

This chapter explains how to enable and view performance monitoring statistics for the Cisco ONS 15454. Performance monitoring (PM) parameters are used by service providers to gather, store, and set thresholds and report performance data for early detection of problems. For more PM information, details, and definition, refer to the *Cisco ONS 15454 Reference Manual*.

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## 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* as necessary.

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

1. [NTP-A253 Change the PM Display](#)-Complete as needed to change the displayed PM counts.
2. [NTP-A122 Monitor Electrical Performance](#)-Complete as needed to monitor electrical performance.
3. [NTP-A198 Monitor Ethernet Performance](#)-Complete as needed to monitor Ethernet performance.
4. [NTP-A279 Create or Delete Ethernet RMON Thresholds](#)-Complete as needed to create or delete Ethernet remote monitoring (RMON) thresholds.
5. [NTP-A250 Monitor OC-N Performance](#)-Complete as needed to monitor optical (OC-N) performance.
6. [NTP-A347 Monitor Multirate Performance](#)-Complete as needed to monitor multirate (MRC-N) performance.
7. [NTP-A285 Monitor FC\\_MR-4 Performance](#)-Complete as needed to monitor FC\_MR-4 performance.
8. [NTP-A289 Create or Delete FC\\_MR-4 RMON Thresholds](#)-Complete as needed to create or delete FC\_MR-4 RMON thresholds.
9. [NTP-A357 Enable or Disable AutoPM](#)-Complete as needed to enable or disable automatic autonomous performance monitoring (AutoPM) reports.

**Note:** For additional information regarding PM parameters, refer to the Digital transmission surveillance section in Telcordia's GR-1230-CORE, GR-820-CORE, GR-499-CORE, and GR-253-CORE documents, and in the ANSI document entitled *Digital Hierarchy - Layer 1 In-Service Digital Transmission Performance Monitoring*.

## NTP-A253 Change the PM Display

<b>Purpose</b>	This procedure enables you to change 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="#">Create Circuits and VT Tunnels</a> and <a href="#">Change Node Settings</a> .
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Retrieve or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task at the node that you want to monitor. If you are already logged in, continue with Step 2.
  2. In node view, double-click the electrical, Ethernet, optical (OC-N), or multirate transport cards where you want to view PM counts. The card view appears.
  3. As needed, use the following tasks to change the display of PM counts:
    - ◆ [DLP-A124 Refresh PM Counts at 15-Minute Intervals](#)
    - ◆ [DLP-A125 Refresh PM Counts at One-Day Intervals](#)
    - ◆ [DLP-A347 Refresh E-Series and G-Series Ethernet PM Counts](#)
    - ◆ [DLP-A126 View Near-End PM Counts](#)
    - ◆ [DLP-A127 View Far-End PM Counts](#)
    - ◆ [DLP-A348 Monitor PM Counts for a Selected Signal](#)
    - ◆ [DLP-A129 Reset Current PM Counts](#)
    - ◆ [DLP-A349 Clear Selected PM Counts](#)
    - ◆ [DLP-A458 Clear All PM Thresholds](#)
    - ◆ [DLP-A260 Set Auto-Refresh Interval for Displayed PM Counts](#)
    - ◆ [DLP-A259 Refresh Ethernet PM Counts at a Different Time Interval](#)
    - ◆ [DLP-A261 Refresh PM Counts for a Different Port](#)
- Stop. You have completed this procedure.**

