



## Monitor Performance

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This chapter explains how to enable and view performance monitoring statistics for the Cisco ONS 15600 SDH. 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 SDH 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 15454 SDH Troubleshooting Guide* as necessary.

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

1. [NTP-F184 Change the PM Display, page 8-2](#)—Complete as needed.
2. [NTP-F185 Enable Intermediate-Path Performance Monitoring, page 8-3](#)—Complete as needed.
3. [NTP-F186 Monitor Optical Performance, page 8-5](#)—Complete as needed after enabling performance monitoring.
4. [NTP-F187 Monitor Ethernet Performance, page 8-6](#)—Complete as needed.



**Note**

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For additional information regarding PM parameters, refer to ITU G.826, Telcordia GR-820-CORE, Telcordia GR-499-CORE, and Telcordia GR-253-CORE.

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# NTP-F184 Change the PM Display

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

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**Step 1** Complete the “[DLP-F181 Log into CTC](#)” task on page 16-34 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-F208 Refresh PM Counts at Fifteen-Minute Intervals, page 17-9](#)
- [DLP-F209 Refresh PM Counts at One-Day Intervals, page 17-10](#)
- [DLP-F210 Monitor Near-End PM Counts, page 17-10](#)
- [DLP-F211 Monitor Far-End PM Counts, page 17-11](#)
- [DLP-F212 Reset Current PM Counts, page 17-11](#)
- [DLP-F213 Clear Selected PM Counts, page 17-12](#)
- [DLP-F396 Clear All PM Thresholds, page 18-117](#)
- [DLP-F256 Set Auto-Refresh Interval for Displayed PM Counts, page 17-48](#)
- [DLP-F207 Refresh PM Counts for a Selected Port and VC, page 17-8](#)

**Stop. You have completed this procedure.**

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# NTP-F185 Enable Intermediate-Path Performance Monitoring

<b>Purpose</b>	This procedure enables intermediate path performance monitoring (IPPM), which allows you to monitor virtual container (VC) traffic through intermediate nodes in a circuit path.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	<a href="#">NTP-F164 Create an Automatically Routed Optical Circuit, page 6-4</a> or <a href="#">NTP-F165 Create a Manually Routed Optical Circuit, page 6-9</a> or <a href="#">NTP-F166 Create a Unidirectional Optical Circuit with Multiple Drops, page 6-12</a>
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Provisioning or higher


**Note**

Section and line performance monitoring is enabled when the ports are in the Unlocked administrative state. To enable VC traffic performance monitoring through the nodes, you must enable IPPM for the paths being monitored.

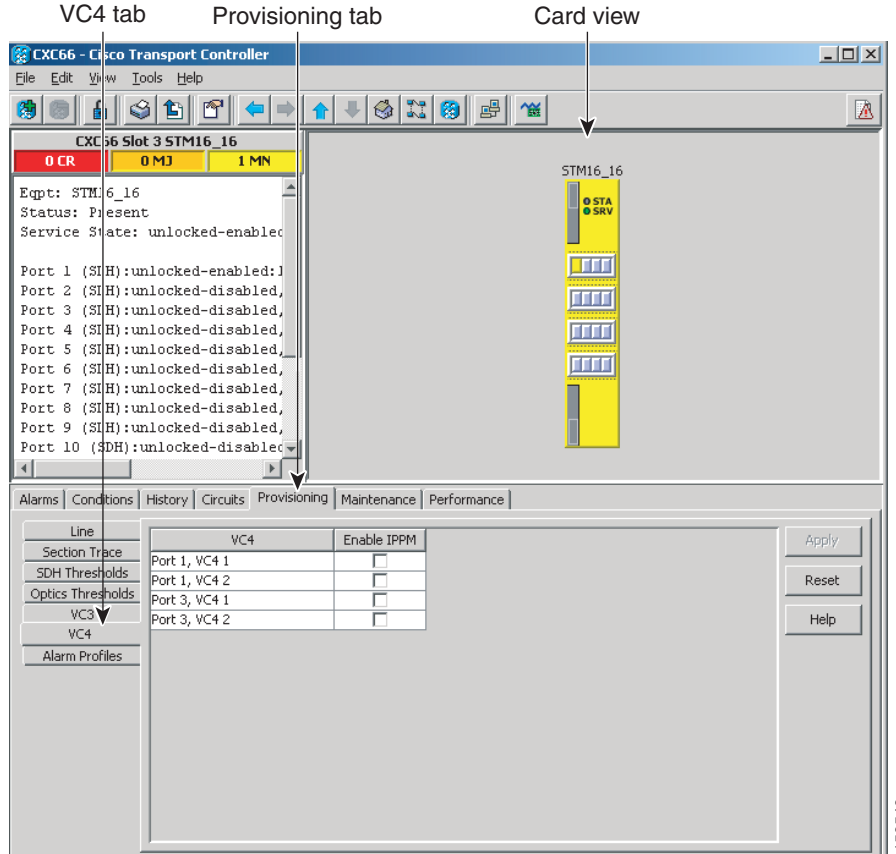
- Step 1** Complete the “[DLP-F181 Log into CTC](#)” task on page 16-34 at the node you want to monitor. If you are already logged in, continue with [Step 2](#).
- Step 2** In node view, double-click an optical (STM-N) card. The card view appears. The Cisco ONS 15600 SDH has the following optical cards:
- 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
  - OC192/STM64 LH ITU C-band


