

Element Management System Utilities

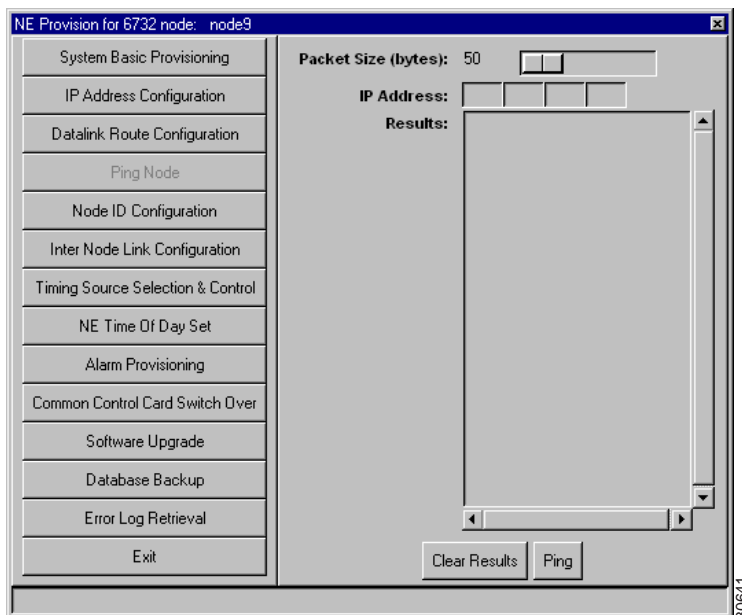
This chapter describes management utilities available in the Element Management System (EMS).

Pinging a Node

Use the ping node utility to test network connectivity between the NE and another network element (such as a Cisco 6700 NE or a router).

From the NE provision window, select Ping Node from the function bar to open the ping node window. (See Figure 11-1.)

Figure 11-1 Ping Node



Set the following parameters:

- **Packet Size:** Enter the packet size (in bytes) used to ping the node.
- **IP Address:** Enter the IP address of the node to be pinged.

Click **Ping** to ping the node. The results of the attempted ping are displayed in the **Results** list.

EMS User Administration

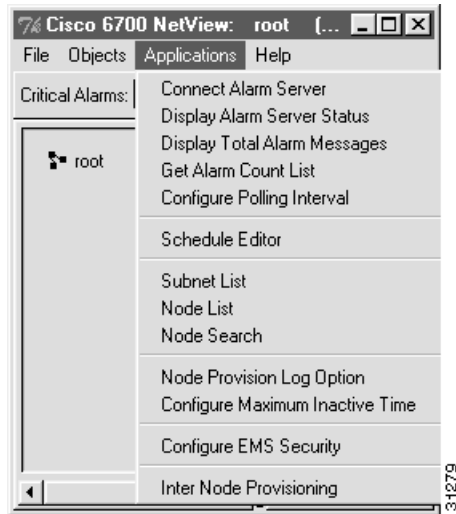
EMS offers three levels of security for EMS user accounts:

Table 11-1 EMS Security Levels

Security Level	Permitted EMS Operations
1	Display the network topology and node configurations (read only).
2	Display the network topology (read only), and modify the node configurations (read/write).
3	Modify the network topology and node configurations (read/write), manage EMS user accounts, and provision EMS alarms.

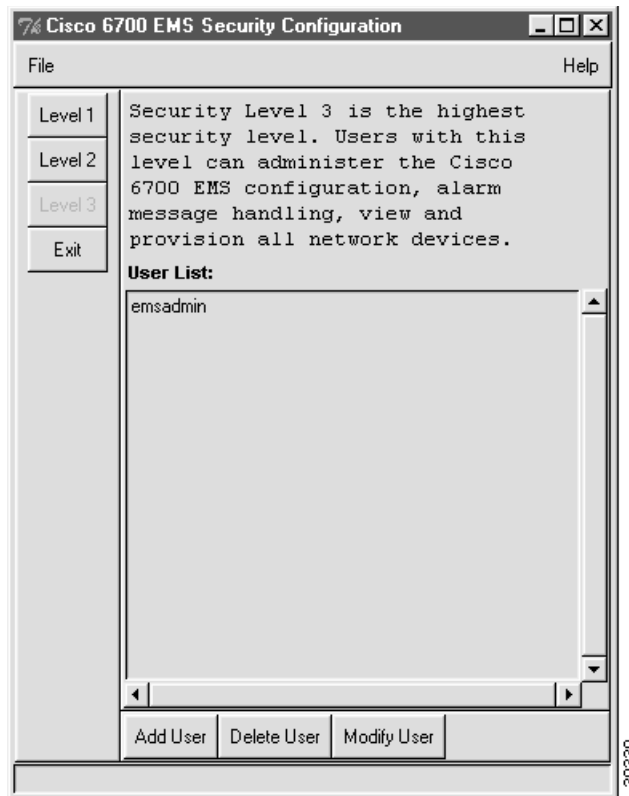
EMS users with level 3 security can create, delete, and modify user accounts from EMS. To launch the EMS user administration window, select **Applications > Configure EMS Security** from the net view menu. (See Figure 11-2.)

