



# CHAPTER 14

## Power Down a Node

This chapter explains how to power down a node and stop all node activity on the Cisco ONS 15454 ANSI or ETSI.



### Note

The CTC views referenced in this chapter depend on the ONS 15454 mode. For more information about CTC views, see [Appendix A, “CTC Information and Shortcuts.”](#)

## NTP-G119 Power Down the Node

<b>Purpose</b>	This procedure stops all node activity.
<b>Tools/Equipment</b>	None
<b>Prerequisite Procedures</b>	None
<b>Required/As Needed</b>	As needed
<b>Onsite/Remote</b>	Onsite
<b>Security Level</b>	Provisioning or higher



### Warning

**Do not reach into a vacant slot or chassis while you install or remove a module or a fan. Exposed circuitry could constitute an energy hazard.** Statement 206



### Caution

The following procedure is designed to minimize traffic outages when powering down nodes, but traffic will be lost if you delete and recreate circuits that passed through a working node.



### Note

Always use the supplied ESD wristband when working with the Cisco ONS 15454. Plug the wristband into the ESD jack located on the fan-tray assembly or on the lower right outside edge of the shelf on the NEBS 3 shelf assembly. To access the ESD plug on the NEBS 3 shelf assembly, open the front door of the Cisco ONS 15454. The front door is grounded to prevent electrical shock. For detailed instructions on how to wear the ESD wristband, refer to the [Cisco ONS Electrostatic Discharge \(ESD\) and Grounding Guide](#).

### Step 1

Identify the node that you want to power down. If no cards are installed, go to [Step 20](#). If cards are installed, log into the node. See the [“DLP-G46 Log into CTC” task on page 2-26](#) for instructions.

**Step 2** Choose **Go to Network View** from the View menu.

**Step 3** Verify that the node is not connected to a network.

- a. If the node is part of a Software R4.7 or later dense wavelength division multiplexing (DWDM) configuration, see the “[NTP-G130 Remove a DWDM Node](#)” procedure on page 12-11 continue with [Step 4](#).
- b. If the node is not connected to a working network and the current configurations are no longer required, proceed to [Step 4](#).



**Note**

Before the power-down of a DWDM node, the fiber spans connected around it must be disconnected from the network. This is to prevent the accidental disconnection of wavelengths that pass through the shelf. A good indication that the shelf has been disconnected from the network is optical service channel (OSC) alarms, or no OSC channels provisioned.



**Note**

Current configurations will be saved if Steps [4](#) to [20](#) are skipped.

**Step 4** In node view (single-shelf mode) or multishelf view (multishelf mode), click the **Circuits** tab and verify that no circuits appear, then proceed to [Step 5](#). If circuits appear, delete all the circuits that originate or terminate in the node. Complete the “[DLP-G106 Delete Optical Channel Network Connections](#)” task on page 7-25, the “[DLP-G347 Delete Optical Channel Client Connections](#)” task on page 7-11, or the “[DLP-G112 Delete Overhead Circuits](#)” task on page 7-67 as needed.



**Note**

When deleting circuits from a node, make sure that the node is not connected to any network.

**Step 5** In node view (single-shelf mode) or shelf view (multishelf mode), click the **Provisioning > Protection** tabs and delete all protection groups:

- a. Click the protection group that needs to be deleted and click **Delete**.
- b. Click **Yes**.

Repeat until no protection groups appear.

**Step 6** In node view (single-shelf mode) or multishelf view (multishelf mode), click the **Provisioning > Comm Channels** tabs and delete all communications channel terminations:

- a. Click the section data communications channel (SDCC), line data communications channel (LDCC), generic communications channel (GCC), link management protocol (LMP), provisionable (external) patchcords (PPC), or OSC termination that needs to be deleted and click **Delete**.
- b. Click **Yes**.

Repeat until no SDCC, LDCC, GCC, or OSC terminations are present.

**Step 7** Before deleting any installed DWDM cards, the optical sides and the optical patchcords must be deleted. In node view (single-shelf mode) or multishelf view (multishelf mode), click **Provisioning > WDM-ANS > Optical Side** tabs.

- a. Select all the connections and click **Delete**.
- b. Click **Yes**.

