



Cisco 6700 Series Element Management System Alarm Server

This chapter describes the Element Management System (EMS) alarm server, and includes the following sections:

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Launching the Alarm Server

The EMS alarm server application works in conjunction with the UNIX and Windows NT versions of EMS. Alarms are user configurable for each NE.

Launching the EMS alarm server is detailed in Chapter 3, “Launching EMS.”

Installing the Alarm Server

- Step 1 From Cisco 6700 NetView, double-click the icon of the appropriate node to open Cisco 6700 NodeView.
- Step 2 Double-click the node nameplate (located above the IP address) to open the NE Provisioning window. (See Figure 17-1.)

Figure 17-1 Cisco 6732 NE Provisioning Window

NE Provision for 6732 node: node9	
System Basic Provisioning	NE Name: 6732
IP Address Configuration	Alias:
IP & Datalink Route Configuration	NE Location: Central Office
Ping Node	NE Node Type: NetworkNode
Node ID Configuration	NE Time Of Day: 2000-04-27,17:29:17.0
IP & Inter Node Link Configuration	NE Uptime: 0d 9:26:16
Timing Source Selection & Control	NE Backplane Version: 1.3
Timing Distribution Provisioning	NE Loaded Software Version: 1.3(2)
NE Time Of Day Set	NE CLEI Code: SBMAFGODRA
Alarm Provisioning	NE Serial Number: 6861
Common Control Card Switch Over	NE Backplane Type: Unknown
Software Upgrade	Alarm Status: normal
Database Backup/Restore	Problem List:
Error Log Retrieval	
Exit	Apply Refresh

Step 3 Select Alarm Provisioning in the function bar at the left. (See Figure 17-2.)

Figure 17-2 Alarm Server Provision Display

NE Provision for 6705 node: node8

System Basic Provisioning

IP Address Configuration

IP & Datalink Route Configuration

Ping Node

Node ID Configuration

IP & Inter Node Link Configuration

IP RIP Configuration

IP Network Address Translation (NAT)

IP Access Lists

Timing Source Selection & Control

Timing Distribution Provisioning

NE Time Of Day Set

Alarm Provisioning

Software Upgrade

Database Backup

Error Log Retrieval

Exit

Alarm Destination/Server IP Address:

0.0.0.0

0.0.0.0

0.0.0.0

0.0.0.0

0.0.0.0

Alarm Report Level: All

Alarm Acknowledgement: On

Alarm Message Severity:

Configurable Alarm Name:

Alarm Cut Off

Configurable Alarm 2

Configurable Alarm 3

Configurable Alarm 4

Configurable Alarm 5

Input Level:

Apply Refresh

37186

Step 4 In the box under the Alarm Destination/Server IP Address field, highlight the first IP address (0.0.0.0).

Step 5 In the Alarm Destination/Server IP Address field, enter the alarm server IP address. (See Figure 17-3.)

Figure 17-3 Alarm Server IP Provisioning

NE Provision for 6705 node: node8

System Basic Provisioning

IP Address Configuration

IP & Datalink Route Configuration

Ping Node

Node ID Configuration

IP & Inter Node Link Configuration

IP RIP Configuration

Alarm Destination/Server IP Address:

192 168 0 21

0.0.0.0

0.0.0.0

0.0.0.0

0.0.0.0

0.0.0.0

37185

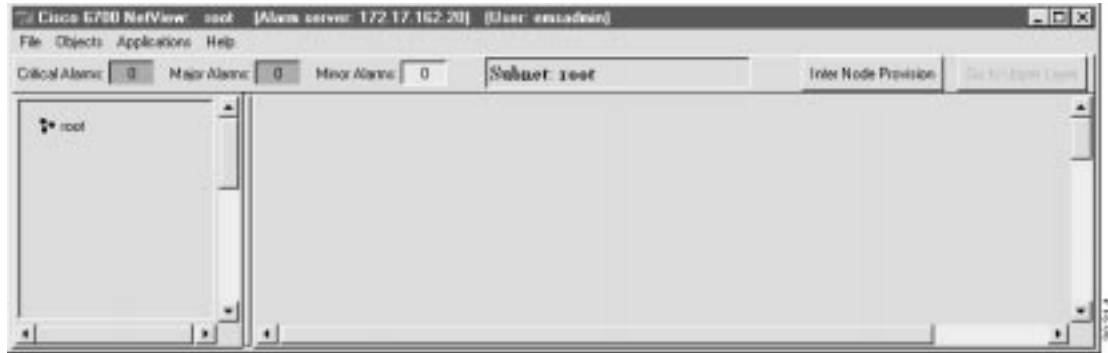
Step 6 Click **Apply** at the bottom of the screen.

