Manage Alarms

This chapter explains how to view and manage the alarms and conditions on a Cisco ONS 15327.

Cisco Transport Controller (CTC) detects and reports SONET alarms generated by the Cisco ONS 15327 and the larger SONET network. You can use CTC to monitor and manage alarms at a card, node, or network level. You can also view alarm counts on the LCD front panel.

Before You Begin

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

1. NTP-B195 Document Existing Provisioning, page 6-2—Complete this procedure as needed to record node information or to troubleshoot rings and spans.
2. NTP-B196 View Alarms, History, Events, and Conditions, page 6-5—Complete this procedure as needed to see alarms and conditions occurring on the node and a complete history of alarm and condition messages.
3. NTP-B68 Delete Cleared Alarms from Display, page 6-13—Complete this procedure as needed to delete cleared alarm information that is no longer needed.
4. NTP-B69 View Alarm-Affected Circuits, page 6-14—Complete this procedure as needed to find circuits that are affected by a particular alarm or condition.
5. NTP-B70 Create, Download, and Assign Alarm Severity Profiles, page 6-16—Complete this procedure as needed to change the default severity for certain alarms, assign the new severities to a port, card, or node, and delete alarm profiles.
6. NTP-B168 Enable, Modify, or Disable Alarm Severity Filtering, page 6-26—Complete this procedure as needed to enable, disable, or modify alarm severity filtering in the Conditions, Alarms, or History screens; you can enable, modify, and disable alarm severity filtering at the node or network level.
7. NTP-B72 Suppress and Discontinue Alarm Suppression, page 6-30—As needed, use these tasks to suppress reported alarms at the port, card, or node level and disable the suppress command to resume normal alarm reporting.

NTP-B195 Document Existing Provisioning

Purpose	Use this procedure to print card, node, or network CTC information in graphical or tabular form on a Windows-provisioned printer, or to export card, node, or network information as editable delineated text files to other applications. This procedure is useful for network record keeping and troubleshooting.
Tools/Equipment	Printer connected to the CTC computer by a direct or network connection
Prerequisite Procedures	Chapter 3, "Turn Up Node"
Required/As needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 Complete the "DLP-B60 Log into CTC" task on page 2-23 at the node that has the information you want to record or save. If you are already logged in, continue with Step 2.

Step 2 As needed, complete the "DLP-B138 Print CTC Data" task on page 6-2.

Step 3 As needed, complete the "DLP-B139 Export CTC Data" task on page 6-3.

Stop. You have completed this procedure.

DLP-B138 Print CTC Data

Purpose	Use this task to print CTC card, node, or network data in graphical or tabular form on a Windows-provisioned printer.
Tools/Equipment	Printer connected to the CTC computer by a direct or network connection
Prerequisite procedures	DLP-B60 Log into CTC, page 2-23
Required/As needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 Click the CTC tab (and subtab, if present) containing the information you want to print. For example, click the **Alarms** tab to print Alarms window data.

The print operation is available for all network, node (default login), and card view windows.

Step 2 From the File menu, choose **Print**.

Step 3 In the Print dialog box, click a a printing option (Figure 6-1).

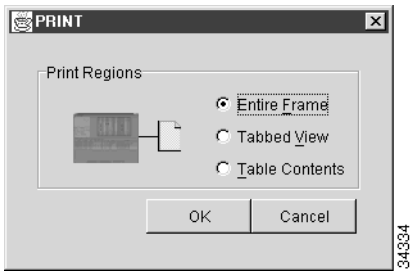
- Entire Frame—Prints the entire CTC window including the graphical view of the card, node, or network. This option is available for all windows.
- Tabbed View—Prints the lower half of the CTC window containing tabs and data. The printout includes the selected tab (on top) and the data shown in the tab window. For example, if you print the History window Tabbed View, you print only history items appearing in the window. This option is available for all windows.

- Table Contents—Prints CTC data in table format without graphical representations of shelves, cards, or tabs. This option is available only for CTC table data, so it does not apply to:
  - Provisioning > General, Protection, Security, SNMP, SONET DCC, or Timing windows
  - Maintenance > Database, Protection, Diagnostic, or Timing windows

  The Table Contents option prints all the data contained in a table with the same column headings. For example, if you print the History window Table Contents view, you print all data included in the table whether or not items appear in the window.

Tip When you print using the Tabbed View option, it can be difficult to distinguish whether the printout applies to the network, node, or card view. Look at the tabs to determine which view you are printing. Network, node, and card views are identical except that network view does not contain an Inventory tab; node view and card view contain a Performance tab.

Figure 6-1 Selecting CTC Data For Print



Step 4 Click **OK**.

Step 5 In the Windows Print dialog box, click a printer and click **OK**.

Step 6 Repeat this task for each window that you want to print.

Step 7 Return to your originating procedure (NTP).

DLP-B139 Export CTC Data

Purpose	Use this task to export CTC table data as delineated text to view or edit the data in text editor, word processing, spreadsheet, database management, or web browser applications.
Tools/Equipment	None
Prerequisite procedures	DLP-B60 Log into CTC, page 2-23
Required/As needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 Click the CTC tab containing the information you want to export (for example, the Alarms tab or the Circuits tab).

Step 2 From the File menu choose **Export**.

Step 3 In the Export dialog box (Figure 6-2), click a data format:

- As HTML—Saves data as a simple HTML table file without graphics. The file must be viewed or edited with applications such as Netscape Navigator, Microsoft Internet Explorer, or other applications capable of opening HTML files.
- As CSV—Saves the CTC table as comma-separated values (CSV).
- As TSV—Saves the CTC table as tab-separated values (TSV).

Step 4 If you want to open a file in a text editor or word processor application, procedures may vary; typically you can use the File > Open command to display the CTC data, or you can double-click the file name and choose an application such as Notepad.

Text editor and word processor applications display the data exactly as it is exported, including comma or tab separators. All applications that open the data files allow you to format the data.

Step 5 If you want to open the file in spreadsheet and database management applications, procedures may vary; typically you need to open the application and choose File > Import, then choose a delimited file to display the data in cells.

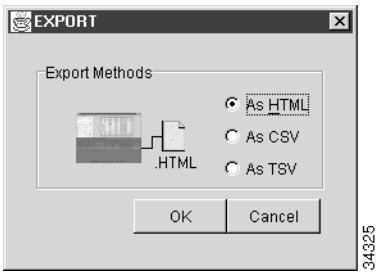
Spreadsheet and database management programs also allow you to manage the exported data.

Note An exported file cannot be opened in CTC.

The export operation only applies to tabular data, so it is not available for the following CTC tabs and subtabs:

- Provisioning > General, Protection, Security, SNMP, SONET DCC, or Timing windows
- Maintenance > Database, Protection, Diagnostic, or Timing windows

Figure 6-2 Selecting CTC Data For Export



Step 6 Click **OK**.

Step 7 In the Save dialog box, enter a name in the File name field using one of the following formats:

- [filename].html—for HTML files
- [filename].csv—for CSV files
- [filename].tsv—for TSV files

Step 8 Navigate to a directory where you want to store the file.

Step 9 Click **OK**.

Step 10 Repeat the task for each window that you want to export.

Step 11 Return to your originating procedure (NTP).

NTP-B196 View Alarms, History, Events, and Conditions

Purpose	Use this procedure to view current or historical alarms and conditions for a card, a node, or network. This information is useful for monitoring and troubleshooting hardware and software events.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning

Step 1 Log into the node that contains the alarms you want to view. See the "DLP-B60 Log into CTC" task on page 2-23 for instructions. If you are already logged in, proceed to Step 2.

Step 2 In the card, node (default), or network-level CTC view, click the **Alarms** tab to display the alarms for that card, node, or network (Figure 6-3 on page 6-6).

Figure 6-3 ONS 15327 CTC Node (Login) View

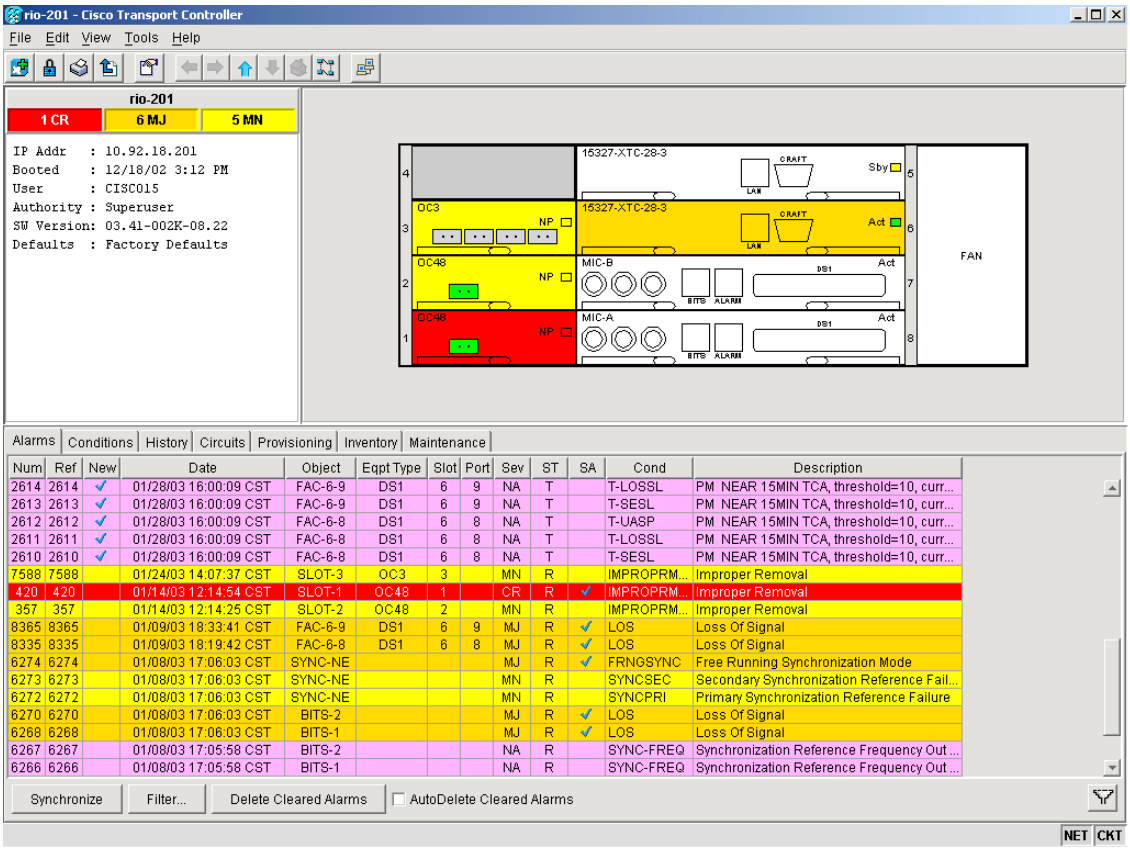


Table 6-1 lists the columns in the Alarms window and their descriptions.