- Step 8** In node view (single-shelf mode) or multishelf view (multishelf mode), click **Provisioning > WDM-ANS > Internal Patchcords** tabs.
- Select all the connections and click **Delete**.
  - Click **Yes**.
- Step 9** In node view (single-shelf mode) or multishelf view (multishelf mode), click **Provisioning > WDM-ANS > Provisioning** tabs and delete all the ANS parameters.
- Select all the ANS parameters and click **Remove**. The Network Type parameter cannot be deleted.
  - Click **Yes**.
- Step 10** In node view (single-shelf mode) or multishelf view (multishelf mode), click **Provisioning > WDM-ANS > Passive Cards** tabs, and delete all the passive cards.
- Click the passive card you want to delete.
  - Click **Delete**, then click **Yes**.
- Step 11** Repeat Step [a](#) and Step [b](#) for each installed passive card.
- Step 12** For each installed channel-bearing card (AD-1C-xx.x, AD-2C-xx.x, and AD-4C-xx.x, where xx.x refers to the specific wavelengths), make sure all lines and bands are not in IS-NR (ANSI) or Unlocked-Enabled (ETSI) service state:
- In card view, click the **Provisioning > Optical Line > Parameters** tabs.
  - In the Admin State column for each line, make sure that the default state IS, AINS (ANSI), or Unlocked,automaticInservice (ETSI) is selected.
  - Click the **Provisioning > Optical Chn > Parameters** tabs.
  - In the Admin State column for each line, make sure that the default state IS, AINS (ANSI), or Unlocked,automaticInservice (ETSI) is selected.
- Step 13** For each installed DWDM band-bearing card (AD-1B-xx.x and AD-4B-xx.x, where xx.x refers to the specific wavelengths), make sure all lines and bands are not in the IS-NR (ANSI) or Unlocked-Enabled (ETSI) service state:
- In card view, click the **Provisioning > Optical Line > Parameters** tabs.
  - In the Admin State column for each line, make sure that the default state IS, AINS (ANSI), or Unlocked,automaticInservice (ETSI) is selected.
  - Click the **Provisioning > Optical Band > Parameters** tabs.
  - In the Admin State column for each line, make sure that the default state IS, AINS (ANSI), or Unlocked,automaticInservice (ETSI) is selected.
- Step 14** For each installed transponder (TXP), muxponder (MXP), multiplexer, demultiplexer, amplifier, OSC-CSM, OSCM, wavelength switch, or single module ROADM card (32MUX-O, 32DMX-0, 32DMX, 32WSS, 4MD-xx.x, 40-WSS-C, 40-WSS-CE, 40-WXC-C, 40-DMX-C, 40-DMX-CE, 40-MUX-C, TDC-CC, TDC-FC, 40-SMR1-C, 40-SMR2-C, OPT-BST, OPT-PRE, TXP\_MR\_10G, TXP\_MR\_10E, TXP\_MR\_2.5G, TXPP\_MR\_2.5G, MXP\_2.5G\_10G, MXP\_2.5G\_10E, MXP\_MR\_2.5G, MXPP\_MR\_2.5G, GE\_XP, 10GE\_XP, GE\_XPE, 10GE\_XPE, or ADM-10G), make sure all lines are not in the IS-NR (ANSI) or Unlocked-enabled (ETSI) service state:
- In card view, click the appropriate tab depending on the card:
    - For MXP\_2.5G, MXP\_2.5G\_10G, TXP\_MR\_10G, TXP\_MR\_10E cards, click the **Provisioning > Line > SONET** tabs if the card was provisioned for a SONET payload, or the **Provisioning > Line > SDH** tabs if the card was provisioned for an SDH payload.

- For TXP\_MR\_2.5G, TXPP\_MR\_2.5G, and MXPP\_MR\_2.5G cards, click the **Provisioning > Line > SONET** tabs.
  - For MXP\_2.5G\_10E cards, click the **Provisioning > Line > Trunk** tabs.
  - For MXP\_MR\_2.5G cards, click the **Provisioning > Line > Client** tabs.
  - For ADM-10G cards, click the **Provisioning > Line > Ports** tabs.
  - For 32MUX-O, 32DMX-0, 32DMX, 32WSS, 40MUX, 40DMUX-C, TDC-CC, TDC-FC, OPT-BST, OPT-PRE cards, click the **Provisioning > Optical Line > Parameters** tabs.
  - For 32DMX, 32DMX-O, 40-DMX-C, 40-MUX-C, 40-DMX-CE, 4MD cards, click the **Provisioning > Optical Chn > Parameters** tabs.
  - For 40-WSS-C/40-WSS-CE cards, click the **Provisioning > Optical Chn: Optical Connector x > Parameters** tabs.
  - For 40-WXC-C cards, click the **Provisioning > WXC Line > Parameters** tabs.
  - For 40-DMX-C, 40-MUX-C, and 40-DMX-CE cards, click the **Provisioning > Optical Line > Parameters** tabs.
  - For 4MD-xx.x cards, click the **Provisioning > Optical Band > Parameters** tabs.
  - For GE\_XP, 10GE\_XP, GE\_XPE, and 10GE\_XPE cards, click the **Provisioning > Ether Ports > Ports** tabs.
  - For OPT-BST and OPT-PRE cards, click the **Provisioning > Optical Ampli Line > Parameters** tabs.
  - For the 40-SMR1-C and 40-SMR2-C cards, click the **Provisioning > Optical Line > Parameters** tabs and **Provisioning > Opt. Ampli. Line > Parameters** tabs.
  - For OSC-CSM and OSCM cards, click the **Provisioning > Optical Line > Parameters** tabs.
  - For ADM\_10G cards, click the **Provisioning > Line > Ports** tabs.
- b. In the Admin State column for each line, make sure that the default state IS, AINS (ANSI) or Unlocked,automaticInservice (ETSI) is selected.
- c. Repeat Steps a and b for each installed DWDM card.

**Note**

Ports are put in service when circuits are provisioned, and put out of service when circuits are deleted. When circuits are deleted the Admin State displays as IS, AINS (ANSI) or Unlocked,automaticInservice (ETSI) and the Service State displays OOS-AU,AINS (ANSI) or Unlocked-disabled,automaticInService (ETSI).

- Step 15** Remove all fiber connections to the cards.
- Step 16** In node view (single-shelf mode) or shelf view (multishelf mode), right-click an installed card and click **Delete**.
- Step 17** Click **Yes**.
- Step 18** After you have deleted the card, open the card ejectors and remove it from the node.
- Step 19** Repeat [Step 15](#) through [Step 18](#) for each installed card.

**Note**

You cannot delete a TCC2 or TCC2P card in Cisco Transport Controller (CTC). Physically remove it after all the other cards have been deleted and removed.

- Step 20** Shut off the power from the power supply that feeds the node.
  - Step 21** Disconnect the node from its external fuse source.
  - Step 22** Store all of the cards that you removed and update inventory records according to local site practice.
- Stop. You have completed this procedure.**
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