## NTP-A122 Monitor Electrical Performance

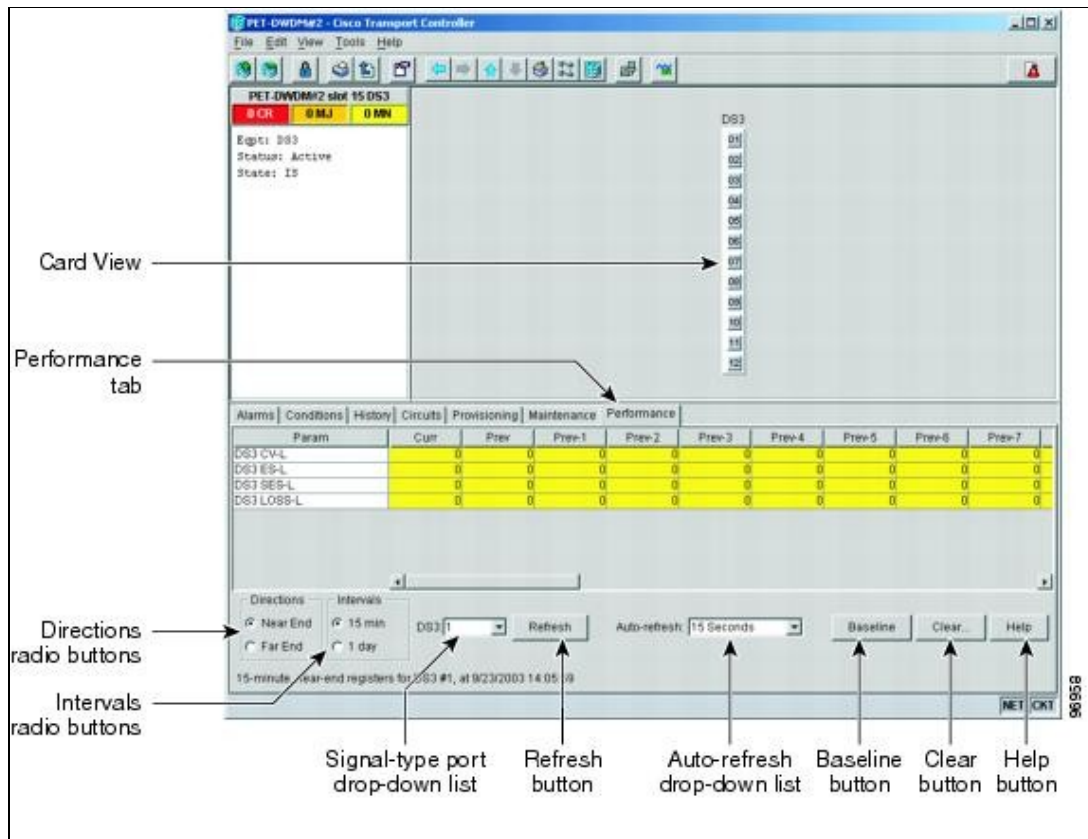
<b>Purpose</b>	This procedure enables you to view node near-end or far-end performance during selected time intervals on an electrical card and port to detect possible performance problems.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	Before you monitor performance, be sure you have created the appropriate circuits and provisioned the card according to your specifications. For more information, see <a href="#">Create Circuits and VT Tunnels</a> and <a href="#">Change Node Settings</a> .
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Retrieve or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task at the node that you want to monitor. If you are already logged in, continue with Step 3.
2. Complete the following procedures depending on card type:
  - For DS3XM-12 cards, complete the following procedures:
    - ◇ [DLP-A394 View DS-N/SONET PM Parameters for the DS3XM-12 Card](#)
    - ◇ [DLP-A395 View BFDL PM Parameters for the DS3XM-12 Card](#)
  - For EC-1 cards, complete the "[DLP-A122 Enable/Disable Intermediate Path Performance Monitoring](#)" task as needed to enable or disable monitoring of

- synchronous transport signal (STS) traffic through intermediate nodes.
- For all other electrical cards, continue with Step 3.

3. In node view, double-click the electrical card where you want to view PM counts. The card view appears.
4. Click the **Performance** tab (Figure 9-1).

**Figure 9-1: Viewing Electrical Card Performance Monitoring Information**



5. In the signal-type drop-down lists, choose the applicable port on the card you selected.
6. Click **Refresh**.
7. View the PM parameter names that appear in the Param column. The PM parameter values appear in the Curr (current) and Prev-n (previous) columns. For PM parameter definitions, refer to the "Performance Monitoring" chapter in the *Cisco ONS 15454 Reference Manual*.

To refresh, reset, or clear PM counts, see the [NTP-A253 Change the PM Display](#).  
**Stop. You have completed this procedure.**

## NTP-A198 Monitor Ethernet Performance

<b>Purpose</b>	This procedure enables you to view node transmit and receive performance during selected time intervals on an Ethernet card and port 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="#">Create Circuits and VT Tunnels</a> and <a href="#">Change Node Settings</a> .

<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite
<b>Security Level</b>	Retrieve or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task at the node that you want to monitor. If you are already logged in, continue with Step 2.
  2. Complete the "[DLP-A256 View Ethernet Statistics PM Parameters](#)" task.
  3. Complete the "[DLP-A257 View Ethernet Utilization PM Parameters](#)" task.
  4. Complete the "[DLP-A258 View Ethernet History PM Parameters](#)" task.
  5. Complete the "[DLP-A320 View ML-Series Ether Ports PM Parameters](#)" task.
  6. Complete the "[DLP-A321 View ML-Series POS Ports PM Parameters](#)" task.
  7. Complete the "[DLP-A562 View ML-Series RPR Span PM Parameters](#)" task.
  8. Complete the "[DLP-A391 View CE-Series Ether Ports and POS Ports Statistics PM Parameters](#)" task.
  9. Complete the "[DLP-A392 View CE-Series Ether Ports and POS Ports Utilization PM Parameters](#)" task.
  10. Complete the "[DLP-A393 View CE-Series Ether Ports and POS Ports History PM Parameters](#)" task.
- Stop. You have completed this procedure.**