Table 6-1 Alarm Column Descriptions

Column	Information Recorded
New	Indicates a new alarm; to change this status, click either the Synchronize button or the Delete Cleared Alarms button
Date	Date and time of the alarm
Node	Node where the alarm occurred (appears only in network view)
Object	TL1 access identifier (AID) for the alarmed object. For an STSmon or VTmon, this is the monitored STS or VT object.
Eqpt Type	Card type in this slot
Slot	Slot where the alarm occurred (appears only in network and node view)
Port	Port where the alarm is raised. For STSTerm and VTTerm, the port refers to the upstream card it is partnered with.
Sev	Severity level: CR (critical), MJ (major), MN (minor), NA (not-alarmed), NR (not-reported)
ST	Status: R (raised), C (clear)
SA	When selected (checked), indicates a service-affecting alarm

Table 6-1 Alarm Column Descriptions (continued)

Column	Information Recorded
Cond	The error message/alarm name; these names are alphabetically defined in the "Alarm Troubleshooting" chapter of the *Cisco ONS 15327 Troubleshooting Guide*
Description	Description of the alarm
Num	A count of incrementing alarm messages
Ref	The reference number assigned to the alarm

Table 6-2 lists the color codes for alarm and condition severities.

Table 6-2 Color Codes for Alarms and Conditions

Color	Description
Red	Raised Critical (CR) alarm
Orange	Raised Major (MJ) alarm
Yellow	Raised Minor (MN) alarm
Magenta (pink)	Raised Not-Alarmed (NA) condition
Blue	Raised Not-Reported (NR) condition
White	Cleared (C) alarm or condition

Software Release 4.0 has specifically numbered STS and VT alarm object identifiers based upon the object TL1 access identifiers (AIDs). The R40 numbering scheme is compared in Table 6-3 to the numbering scheme in previous releases.

Table 6-3 Release 4.0 Port-Based Alarm Numbering Scheme Comparison

Previous Release STS and VT Alarm Numbering			Release 4.0 STS and VT Alarm Numbering[1]		
MON object	STS (or VT)-6-6 (Slot-STS or VT within card)	Port=1	MON object	STS (or VT)-6-1-6 (Slot-Port-STS or VT within port)	Port=1
TERM object	STS-2-3 (Local slot-STS or VT within local terminating card)	Port=3	TERM object	STS-6-1-6 (Upstream Slot-Port-STS or VT within port)	Port=1

1. In Release 4.0 STSTerm and VtTerm alarms, the Object and Port columns apply to the paired MON object within the upstream card. In these alarms, STSMon and STSTerm, or VTMon or VtTerm alarm objects are identical.

Step 3 If alarms are present, refer to the *Cisco ONS 15327 Troubleshooting Guide* for information and troubleshooting procedures.

Step 4 Complete the "DLP-B110 View Alarm History" task on page 6-8, the "DLP-B113 Synchronize Alarms" task on page 6-10, or the "DLP-B114 View Conditions" task on page 6-11 as needed.

Stop. You have completed this procedure.

DLP-B110 View Alarm History

Purpose	Use this task to view past cleared and uncleared ONS 15327 alarm messages at the card, node, or network level. This task is useful for troubleshooting configuration, traffic, or connectivity issues that are indicated by alarms.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve

Step 1 To view node alarm history, proceed to Step 2. To view network alarm history, proceed to Step 3. To view card alarm history, proceed to Step 5.

Step 2 To view node alarm history:

a. Click the **History > Session** tabs if you want to view the alarms and conditions (events) raised during the current session (since you logged into the CTC).

b. Click the **History > Node** tabs to retrieve all available alarm messages for the node.

Tip Double-click an alarm in the alarm table or an event (condition) message in the history table to display the view that corresponds to the alarm message. Double-click a card alarm to display the card view. In network view, double-click a node alarm to display the node view.

Step 3 To view network alarm history, from node view click **View > Go to Network View**.

Step 4 Click the **History** tab.

Alarms and conditions (events) raised during the current session appear.

Step 5 To view card alarm history, from the network view click **View > Go to Previous View**.

The previous view is the node (default login) view.

Step 6 From node view, double-click a card on the shelf graphic to display the card-level view for the card.

Note Mechanical Interface cards (MICs) do not have a card view.

a. Click the **History > Session** tabs to view the alarm messages raised during the current session.

b. Click the **History > Card** tabs to retrieve all available alarm messages for the card.

Note The ONS 15327 can store up to 640 critical alarm messages, 640 major alarm messages, 640 minor alarm messages, and 640 condition messages. When any of these limits is reached, the ONS 15327 discards the oldest events in that category.

Step 7 In the node or card view, display Not-Alarmed (NA) and transient event (condition) history in addition to alarm history by clicking the **Events** check box in the History > Node window or History > Card window.

Step 8 Click **Retrieve**.

Step 9 The window displays raised and cleared alarm messages (and events, if selected).

Tip Double-click an alarm in the alarm table or a condition in the history table to display the view that corresponds to the alarm message. For example, double-clicking a card alarm takes you to card view. In network view, double-clicking a node alarm takes you to node view.

Step 10 Return to your originating procedure (NTP).

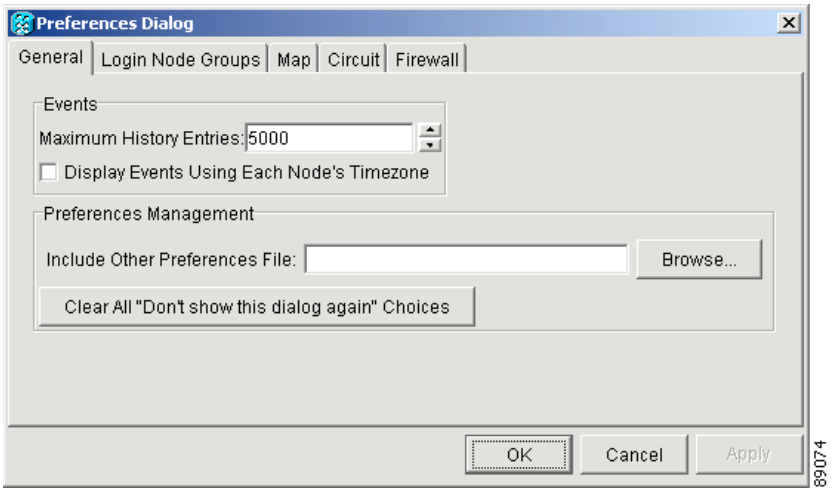
DLP-B111 Changing the Maximum Number of Session Entries for Alarm History

Purpose	This task changes the maximum number of session entries included in the alarm history. Use this task to extend the history list in order to save information for future reference or troubleshooting.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning

Step 1 From the Edit menu choose **Preferences**.

The CTC Preferences Dialog box appears (Figure 6-4).

Figure 6-4 CTC Preferences Dialog Box



Step 2 Click the up or down arrow buttons next to the Maximum History Entries field to change the entry.

Step 3 Click **Apply** and **OK**.

Note Setting the Maximum History Entries value to the high end of the range uses more CTC memory and could impair CTC performance.

Note This task changes the maximum history entries recorded for CTC sessions. It does not affect the maximum number of history entries viewable for a network, node, or card.

Step 4 Return to your originating procedure (NTP).

DLP-B112 Display Alarms and Conditions Using Time Zone

Purpose	Use this task to change the timestamp for events to the timezone of the ONS node reporting the alarm. By default, the events timestamp is set to the timezone for the CTC workstation.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning

Step 1 From the Edit menu choose **Preferences**.

The CTC Preferences Dialog box appears (Figure 6-4 on page 6-9).

Step 2 Click the **Display Events Using Each Node's Timezone** check box.

Step 3 Click **Apply** and **OK**.

Step 4 Return to your originating procedure (NTP).

DLP-B113 Synchronize Alarms

Purpose	Use this task to view ONS 15327 events at the card, node, or network level and to refresh the alarm listing while troubleshooting so that you can check for new and cleared alarms and conditions.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve

Step 1 At the card, node, or network view, click the **Alarms** tab.

Step 2 Click **Synchronize**.

This button causes CTC to retrieve a current alarm summary for the card, node, or network. This step is optional because CTC updates the Alarms window automatically as messages arrive from the node.

Alarms that have been raised during the session will have a check mark in the Alarms window New column. When you click Synchronize, the check mark disappears.

