

This chapter explains how to change line and threshold settings on Cisco ONS 15454 SDH cards.

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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 SDH Troubleshooting Guide* as necessary.

Caution! Changing card settings 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-D88 Modify Line Settings and PM Parameter Thresholds for Electrical Cards](#)-As needed, complete this procedure to change line and threshold settings for all electrical cards (E1-N-14, E1-42, E3-12, DS3i-N-12, and STM1E-12).
2. [NTP-D89 Modify Line Settings and PM Parameter Thresholds for Optical Cards](#)-As needed, complete this procedure to change line and threshold settings for all optical (STM-N) cards.
3. [NTP-D118 Modify Alarm Interface Controller-International Settings](#)-As needed, complete this procedure to change external alarms and controls and/or orderwire settings.
4. [NTP-D91 DS3 i-N-12 Protect Cards from 1:1 Protection to 1:N Protection](#)-As needed, complete this procedure to change the protection type on E-1 or DS-3 cards.
5. [NTP-D311 Modify Port Settings and PM Parameter Thresholds for SAN Cards](#)-As needed, complete this procedure to change the FC_MR-4 card port and threshold settings.
6. [NTP-D330 Change Card or PPM Service State](#)-As needed, complete this procedure to change the service state on a card or pluggable port module (PPM).
7. [NTP-D331 Manage Pluggable Port Modules](#)-As needed, complete this procedure to provision a multirate PPM, assign the optical line rate, change the optical line rate, and delete PPMs.
8. [NTP-D354 Provision the Soak Timer for an ML-Series Card](#)-As needed, complete this procedure to provision the soak timer for ports on an ML-Series card.
9. [NTP-D361 View PPM Information on the LCD](#)-As needed, complete this procedure to view PPM (SFP) information for optical cards on the LCD.

NTP-D88 Modify Line Settings and PM Parameter Thresholds for Electrical Cards

Purpose	
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	This procedure changes the line settings and performance monitoring (PM) parameter thresholds for electrical cards.
Tools/Equipment	None
Prerequisite Procedures	NTP-D17 Install the Electrical Cards
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Caution! Changing card settings can be service affecting. You should make all changes during a scheduled maintenance window.

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to change the electrical card settings. If you are already logged in, proceed to Step 2.
 2. As needed, complete the [D108 Back Up the Database](#) to preserve the existing database.
 3. Perform any of the following tasks as needed:
 - ◆ [DLP-D365 Change Line and Threshold Settings for E1-42 Cards](#)
 - ◆ [DLP-D340 Change Line and Threshold Settings for the E3-12 Cards](#)
 - ◆ [DLP-D341 Change Line and Threshold Settings for the DS3i-N-12 Cards](#)
 - ◆ [DLP-D342 Change Line and Threshold Settings for the STM1E-12 Card](#)

Note: To change settings on the Alarm Profiles tab, see [Manage Alarms](#).
 4. As needed, complete the [NTP-D108 Back Up the Database](#).
- Stop. You have completed this procedure.**

NTP-D89 Modify Line Settings and PM Parameter Thresholds for Optical Cards

Purpose	This procedure changes the line settings and the PM parameter thresholds for optical (STM-N) cards.
Tools/Equipment	None
Prerequisite Procedures	NTP-D16 Install STM-N Cards and Connectors
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Caution! Changing card settings can be service affecting. You should make all changes during a scheduled maintenance window.

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to change the STM-N card settings. If you are already logged in, proceed to Step 2.
2. As needed, complete the [NTP-D108 Back Up the Database](#).
3. Perform any of the following tasks as needed:
 - ◆ [DLP-D108 Change Line Settings for STM-N Cards](#)
 - ◆ [DLP-D343 Change SDH Threshold Settings for STM-N Cards](#)
 - ◆ [DLP-D109 Change Optics Thresholds Settings for STM-64, MRC-12, and MRC-2.5G-12 Cards](#)
 - ◆ [DLP-D216 Change the STM-N Card ALS Maintenance Settings](#)

Note: To change settings on the Provisioning > VC4 tab, go to the "[DLP-D122 Enable Intermediate Path Performance Monitoring](#)" task. To change settings on the Alarm Profiles tab, see [Manage Alarms](#).
4. Complete the [NTP-D108 Back Up the Database](#).

Stop. You have completed this procedure.

NTP-D118 Modify Alarm Interface Controller-International Settings

Purpose	This procedure changes the AIC-I card external alarms and controls (environmental alarms) and changes orderwire settings.
Tools/Equipment	None
Prerequisite Procedures	NTP-D247 Provision External Alarms and Controls on the Alarm Interface Controller-International and the DLP-D83 Provision Orderwire
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to change the AIC-I card settings. If you are already logged in, proceed to Step 2.
2. As needed, complete the [NTP-D108 Back Up the Database](#).
3. Perform any of the following tasks as needed:
 - ◆ [DLP-D208 Change External Alarms Using the AIC-I Card](#)
 - ◆ [DLP-D209 Change External Controls Using the AIC-I Card](#)
 - ◆ [DLP-D210 Change AIC-I Card Orderwire Settings](#)
4. As needed, complete the [NTP-D108 Back Up the Database](#).

