Unlocked (ETSI) - IS,AINS(ANSI) or Unlocked,automaticInService (ETSI) - OOS,DSBLD(ANSI) or Locked,disabled (ETSI) - OOS,MT(ANSI) or Locked,maintenance (ETSI)
Service State	Identifies the autonomously generated state that gives the overall condition of the port. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. For more information about service states, see Appendix C, “DWDM Administrative and Service States.”	- IS-NR (ANSI) or Unlocked-enabled (ETSI) - OOS-AU,AINS (ANSI) or Unlocked-disabled, automaticInService (ETSI) - OOS-MA,DSBLD (ANSI) or Locked-enabled,disabled (ETSI) - OOS-MA,MT (ANSI) or Locked-enabled,maintenance (ETSI)

Table 5-25 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Line Settings (continued)*

Parameter	Description	Options
ALS Mode	Sets the automatic laser shutdown function.	- Disabled (default) - Auto Restart - Manual Restart - Manual Restart for Test
SF BER	(OC-N and STM-N payloads only) Sets the signal fail bit error rate.	1E-3 1E-4 1E-5
SD BER	(OC-N and STM-N payloads only) Sets the signal degrade bit error rat.	1E-5 1E-6 1E-7 1E-8 1E-9
AINS Soak	(OC-N and STM-N payloads only) Sets the automatic in-service soak period.	- Duration of valid input signal, in hh.mm format, after which the card becomes in service (IS) automatically 0 to 48 hours, 15-minute increments
Type	The optical transport type. (OC-N and STM-N payloads only)	- SONET - SDH

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G231 Change Section Trace Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards

Purpose	This task changes the section trace settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note This task only applies to SONET services.

- Step 1** In node view, double-click the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the section trace settings.
- Step 2** Click the **Provisioning > Line > Section Trace** tabs.
- Step 3** Modify any of the settings described in [Table 5-26](#).

Table 5-26 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Section Trace Settings*

Parameter	Description	Options
Port	(Display only) Port number.	1 2 3 (TXPP_MR_2.5G only)
Trace Mode	Sets the trace mode.	- Off/None - Manual
Section Trace String Size	Sets the trace string size.	1 byte 16 byte
Transmit	Displays the current transmit string; sets a new transmit string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or choose Auto-refresh every 5 sec box to keep this display updated automatically.	String of trace string size

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-G232 Change TXP_MR_2.5G and TXPP_MR_2.5G Cards Line Threshold Settings for SONET or SDH Payloads

Purpose	This task changes the line threshold settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards carrying OC-3/STM-1, OC-12/STM-4, and OC-48/STM-16 payloads.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the line threshold settings.

Step 2 Click the **Provisioning > Line Thresholds** tabs,



Note You must modify Near End, and Far End independently; 15 Min and 1 Day independently; Line and Section independently. To do so choose the appropriate radio button and click **Refresh**.

Step 3 Modify any of the settings in [Table 5-27](#).

Table 5-27 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Line Thresholds Settings for OC-3/STM-1, OC-12/STM-4, and OC-48/STM-16 Payloads*

Parameter	Description	Options
Port	(Display only) Port number	1 2 3 (TXPP_MR_2.5G card only)
CV	Coding violations	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Section, or Path. Select the bullet and click Refresh .
ES	Errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Section, or Path. Select the bullet and click Refresh .
SES	Severely errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for Line (Far End only), Section, or Path. Select the bullet and click Refresh .
SEFS	(Section only) Severely errored framing seconds	Numeric. Can be set for Far End, for 15-minute or one-day intervals for Section only. Select the bullet and click Refresh .

Table 5-27 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Line Thresholds Settings for OC-3/STM-1, OC-12/STM-4, and OC-48/STM-16 Payloads (continued)*

Parameter	Description	Options
FC	(Line only) Failure count	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals for Line only. Select the bullet and click Refresh .
UAS	(Line only) Unavailable seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, for Line only. Select the bullet and click Refresh .

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G320 Change the TXP_MR_2.5G or TXPP_MR_2.5G Card Line Thresholds for 1G Ethernet or 1G FC/FICON Payloads

Purpose	This task changes the line threshold settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards carrying the 1G Ethernet, 1G FC/FICON payloads.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Display the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the line threshold settings in card view.
- Step 2** Click the **Provisioning > Line Thresholds > RMON Thresholds** tabs.
- Step 3** Click **Create**. The Create Threshold dialog box appears.
- Step 4** From the Port drop-down list, choose the applicable port.
- Step 5** From the Variable drop-down list, choose an Ethernet variable. See [Table 5-28](#) for a list of available Ethernet thresholds.