Step 3 Return to your originating procedure (NTP).

DLP-B114 View Conditions

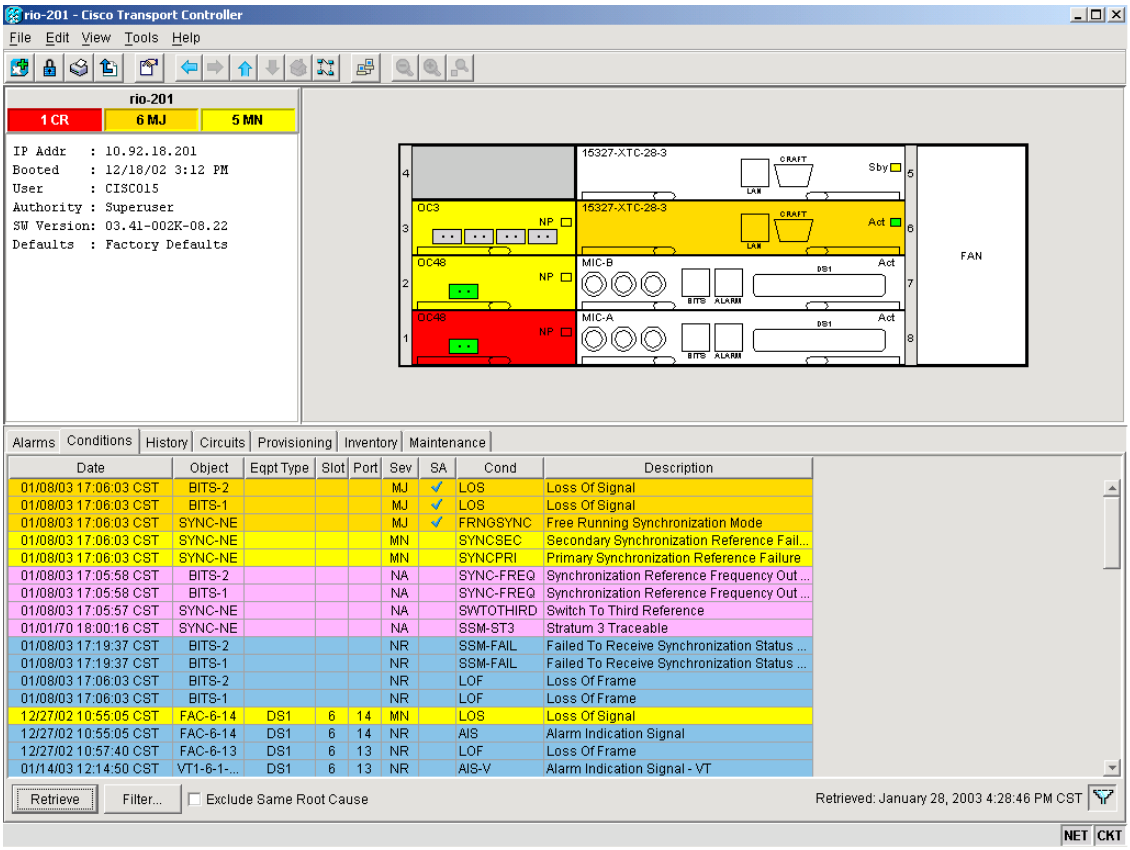
Purpose	Use this task to view conditions, [events with a Not-Reported (NR) severity] at the card, node, or network level. Conditions give you a clear record of changes or events that do not result in alarms.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve

Step 1 In the card, node, or network view, click the **Conditions** tab.

Step 2 Click **Retrieve** (Figure 6-5).

The Retrieve button requests the current set of fault conditions from the node, card, or network. The window is not updated when conditions change on the node. You must click Retrieve to see any changes.

Figure 6-5 Node View Conditions Window



Conditions include all fault conditions raised on the node, whether or not they are reported.

Note Alarms can be unreported when they are filtered out of the display. See the "DLP-B225 Enable Alarm Filtering" section on page 6-27 for information.

Events that are reported as Major (MJ), Minor (MN), or Critical (CR) severities are alarms. Events that are reported as Not-Alarmed (NA) are conditions. Conditions that are not reported at all are marked Not-Reported (NR) in the Conditions window severity column.

Conditions that have a default severity of Critical (CR), Major (MJ), Minor (MN), or Not-Alarmed (NA) but are not reported due to exclusion or suppression are shown as NR in the Conditions window.

Note For more information about alarm suppression, see the "DLP-B119 Suppress Alarm Reporting" section on page 6-31.

Current conditions are shown with the severity chosen in the alarm profile, if used. (For more information about alarm profiles, see the "NTP-B70 Create, Download, and Assign Alarm Severity Profiles" section on page 6-16.)

Note When ports are placed in OOS state for maintenance (OOS-MT), they raise the Alarms Suppressed for Maintenance (AS-MT) condition. For information about alarm and condition troubleshooting, refer to the *Cisco ONS 15327 Troubleshooting Guide*.

Step 3 If you want to apply exclusion rules, check the **Exclude Same Root Cause** check box at the node or network view, but do not check the Exclude Same Root Cause check box in card view.

An exclusion rule eliminates all lower-level alarms or conditions that originate from the same cause. For example, a fiber break may cause an LOS alarm, an AIS condition, and an SF condition. If you check the Exclude Same Root Cause checkbox, only the LOS alarm will appear. According to Telcordia, exclusion rules apply to a query of "all conditions from a node."

Step 4 Return to your originating procedure (NTP).

NTP-B68 Delete Cleared Alarms from Display

Purpose	Use this procedure to delete Cleared (C) status alarms from the alarms window. The procedure can be used to delete transient messages from the CTC History window.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve

Step 1 Log into a node where you want to delete alarms. See the "DLP-B60 Log into CTC" task on page 2-23 for instructions. If you are already logged in, proceed to Step 2.

Step 2 To manually delete cleared node-level alarms:

a. In the node view, click the **Alarms** tab.

b. Refer to the rules in Step 8 and Click **Delete Cleared Alarms**.

This action removes any cleared ONS 15327 alarms from the Alarms display. The rows of cleared alarms turn white and have a C in their status (ST) column (Figure 6-5 on page 6-12).

Step 3 To automatically delete cleared alarms at the node level, check the **Autodelete Cleared Alarms** check box at the bottom-left of the window.

Step 4 To manually delete cleared card-level alarms:

a. In the node view, double-click the card graphic for the card you want to open.

b. Click the **Alarms** tab and click the **Delete Cleared Alarms** button, referring to the rules in Step 8.

Step 5 To automatically delete cleared alarms at the card level, check the **Autodelete Cleared Alarms** check box at the bottom-left of the window.

Step 6 To manually delete cleared network-level alarms:

a. In the node view click **View > Go to Network View**.

b. Click the **Alarms** tab and then, referring to the rules in Step 8, click **Delete Cleared Alarms**.

Step 7 If you want to automatically delete cleared alarms at the network level, check the **Autodelete Cleared Alarms** check box at the bottom-left of the window.

Step 8 Consult the following rules when deleting cleared alarms from the display:

- If the Autodelete Cleared Alarms check box is checked, an alarm disappears from the window when it is cleared.
- If the Autodelete Cleared Alarms check box is not checked, an alarm remains in the window after it is cleared. The alarm appears white in the window and has a Clear (CL) severity. The alarm can be removed by clicking the Delete Cleared Alarms button.

Step 9 Click **Delete Cleared Alarms** to remove the transient messages from the History window. Transient messages are single messages, and not raise-and-clear pairs (that is, they do not have companion messages stating they are cleared).

Stop. You have completed this procedure.

NTP-B69 View Alarm-Affected Circuits

Purpose	Use this procedure to view all circuits, if any, affected by an alarm or condition.
Tools/Equipment	None
Prerequisite Procedures	NTP-B196 View Alarms, History, Events, and Conditions, page 6-5
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve

Step 1 Complete the "DLP-B60 Log into CTC" task on page 2-23. If you are already logged in, continue with Step 2.

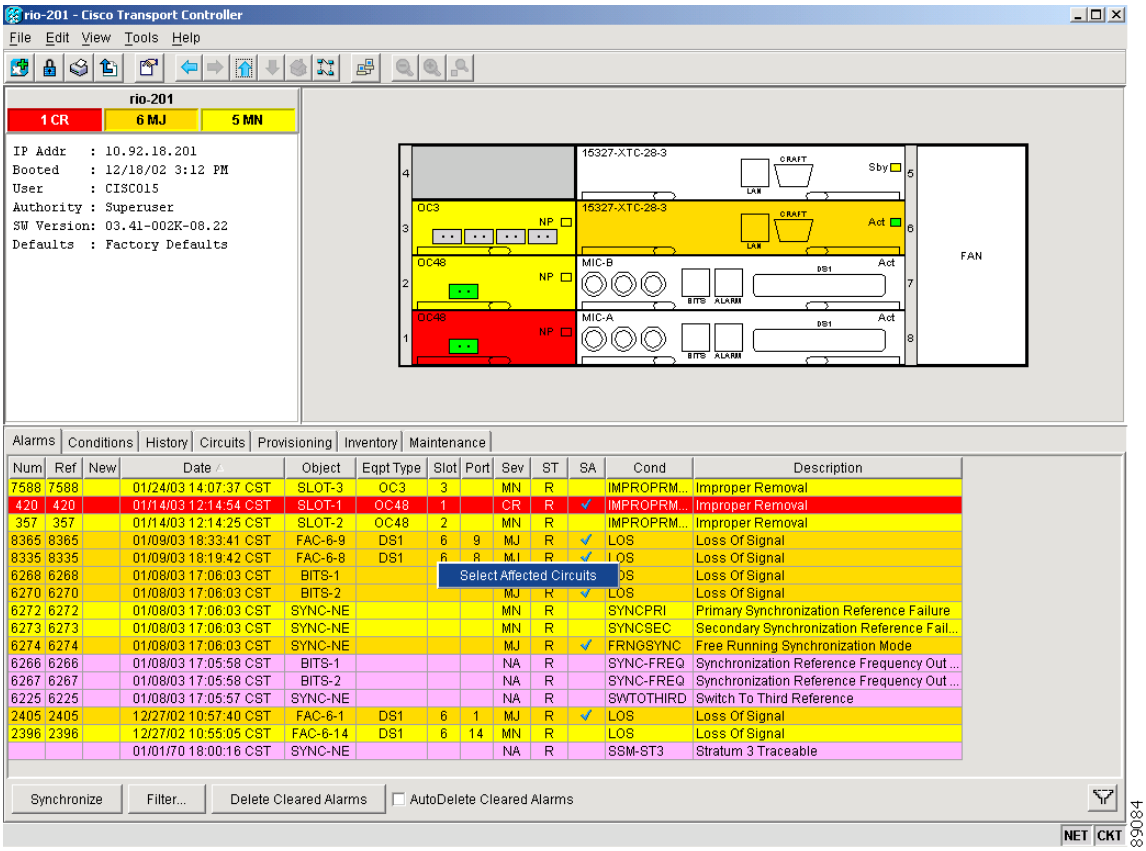
Step 2 In the network, node, or card view, click the **Alarms** tab or **Conditions** tab and then right-click anywhere in the row of an active alarm or condition.

