CTC Information and Shortcuts

Note The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This appendix describes how to navigate within Cisco Transport Controller (CTC) and change the display of CTC table data for the Cisco ONS 15327. It also lists menu and tool options and describes the shelf inventory data presented in CTC. For further information about CTC, refer to the *Cisco ONS 15327 Reference Manual*.

Displaying Node, Card, and Network Views

The Cisco Transport Controller provides three views of the ONS 15327 and ONS network:

- Node view appears when you first log into an ONS 15327. This view shows a graphic of the ONS 15327 shelf and provides access to tabs and subtabs that you use to manage the node.
- Card view provides access to individual ONS 15327 cards. This view provides a graphic of the card and access to tabs and subtabs that you use to manage the card.
- Network view shows all the nodes in a ring. Users can customize the network view, including changing the background color and map, and Superusers can arrange for all workstations on the network to show the same network view. This view provides access to tabs and subtabs that you use to manage the network.

Table A-1 lists different actions for changing CTC views.

Table A-1 Change CTC Views

To display:	Perform one of the following:
Node view	• Log into a node; node view is the default view. • In network view, double-click a node icon or right-click the node and choose **Open Node** from the shortcut menu. • In network view, click a node icon and then choose **Go to Selected Object** from the View menu. • From the CTC View menu, choose **Go to Other Node** and then choose the node you want from the shortcut menu. • Use the arrows on the CTC toolbar to navigate up or down. For example, in network view, click a node and then click the down arrow.
Network view	• In node view, click the up arrow or the Network View tool on the CTC toolbar. • From the View menu, choose **Go To Network View**.
Card view	• In node view, double-click a card or right-click the card and choose **Open Card**. • In node view, single-click a card icon, then choose **Go to Selected Object** from the View menu. • Use the arrows on the CTC toolbar to navigate up or down. For example, in node view click a card and then click the down arrow.

Manage the CTC Window

Different navigational methods are available within the CTC window to access views and tasks. You can double-click and right-click objects in the graphic area and move the mouse over nodes, cards, and ports to view popup status information.

CTC Menu and Toolbar Options

The CTC window menu bar and toolbar provide primary CTC functions. Table A-2 shows the actions that are available from the CTC menu and toolbar.

Table A-2 CTC Menu and Toolbar Options

Menu	Menu Option	Toolbar	Description
File	Add Node		Adds a node to the current session. See the "DLP-B62 Add a Node to the Current Session or Login Group" task on page 2-26.
	Delete Selected Node		Deletes a node from the current session.
	Lock CTC		Locks CTC without closing the CTC session. A user name and password are required to open CTC.
	Print		Prints CTC data. See the "DLP-B138 Print CTC Data" task on page 6-2.
	Export		Exports CTC data. See the "DLP-B139 Export CTC Data" task on page 6-3.
	Exit		Closes the CTC session. The exit icon appears only in the File menu.
Edit	Preferences		Displays the Preferences dialog box: General tab—Allows you to change event defaults and manage preferences. Login Node Groups tab—Allows you to create login node groups. See the "DLP-B61 Create Login Node Groups" task on page 2-25. Map tab—Allows you to customize the network view. See the "DLP-B145 Change the Network View Background Color" task on page 9-8 and the "DLP-B268 Apply a Custom Network View Background Map" task on page 9-9. Circuit tab—Allows you to change the color of circuit spans. See the "DLP-B232 Change Active and Standby Span Color" task on page 8-10. Firewall tab—Sets the IIOP listener ports for access to the ONS 15327 through a firewall. See the "NTP-B27 Set Up the ONS 15327 for Firewall Access" procedure on page 3-13.

Table A-2 CTC Menu and Toolbar Options (continued)

Menu	Menu Option	Toolbar	Description
View	Go to Previous View		Displays the previous CTC view.
	Go to Next View		Displays the next CTC view. Available only after you navigate to a previous view. Go to Previous and Go to Next are similar to forward and backward navigation in a web browser.
	Go to Parent View		References the CTC view hierarchy: network view, node view, and card view. In card view, this command displays the node view; in node view, the command displays network view. Not available in network view.
	Go to Selected Object View		Displays the object selected in the CTC window.
	Go to Home View		Displays the login node in node view.
	Go to Network View		Displays the network view.
	Go to Other Node		Displays a dialog box allowing you to choose the node name of a network node that you want to view.
	Show Status Bar	—	Click this item to display or hide the status bar at the bottom of the CTC window.
	Show Tool Bar	—	Click this item to display or hide the CTC toolbar.
—	—		Decreases the size of the map area in network view (toolbar only).
—	—		Increases the size of the map area in network view (toolbar only).
—	—		Increases the size of a selected area of the map in network view (toolbar only).