Table 5-28 *TXP_MR_2.5G and TXPP_MR_2.5G 1G Ethernet, 1G FC/FICON*

Variable	Description
ifInErrors	Number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol.
rxTotalPkts	Total number of received packets.

Table 5-28 TXP_MR_2.5G and TXPP_MR_2.5G 1G Ethernet, 1G FC/FICON

8b10bStatsEncodingDispErrors	Number of 8b10b disparity violations on the Fiber Channel line side.
8b10bIdleOrderedSets	Number of received packets containing idle ordered sets.
8b10bNonIdleOrderedSets	Number of received packets containing non-idle ordered sets.
8b10bDataOrderedSets	Number of received packets containing data ordered sets.

- Step 6** From the Alarm Type drop-down list, indicate whether the event will be triggered by the rising threshold, falling threshold, or both the rising and falling thresholds.
- Step 7** From the Sample Type drop-down list, choose either **Relative** or **Absolute**. Relative restricts the threshold to use the number of occurrences in the user-set sample period. Absolute sets the threshold to use the total number of occurrences, regardless of time period.
- Step 8** Type in an appropriate number of seconds for the Sample Period.
- Step 9** Type in the appropriate number of occurrences for the Rising Threshold.
- For a rising type of alarm, the measured value must move from below the falling threshold to above the rising threshold. For example, if a network is running below a rising threshold of 1000 collisions every 15 seconds and a problem causes 1001 collisions in 15 seconds, the excess occurrences trigger an alarm.
- Step 10** Enter the appropriate number of occurrences in the Falling Threshold field. In most cases a falling threshold is set lower than the rising threshold.
- A falling threshold is the counterpart to a rising threshold. When the number of occurrences is above the rising threshold and then drops below a falling threshold, it resets the rising threshold. For example, when the network problem that caused 1001 collisions in 15 minutes subsides and creates only 799 collisions in 15 minutes, occurrences fall below a falling threshold of 800 collisions. This resets the rising threshold so that if network collisions again spike over a 1000 per 15-minute period, an event again triggers when the rising threshold is crossed. An event is triggered only the first time a rising threshold is exceeded (otherwise, a single network problem might cause a rising threshold to be exceeded multiple times and cause a flood of events).
- Step 11** Click **OK** to complete the procedure.
- Step 12** Return to your originating procedure (NTP).

DLP-G305 Provision the TXP_MR_2.5G and TXPP_MR_2.5G Trunk Port Alarm and TCA Thresholds

Purpose	This task changes the TXP_MR_2.5G and TXPP_MR_2.5G trunk port alarm and TCA thresholds.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the trunk port alarm and TCA settings.
- Step 2** Click the **Pluggable Port Modules** tab. Under Pluggable Ports, record the Rate that is provisioned.
- Step 3** Look up the rate in [Table 15-54 on page 15-89](#) and determine whether it is 2R or 3R.
- Step 4** Click the **Provisioning > Optics Thresholds** tabs.
- Step 5** Click the **15 Min** performance monitoring interval radio button and click **Refresh**.
- Step 6** Referring to [Table 5-29](#), provision the trunk port (Port 2) TCA thresholds for RX Power High and RX Power Low depending on whether the rate is 2R or 3R.



Note Do not modify the Laser Bias parameters.

- Step 7** Click **Apply**.

Table 5-29 TXP_MR_2.5G and TXPP_MR_2.5G Trunk Port TCA Thresholds

Signal	TCA RX Power Low	TCA RX Power High
3R	–23 dBm	–9 dBm
2R	–24 dBm	–9 dBm

- Step 8** Under Types, click the **Alarm** radio button and click **Refresh**.
- Step 9** Provision the trunk port (Port 2) Alarm thresholds for RX Power High to –7 dBm and the RX Power Low to –26 dBm.
- Step 10** Click **Apply**.
- Step 11** Click the **1 Day** performance monitoring interval radio button, click **Refresh**, then repeat Steps 6 through 10. If you have completed both intervals, continue with [Step 12](#).
- Step 12** Return to your originating procedure (NTP).

