



CHAPTER 8

Monitor Performance

This chapter explains how to enable and view performance monitoring statistics for the Cisco ONS 15600. Performance monitoring (PM) parameters are used by service providers to gather, store, threshold, and report performance data for early detection of problems. For more PM information, details, and definitions, refer to the *Cisco ONS 15600 Reference Manual*.

Before You Begin

Before performing any of the following procedures, investigate all alarms and clear any trouble conditions. Refer to the *Cisco ONS 15600 Troubleshooting Guide* as necessary.

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

1. [NTP-E143 Change the PM Display, page 8-2](#)—Complete as needed.
2. [NTP-E49 Enable Intermediate-Path Performance Monitoring, page 8-3](#)—Complete as needed.
3. [NTP-E50 Monitor Optical Performance, page 8-5](#)—Complete as needed after enabling performance monitoring.
4. [NTP-E144 Monitor Ethernet Performance, page 8-5](#)—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. Also refer to the Telcordia GR-820-CORE document titled *Generic Digital Transmission Surveillance* and the ANSI T1.231 document titled *Digital Hierarchy—Layer 1 In-Service Digital Transmission Performance Monitoring*.

NTP-E143 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 Chapter 10, “Change Card Settings.”
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

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- Step 1** Complete the “[DLP-E26 Log into CTC](#)” task on page 16-31 at the node that you want to monitor. If you are already logged in, continue with [Step 2](#).
- Step 2** In node view, double-click the Ethernet or optical (OC-N) card where you want to view PM counts. The card view appears.
- Step 3** As needed, use the following tasks to change the display of PM counts:
- [DLP-E57 Refresh PM Counts at Fifteen-Minute Intervals, page 16-67](#)
 - [DLP-E58 Refresh PM Counts at One-Day Intervals, page 16-68](#)
 - [DLP-E59 Monitor Near-End PM Counts, page 16-69](#)
 - [DLP-E60 Monitor Far-End PM Counts, page 16-69](#)
 - [DLP-E62 Reset Current PM Counts, page 16-70](#)
 - [DLP-E63 Clear Selected PM Counts, page 16-70](#)
 - [DLP-E284 Clear All PM Thresholds, page 18-108](#)
 - [DLP-E119 Set Auto-Refresh Interval for Displayed PM Counts, page 17-17](#)
 - [DLP-E56 Refresh PM Counts for a Selected Port and STS, page 16-66](#)

Stop. You have completed this procedure.

NTP-E49 Enable Intermediate-Path Performance Monitoring

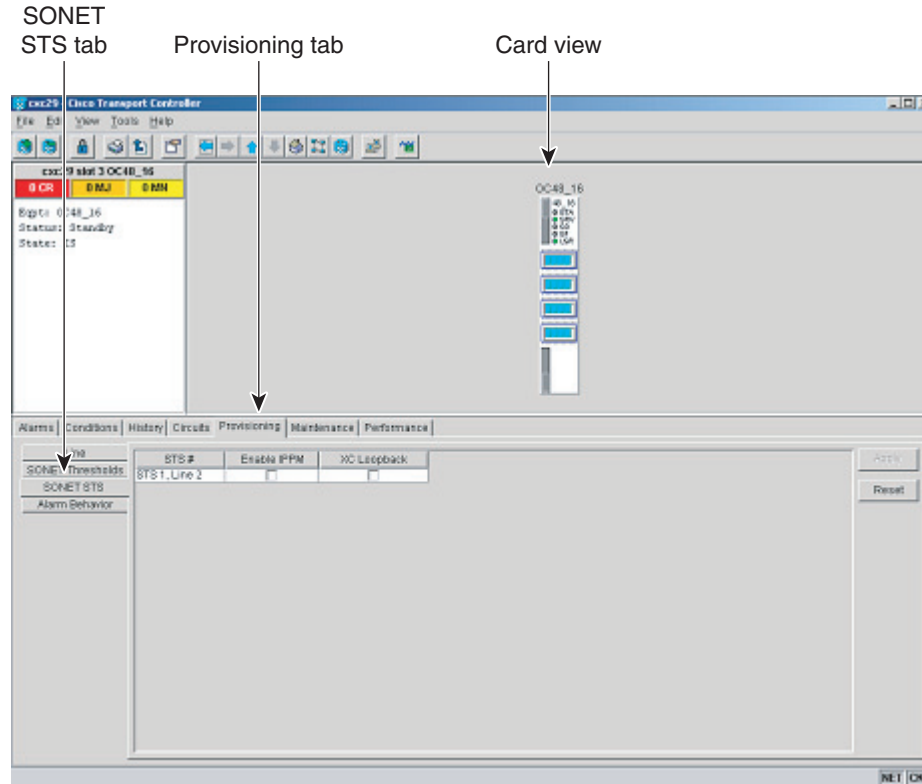
Purpose	This procedure enables intermediate path performance monitoring (IPPM), which allows you to monitor synchronous transport signal (STS) traffic through intermediate nodes in a circuit path.
Tools/Equipment	None
Prerequisite Procedures	NTP-E160 Create an Automatically Routed Optical Circuit, page 6-4 or NTP-E161 Create a Manually Routed Optical Circuit, page 6-9 or NTP-E40 Create a Unidirectional Optical Circuit with Multiple Drops, page 6-12
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher


Note

Section and line performance monitoring is enabled when the port(s) are in service (IS) Admin State. To enable STS traffic performance monitoring through the nodes, you must enable IPPM for the path(s) being monitored.

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- Step 1** Complete the “[DLP-E26 Log into CTC](#)” task on page 16-31 at the node you want to monitor. If you are already logged in, continue with [Step 2](#).
- Step 2** In node view, double-click an optical (traffic) card, causing the card view to appear. The Cisco ONS 15600 has the following optical cards:
- OC48/STM16 LR/LH 16 Port 1550
 - OC48/STM16 SR/SH 16 Port 1310
 - OC192/STM64 LR/LH 4 Port 1550
 - OC192/STM64 SR/SH 4 Port 1310
 - ASAP 4PIO OC48/STM16 SR/SH, LR/LH, LR ITU SFP
 - ASAP 1PIO OC48/STM16 SR/SH, LR/LH XFP
- Step 3** Click the **Provisioning > SONET STS** tabs. [Figure 8-1](#) shows the SONET STS tab in the Provisioning window.

Figure 8-1 SONET STS Tab for Enabling IPPM



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- Step 4** Check the check box in the Enable IPPM column for the STS you want to monitor.
- Step 5** Click **Apply**.
- Step 6** Click the **Performance** tab to view the PM parameters. For IPPM parameter definitions, refer to the "Performance Monitoring" chapter in the *Cisco ONS 15600 Reference Manual*.
- Stop. You have completed this procedure.**

NTP-E50 Monitor Optical Performance

Purpose	The Performance tab window allows you to view node near-end or far-end performance on a selected card and port at specified time intervals to detect possible performance problems.
Tools/Equipment	None
Prerequisite Procedures	NTP-E160 Create an Automatically Routed Optical Circuit, page 6-4 or NTP-E161 Create a Manually Routed Optical Circuit, page 6-9 or NTP-E40 Create a Unidirectional Optical Circuit with Multiple Drops, page 6-12
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	Retrieve or higher

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- Step 1** Complete the “[DLP-E26 Log into CTC](#)” task on page 16-31 at the node you want to monitor. If you are already logged in, continue with [Step 2](#).
- Step 2** To view optical PMs on OC-48 or OC-192 cards, complete the “[DLP-E55 View Optical OC-N PM Parameters](#)” task on page 16-65.
- Step 3** To view optical PMs on the Any-Service, Any-Port (ASAP) card, refer to the “[DLP-E203 View ASAP OC-N PM Parameters](#)” task on page 18-4 for instructions.



Note To refresh, reset, or clear PM counts, refer to the “[NTP-E143 Change the PM Display](#)” procedure on page 8-2 for instructions.

Stop. You have completed this procedure.

NTP-E144 Monitor Ethernet Performance

Purpose	This procedure enables you to view node near-end or far-end performance during selected time intervals on ASAP card Ethernet ports and 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, refer to Chapter 6, “Create Circuits” and Chapter 10, “Change Card Settings.”
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

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- Step 1** Complete the “[DLP-E26 Log into CTC](#)” task on page 16-31 at the node you want to monitor. If you are already logged in, continue with [Step 2](#).

Step 2 Complete the following tasks as needed:

- [DLP-E204 View ASAP Ether Ports Statistics PM Parameters, page 18-5.](#)
- [DLP-E205 View ASAP Ether Ports Utilization PM Parameters, page 18-7.](#)
- [DLP-E218 View ASAP Ether Ports History PM Parameters, page 18-17.](#)
- [DLP-E206 View ASAP POS Ports Statistics PM Parameters, page 18-8.](#)
- [DLP-E207 View ASAP POS Ports Utilization PM Parameters, page 18-9.](#)
- [DLP-E208 View ASAP POS Ports History PM Parameters, page 18-10.](#)



Note To refresh, reset, or clear PM counts, refer to the [“NTP-E143 Change the PM Display” procedure on page 8-2](#) for instructions.

Stop. You have completed this procedure.