Stop. You have completed this procedure.

NTP-D91 DS3 i-N-12 Protect Cards from 1:1 Protection to 1:N Protection

Purpose	This procedure converts DS3i-N-12 cards from 1:1 protection to 1:N protection. A 1:N protection group can protect a maximum of five working cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-D71 Create a 1:1 Protection Group
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Note: This procedure assumes that DS3i-N-12 cards are installed in Slots 1 to 6 and/or Slots 12 to 17. The DS3i-N-12 cards in Slots 3 and 15 are the protect cards. Each protect card protects the other DS3i-N-12 cards in that half of the shelf. The ONS 15454 SDH must run CTC Software R4.0 or later.

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to convert the DS3i-N-12 cards from 1:1 to 1:N protection. If you are already logged in, proceed to Step 2.
2. In node view, click the **Maintenance > Protection** tabs.
3. Click the protection group that contains Slot 3 or Slot 15 (where you will install the DS3i-N-12 card).
4. Make sure the slot you are upgrading is not carrying working traffic. In the Selected Group list, the protect slot must say Protect/Standby and not Working/Active. If the protect slot status is Working/Active, use the following steps to switch traffic to the working card:
 1. Under Selected Group, click the protect card.
 2. Next to Switch Commands, click **Switch**.

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The working slot should change to Working/Active and the protect slot should change to Protect/Standby. If they fail to change, do not continue. Troubleshoot the working card and slot to determine why the card cannot carry working traffic.

5. Repeat Steps 3 and 4 for each protection group that you need to convert.
6. Verify that no standing alarms exist for any of the DS3i-N-12 cards you are converting. If alarms exist and you have difficulty clearing them, contact your next level of support.
7. Click the **Provisioning > Protection** tabs.
8. Click the 1:1 protection group that contains the cards that you will move into the new protection group.
9. Click **Delete**.
10. When the confirmation dialog box appears, click **Yes**.

Note: Deleting the 1:1 protection groups will not disrupt service. However, no protection bandwidth exists for the working circuits until the 1:N protection procedure is completed. Therefore, complete this procedure as soon as possible.
11. If you are deleting more than one protection group, repeat Steps 8 through 10 for each group.
12. Physically insert a DS3i-N-12 card into the same slot.
13. Verify that the card boots up properly.
14. Click the **Inventory** tab and verify that the new card appears as a DS3i-N-12 card.
15. Click the **Provisioning > Protection** tabs.
16. Click **Create**.
17. (Optional) Type a name for the protection group in the Name field.
18. Click Type and choose **1:N (card)** from the drop-down list.
19. Verify that the DS3i-N-12 card appears in the Protect Card field.
20. In the Available Cards list, highlight the cards that you want in the protection group. Click the arrow (>>) tab to move the cards to the Working Cards list.
21. Click **OK**.

The protection group should appear in the Protection Groups list on the Protection subtab.
22. As needed, complete the [NTP-D108 Back Up the Database](#).

Stop. You have completed this procedure.

NTP-D311 Modify Port Settings and PM Parameter Thresholds for SAN Cards

Purpose	This procedure changes the line settings and PM parameter thresholds for FC_MR-4 cards.
Tools/Equipment	None
Prerequisite Procedures	NTP-D286 Install the FC_MR-4 Cards
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to change the STM-N card settings. If you are already logged in, proceed to Step 2.
2. As needed, complete the [NTP-D108 Back Up the Database](#).
3. Perform any of the following tasks as needed:
 - ◆ [DLP-D354 Change General Port Settings for the FC_MR-4 Card](#)
 - ◆ [DLP-D355 Change Distance Extension Port Settings for the FC_MR-4 Card](#)
 - ◆ [DLP-D356 Change Enhanced FC/FICON Port Settings for the FC_MR-4 Card](#)
 - ◆ [DLP-D465 Create FC_MR-4 RMON Alarm Thresholds](#)
 - ◆ [DLP-D466 Delete FC_MR-4 RMON Alarm Thresholds](#)
4. As needed, complete the [NTP-D108 Back Up the Database](#).

Stop. You have completed this procedure.

NTP-D330 Change Card or PPM Service State

Purpose	This procedure changes a card or port's service state, which is an autonomously generated state that gives the overall condition of the port.
Tools/Equipment	None
Prerequisite Procedures	Install Cards and Fiber-Optic Cable
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Note: On the STM64-XFP, MRC-12, and MRC-2.5G-12 cards, the PPM is equivalent to an optical port.