Note The node view is the default, but you can also navigate to the Alarms tab in the network view or card view to perform Step 2.

Note The card view is not available for the MIC-A or MIC-B cards.

The Select Affected Circuit option appears on the shortcut menu (Figure 6-6).

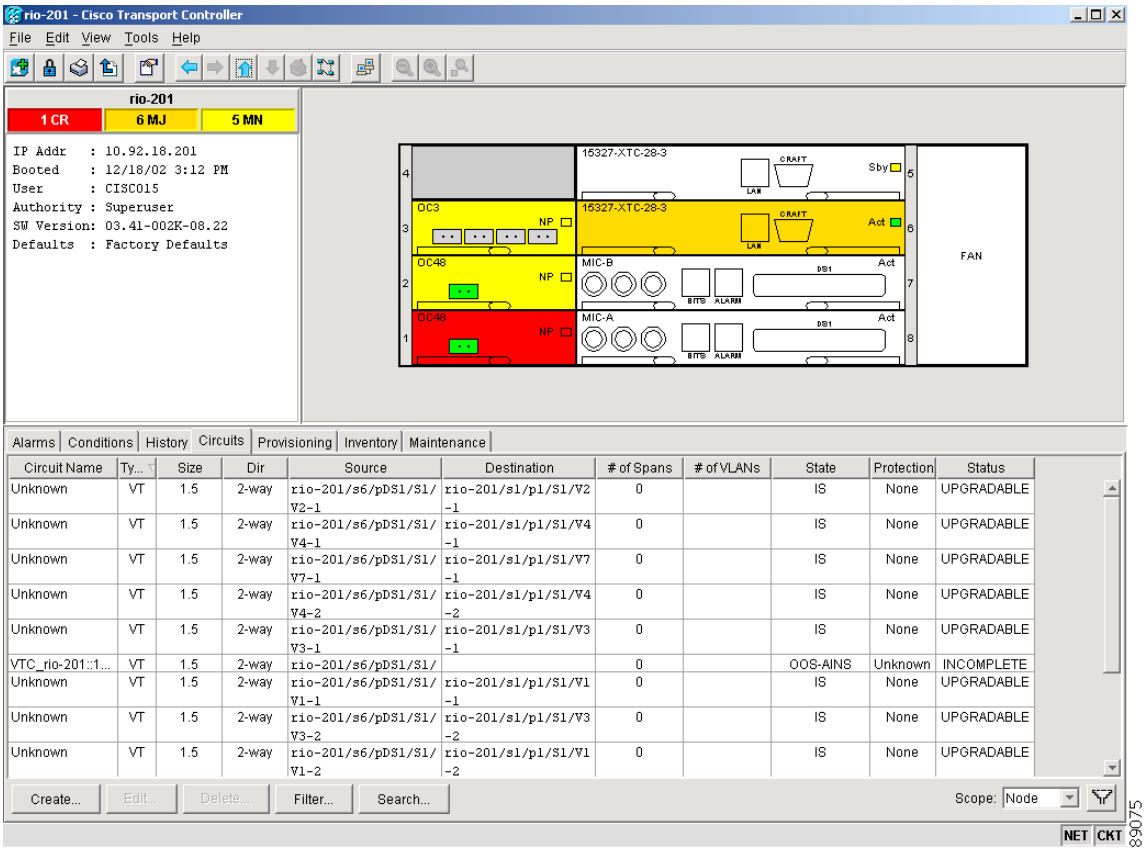
Figure 6-6 Select Affected Circuits Option



Step 3 Left-click or right-click **Select Affected Circuits**.

The Circuits window appears with the affected circuits highlighted (Figure 6-7).

Figure 6-7 Viewing an Alarm-Affected Circuit



Step 4 If you want to search for particular circuits, see the "DLP-B131 Search for Circuits" task on page 8-5.

Stop. You have completed this procedure.

NTP-B70 Create, Download, and Assign Alarm Severity Profiles

Purpose	Use this procedure to create a customized copy of the default alarm profile applied to a node, to download a saved custom profile from a network location to another node, to individually assign the custom severities to a port, card, or node, and to delete alarm profiles.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 Complete the "DLP-B60 Log into CTC" task on page 2-23 at the node where you want to create an alarm profile.If you are already logged in, continue with Step 2 to clone or modify an alarm profile, or continue with Step 3 to download an alarm profile.

Step 2 Complete the "DLP-B115 Create Alarm Severity Profiles" task on page 6-17. This task clones a current alarm profile, renames the profile, and customizes the new profile. Continue with Step 4.

Step 3 Complete the "DLP-B223 Download an Alarm Severity Profile" task on page 6-20. This task downloads an alarm severity profile from a CD or a node.

Step 4 As necessary, complete the "DLP-B116 Apply Alarm Profiles to Ports" task on page 6-21 or the "DLP-B117 Apply Alarm Profiles to Cards and Nodes" task on page 6-24.

Stop. You have completed this procedure.

DLP-B115 Create Alarm Severity Profiles

Purpose	Use this task to create a custom severity profile by modifying the default severity profile.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, choose **Go to Network View** from the View menu.

Step 2 Click the **Provisioning > Alarm Profiles** tabs (Figure 6-3 on page 6-6).

Step 3 Click **Load**.

Step 4 In the Select Profile(s) from Node or Filename to Load dialog box, click the **From Node** radio button.

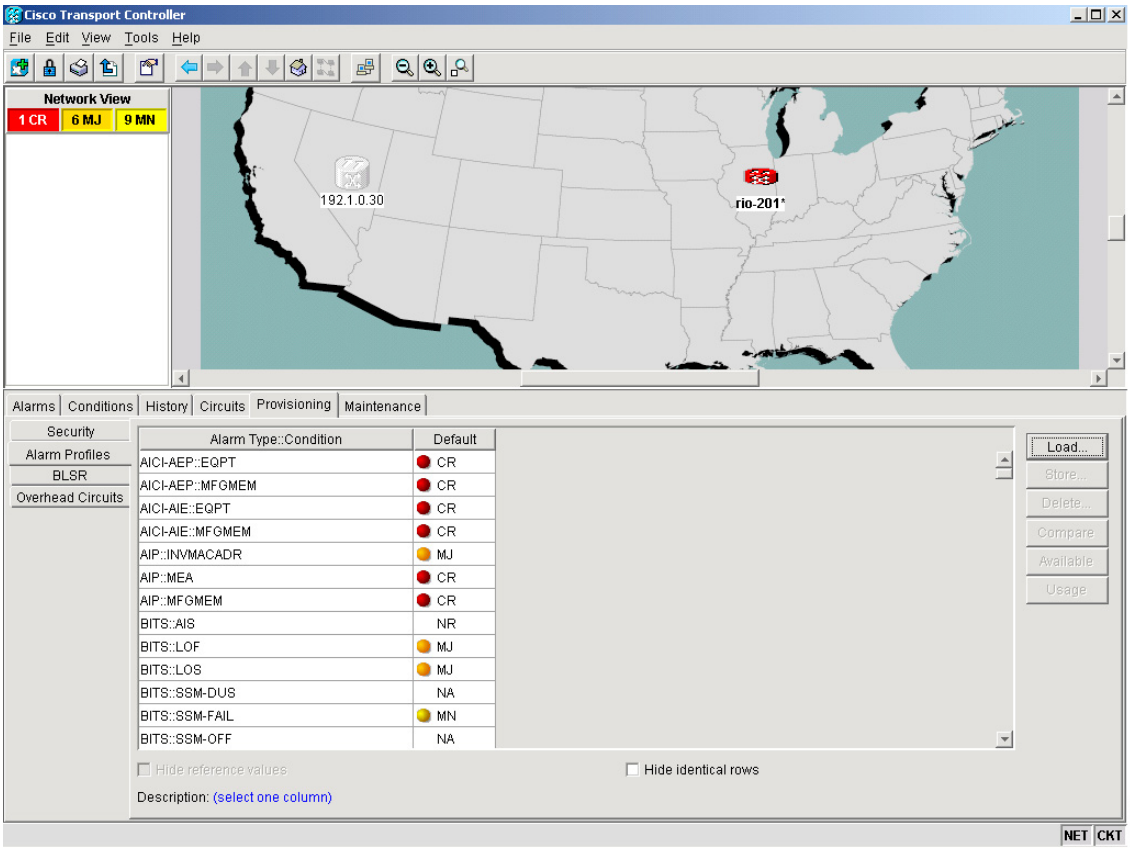
Step 5 Click the node name you are logged into in the Node Names list.