**Note**

STM-N ports on the ASAP card can be provisioned for IPPM.

- Step 3** Click the **Provisioning > VC3** or **VC4** tabs. [Figure 8-1](#) shows the VC4 tab in the Provisioning window.

Figure 8-1 SDH VC Tab for Enabling IPPM



**Step 4** Check the check box in the Enable IPPM column for the VC 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 SDH Reference Manual*.

**Stop. You have completed this procedure.**

# NTP-F186 Monitor Optical Performance

<b>Purpose</b>	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.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	<a href="#">NTP-F164 Create an Automatically Routed Optical Circuit, page 6-4</a> or <a href="#">NTP-F165 Create a Manually Routed Optical Circuit, page 6-9</a> or <a href="#">NTP-F166 Create a Unidirectional Optical Circuit with Multiple Drops, page 6-12</a>
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite
<b>Security Level</b>	Retrieve or higher

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**Step 1** Complete the “[DLP-F181 Log into CTC](#)” task on page 16-34 at the node you want to monitor. If you are already logged in, continue with [Step 2](#).



**Note** To monitor an AU3 path, first create a V3 optical circuit and then choose V3 when configuring IPPM.

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**Step 2** To view optical PMs on STM-16 or STM-64 cards, complete the “[DLP-F206 View Optical STM-N PM Parameters](#)” task on page 17-7.

**Step 3** To view optical PMs on the ASAP card, refer to the “[DLP-F326 View ASAP STM-N PM Parameters](#)” task on page 18-24 for instructions.



**Note** To refresh, reset, or clear PM counts, see the “[NTP-F184 Change the PM Display](#)” procedure on page 8-2 for instructions.

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**Stop. You have completed this procedure.**

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# NTP-F187 Monitor Ethernet Performance

<b>Purpose</b>	This procedure views near-end or far-end node performance during selected time intervals on ASAP card Ethernet ports. It also enables you to detect possible performance problems.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	Before you monitor performance, be sure you have created the appropriate circuits and provisioned the card according to your specifications. For more information, see <a href="#">Chapter 6, “Create Circuits.”</a> and <a href="#">Chapter 10, “Change Card Settings.”</a>
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Retrieve or higher

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**Step 1** Complete the “[DLP-F181 Log into CTC](#)” task on page 16-34 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-F327 View ASAP Ether Ports Statistics PM Parameters](#), page 18-25.
- [DLP-F328 View ASAP Ether Ports Utilization PM Parameters](#), page 18-27.
- [DLP-F337 View ASAP Ether Ports History PM Parameters](#), page 18-37.
- [DLP-F329 View ASAP POS Ports Statistics PM Parameters](#), page 18-28.
- [DLP-F330 View ASAP POS Ports Utilization PM Parameters](#), page 18-29.
- [DLP-F331 View ASAP POS Ports History PM Parameters](#), page 18-30.




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**Note** To refresh, reset, or clear PM counts, refer to the “[NTP-F184 Change the PM Display](#)” procedure on page 8-2 for instructions.

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**Stop. You have completed this procedure.**

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