DLP-G306 Provision the TXP_MR_2.5G and TXPP_MR_2.5G Cards Client Port Alarm and TCA Thresholds

Purpose	This task provisions the client port alarm and threshold cross alert (TCA) thresholds for the TXP_MR_2.5G and TXPP_MR_2.5G cards
Tools/Equipment	None
Prerequisite Procedures	DLP-G278 Provision the Optical Line Rate, page 5-3 DLP-G46 Log into CTC, page 2-24
Required/As Needed	Required
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_2.5G and TXPP_MR_2.5G card where you want to change the client port alarm and TCA settings.
- Step 2** Click the **Provisioning > Optics Thresholds** tabs. The TCA thresholds are shown by default.
- Step 3** Referring to [Table 5-30](#), provision the Port 1 (client) TCA thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface at the other end. For additional information about client SFP and XFP interfaces, also known as Pluggable Port Modules (PPMs), refer to the [Hardware Specifications](#) chapter in the *Cisco ONS 15454 Reference Manual*.



Note Do not modify the Laser Bias parameters.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

- Step 4** Click **Apply**.

Table 5-30 Client Interfaces Alarm and TCA Thresholds: TXP_MR_2.5G and TXPP_MR_2.5G Cards

Port Type (by CTC)	Pluggable Port Module (SFP)	Alarm RX Power Low	Alarm RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA RX Power Low	TCA RX Power High	TCA TX Power Low	TCA TX Power High
OC-3	15454-SFP3-1-IR	-26	-5	-18	-5	-23	-8	-21	-2
STM-1	15454E-SFP-L.1.1	-27	-7	-18	-5	-24	-10	-21	-2
OC-12	15454-SFP12-4-IR	-31	-4	-18	-5	-28	-7	-21	-2
STM-4	15454E-SFP-L.4.1	-31	-5	-18	-5	-28	-8	-21	-2
OC-48	ONS-SE-2G-S1	-21	0	-13	0	-18	-3	-16	3
	15454-SFP-OC48-IR	-21	3	-8	3	-18	0	-11	6
STM-16	ONS-SE-2G-S1	-21	0	-13	0	-18	-3	-16	3
	15454E-SFP-L.16.1	-21	3	-8	3	-18	0	-11	6
ONE_GE	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
ESCON	15454-SFP-200 15454E-SFP-200	-24	-11	-32	-11	-21	-14	-35	-8
DV6000	15454-SFP-OC48-IR	-31	-4	-18	-5	-28	-7	-21	-2
	15454E-SFP-L.16.1	-21	3	-8	3	-18	0	-11	6
SDI_D1_VIDEO	15454-SFP12-4-IR	-31	-4	-18	-5	-28	-7	-21	-2
	15454E-SFP-L.4.1	-31	-5	-18	-5	-28	-8	-21	-2
HDTV	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
PASS-THRU	2R MODE (not specified)	Service Dependent							

Table 5-30 Client Interfaces Alarm and TCA Thresholds: TXP_MR_2.5G and TXPP_MR_2.5G Cards (continued)

Port Type (by CTC)	Pluggable Port Module (SFP)	Alarm RX Power Low	Alarm RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA RX Power Low	TCA RX Power High	TCA TX Power Low	TCA TX Power High
FC1G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
FC2G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-18	3	-13	-1	-15	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
FICON1G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
FICON2G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
ETR_CLO	15454-SFP-200 15454E-SFP-200	-20	3	-13	-1	-17	0	-16	3
ISC compat	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
ISC peer	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3

Step 5 Under Types, click the **Alarm** radio button and click **Refresh**.

Step 6 Referring to [Table 5-30](#), provision the Alarm thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface that is provisioned.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 7 Click **Apply**.

Step 8 Return to your originating procedure.

DLP-G234 Change OTN Settings for TXP_MR_2.5G and TXPP_MR_2.5G Cards

Purpose	This task changes the OTN settings for TXP_MR_2.5G and TXPP_MR_2.5G transponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the TXP_MR_2.5G or TXPP_MR_2.5G card where you want to change the OTN settings.
- Step 2** Click one of the **Provisioning > OTN** subtabs: OTN Lines, G.709 Thresholds, FEC Thresholds, or Trail Trace Identifier.
- Step 3** Modify any of the settings described in Tables [5-31](#) through [5-34](#).



Note You must modify Near End and Far End; 15 Min and 1 Day; and SM and PM independently. To do so choose the appropriate radio button and click **Refresh**.

[Table 5-31](#) describes the values on the Provisioning > OTN > OTN Lines tab.

Table 5-31 TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card OTN Line Settings

Parameter	Description	Options
Port #	(Display only) Displays the port number.	2
G.709 OTN	Sets the OTN lines according to ITU-T G.709.	- Enabled - Disabled
FEC	Sets the OTN lines to FEC.	- Enabled - Disabled
SF BER	Sets the signal fail bit error rate.	1E-5
SD BER	Sets the signal degrade bit error rate.	1E-5 1E-6 1E-7 1E-8 1E-9

[Table 5-32](#) describes the values on the Provisioning > OTN > G.709 Thresholds tab.