Table A-2 CTC Menu and Toolbar Options (continued)

Menu	Menu Option	Toolbar	Description
Tools	Circuits	—	Displays the following options: • Repair Circuits—(This option is for the Cisco ONS 15454) Repairs incomplete circuits following replacement of the ONS 15454 AIP board. Refer to the *Cisco ONS 15454 Troubleshooting Guide* for more information. • Set Path Selector Attributes—Allows you to edit path protection circuit path selector attributes. See the "DLP-B233 Edit Path Protection Circuit Path Selectors" task on page 8-11. • Set Circuit State—Allows you to change a circuit state. See the "DLP-B230 Change a Circuit State" task on page 8-8. • Convert CTC Circuits to TL1 Cross Connects—If a cross-connect in a circuit gets deleted, this menu option allows a user to repair a circuit by separating an incomplete CTC circuit into TL1 cross-connects. Then, the user can replace the missing cross-connect. See the "NTP-B417 Upgrade TL1 Cross-Connects to CTC Circuits" procedure on page 8-14. • Upgrade TL1 Cross Connects to CTC Circuits—Allows you to convert TL1 cross-connects to CTC circuits. See the "NTP-B416 Convert a CTC Circuit to TL1 Cross-Connects" procedure on page 8-13. • Roll Circuit—Allows you to reroute live traffic without interrupting service. **Note** This feature requires an ONS 15600 on your network. Refer to the *Cisco ONS 15600 Procedure Guide*. • Delete Rolls —Allows you to delete roll circuits. **Note** This feature requires an ONS 15600 on your network. Refer to the *Cisco ONS 15600 Procedure Guide.*
	Manage VLANs	—	Displays a list of VLANs that have been created and allows you to delete or create new VLANs. See Chapter 5, "Create Circuits and VT Tunnels."
	Open TL1 Connection		Displays the TL1 session dialog box so you can create a TL1 session to a specific node. Refer to the *Cisco ONS 15454 and Cisco ONS 15327 TL1 Command Guide*.
	Open IOS Connection		(Cisco ONS 15454 only) Displays the IOS command line interface dialog box if an IOS capable card (ML1000-2 or ML100T-12) is installed in the node. Refer to the *Cisco ONS 15454 ML-Series Multilayer Ethernet Card Software Feature and Configuration Guide*.
Help	Contents and Index	—	Displays the online help window.
	Manage Help	—	Displays the versions of online help loaded on your computer.
	About CTC	—	Displays the software version and the nodes in the CTC session.

CTC Mouse Options

In addition to the CTC menu bar and toolbar, you can invoke actions by double-clicking CTC window items with your mouse, or by right-clicking an item and selecting actions from shortcut menus. Table A-3 lists the CTC window mouse shortcuts.

Table A-3 CTC Window Mouse Shortcuts

Technique	Description
Double-click	• Node in network view—Displays the node view • Card in node view—Displays the card view • Alarm/Event—Displays the alarm or event raising object. • Circuits—Displays the Edit Circuit window.
Right-click	• Network view graphic area—Displays a menu that you can use to create a new domain, change the position and zoom level of the graphic image, save the map layout if you have a Superuser security level, reset the default layout of network view, and set, change, or remove the background image and color. • Node in network view—Displays a menu that you can use to open the node, reset the node icon position to the longitude and latitude set on the Provisioning > General tab, delete the node, fix the node position for auto layout, provision circuits, or update circuits with a new node. • Span in network view—Displays a menu that you can use to view information about the span source and destination ports, the protection scheme, and the optical or electrical level. You can display the Circuits on Spans dialog box, which displays additional span information and allows you to perform path protection switching. You also perform span upgrades from this menu. • Card in node view—Displays a menu that you can use to open, delete, reset, and change cards. The card that you select determines the commands that appear. • Card in card view—Displays a menu that you can use to reset the card or go to the parent view (node view). • Empty slot in node view—Displays a menu with cards that you can select to pre-provision the slot.
Move mouse cursor	• Over node in network view—Displays a summary of node alarms and provides a warning if the node icon has been moved out of the map range. • Over span in network view—Displays circuit (node, slot, port) bandwidth and protection information. • Over card in node view—Displays card type and card status. • Over card port in node view—Displays card name, port state, and alarm profile status. • Over card port in card view—Displays port state, protection status (if applicable), and alarm profile status.

Node View Shortcuts

Table A-4 shows actions you can perform by moving your mouse over the CTC window.

