



CHAPTER 8

Monitor Performance

Performance monitoring (PM) parameters are used by service providers to gather, store, and report performance data for early detection of problems. For more PM information, details, and definitions, refer to the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Manual*. This chapter explains how to enable and view PM statistics for the Cisco ONS 15310-CL and Cisco ONS 15310-MA.

Before You Begin

Before performing any of the following procedures, investigate all alarms and clear any trouble conditions. Refer to the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Troubleshooting Guide* as necessary.

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

1. [NTP-C64 Change the PM Display, page 8-2](#)—Complete as needed.
2. [NTP-C65 Monitor Electrical Performance, page 8-3](#)—Complete as needed.
3. [NTP-C66 Monitor Optical Performance, page 8-4](#)—Complete as needed
4. [NTP-C67 Monitor Ethernet Performance, page 8-5](#)—Complete as needed.
5. [NTP-C68 Create or Delete Ethernet RMON Thresholds, page 8-5](#)—Complete as needed.
6. [NTP-C175 Enable or Disable AutoPM, page 8-6](#)—Complete as needed.



Note

For additional information regarding PM parameters, refer to Telcordia's GR-1230-CORE, GR-499-CORE, and GR-253-CORE documents and GR-820-CORE document titled *Generic Digital Transmission Surveillance*, and in the ANSI T1.231 document entitled *Digital Hierarchy - Layer 1 In-Service Digital Transmission Performance Monitoring*.

NTP-C64 Change the PM Display

Purpose	This procedure enables you to change the display of PM counts by selecting drop-down list or radio button options in the Performance window.
Tools/Equipment	None
Prerequisite Procedures	Before you monitor performance, be sure you have created the appropriate circuits and provisioned the card according to your specifications. For more information, see Chapter 6, “Create Circuits and VT Tunnels.” and Chapter 10, “Change Port Settings.”
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 Complete the “[DLP-C29 Log into CTC](#)” task on page 17-43 at the node that you want to monitor. If you are already logged in, continue with Step 2.

Step 2 As needed, use the following tasks to change the display of PM counts:

- [DLP-C89 Refresh PM Counts for a Different Port](#), page 17-112
- [DLP-C90 Refresh Electrical or Optical PM Counts at Fifteen-Minute Intervals](#), page 17-113
- [DLP-C91 Refresh Electrical or Optical PM Counts at One-Day Intervals](#), page 17-114
- [DLP-C92 Monitor Near-End PM Counts](#), page 17-115
- [DLP-C93 Monitor Far-End PM Counts](#), page 17-115
- [DLP-C94 Reset Current PM Counts](#), page 17-116
- [DLP-C95 Clear Selected PM Counts](#), page 17-117
- [DLP-C264 Clear All PM Thresholds](#), page 19-77
- [DLP-C96 Set Auto Refresh Interval for Displayed PM Counts](#), page 17-118
- [DLP-C97 Monitor PM Counts for Selected Signal Types](#), page 17-119

Stop. You have completed this procedure.

NTP-C65 Monitor Electrical Performance

- Purpose** This procedure allows you to view near-end or far-end performance on electrical ports at specified time intervals to detect possible performance problems.
- Tools/Equipment** None
- Prerequisite Procedures** Before you monitor performance, be sure you have created the appropriate circuits and provisioned the card according to your specifications. For more information, see [Chapter 6, “Create Circuits and VT Tunnels.”](#) and [Chapter 10, “Change Port Settings.”](#)
- Required/As Needed** As needed
- Onsite/Remote** Onsite or remote
- Security Level** Retrieve or higher

- Step 1** Complete the [“DLP-C29 Log into CTC” task on page 17-43](#) at the node you want to monitor. If you are already logged in, continue to [Step 2](#).
- Step 2** In node view, double-click the 15310-CL-CTX card or an ONS 15310-MA electrical card. The 15310-MA electrical cards are the DS1-28/DS3-EC1-3 and the DS1-84/DS3-EC1-3. The card view appears.
- Step 3** Click the **Performance** tab ([Figure 8-1](#)).

Figure 8-1 Viewing Electrical Performance Monitoring Information

The screenshot shows the Cisco Transport Controller interface with the Performance tab selected. The interface is divided into three main sections: DS1 tab, Performance tab, and Card view.

DS1 tab: Lists various ports and their status, including DS1 CV-L, DS1 ES-L, DS1 SES-L, DS1 LOS5-L, DS1 Rx AIS5-P, DS1 Rx CV-P, DS1 Rx ES-P, DS1 Rx SAS-P, DS1 Rx SES-P, DS1 Rx UAS-P, DS1 Rx CSS-P, DS1 Rx ESA-P, DS1 Rx ESB-P, DS1 Rx SEFS-P, and DS1 Tx AIS5-P.

Performance tab: Displays a table of performance metrics for the selected card. The table has columns for Curr, Prev, Prev-1, Prev-2, Prev-3, Prev-4, Prev-5, Prev-6, Prev-7, Prev-8, and Prev-9. The rows correspond to the ports listed in the DS1 tab.