Table 5-32 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card ITU-T G.709 Threshold Settings*

Parameter	Description	Options
Port ¹	(Display only) Port number.	2
ES	Errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
SES	Severely errored seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
UAS	Unavailable seconds	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
BBE	Background block errors	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .
FC	Failure counter	Numeric. Can be set for Near End or Far End, for 15-minute or one-day intervals, or for SM (OTUk) or PM (ODUk). Select a bullet and click Refresh .

1. Latency for 1G-FC payload without ITU-T G.709 is 4 microseconds, with ITU-T G.709 is 40 microseconds. Latency for 2G-FC payload without ITU-T G.709 is 2 microseconds, with ITU-T G.709 is 20 microseconds. Consider these values when planning a FC network that is sensitive to latency.

[Table 5-33](#) describes the values on the Provisioning > OTN > FEC Threshold tab.

Table 5-33 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card FEC Threshold Settings*

Parameter	Description	Options
Port	(Display only) Port number.	2
Bit Errors Corrected	Sets the value for bit errors corrected.	Numeric. Can be set for 15-minute or one-day intervals.
Uncorrectable Words	Sets the value for uncorrectable words.	Numeric. Can be set for 15-minute or one-day intervals.

[Table 5-34](#) describes the values on the Provisioning > OTN > Trail Trace Identifier tab.

Table 5-34 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Trail Trace Identifier Settings*

Parameter	Description	Options
Port	(Display only) Port number.	2
Level	Sets the level.	- Section - Path
Trace Mode	Sets the trace mode.	- Off/None - Manual

Table 5-34 *TXP_MR_2.5G and TXPP_MR_2.5G Transponder Card Trail Trace Identifier Settings*

Parameter	Description	Options
Transmit	Displays the current transmit string; sets a new transmit string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or select the Auto-refresh every 5 sec check box to keep this panel updated.	String of trace string size

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

NTP-G99 Modify Line Settings and PM Parameter Thresholds for MXP_MR_2.5G and MXPP_MR_2.5G Cards

Purpose	This procedure changes the line and threshold settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	NTP-G32 Install the Transponder and Muxponder Cards, page 3-31 DLP-G63 Install an SFP or XFP, page 3-34 DLP-G277 Provision a Multirate PPM, page 5-3 (if necessary) DLP-G278 Provision the Optical Line Rate, page 5-3 (if necessary)
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Complete the “[DLP-G46 Log into CTC](#)” task on page 2-24 at the node where you want to change the muxponder card settings. If you are already logged in, proceed to [Step 2](#).
- Step 2** As needed, complete the “[NTP-G103 Back Up the Database](#)” procedure on page 12-2 to preserve the existing transmission settings.
- Step 3** Perform any of the following tasks as needed:
- [DLP-G235 Change Card Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards](#), page 5-53
 - [DLP-G236 Change Client Line Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards](#), page 5-54
 - [DLP-G237 Change Distance Extension Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards](#), page 5-56
 - [DLP-G238 Change OC-48/STM-16 Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards](#), page 5-57
 - [DLP-G239 Change Section Trace Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards](#), page 5-59
 - [DLP-G321 Change the MXP_MR_2.5G or MXPP_MR_2.5G Card Line Thresholds for 1G Ethernet or 1G FC/FICON Payloads](#), page 5-61
 - [DLP-G320 Change the TXP_MR_2.5G or TXPP_MR_2.5G Card Line Thresholds for 1G Ethernet or 1G FC/FICON Payloads](#), page 5-45
 - [DLP-G307 Provision the MXP_MR_2.5G and MXPP_MR_2.5G Trunk Port Alarm and TCA Thresholds](#), page 5-63
 - [DLP-G308 Provision the MXP_MR_2.5G and MXPP_MR_2.5G Client Port Alarm and TCA Thresholds](#), page 5-64



Note To use the Alarm Profiles tab, including creating alarm profiles and suppressing alarms, see [Chapter 8, “Manage Alarms.”](#)

Stop. You have completed this procedure.

DLP-G235 Change Card Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards

Purpose	This task changes the card settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC , page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note Card settings can be changed only if the facilities are out-of-service (OOS).

- Step 1** In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the card settings.
- Step 2** Click the **Provisioning > Card** tabs.
- Step 3** Modify any of the settings described in [Table 5-35](#).