Step 7 Click **Exit** in the function bar at the left.

Connecting to the Alarm Server

From Cisco 6700 NetView, (see Cisco 6700 NetView, Alarm Server Connected, page 17-4), select **Applications > Connect Alarm Server** from the menu bar.

Figure 17-4 Cisco 6700 NetView, Alarm Server Connected



If the alarm server is connected, the title bar displays the IP address of the alarm server, and the message “Successfully connected to the alarm server...” displays in the message bar at the bottom of the window (not shown in this illustration).

If EMS cannot connect to the alarm server, the title bar reads “Failed to connect to alarm server.” Either the alarm server is not running, or it has been provisioned with an incorrect IP address.

Configuring the Polling Interval

The polling interval determines how often the alarm server checks for alarm conditions. To configure the polling interval, select **Applications > Configure Polling Interval** from the Cisco 6700 NetView menu bar.

Monitoring and Stopping the Alarm Server



Note

An alarm server password is required to complete the following procedure. If you do not enter the alarm server password, you can still monitor the alarm server, but you cannot shut it down. Contact your EMS administrator for the alarm server password.

-
- Step 1 From Cisco 6700 NetView, select **Applications > Display Alarm Server Status** from the menu bar.

- Step 2** Respond to the login prompt by entering the alarm server password and clicking **OK**. EMS launches the alarm server status window, displaying the IP address of the alarm server host and the status of the alarm servers and daemons. (See Figure 17-5.)

Figure 17-5 Alarm Server Status Window

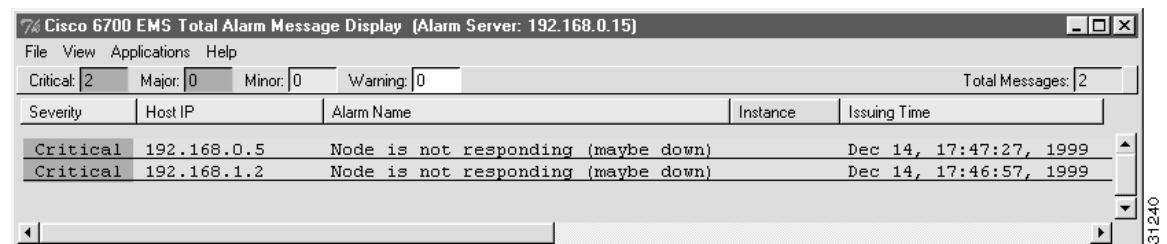


- Step 3** To shut down the EMS alarm server, click **Stop Alarm Server**.
- Step 4** Respond to the confirmation prompt by clicking **Yes**.
- Step 5** Click **Dismiss** to return to Cisco 6700 NetView.

Viewing and Modifying Alarms

- Step 1** From Cisco 6700 NetView, select **Applications > Display Total Alarm Messages** from the menu bar. EMS launches the alarm display window. (See Figure 17-6.)

Figure 17-6 Alarm Message Display Window



The alarm display lists the following information:

- **Severity**—The severity level of the alarm. This field is color-coded depending on the severity of the alarm (Critical and Major = red, Minor = yellow, Warning = white).
- **Host IP**—The IP address of the node reporting the alarm.

- **Alarm Name**—The name of the reported alarm.
- **Instance**—The source of the alarm, usually a card name or slot number.
- **Issuing Time**—The date and time when the alarm was reported.
- **Clearing Time**—The date and time when the alarm was cleared.
- **#Incident**—The number of alarm incidents reported.
- **Last Incident Time**—The date and time of the most recent alarm incident.