Step 6 Click **Default** to highlight this profile in the Profile Names list.

Step 7 Click **OK**.

The default alarm severity profile appears in the Alarm Profiles window (Figure 6-8).

Figure 6-8 Network View Alarm Profiles Window



Step 8 Right-click anywhere in the Default profile column to display the profile editing shortcut menu.

Step 9 Choose **Clone** from the shortcut menu.

Tip To identify profiles available for loading or cloning, click the Available button. You can clone any profiles except Inherited profiles.

Step 10 In the Clone Profile dialog box, enter a name for the copied profile in the New Profile Name field.

Profile names must be unique. If you try to import or name a profile that has the same name as another profile, CTC adds a suffix to create a new name. Long file names are supported (45 character maximum).

Step 11 Click **OK**.

A new alarm profile (named in Step 10) is created. This profile duplicates the default profile severities and appears to the right of the default profile in the Alarm Profiles window. You can highlight it and drag it to a different position.

Step 12 Modify (customize) the new alarm profile:

- **a.** In the new alarm profile column, double-click the alarm severity you want to change.
- **b.** Choose the desired severity in the Severity drop-down menu.
- **c.** Repeat Steps a and b for each severity you want to customize.

Step 13 After you have customized the new alarm profile, right-click the profile column to highlight it.

Step 14 Click **Store** in the profile editing shortcut menu.

Step 15 Click the **To Node(s)** radio button and continue with Step a or click the **To File** radio button and continue with Step b (Figure 6-9).

a. Choose the node(s) where you want to save the profile:
   - If you want to save the profile to only one node, click the node in the Node Names list.
   - If you want to save the profile to all nodes, click **Select All**.
   - If you do not want to save the profile to any nodes, click **Select None**.
   - If you want to update alarm profile information, click **Synchronize**.

b. Click **Browse** to navigate to the profile save location.

c. Enter a name in the file name field.

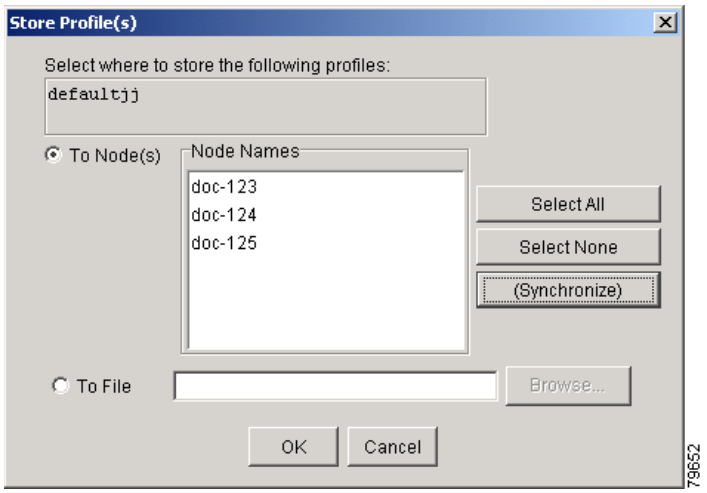
   Long file names are supported. CTC supplies a suffix of *.pfl.

d. Click **OK**.

Note Click the Hide Identical Rows check box to configure the Alarm Profiles window to display rows with dissimilar severities.

Note Click the Hide Values Matching Profile Default check box to configure the Alarm Profiles window to display severities that do not match the Default profile.

Figure 6-9 Store Profile(s) Dialog Box



Step 16 Return to your originating procedure (NTP).

DLP-B223 Download an Alarm Severity Profile

Purpose	Use this task to download a custom alarm severity profile from a network-drive accessible CD-ROM, floppy disk, or hard drive location.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, choose **Go to Network View** from the View menu (Figure 6-3 on page 6-6).

Step 2 Click the **Provisioning > Alarm Profiles** tabs.

Step 3 Click **Load**.

Step 4 If you want to download a file from the local PC hard drive, floppy disk, CD-ROM, or a network drive (if connected), click the **From File** radio button in the Select Profile(s) from Node or Filename to Load dialog box.

a. Click **Browse**.

   The Open dialog box appears.

b. In the Look in drop-down menu, navigate to the folder where the profile file is located.

c. Click the name in the window to highlight it.

   The file must have the *.pfl extension.

d. Click **Open**.

Continue with Step 6.

Step 5 If you want to download a file from the login node or another connected node, click the **From Node** radio button in the Select Profile(s) from Node or Filename to Load dialog box.

a. Click the node where the profile is located under the Node Names list.

b. Click the profile under the Profile Names list.

Step 6 Click **OK** in the Select Profile(s) from Node or Filename to Load dialog box.

The downloaded profile appears at the right side of the Alarm Profiles window.

Step 7 Right-click anywhere in the downloaded profile column to display the profile editing shortcut menu.

Step 8 Click **Store** in the shortcut menu.

Step 9 In the Store Profile(s) dialog box, click the **To Node(s)** radio button (Figure 6-9 on page 6-19).

a. Choose the node(s) where you want to save the profile:

- If you want to save the profile to only one node, click the node in the Node Names list.
- If you want to save the profile to all nodes, click **Select All**.
- If you do not want to save the profile to any nodes, click **Select None**.
- If you want to update alarm profile information, click **Synchronize**.

b. Click **OK**.

Step 10 Return to your originating procedure (NTP).

DLP-B116 Apply Alarm Profiles to Ports

Purpose	Use this task to apply a custom or default alarm severity profile to a port or ports.
Tools/Equipment	None
Prerequisite Procedures	DLP-B115 Create Alarm Severity Profiles, page 6-17 DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 To change alarm profiles for optical cards, proceed to Step 2. To apply alarm profiles to optical card ports, proceed to Step 4. To apply alarm profiles to electrical card ports, proceed to Step 8.

Step 2 To change alarm profiles for optical cards, double-click an optical card in node view to display the card view.

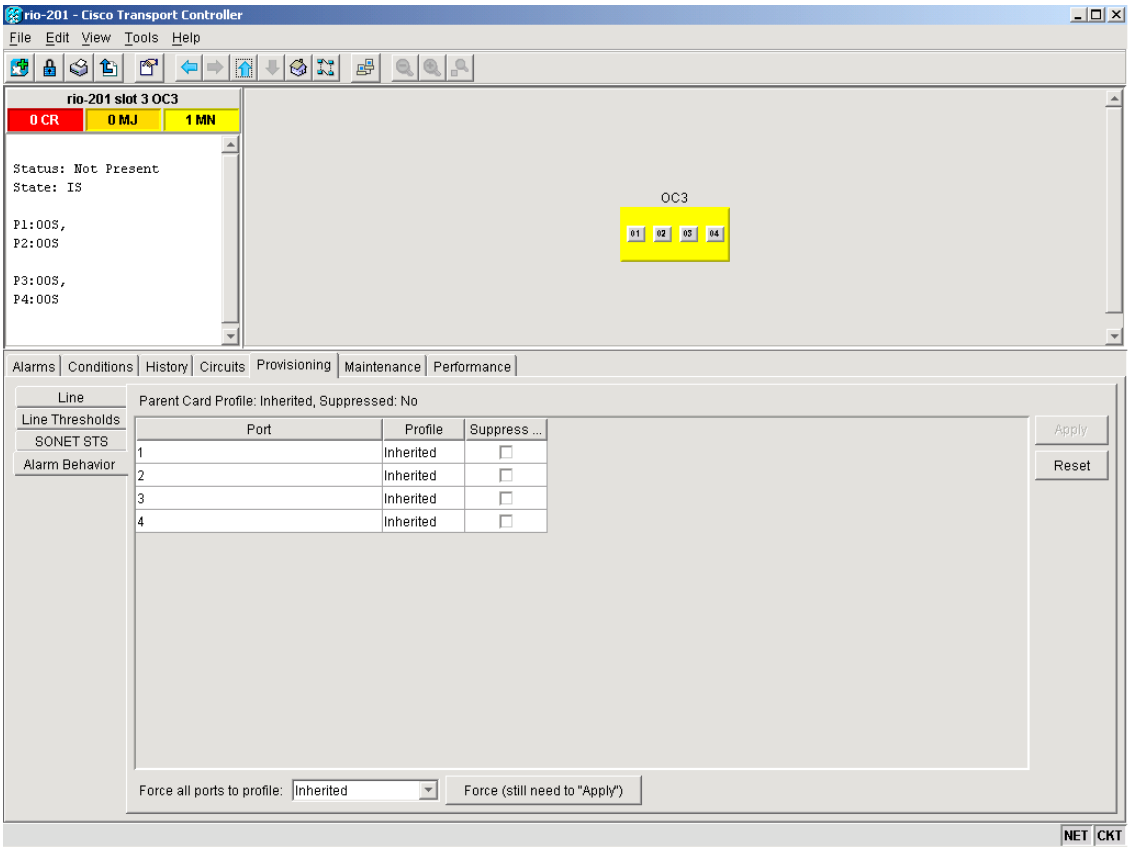
Note You can also apply alarm profiles to cards using the "DLP-B117 Apply Alarm Profiles to Cards and Nodes" task on page 6-24.

Note The card view is not available for the MIC-A or MIC-B cards.

Step 3 Click the **Provisioning > Alarm Behavior** tabs.