Table 5-35 MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Settings

Parameter	Description	Options
Card Mode	Sets the mode of operation (option only supported for SONET/SDH payloads). Note: this setting is not currently supported. The only option available currently is FC-GE.	FC-GE
Wavelength	Sets the wavelength of the DWDM side optical transmitter.	- First Tunable Wavelength - Further wavelengths in 100-GHz ITU spacing - Supported wavelengths are in white and marked by asterisks (**); unsupported wavelengths are gray. Note The four available wavelengths are listed in the Card Parameters section of the window and also in the Maintenance > Info subtab.

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-G236 Change Client Line Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards

Purpose	This task changes the line settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the line settings.
- Step 2** Click the **Provisioning > Line > [client service]** tabs. Tabs and parameter selections vary according to PPM provisioning.

Step 3 Modify any of the settings for the Client tab as described in [Table 5-36](#).

Table 5-36 *MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line Client Tab Settings*

Parameter	Description	Options
Port #	(Display only) Port number.	1 2
Port Name	The user can assign a logical name for each of the ports shown by filling in this field.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “ DLP-G104 Assign a Name to a Port ” task on page 7-9 .
Admin State	Sets the port service state unless network conditions prevent the change. For more information about administrative states, see Appendix C, “DWDM Administrative and Service States.”	- IS (ANSI) or Unlocked (ETSI) - IS,AINS(ANSI) or Unlocked,automaticInService (ETSI) - OOS,DSBLD(ANSI) or Locked,disabled (ETSI) - OOS,MT(ANSI) or Locked,maintenance (ETSI)
Service State	Identifies the autonomously generated state that gives the overall condition of the port. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. For more information about service states, see Appendix C, “DWDM Administrative and Service States.”	- IS-NR (ANSI) or Unlocked-enabled (ETSI) - OOS-AU,AINS (ANSI) or Unlocked-disabled, automaticInService (ETSI) - OOS-MA,DSBLD (ANSI) or Locked-enabled,disabled (ETSI) - OOS-MA,MT (ANSI) or Locked-enabled,maintenance (ETSI)
ALS Mode	Sets the automatic laser shutdown function.	- Disabled (default) - Auto Restart - Manual Restart - Manual Restart for Test

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G237 Change Distance Extension Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards

Purpose	This task changes the distance extension settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

**Note**

Distance extension settings can be changed only if the facilities are out-of-service (OOS).

**Note**

The distance extension parameters only apply to client ports (1 to 8) and not to the trunk ports (Port 9 for MXP_MR_2.5G card or Ports 9 and 10 for the MXPP_MR_2.5G card).

- Step 1** In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the distance extension settings.
- Step 2** Click the **Provisioning > Line > Distance Extension** tabs. Tabs and parameter selections vary according to PPM provisioning.
- Step 3** Modify any of the settings for the Distance Extension tab as described in [Table 5-37](#).

Table 5-37 MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line Distance Extension Settings

Parameter	Description	Options
Port #	(Display only) Port number.	1 2
Enable Distance Extension	Allows end-to-end distances of up to 1600 km for FC1G and up to 800 km for FC2G. If Distance Extension is enabled, set the connected Fibre Channel switches to Interop or Open Fabric mode, depending on the Fibre Channel switch. By default, the MXP_MR_2.5G and MXPP_MR_2.5G card will interoperate with the Cisco MDS storage products.	Checked or unchecked
Auto Detect Credits	Allows automatic detection of buffer credits for FC flow control.	Checked or unchecked
Credits Available	(Display only) Displays the number of buffer credits available.	Numeric (range depends on the client equipment attached to the card)

Table 5-37 *MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line Distance Extension Settings (continued) (continued)*

Parameter	Description	Options
Autoadjust GFP Buffer Threshold	This parameter allows the threshold of the GFP buffer between two MXP_MR_2.5G or two MXPP_MR_2.5G cards to be automatically adjust ed.	Checked or unchecked
GFP Buffers Available	Displays the number of GFP buffers available between two MXP_MR_2.5G or two MXPP_MR_2.5G cards.	Numeric

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G238 Change OC-48/STM-16 Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards

Purpose	This task changes the OC-48/STM-16 settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note OC-48/STM-16 settings apply only to the trunk ports (Port 9 for the MXP_MR_2.5G card and Ports 9 and 10 for the MXPP_MR_2.5G card.)

- Step 1** In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the OC-48/STM-64 settings.
- Step 2** Click the **Provisioning > Line > SONET (ANSI)** or **SDH (ETSI)**. Tabs and parameter selections vary according to PPM provisioning.
- Step 3** Modify any of the settings for the SONET or SDH tab as described in [Table 5-38](#).