To sort the alarm display by a field type, click on the header bar of the field used as the sort criterion.



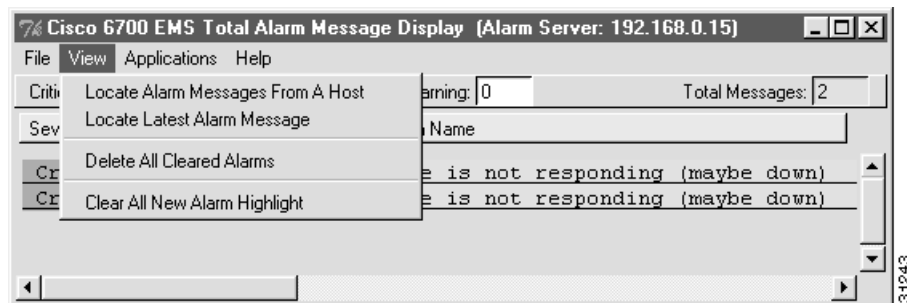
Note

You must scroll to the right to see the entire display.

The alarm message display window also contains the following menus and menu options:

- View Menu (see Figure 17-7)
 - Locate Alarm Messages From A Host
 - Locate Latest Alarm Message
 - Delete All cleared Alarms
 - Clear All New Alarm Highlight

Figure 17-7 Alarm Display View Menu



- Applications Menu (see Figure 17-8)
 - Acknowledgement List
 - Alarm ID List

Figure 17-8 Alarm Display Applications Menu

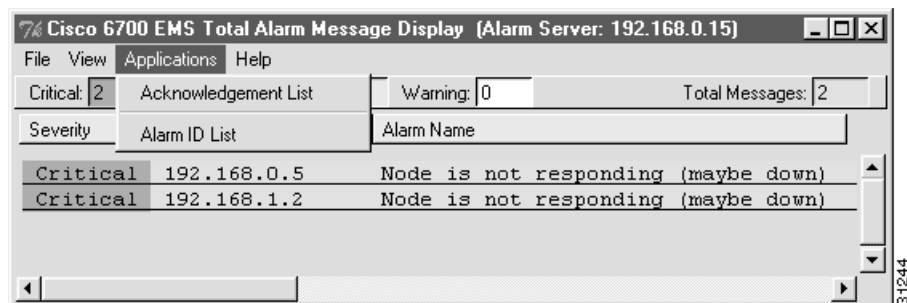
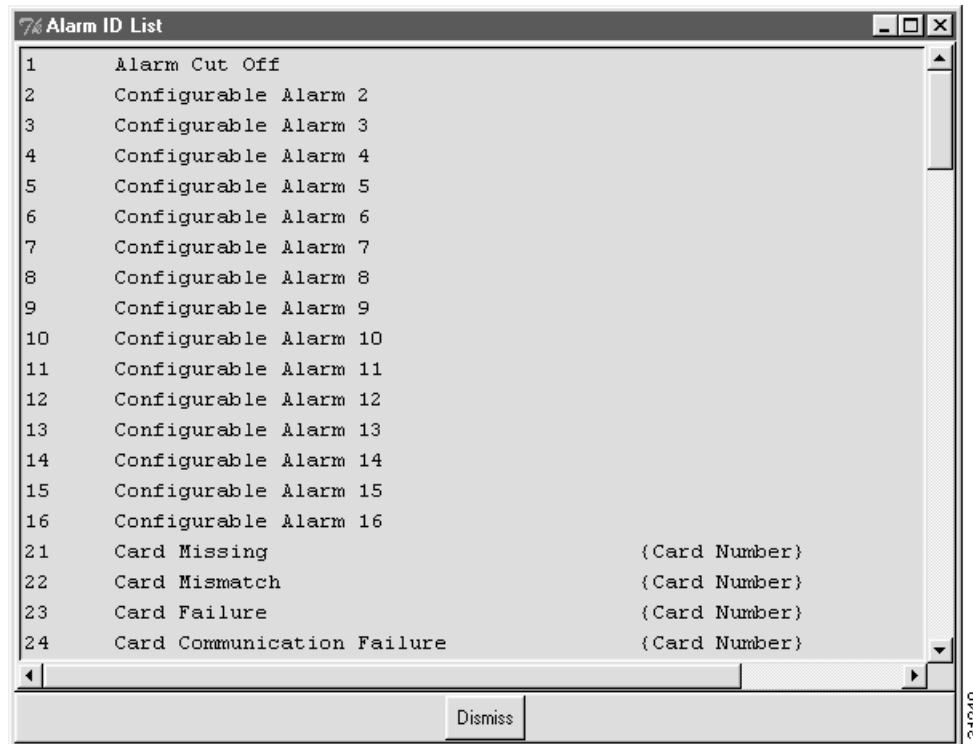