Figure 6-10 shows an alarm profile for OC-3 card ports. CTC shows Parent Card Profile: Inherited.

Figure 6-10 Card View Optical Port Alarm Profile



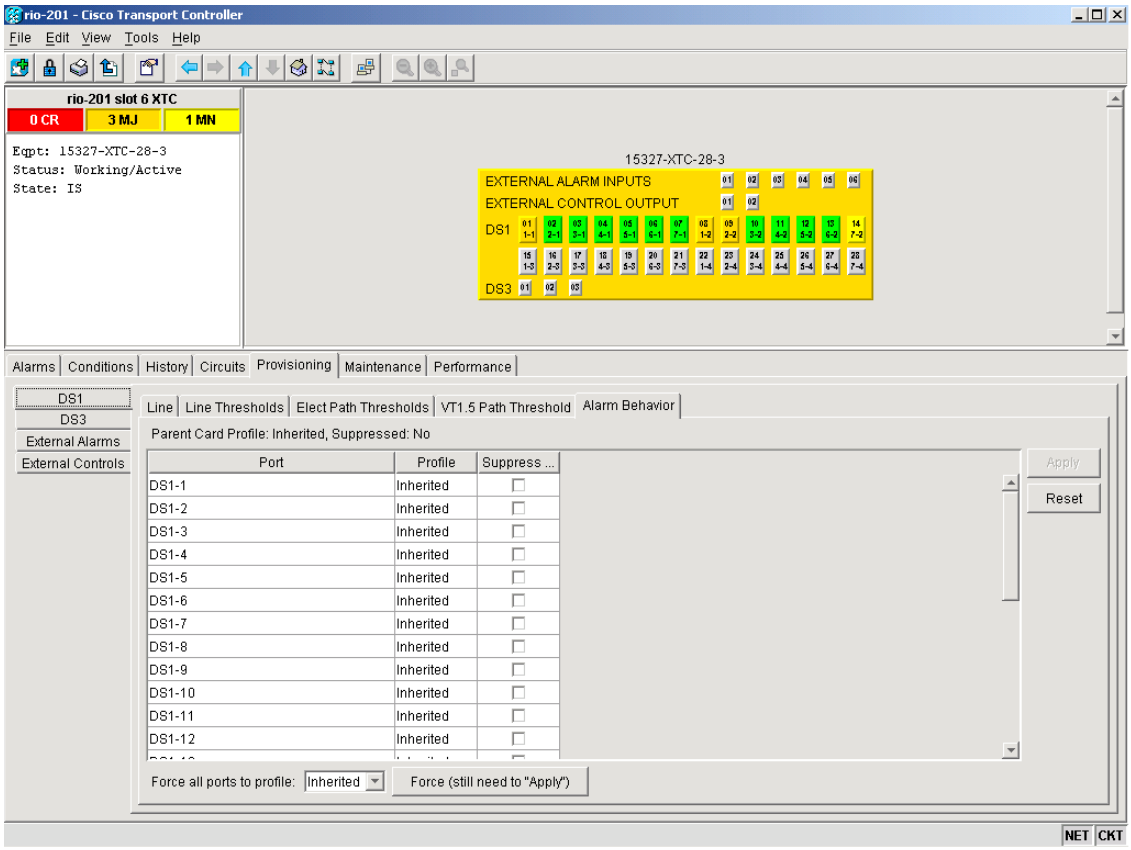
Step 4 To apply alarm profiles to a port for optical cards:

- **a.** Click the port row under the Profile column.
- **b.** Choose the new profile from the Force all ports to profile drop-down menu.
- **c.** Click **Apply**.

Step 5 To change alarm profiles for DS-1 and DS-3 ports, double-click the XTC card at the node (default login) view.

Step 6 Click the **Provisioning > DS1 > Alarm Behavior** tabs to change alarm profiles for DS-1 ports, or click the **Provisioning > DS3 > Alarm Behavior** tabs to change alarm profiles for DS-3 ports (Figure 6-11).

Figure 6-11 Card View Electrical Port Alarm Profile



Step 7 Repeat Step 5 for each DS-1 or DS-3 port where you want to change profiles.

Step 8 To apply profiles to all optical or electrical ports on a card:

a. Choose a new profile from the Force all ports to profile drop-down menu.

b. Click **Force (still need to "Apply")**.

c. Click **Apply**.

Tip If you choose the wrong profile, click **Reset** to return to the previous profile setting.

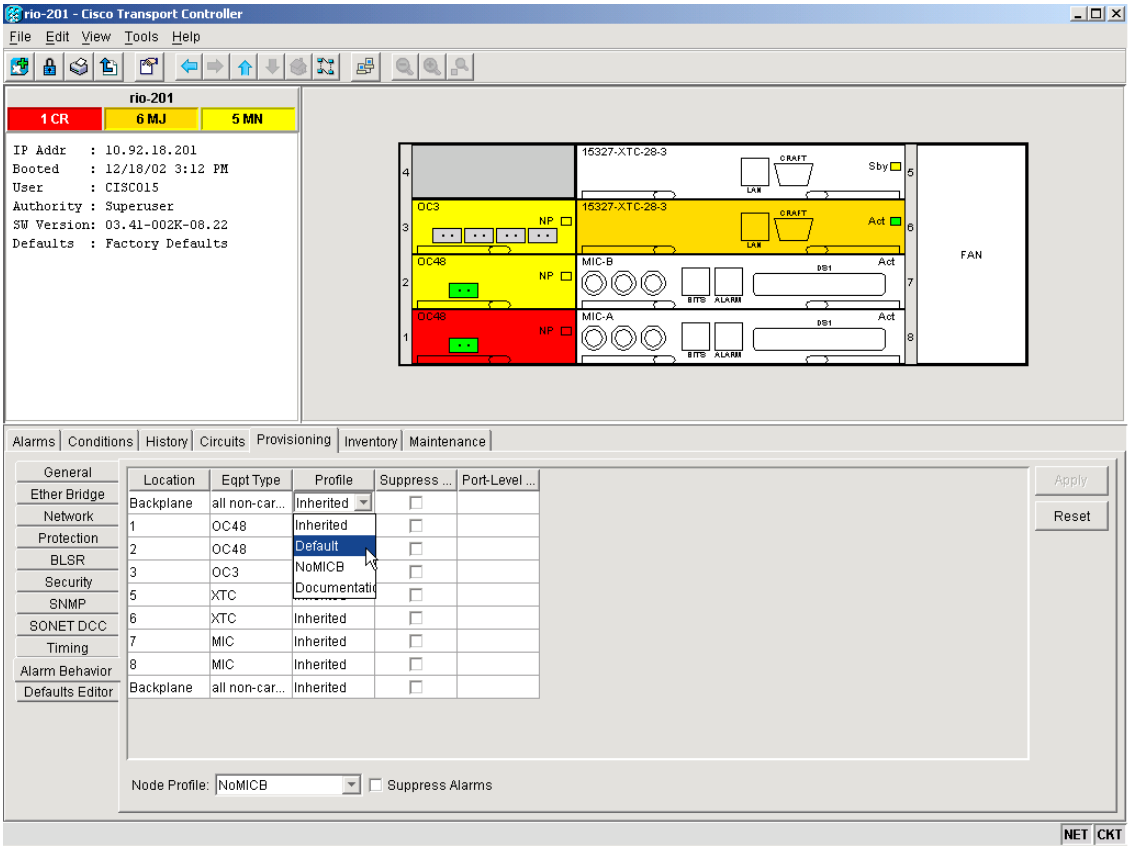
Step 9 Return to your originating procedure (NTP).

DLP-B117 Apply Alarm Profiles to Cards and Nodes

Purpose	Use this task to apply a custom or default alarm profile to cards or nodes.
Tools/Equipment	None
Prerequisite Procedures	DLP-B115 Create Alarm Severity Profiles, page 6-17 DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, click the **Provisioning > Alarm Behavior** tabs (Figure 6-12).

Figure 6-12 Node View Alarm Profile



Step 2 To apply profiles to a card:

a. Click the Profile row for the card.

b. Choose the new profile from the Profile drop-down menu.

c. Click the **Apply** button.

Continue with Step 4.

Step 3 To apply the profile to an entire node:

a. Click the **Node Profile** menu arrow at the bottom of the window (Figure 6-12 on page 6-24).

b. Choose the new alarm profile in the **Profile** drop-down menu.

c. Click **Apply**.

Tip If you choose the wrong profile, click Reset to return to the previous profile.

Step 4 Return to your originating procedure (NTP).

DLP-B118 Delete Alarm Severity Profiles

Purpose	Use this task to delete a custom or default alarm severity profile.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view, choose **Go to Network View** from the View menu.

Step 2 Click the **Provisioning > Alarm Profiles** tabs.

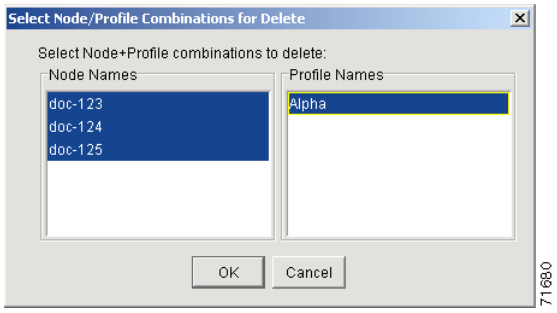
Step 3 Click the column heading for the profile column you want to delete (Figure 6-8 on page 6-18).

The selected alarm profile name is displayed in the Description field.

Step 4 Click **Delete**.

The Select Node/Profile Combination for Delete dialog box appears (Figure 6-13).

Figure 6-13 Select Node/Profile Combination For Delete Dialog Box



Step 5 Click the node name(s) in the Node Names list to highlight the profile location.