Table 5-38 MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line SONET or SDH Tab Settings

Parameter	Description	Options
Port #	(Display only) Port number.	9 (trunk for MXP_MR_2.5G) or 9-10 (trunk for MXPP_MR_2.5G)
Port Name	Provides the ability to assign the specified port a name.	User-defined. Name can be up to 32 alphanumeric/special characters. Blank by default. See the “DLP-G104 Assign a Name to a Port” task on page 7-9 .
Admin State	Sets the port service state unless network conditions prevent the change. For more information about administrative states, see Appendix C, “DWDM Administrative and Service States.”	- IS (ANSI) or Unlocked (ETSI) - IS,AINS(ANSI) or Unlocked,automaticInService (ETSI) - OOS,DSBLD(ANSI) or Locked,disabled (ETSI) - OOS,MT(ANSI) or Locked,maintenance (ETSI)
Service State	Identifies the autonomously generated state that gives the overall condition of the port. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. For more information about service states, see Appendix C, “DWDM Administrative and Service States.”	- IS-NR (ANSI) or Unlocked-enabled (ETSI) - OOS-AU,AINS (ANSI) or Unlocked-disabled, automaticInService (ETSI) - OOS-MA,DSBLD (ANSI) or Locked-enabled,disabled (ETSI) - OOS-MA,MT (ANSI) or Locked-enabled,maintenance (ETSI)
SF BER ¹	Sets the signal fail bit error rate.	1E-3 1E-4 1E-5
SD BER ¹	Sets the signal degrade bit error rate.	1E-5 1E-6 1E-7 1E-8 1E-9
AINS Soak	Sets the automatic in-service soak period. Double click the time and use the up and down arrows to change settings.	- Duration of valid input signal, in hh.mm format, after which the card becomes in service (IS) automatically 0 to 48 hours, 15-minute increments
Type	The optical transport type.	- SONET (ANSI) - SDH (ETSI)

Table 5-38 *MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line SONET or SDH Tab Settings (continued)*

Parameter	Description	Options
ALS Mode	Sets the automatic laser shutdown function mode. The DWDM transmitter supports ALS according to ITU-T G.644 (06/99). ALS can be disabled or be set for three mode options.	- Disable (default): ALS is off; the laser is not automatically shut down when traffic outages (LOS) occur. - Auto Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. It automatically restarts when the conditions that caused the outage are resolved. - Manual Restart: ALS is on; the laser automatically shuts down when traffic outages (LOS) occur. However, the laser must be manually restarted when conditions that caused the outage are resolved. - Manual Restart for Test: Manually restarts the laser for testing.
ProvidesSync	Sets the ProvidesSync card parameter. If checked, the card is provisioned as a network element timing reference.	Checked or unchecked
SyncMsgIn	Sets the EnableSync card parameter. Enables synchronization status messages (S1 byte), which allow the node to choose the best timing source.	Checked or unchecked
Send DoNotUse	Sets the Send DoNotUse card state. When checked, sends a DUS (do not use) message on the S1 byte.	Checked or unchecked

1. BER and SD thresholds apply only to trunk ports (Port 9 for MXP_MR_2.5G and Ports 9 and 10 for MXPP_MR_2.5G).

Step 4 Click **Apply**.

Step 5 Return to your originating procedure (NTP).

DLP-G239 Change Section Trace Settings for MXP_MR_2.5G and MXPP_MR_2.5G Cards

Purpose	This task changes the section trace settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the section trace settings.

- Step 2** Click the **Provisioning > Line > Section Trace** tabs. Tabs and parameter selections vary according to PPM provisioning.
- Step 3** Modify any of the settings in the Section Trace tab as described in [Table 5-39](#).

Table 5-39 *MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line Section Trace Tab Settings*

Parameter	Description	Options
Port	(Display only) Port number.	9 (trunk for MXP_MR_2.5G and 10 (trunk for MXPP_MR_2.5G)
Trace Mode	Sets the trace mode.	- Off/None - Manual
Section Trace String Size	Sets the trace string size.	1 byte 16 byte
Transmit	Displays the current transmit string; sets a new transmit string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Expected	Displays the current expected string; sets a new expected string. You can click the button on the right to change the display. Its title changes, based on the current display mode. Click Hex to change the display to hexadecimal (button changes to ASCII); click ASCII to change the display to ASCII (button changes to Hex).	String of trace string size
Received	(Display only) Displays the current received string. You can click Refresh to manually refresh this display, or select the Auto-refresh every 5 sec check box to keep this panel updated.	String of trace string size

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-G240 Change MXP_MR_2.5G and MXPP_MR_2.5G Cards Line Threshold Settings for SONET or SDH Payloads

Purpose	This task changes the line threshold settings for MXP_MR_2.5G and MXPP_MR_2.5G muxponder cards for SONET or SDH payloads.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the line threshold settings.
- Step 2** Click the **Provisioning > Line Thresholds > SONET (or SDH) Thresholds** tabs.
- Step 3** Modify any of the settings as shown in [Table 5-40](#).