## NTP-A279 Create or Delete Ethernet RMON Thresholds

<b>Purpose</b>	This procedure creates or deletes Ethernet RMON thresholds for the ONS 15454.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	None
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Provisioning or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task. If you are already logged in, continue with Step 2.
  2. Perform any of the following tasks as needed:
    - ◆ [DLP-A533 Create Ethernet RMON Alarm Thresholds](#)
    - ◆ [DLP-A529 Delete Ethernet RMON Alarm Thresholds](#)
- Stop. You have completed this procedure.**

## NTP-A250 Monitor OC-N Performance

<b>Purpose</b>	This procedure enables you to view node near-end or far-end performance during selected time intervals on an OC-N card and port 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="#">Create Circuits and VT Tunnels</a> and <a href="#">Change Node 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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1. Complete the "[DLP-A60 Log into CTC](#)" task at the node that you want to monitor. If you are already logged in, continue with Step 2.
2. Complete the "[DLP-A121 Enable/Disable Pointer Justification Count Performance Monitoring](#)" task as needed to enable or disable clock synchronization monitoring.
3. Complete the "[DLP-A122 Enable/Disable Intermediate Path Performance Monitoring](#)" task as needed to enable or disable monitoring of STS traffic through intermediate nodes.
4. Complete the "[DLP-A507 View OC-N PM Parameters](#)" task.

To refresh, reset, or clear PM counts, see the [NTP-A253 Change the PM Display](#).

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

### NTP-A347 Monitor Multirate Performance

<b>Purpose</b>	This procedure enables you to view node near-end or far-end performance during selected time intervals on an MRC-N card and port 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="#">Create Circuits and VT Tunnels</a> and <a href="#">Change Node Settings</a> .
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Retrieve or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task at the node that you want to monitor. If you are already logged in, continue with Step 2.
2. Complete the "[DLP-A121 Enable/Disable Pointer Justification Count Performance Monitoring](#)" task as needed to enable or disable clock synchronization monitoring.
3. Complete the "[DLP-A122 Enable/Disable Intermediate Path Performance Monitoring](#)" task as needed to enable or disable monitoring of STS traffic through intermediate nodes.
4. Complete the "[DLP-A557 View Multirate PM Parameters](#)" task.

To refresh, reset, or clear PM counts, see the [NTP-A253 Change the PM Display](#).

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

### NTP-A285 Monitor FC\_MR-4 Performance

<b>Purpose</b>	This procedure enables you to view node transmit and receive performance during selected time intervals on an FC_MR-4 card and port 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="#">Create Circuits and VT Tunnels</a> and <a href="#">Change Node Settings</a> .
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite
<b>Security Level</b>	Retrieve or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task at the node that you want to monitor. If you are already logged in, continue with Step 2.

2. Complete the "[DLP-A350 View FC\\_MR-4 Statistics PM Parameters](#)" task.
3. Complete the "[DLP-A351 View FC\\_MR-4 Utilization PM Parameters](#)" task.
4. Complete the "[DLP-A352 View FC\\_MR-4 History PM Parameters](#)" task.

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

## NTP-A289 Create or Delete FC\_MR-4 RMON Thresholds

<b>Purpose</b>	Use this procedure to create or delete FC_MR-4 RMON thresholds for the ONS 15454.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	None
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite or remote
<b>Security Level</b>	Provisioning or higher

1. Complete the "[DLP-A60 Log into CTC](#)" task. If you are already logged in, continue with Step 2.
2. Perform any of the following tasks as needed:
  - ◆ [DLP-A357 Create FC\\_MR-4 RMON Alarm Thresholds](#)
  - ◆ [DLP-A358 Delete FC\\_MR-4 RMON Alarm Thresholds](#)

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

## NTP-A357 Enable or Disable AutoPM

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

1. Complete the "[DLP-A60 Log into CTC](#)" task. If you are already logged in, continue with Step 2.
2. Click the **Provisioning > Defaults** tabs.
3. In the Defaults Selector area, click **NODE > General** and choose **NODE.general.AutoPM**.
4. In the Default Value field, select **True** to enable AutoPM.
5. Click **Apply**.
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.**