Figure 17-9 shows an example of the alarm ID list. Figure 17-13 on page 17-8 shows an example of the alarm acknowledgement list.

Figure 17-9 Alarm ID List



Acknowledging Alarms

You can acknowledge an alarm in EMS by attaching a comment to the alarm. This is not the same as clearing an alarm; an acknowledged alarm is still listed in the alarm display as active.

- Step 1** In the alarm display window, right-click on the **Severity** field of an alarm entry in the alarm display, and select **Acknowledge the Alarm Message** from the pop-up menu. (See Figure 17-10.) EMS launches the alarm acknowledgement window. (See Figure 17-11.)

Figure 17-10 Alarm Popup Menu

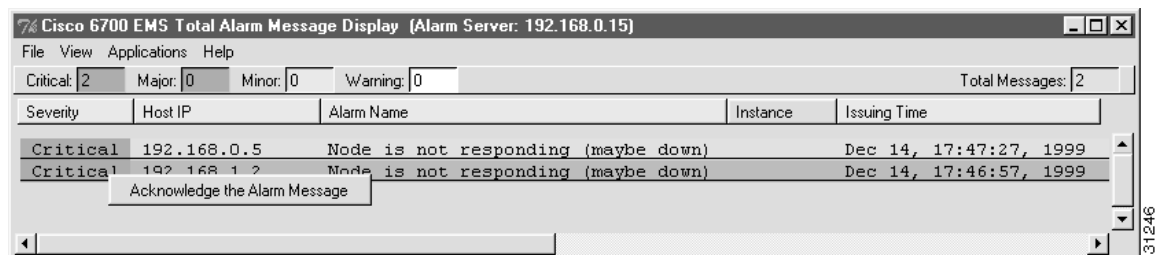
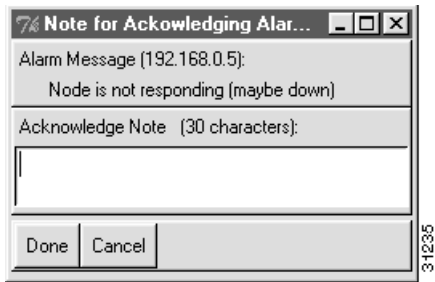
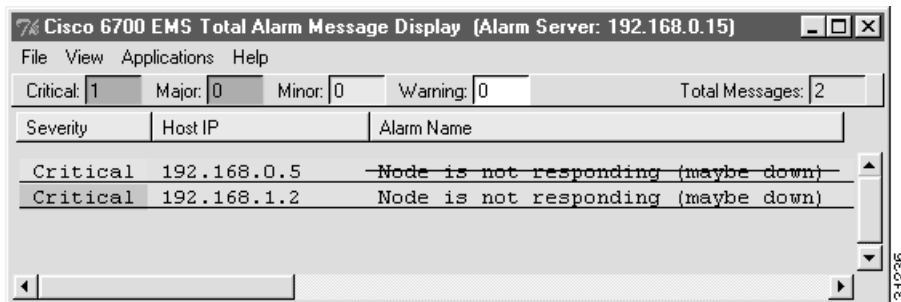