Note You must modify Near End, and Far End independently; 15 Min and 1 Day independently; Line and Section independently. To do so choose the appropriate radio button and click **Refresh**.

Table 5-40 *MXP_MR_2.5G and MXPP_MR_2.5G Muxponder Card Line Threshold Settings*

Field	Description	Options
Port	(Display only) Port number.	9 (trunk for MXP_MR_2.5G) 9-10 (trunk for MXPP_MR_2.5G)
CV	Coding violations.	Numeric. Can be set for Near End or Far End, for 15-one-day intervals, or for Line (Far End only), Section. Select the bullet and click Refresh .
ES	Errored seconds.	Numeric. Can be set for Near End or Far End, for 15-one-day intervals, or for Line (Far End only), Section. Select the bullet and click Refresh .
SES	Severely errored seconds.	Numeric. Can be set for Near End or Far End, for 15-one-day intervals, or for Line (Far End only), Section. Select the bullet and click Refresh .
FC	(Line only) Failure count.	Numeric. Can be set for Near End or Far End, for 15-one-day intervals for Line only. Select the bullet and Refresh .
UAS	(Line only) Unavailable seconds.	Numeric. Can be set for Near End or Far End, for 15-one-day intervals, for Line only. Select the bullet and Refresh .

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-G321 Change the MXP_MR_2.5G or MXPP_MR_2.5G Card Line Thresholds for 1G Ethernet or 1G FC/FICON Payloads

Purpose	This task changes the line threshold settings for MXP_MR_10G and MXPP_MR_10E transponder cards carrying the 1G Ethernet, 1G FC/FICON payloads.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed

Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Display the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the line threshold settings in card view.
- Step 2** Click the **Provisioning > Line Thresholds > RMON Thresholds** tabs.
- Step 3** Click **Create**. The Create Threshold dialog box appears.
- Step 4** From the Port drop-down list, choose the applicable port.
- Step 5** From the Variable drop-down list, choose an Ethernet variable. See [Table 5-41](#) for a list of available Ethernet thresholds.

Table 5-41 MXP_MR_2.5G and MXPP_MR 2.5G 1G Ethernet, 1G FC/FICON Variables

Variable	Description
ifInOctets	Number of bytes received since the last counter reset.
rxTotalPkts	Total number of Receive packets.
ifInDiscards	Number of inbound packets that were chosen to be discarded even though no errors had been detected to prevent their being deliverable to a higher-layer protocol.
ifInErrors	Total number of receive errors.
ifOutOctets	The total number of octets transmitted out of the interface, including framing characters.
txTotalPkts	Total number of Transmitted packets.
ifOutDiscards	Number of outbound packets that were chosen to be discarded even though no errors had been detected to prevent their being transmitted.
mediaIndStatsRxFramesTruncated	Total number of frames received that are less than 5 bytes. This value is a part of HDLC and GFP port statistics.
mediaIndStatsRxFramesTooLong	Number of received frames that exceed the MTU. This value is part of HDLC and GFP port statistics.
mediaIndStatsRxFramesBadCRC	Number of receive data frames with payload CRC errors when HDLC framing is used.
mediaIndStatsTxFramesBadCRC	Number of transmitted data frames with payload CRC errors when HDLC framing is used.
fcStatsLinkRecoveries	Number of link recoveries.
fcStatsZeroTxCredits	Number of transmit attempts that failed because of unavailable credits.
8b10bInvalidOrderedSets	Number of 8b10b disparity violations on the Fibre Channel line side.
8b10bStatsEncodingDispErrors	Number of 8b10b disparity violations on the Fibre Channel line side.