Tip If you hold the Shift key down, you can select consecutive node names. If you hold the Ctrl key down, you can select any combination of nodes.

Step 6 Click the profile name(s) you want to delete in the Profile Names list.

Step 7 Click **OK**.

The Delete Alarm Profile confirmation dialog box appears.

Step 8 Click **Yes** for each Delete Alarm Profile confirmation dialog box.

Note If you delete a profile from a node, it still appears in the network view Provisioning > Alarm Profiles window unless you remove it by choosing Remove.

Step 9 To remove the alarm profile from the Provisioning > Alarm Profiles window, right-click the column of the profile you deleted and choose **Remove** from the shortcut menu.

Note If a a node and profile combination is selected but does not exist, a warning appears: "One or more of the profile(s) selected do not exist on one or more of the node(s) selected." The profiles that do exist will be deleted.

Note The special profiles named Default and Inherited cannot be deleted and do not appear in the Select Node/Profile Combination for Delete Window.

Step 10 Return to your originating procedure (NTP).

NTP-B168 Enable, Modify, or Disable Alarm Severity Filtering

Purpose	Use this procedure to start, change, or stop alarm filtering for one or more severities in the Alarms, Conditions, and History windows in all network nodes.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 Complete the "DLP-B60 Log into CTC" task on page 2-23. If you are already logged in, continue with Step 2.

Step 2 As necessary, complete the "DLP-B225 Enable Alarm Filtering" task on page 6-27 to enable alarm filtering at the card, node, and network views for all nodes in the network. Alarm filtering can be enabled for alarms, conditions, or events.

Step 3 As necessary, complete the "DLP-B226 Modify Alarm and Condition Filtering Parameters" task on page 6-28 to modify the alarm filtering for network nodes to show or hide particular alarms or conditions.

Step 4 As necessary, complete the "DLP-B227 Disable Alarm Filtering" task on page 6-30 to disable alarm profile filtering for all network nodes.

Stop. You have completed this procedure.

DLP-B225 Enable Alarm Filtering

Purpose	Use this task to enable alarm filtering for alarms, conditions, or event history in all network nodes.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 At the node, network, or card view, click the **Alarms** tab.

Step 2 Click the **Filter** tool at the lower-right side of the bottom toolbar.

Alarm filtering is enabled if the tool is selected and disabled if the tool is raised (not selected).

Alarm filtering will be enabled in the card, node, and network views of the Alarms tab at the node and for all other nodes in the network. If, for example, the Alarm Filter tool is enabled in the Alarms tab of the node view at one node, the Alarms tab in the network view and card view of that node will also show the tool enabled. All other nodes in the network will also have the tool enabled.

If you filter an alarm in card view, the alarm will still be displayed in node view. In this view, the card will display the color of the highest-level alarm. The alarm is also shown for the node in the network view.

Step 3 If you want alarm filtering enabled when you view conditions, repeat Steps 1 and 2 using the Conditions window.

Step 4 If you want alarm filtering enabled when you view alarm history, repeat Steps 1 and 2 using the History window.

Step 5 Return to your originating procedure (NTP).

DLP-B226 Modify Alarm and Condition Filtering Parameters

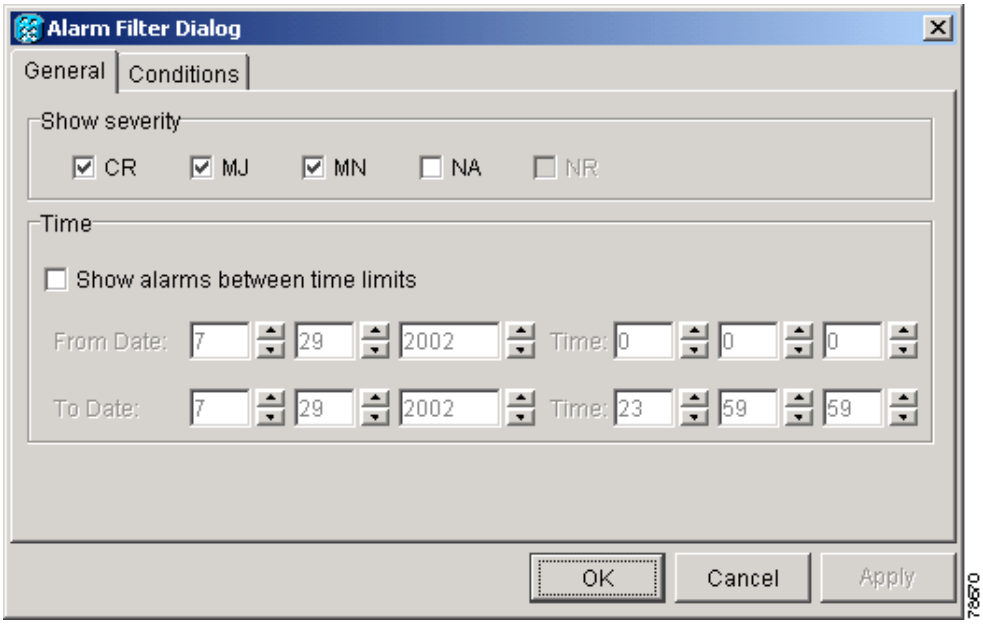
Purpose	Use this task change alarm and condition reporting in all network nodes.
Tools/Equipment	None
Prerequisite Procedures	DLP-B225 Enable Alarm Filtering, page 6-27 DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 At the node, network, or card view, click the **Alarms** tab.

Step 2 Click the **Filter** button at the lower-left of the bottom toolbar.

The Alarm Filter Dialog box appears, showing the General tab (Figure 6-14).

Figure 6-14 Alarm Filter Dialog Box General Tab



In the General tab Show Severity area, you can choose which alarm severities will show through the alarm filter and provision a snapshot period during which alarms will appear. To change the alarm severities shown in the filter, continue with Step 3. To change the alarm time period, continue with Step 4.

Step 3 In the Show Severity area, click the check boxes for the severities [Critical (CR), Major (MJ), Minor (MN), or Not-Alarmed (NA)] you want to be reported at the network level. Leave severity check boxes deselected (unchecked) to keep them from appearing.

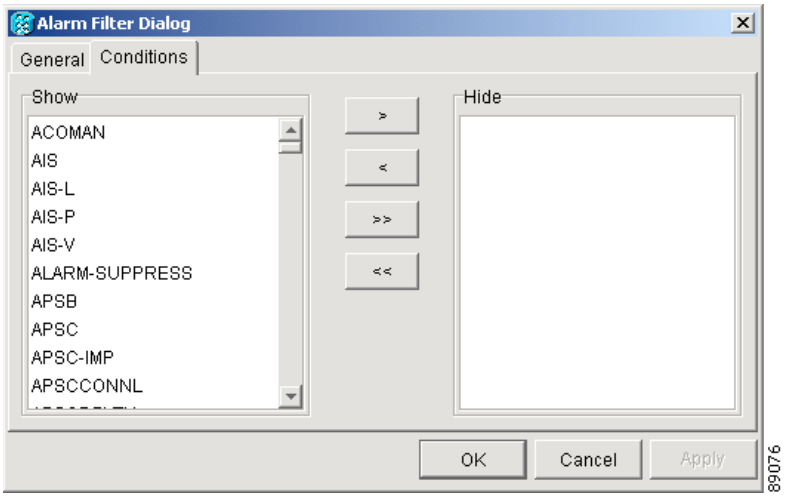
Note When alarm filtering is disabled, all alarms show.

Step 4 In the Time area, check the **Show alarms between time limits** check box to enable it. Then click the up and down arrows in the From Date, To Date, and Time fields to modify the time limits.

To modify filter parameters for conditions, continue with Step 5. If you do not need to modify them, continue with Step 6.

Step 5 Click the **Conditions** tab (Figure 6-15).

Figure 6-15 Alarm Filter Dialog Box Conditions Tab



When alarm filtering is enabled, conditions in the Show list are visible and conditions in the Hide list are invisible.

- To move conditions individually from the Show list to the Hide list, click the **>** button.
- To move conditions individually from the Hide list to the Show list, click the **<** button.
- To move conditions collectively from the Show list to the Hide list, click the **>>** button.
- To move conditions collectively from the Hide list to the Show list, click the **<<** button.

Note Conditions include alarms.

Step 6 Click **Apply** and **OK**.

Alarm and condition filtering parameters are enforced when alarm filtering is enabled (see the "DLP-B225 Enable Alarm Filtering" task on page 6-27), and are not enforced when alarm filtering is disabled (see the "DLP-B227 Disable Alarm Filtering" task on page 6-30).

Step 7 Return to your originating procedure (NTP).

DLP-B227 Disable Alarm Filtering

Purpose	Use this task to turn off specialized alarm filtering in all network nodes so that all severities are reported in CTC.
Tools/Equipment	None
Prerequisite Procedures	DLP-B225 Enable Alarm Filtering, page 6-27 DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1 At the node, network, or card view, click the **Alarms** tab.

Step 2 Click the **Filter** tool at the lower-right side of the bottom toolbar.

Alarm filtering is enabled if the tool is selected and disabled if the tool is raised (not selected).

Step 3 If you want alarm filtering disabled when you view conditions, click the **Conditions** tab and repeat Step 2.

Step 4 If you want alarm filtering disabled when you view alarm history, click the **History** tab and repeat Step 2.

Step 5 Return to your originating procedure (NTP).

NTP-B72 Suppress and Discontinue Alarm Suppression

Purpose	Use this procedure to prevent alarms from being reported for a port, card, or node in circumstances when an alarm or condition is known to exist but you do not want to include in the display. Also use this procedure to resume normal alarm reporting by discontinuing the suppression.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 Complete the "DLP-B60 Log into CTC" task on page 2-23. If you are already logged in, proceed to Step 2.