Figure 17-11 Alarm Acknowledgement



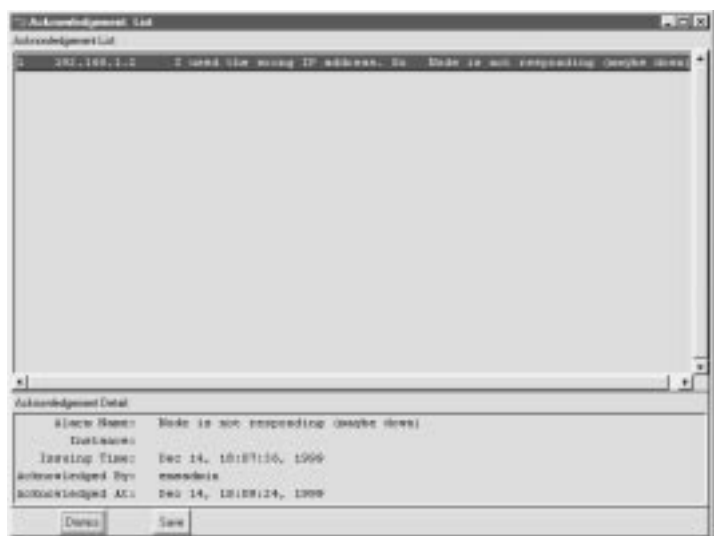
- Step 2** Enter an attachment for the alarm, and click **Done**. EMS returns to the alarm display. The alarm display shows a dark blue background in the Severity field of the acknowledged alarm. (See Figure 17-12.)

Figure 17-12 Alarm Display with Acknowledged Alarm



- Step 3** Right-click on the acknowledged alarm and select **Display Acknowledgement Note** to show the attachment for the acknowledged alarm.
- Step 4** To show a list of all acknowledged alarms, select **Applications > Acknowledgement List** from the alarm display window. EMS displays the acknowledgement list. (See Figure 17-13.)

Figure 17-13 Alarm Acknowledgement List with Display

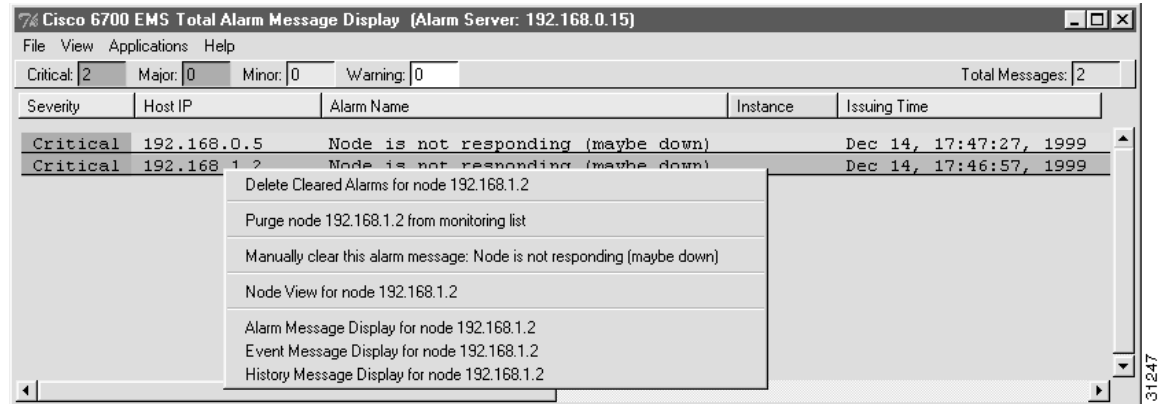


Manually Clearing Alarms

Clearing an alarm removes the alarm from the alarm display and any alarm lists.

- Step 1** In the alarm display window, right-click on the **Host IP** field of an alarm entry in the alarm display.
- Step 2** Select **Manually clear this alarm message** from the pop-up menu. (See Figure 17-14.)

Figure 17-14 Alarm Host Popup Menu



Other Alarm Host Options

Other alarm host options include the following:

- Deleting cleared alarms
- Purging the node from the monitoring list (see Figure 17-12 on page 17-8; a strike-through identifies the purged host)
- Opening Cisco 6700 NodeView
- Viewing the alarm message display, history message display, or event message display for the node

Purging a Node

You can purge a node from the alarm monitoring list. This disables alarm reporting from the selected node.