- Step 6** From the Alarm Type drop-down list, indicate whether the event will be triggered by the rising threshold, falling threshold, or both the rising and falling thresholds.
- Step 7** From the Sample Type drop-down list, choose either **Relative** or **Absolute**. Relative restricts the threshold to use the number of occurrences in the user-set sample period. Absolute sets the threshold to use the total number of occurrences, regardless of time period.
- Step 8** Type in an appropriate number of seconds for the Sample Period.
- Step 9** Type in the appropriate number of occurrences for the Rising Threshold.
- For a rising type of alarm, the measured value must move from below the falling threshold to above the rising threshold. For example, if a network is running below a rising threshold of 1000 collisions every 15 seconds and a problem causes 1001 collisions in 15 seconds, the excess occurrences trigger an alarm.
- Step 10** Enter the appropriate number of occurrences in the Falling Threshold field. In most cases a falling threshold is set lower than the rising threshold.
- A falling threshold is the counterpart to a rising threshold. When the number of occurrences is above the rising threshold and then drops below a falling threshold, it resets the rising threshold. For example, when the network problem that caused 1001 collisions in 15 minutes subsides and creates only 799 collisions in 15 minutes, occurrences fall below a falling threshold of 800 collisions. This resets the rising threshold so that if network collisions again spike over a 1000 per 15-minute period, an event again triggers when the rising threshold is crossed. An event is triggered only the first time a rising threshold is exceeded (otherwise, a single network problem might cause a rising threshold to be exceeded multiple times and cause a flood of events).
- Step 11** Click **OK** to complete the procedure.
- Step 12** Return to your originating procedure (NTP).

DLP-G307 Provision the MXP_MR_2.5G and MXPP_MR_2.5G Trunk Port Alarm and TCA Thresholds

Purpose	This task changes the MXP_MR_2.5G and MXPP_MR_2.5G trunk port alarm and TCA thresholds.
Tools/Equipment	None
Prerequisite Procedures	DLP-G46 Log into CTC, page 2-24
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the MXP_MR_2.5G or MXPP_MR_2.5G card where you want to change the trunk port alarm and TCA settings.
- Step 2** Click the **Provisioning > Optics Thresholds** tabs.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 3 Provision the trunk port (Port 9) TCA thresholds for RX Power High to –9 dBm and the RX Power Low to –23 dBm.

Step 4 Under Types, click the **Alarm** radio button and click **Refresh**.



Note Do not modify the Laser Bias parameters.

Step 5 Provision the trunk port (Port 9) Alarm thresholds for RX Power High to –7 dBm and the RX Power Low to –26 dBm.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 6 Click **Apply**.

Step 7 Return to your originating procedure (NTP).

DLP-G308 Provision the MXP_MR_2.5G and MXPP_MR_2.5G Client Port Alarm and TCA Thresholds

Purpose	This task provisions the client port alarm and threshold cross alert (TCA) thresholds for the MXP_MR_2.5G and MXPP_MR_2.5G Cards
Tools/Equipment	None
Prerequisite Procedures	DLP-G278 Provision the Optical Line Rate, page 5-3 DLP-G46 Log into CTC, page 2-24
Required/As Needed	Required
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, double-click the MXP_MR_2.5G and MXPP_MR_2.5G card where you want to change the client port alarm and TCA settings.

Step 2 Click the **Provisioning > Optics Thresholds** tabs. The TCA thresholds are shown by default.

Step 3 Referring to [Table 5-19](#), provision the client ports (Ports 1 through 8) TCA thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface at the other end. For additional information about client SFP and XFP interfaces, also known as Pluggable Port Modules (PPMs), refer to the [Hardware Specifications](#) chapter in the *Cisco ONS 15454 Reference Manual*.



Note Do not modify the Laser Bias parameters.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 4 Click **Apply**.

Table 5-42 *Client Interfaces Alarm and TCA Thresholds: MXP_MR_2.5G and MXPP_MR_2.5G Cards*

Port Type (by CTC)	Pluggable Port Module (XFP)	Alarm RX Power Low	Alarm RX Power High	Alarm TX Power Low	Alarm TX Power High	TCA RX Power Low	TCA RX Power High	TCA TX Power Low	TCA TX Power High
FC1G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
FC2G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-18	3	-13	-1	-15	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
FICON1G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
FICON2G	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3
ONE_GE	15454-SFP-GEFC-SX 15454E-SFP-GEFC-S	-20	3	-13	-1	-17	0	-16	3
	15454-SFP-GE+-LX 15454E-SFP-GE+-LX	-23	0	-13	0	-20	-3	-16	3

Step 5 Repeat Steps 3 and 4 to provision each additional client port.

Step 6 Under Types, click the **Alarm** radio button and click **Refresh**.

Step 7 Referring to Table 5-19, provision the client ports (Ports 1 through 8) Alarm thresholds for RX Power High, RX Power Low, TX Power High, and TX Power Low based on the client interface that is provisioned.



Note You must modify 15 Min and 1 Day independently. To do so choose the appropriate radio button and click **Refresh**.

Step 8 Click **Apply**.

Step 9 Repeat Steps 7 and 8 to provision each additional client port. Otherwise, continue with Step 10.

Step 10 Return to your originating procedure.