Step 2 Complete the "DLP-B119 Suppress Alarm Reporting" task on page 6-31 to make the node send out autonomous messages that clear particular raised alarms and cause the suppressed alarms to appear in the Conditions window.

Note Suppressing one or more alarms prevents them from appearing in Alarm or History windows or in any other clients. The suppress command causes CTC to display them in the Conditions window, where Not-Reported (NR) events are shown. The suppressed alarms appear there with the alarm severity they would have if they were reported; their severity color code, and service-affecting status.

Step 3 Complete the "DLP-B120 Discontinue Alarm Suppression" task on page 6-32 to remove the suppress-command and restore the alarms to their normal state of being reported at their provisioned severity.

Stop. You have completed this procedure.

DLP-B119 Suppress Alarm Reporting

Purpose	Use this task to suppress the reporting of ONS 15327 alarms at the port, card, or node level.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Caution If multiple CTC/TL1 sessions are open, suppressing alarms in one session suppresses the alarms in all other open sessions.

Step 1 At either the node or card view, click the **Provisioning > Alarm Behavior** tabs.

Step 2 To suppress alarms at the node level for optical cards, proceed to Step 3. To suppress alarms at the card level for optical ports, proceed to Step 5. To suppress alarms for electrical ports, proceed to Step 8.

Step 3 To suppress alarms at the node level for optical cards, check the **Suppress Alarms** column check box for the slot row where you want to suppress alarms (Figure 6-12 on page 6-24).

Note In the node view, row numbers correspond to slot numbers.

Step 4 Click **Apply**.

The node sends out autonomous messages to clear any raised alarms.

Step 5 To suppress alarms at the card level for optical ports, double-click the card and click the **Provisioning > Alarm Behavior** tabs.

Step 6 Click the **Suppress Alarms** column check box for the optical port row where you want to suppress alarms (Figure 6-10 on page 6-22).

Step 7 Click **Apply**.

Step 8 To suppress alarms for DS-1 or DS-3 ports, double-click the XTC card graphic at the node view.

Step 9 To suppress DS-1 port alarms, click the **Provisioning > DS1 > Alarm Behavior** tabs. To suppress DS-3 port alarms, click the **Provisioning > DS3 > Alarm Behavior** tabs (Figure 6-11 on page 6-23).

Step 10 Check the **Suppress Alarms** column check box for each port where you want to enable alarm reporting.

Step 11 Return to your originating procedure (NTP).

DLP-B120 Discontinue Alarm Suppression

Purpose	Use this task to discontinue alarm suppression and reenable alarm reporting on a port, card, or node.
Tools/Equipment	None
Prerequisite Procedures	DLP-B119 Suppress Alarm Reporting, page 6-31 DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 In node view click the **Provisioning > Alarm Behavior** tabs. To discontinue suppression for optical cards, proceed to Step 2. To discontinue suppression for electrical ports, proceed to Step 4.

Note You must restore alarm reporting at the view where it was originally suppressed.

Step 2 To discontinue alarm suppression at the node level for optical cards, uncheck the **Suppress Alarms** check box at the lower-left of the Alarm Behavior window.

Step 3 Click **Apply**.

Step 4 To discontinue alarm suppression at the card level for optical ports, double-click the card to display the card view.

Step 5 Uncheck the **Suppress Alarms** check box for the port(s) you no longer want to suppress.

Step 6 Click **Apply**.

Step 7 To discontinue alarm suppression for DS-1 or DS-3 ports, double-click the XTC card graphic at the node view.

Step 8 To discontinue DS-1 port alarm suppression, click the **Provisioning > DS1 > Alarm Behavior** tabs. To discontinue DS-3 port alarm suppression, click the **Provisioning > DS3 > Alarm Behavior** tabs.

Step 9 Uncheck the **Suppress Alarms** column check box for each port where you want to discontinue alarm reporting.

Step 10 Return to your originating procedure (NTP).

NTP-B32 Provision External Alarms and Controls on the XTC

Purpose	Use this procedure to create external (environmental) alarms and external controls.
Tools/Equipment	An XTC card must be installed in Slot 5 or 6.
Prerequisite Procedures	NTP-B24 Verify Card Installation, page 3-2
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Note For information about the XTC external alarms and controls, virtual wire and orderwire, refer to the *Cisco ONS 15327 Reference Guide*.

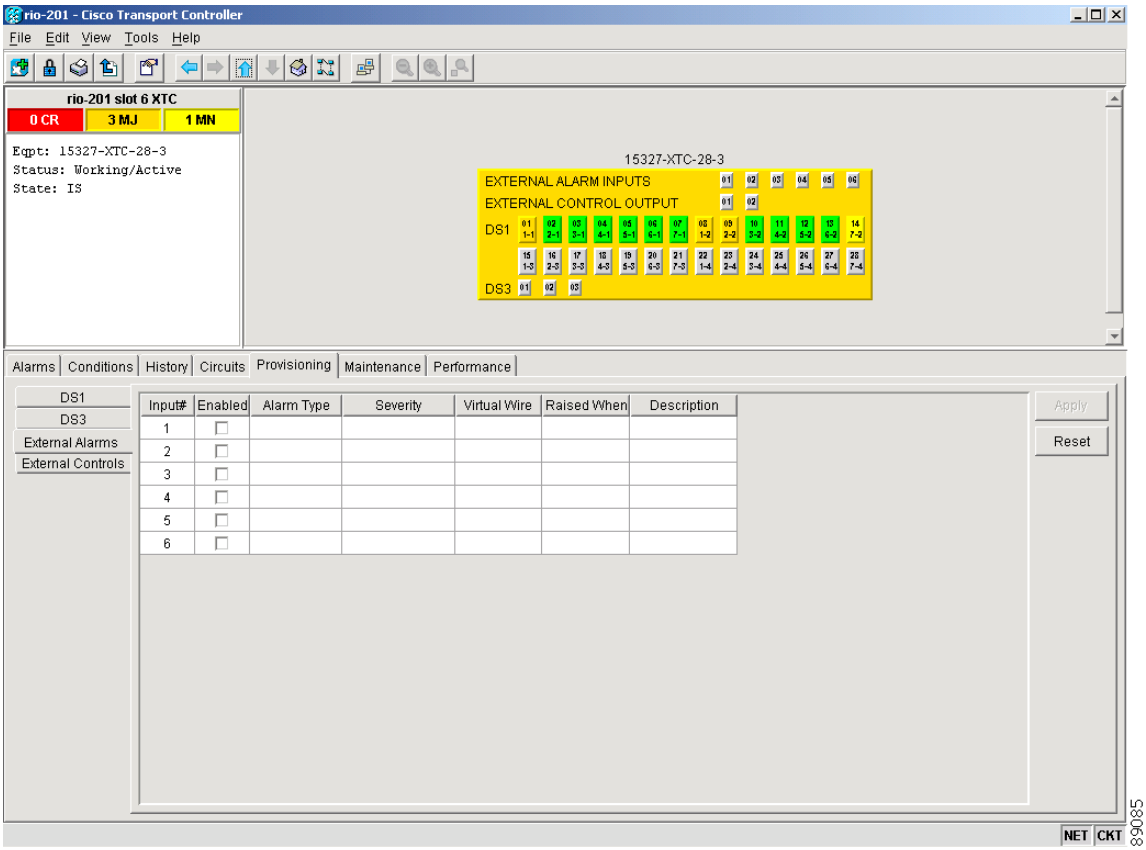
Note External alarm physical connections are made on the MIC. However, the alarms are provisioned using the XTC card view.

Step 1 In the node view, double-click the active XTC card. The card view appears.

Step 2 If you are provisioning external alarms, click the **Provisioning > External Alarms** tabs (Figure 6-16). If you are not provisioning external alarms, continue with Step 6.

Note You can only provision external alarms on the active XTC card.

Figure 6-16 XTC Card External Alarms



Step 3 Complete the following fields for each external device wired to the Mechanical Interface card (MIC):

- Enabled—Check this check box to activate the fields for the alarm input number.
- Alarm Type—Choose an option from the Alarm Type drop-down menu.
- Severity—Choose an option from the Severity drop-down menu.

  The severity determines the severity the alarm has in the Alarms and History tabs and determines whether the LEDs are activated. Critical (CR), Major (MJ), and Minor (MN) alarms activate the XTC LEDs. Not-Alarmed (NA) and Not-Reported (NR) do not activate LEDs, but do report the information in CTC.
- Virtual Wire—Choose an option to assign the external device to a virtual wire. Otherwise, do not change the None default. For information about the virtual wire, see the *Cisco ONS 15327 Reference Manual*.
- Raised When—Choose the condition (open or closed) that triggers the alarm.
- Description—A default description is provided; enter a different description if needed.

Step 4 To provision up to six virtual wire inputs for external devices, complete Step 3 for each additional device.

Step 5 Click **Apply**.

Step 6 If you are provisioning external control outputs for external devices, click the **External Controls** subtab (Figure 6-16).

Step 7 Complete the following fields for each external control wired to the MIC:

- Enabled—Check this the check box to activate the Control Type, Trigger Type, and Description columns for the alarm input number.
- Control Type—Choose an option: air conditioner, engine, fan, generator, heat, light, sprinkler, or miscellaneous.
- Trigger Type—Choose a trigger type: a local minor, major, or critical alarm; a remote minor, major, or critical alarm; or a virtual wire activation.
- Description—Enter a description.

Step 8 To provision a second external control, complete Step 7 for the additional device.

Step 9 Click **Apply**.

Stop. You have completed this procedure.