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to change the card service state.
2. Click the **Inventory** tab.
3. Click **Admin State** for the card or PPM you want to change, and choose an administrative state from the drop-down list: **Unlocked** or **Locked,maintenance**.
4. Click **Apply**.
5. If an error message opens indicating that the card or PPM state cannot be changed from its current state, click **OK**.

Depending on the Admin State you choose, the card or port/PPM transitions to a different service state. For more information about the service states and card state transitions, refer to the "Administrative and Service States" appendix of the *Cisco ONS 15454 SDH Reference Manual*.

Stop. You have completed this procedure.

NTP-D331 Manage Pluggable Port Modules

Purpose	This procedure provisions, changes, and deletes PPMs for the MRC-12, MRC-2.5G-12, and STM64-XFP cards. (STM64-XFP cards are single-rate PPMs, and therefore can only be deleted.)
Tools/Equipment	None
Prerequisite Procedures	DLP-D107 Preprovision an SFP or XFP Device or DLP-D335 Install GBIC or SFP/XFP Devices
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to provision, change, or delete PPMs. If you are already logged in, continue with Step 2.
2. From the View menu, choose **Go to Network View**.
3. Click the **Alarms** tab:
 1. Verify that the alarm filter is not turned on. See the "[DLP-D227 Disable Alarm Filtering](#)" task as necessary.
 2. Verify that no unexplained conditions appear on the network. If unexplained conditions appear, resolve them before continuing. Refer to the *Cisco ONS 15454 SDH Troubleshooting Guide*.

3. Complete the "[DLP-D147 Export CTC Data](#)" task to export alarm and condition information.
4. As needed, complete the "[DLP-D132 Provision a Multirate PPM on the MRC-12 and MRC-2.5G-12 Cards](#)" task. Single-rate PPMs do not require provisioning.
5. As needed, complete the "[DLP-D133 Provision the Optical Line Rate on the MRC-12 and MRC-2.5G-12 Cards](#)" task to assign an OC-3, OC-12, or OC-48 line rate.
6. As needed, complete the "[DLP-D134 Change the Optical Line Rate on the MRC-12 and MRC-2.5G-12 Cards](#)" task to change the line rate on a multirate PPM. You cannot change the optical line rate on single-rate PPMs.
7. As needed, complete the "[DLP-D135 Delete a PPM from the MRC-12, MRC-2.5G-12, or STM64-XFP Card](#)" task.

Stop. You have completed this procedure.

NTP-D354 Provision the Soak Timer for an ML-Series Card

Purpose	This procedure provisions the soak timer for ports on an ML-Series card. The soak period is the amount of time that the ML-Series port remains in the Down state after an error-free signal is continuously received before it transitions to the Up state.
Tools/Equipment	None
Prerequisite Procedures	NTP-D18 Install Ethernet Cards and Connectors
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

1. Complete the "[DLP-D60 Log into CTC](#)" task at the node where you want to provision the soak timer for an ML-Series card. If you are already logged in, continue with Step 2.
2. In node view, double-click the ML-Series card that you want to provision.
3. Click the **Provisioning** tab.
4. Click the **Ether Ports** or **POS Ports** subtabs and complete the following:
 - ◆ PSAS-Check to enable Pre-Service Alarm Suppression (PSAS), which suppresses all alarms on the port for the time designated in the Soak Time column.
 - ◆ Soak Time-Choose the desired soak time (in hours and minutes). Use this column when you have checked PSAS to suppress alarms. Once the port detects a signal, the countdown begins for the designated soak time. Soak time hours can be set from 0 to 48. Soak time minutes can be set from 0 to 45 in 15 minute increments.
5. Click **Apply**.

Stop. You have completed this procedure.

NTP-D361 View PPM Information on the LCD

Purpose	This procedure displays the line rate and the configured reach of PPMs installed on OC-N and MRC cards (MRC-12, MRC-2.5G-12) on the LCD, located on the front of the fan-tray assembly.
Tools/Equipment	None
Prerequisite Procedures	NTP-D16 Install STM-N Cards and Connectors DLP-D335 Install GBIC or SFP/XFP Devices

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

1. On the ONS 15454 SDH front panel, repeatedly press the **Slot** button until the slot number of the card where the PPM resides appears on the LCD.
 2. Repeatedly press the **Port** button. When you see "Status - Lambda" display on the LCD, press the **Status** button to select that option.
 3. Press **Status** to toggle between "Lambda" and "Line Rate and Reach."
 4. Press **Status** to select one of those options.
 5. Press the **Port** button as needed to display the information about the desired port.
- Stop. You have completed this procedure.**