Table A-4 Performing Node View Card Shortcuts

Action	Shortcut
Display card information	Move your mouse over cards in the graphic to display tooltips with the card type, card present or card provisioned but not present, the highest level of alarm (if any), and the alarm profile used by the card.
Open, reset, or delete a card	Right-click a card. Choose **Open** to display the card in card view, **Delete** to delete it, or **Reset** to reset the card. See also the "DLP-B320 Delete a Card" task on page 1-26.
Pre-provision a slot	In node view, right-click an empty slot. Choose the card type that you want to provision in the slot from the shortcut menu. See also the "NTP-B115 Preprovision a Slot" procedure on page 1-28.
Change a card	In node view, right-click an OC-N card and choose **Change Card**. In the Change Card dialog box, choose the card type. Change card retains all card provisioning, including DCC terminations, protection, circuits, and ring. See also the "DLP-B247 Change an Optical Card" task on page 1-27.

Network View Tasks

Right-click the network view graphic area or a node, span, or domain to display shortcut menus. Table A-5 lists the actions that are available from the network view.

Table A-5 Network Management Tasks in Network View

Action	Task
Open a node	Any of the following: • Double-click a node icon. • Right-click a node icon and choose **Open Node** from the shortcut menu. • Click a node and choose **Go to Selected Object View** from the CTC View menu. • From the View menu, choose **Go To Other Node**. Select a node from the Select Node dialog box. • Double-click a node alarm or event in the Alarms or History tabs.
Move a node icon	Press the **Ctrl** key and the left mouse button simultaneously and drag the node icon to a new location.
Save a node icon position	On the network view map, right-click and choose **Save Node Position**. Click **Yes** on the **Save Node Position** dialog box.
Reset node icon position	Right-click a node and choose **Reset Node Position** from the shortcut menu. The node icon moves to the position defined by the longitude and latitude fields on the Provisioning > General tab in node view.

Table A-5 Network Management Tasks in Network View (continued)

Action	Task
Provision a circuit	Right-click a node. From the shortcut menu, choose **Provision Circuit To** and select the node where you want to provision the circuit. For circuit creation procedures, see Chapter 5, "Create Circuits and VT Tunnels."
Update circuits with new node	Right-click a node and choose **Update Circuits With New Node** from the shortcut menu. Use this command when you add a new node and want to pass circuits through it.
Display a link end point	Right-click a span. From the shortcut menu, choose **Go To [node/slot/port]** for the drop port you want to view. CTC displays the card in card view.
Display span properties	Any of the following: • Move your mouse over a span; the properties appear near the span. • Click a span; the properties appear in the upper left corner of the window. • Right-click a span; the properties appear at the top of the shortcut menu.
Perform a path protection switch for an entire span	Right-click a network span and click **Circuits**. In the Circuits on Span dialog box, switch options are displayed in the path protection Span Switching field. See also the "DLP-B197 Initiate a Path Protection Force Switch" task on page 13-16.
Upgrade a span	Right-click a span and choose **Upgrade Span** from the shortcut menu. **Note** For detailed span upgrade information and instructions, see Chapter 11, "Upgrade Cards and Spans."

Table Display Options

Right-clicking a table column displays a menu. Table A-6 shows table display options, which include rearranging or hiding CTC table columns and sorting table columns by primary or secondary keys.

Table A-6 Table Display Options

Task	Click	Right-Click Shortcut Menu
Resize column	Left-click while dragging the header separator to the right or left.	—
Rearrange column order	Left-click while dragging the column header to the right or left.	—
Reset column order	—	Choose **Reset Columns Order/Visibility**.
Hide column	—	Choose **Hide Column**.
Show column	—	Choose **Show Column >** *column_name*
Display all hidden columns	—	Choose **Reset Columns Order/Visibility**.
Sort table (primary)	Click a column header; each click changes the sort order (ascending or descending).	Choose **Sort Column**.

Table A-6 Table Display Options (continued)

Task	Click	Right-Click Shortcut Menu
Sort table (secondary sorting keys)	Press the **Shift** key and simultaneously click the column header.	Choose **Sort Column (incremental)**.
Reset sorting	—	Choose **Reset Sorting**.
View table row count (Row Count is the last item on the shortcut menu) View the number listed next to "Row Count," it is the last item on the shortcut menu.	—	—

Equipment Inventory

In node view, the Inventory tab displays information about the ONS 15327 equipment, including:

- Delete Button—After highlighting a card with your mouse, use this button to delete the card from node view. See also the "DLP-B320 Delete a Card" task on page 1-26.
- Reset Button—After highlighting a card with your mouse, use this button to reset a card.
- Location—Where the equipment is installed, either chassis or slot number.
- Eqpt Type—Displays the type of equipment but not the specific card name, for example, OC12 or MIC.
- Actual Eqpt Type—Displays the actual equipment type, for example, 15327-OC48-1.
- HW Part #—Hardware part number; this number is printed on the top of the card or equipment piece.
- HW Rev—Hardware revision number.
- Serial #—Equipment serial number; this number is unique to each card.
- CLEI Code—Common Language Equipment Identifier code.
- Firmware Rev—Revision number of the software used by the ASIC chip installed on the ONS 15327 cards.