Card view: Shows a grid of status indicators for different port types, including External Alarm Inputs, External Control Outputs, Optical (OC3/OC12), Broadband (DS3/EC1), and Wideband (DS1).

Control Elements:

- Direction radio buttons:** Near End (selected) and Far End.
- Intervals radio buttons:** 15 min (selected) and 1 day.
- Signal-type drop-down list:** DS1: 1
- Refresh button:** Refresh
- Auto-refresh drop-down list:** Auto-refresh: None
- Baseline button:** Baseline
- Clear button:** Clear...
- Help button:** Help

Step 4 Click the **DS1**, **DS3**, or **EC1** tabs to view the PM parameters.

The PM parameter names appear on the left side of the window in the Param column. The PM values appear on the right side of the window in the Curr (current) and Prev-*n* (previous) columns. For PM parameter definitions, refer to the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Manual*.



Note To refresh, reset, or clear PM counts, see the [“NTP-C64 Change the PM Display” procedure on page 8-2](#).

Stop. You have completed this procedure.

NTP-C66 Monitor Optical Performance

Purpose	This procedure allows you to view near-end or far-end performance on an optical card and port at specified time intervals to detect possible performance problems.
Tools/Equipment	None
Prerequisite Procedures	Before you monitor performance, be sure you have created the appropriate circuits and provisioned the card according to your specifications. For more information, see Chapter 6, “Create Circuits and VT Tunnels.” and Chapter 10, “Change Port Settings.”
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 Complete the [“DLP-C29 Log into CTC” task on page 17-43](#) at the node you want to monitor. If you are already logged in, continue with [Step 2](#).

Step 2 Complete the [“DLP-C98 Enable Pointer Justification Count Performance Monitoring” task on page 17-120](#) if you need to monitor clock synchronization.

Step 3 Complete the [“DLP-C99 Enable Intermediate-Path Performance Monitoring” task on page 17-122](#) if you need to monitor large amounts of synchronous transport signal (STS) traffic through intermediate nodes.

Step 4 Complete the [“DLP-C100 View Optical OC-N PM Parameters” task on page 18-1](#) as needed.



Note To refresh, reset, or clear PM counts, see the [“NTP-C64 Change the PM Display” procedure on page 8-2](#).

Stop. You have completed this procedure.

NTP-C67 Monitor Ethernet Performance

Purpose	This procedure allows you to view node transmit and receive performance on an Ethernet card and port at specified time intervals to detect possible performance problems.
Tools/Equipment	None
Prerequisite Procedures	Before you monitor performance, be sure you have created the appropriate circuits and provisioned the card according to your specifications. For more information, see Chapter 6, “Create Circuits and VT Tunnels.” and Chapter 10, “Change Port Settings.”
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	Retrieve or higher

-
- Step 1** Complete the [“DLP-C29 Log into CTC” task on page 17-43](#) at the node you want to monitor. If you are already logged in, continue with [Step 2](#).
- Step 2** Complete the [“DLP-C101 View Ether Ports and POS Ports Statistics PM Parameters” task on page 18-2](#) as needed.
- Step 3** Complete the [“DLP-C102 View Ether Ports and POS Ports Utilization PM Parameters” task on page 18-4](#) as needed.
- Step 4** As needed, use the [“DLP-C103 Refresh Ethernet PM Counts at a Different Time Interval” task on page 18-5](#) to change the display of Ethernet utilization PM counts.
- Step 5** Complete the [“DLP-C104 View Ether Ports and POS Ports History PM Parameters” task on page 18-5](#) as needed.

Stop. You have completed this procedure.

NTP-C68 Create or Delete Ethernet RMON Thresholds

Purpose	This procedure creates or deletes remote monitoring (RMON) Ethernet thresholds for the ONS 15310-CL and ONS 15310-MA.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

-
- Step 1** Complete the [“DLP-C29 Log into CTC” task on page 17-43](#). If you are already logged in, continue with [Step 2](#).
- Step 2** Perform any of the following tasks as needed:
- [DLP-C105 Create Ethernet RMON Alarm Thresholds, page 18-6](#)

- [DLP-C106 Delete Ethernet RMON Alarm Thresholds, page 18-11](#)

Stop. You have completed this procedure.

NTP-C175 Enable or Disable AutoPM

Purpose	This procedure allows you to enable or disable automatic autonomous performance monitoring (AutoPM) reports.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Complete the [“DLP-C29 Log into CTC” task on page 17-43](#). If you are already logged in, continue with Step 2.
- Step 2** Click the **Provisioning > Defaults** tabs.
- Step 3** In the Defaults Selector area, click **NODE > General** and choose **NODE.general.AutoPM**.
- Step 4** In the Default Value field, select **True** to enable AutoPM.
- Step 5** Click **Apply**.
- Step 6** Follow Steps 1 through 5 to disable AutoPM. Select **False** in the Default Value field in Step 4 before proceeding to Step 5.

Stop. You have completed this procedure.