- Step 1** In the alarm display window, right-click on the **Host IP** field of an alarm entry in the alarm display, and select **Purge node from monitoring list** from the pop-up menu. (See Figure 17-14.)
- Step 2** Respond to the confirmation prompt by clicking **Yes**. EMS returns to the alarm display window. Purged nodes are shown with a strikeout through the alarm name and a bright green background in the **Severity** field. (See Figure 17-12 on page 17-8.)

Viewing the History Message Display

The history message display provides a summary of all alarm conditions that have been cleared (resolved) to date. You cannot modify or delete the messages in this display, but you can sort them by time of occurrence, severity, or alarm name.

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- Step 1** From Cisco 6700 NetView, right-click the icon of the appropriate NE.
- Step 2** Select **History Message Display** from the popup menu. (See Figure 17-15.)

Figure 17-15 History Message Display

The screenshot shows a window titled "Cisco EMS History Message Display for node: 192.168.124.206 [History Server: 192.168.124.206]". The window contains a table with columns: Severity, Name, Instance, Occur Time, Clearing Time, and # Occ. The table lists several messages, including "RIS is set to holdover by system", "LOS Loss of Signal", "LOS/TI Near End Loss of Signal (Receive)", "Critical LOS/TI Carrier Group Alarm", "Warning Loss of Timing Reference", and "Minor Card Initializing".

Severity	Name	Instance	Occur Time	Clearing Time	# Occ
Minor	RIS is set to holdover by system		Nov 15, 17:03:55, 2008	Nov 17, 14:03:10, 2008	1
Minor	LOS Loss of Signal	Card 19, Line 1	Nov 16, 11:00:50, 2008	Nov 17, 14:05:19, 2008	1
Minor	LOS/TI Near End Loss of Signal (Receive)	Card 5, Line 1	Nov 16, 13:43:52, 2008	Nov 16, 13:43:22, 2008	1
Critical	LOS/TI Carrier Group Alarm	Card 5, Line 1	Nov 16, 13:44:12, 2008	Nov 16, 13:46:14, 2008	1
Minor	LOS/TI Near End Loss of Signal (Receive)	Card 15, Line 1	Nov 17, 14:03:17, 2008	Nov 17, 14:03:01, 2008	1
Warning	Loss of Timing Reference	Reference 2	Nov 17, 14:03:10, 2008	Nov 17, 14:03:10, 2008	1
Minor	Card Initializing	MCC-A	Nov 17, 14:07:47, 2008	Nov 17, 14:09:24, 2008	1
Minor	Card Initializing	Card Number 19	Nov 17, 14:07:40, 2008	Nov 17, 14:07:40, 2008	1
Minor	Card Initializing	Card Number 1	Nov 17, 14:07:40, 2008	Nov 17, 14:08:27, 2008	1



Note You must scroll to the right to see the entire display.

Viewing the Event Message Display

The event message display provides a summary of NE events that do not affect service (such as MCC switchover and timing reference switchover). You cannot modify or delete the messages in this display, but you can sort them by time of occurrence or alarm name. From the event message display, you can view a list of all possible event ID numbers.

-
- Step 1** From Cisco 6700 NetView, right-click the icon of the appropriate NE.
- Step 2** Select **Event Message Display** from the popup menu. (See Figure 17-16.)

Figure 17-16 Event Message Display

Event Name	Instance	Issuing Time
SNMP Request to reset card	Card MCC-B, IP Address: 192.168.124.33	Nov 17, 14:04:32, 2000
SNMP Request for MCC switchover	From MCC-B to 43, IP Address: 192.168.124.33	Nov 17, 14:07:50, 2000
MCC Switchover	From MCC-A to MCC-B	Nov 17, 14:07:47, 2000
SNMP Request for MCC switchover	From MCC-A to 43, IP Address: 192.168.124.33	Nov 17, 14:16:16, 2000
MCC Switchover	From MCC-B to MCC-A	Nov 17, 14:16:12, 2000
Node Up		Nov 17, 15:38:43, 2000



Note

You must scroll to the right to see the entire display.

Viewing the Event ID List

From the event message display window (see “Viewing the Event Message Display” section on page 17-11), select **Applications > Event ID List**. EMS displays the event ID list. (See Figure 17-17.)

Figure 17-17 Event ID List