Figure 11-2 Net View Menu



EMS launches the EMS security window. (See Figure 11-3.)

Figure 11-3 Configuring EMS User Security



The EMS Security window lists all configured users within a given EMS security level. Click on the buttons labeled **Level 1**, **Level 2**, and **Level 3** to display user lists for each level of EMS security. Figure 11-3 shows the **Level 3** button is grayed out; this indicates that only level 3 user accounts are displayed.

Click the following buttons to configure EMS user accounts:

- **Add User:** Adds a user account for the currently selected security level. When prompted, enter the user name and password for this new account, then click **Apply**.
- **Delete User:** Deletes a user account. Select the account to be deleted from the **User List**, then click **Delete User** to delete the account.
- **Modify User:** Changes the password or security level of an existing account. Select the account to be modified from the **User List**, then click **Modify User** to edit the account information.

EMS Inactivity Timer

The EMS inactivity timer tracks the amount of time that a particular node view remains open. When the inactivity timer expires, EMS displays a dialog box asking if the node view should be kept active. Click **Continue** to close the dialog box and continue working in node view, or click **Exit** to close the node view. If no selection is made within 60 seconds, EMS closes the node view. The timer is set to 60 minutes by default.

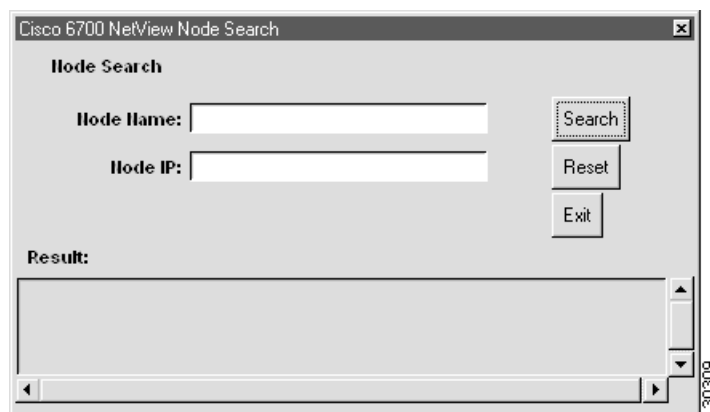
To configure the inactivity timer, select **Applications > Configure Maximum Inactivity Timer** from the net view menu. Set the timer length in minutes and click **Apply**. To disable the inactivity timer, set the timer value to 0.

Node Search

The EMS node search utility lets you locate a previously created node by entering the node name or IP address of the node. (See Figure 11-4.)

To launch the node search window, select **Applications > Node Search** from the net view menu.

Figure 11-4 Node Search



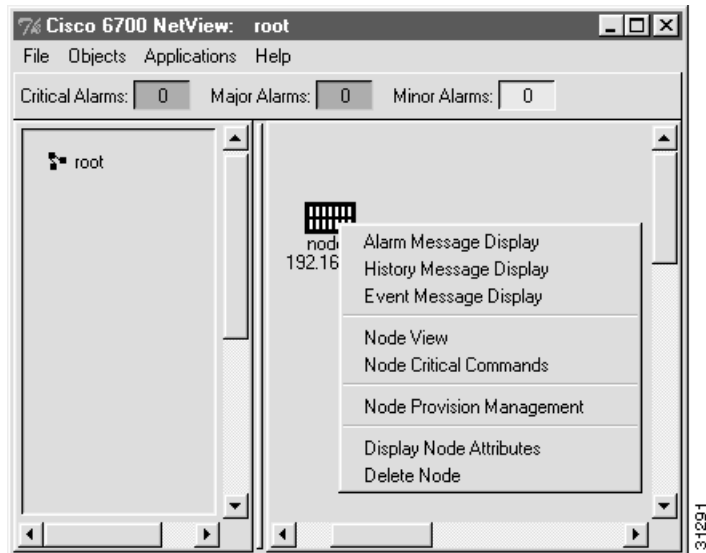
To search for a node, enter either the node name or node IP address in the node search window, then click **Search**. EMS searches all subnets and end node lists for the specified node. If a matching node is found, the node name and node ID will be displayed in the text window.

Node Provision Log

EMS provides an activity log that records each movement a user makes while provisioning a single node or multiple nodes. Logging can be enabled or disabled on a node-by-node basis. Logging can only be enabled or disabled with level 3 administrator privileges. Changes to logging options (enable/disable) do not take effect until the user has logged off and then logs back into EMS.

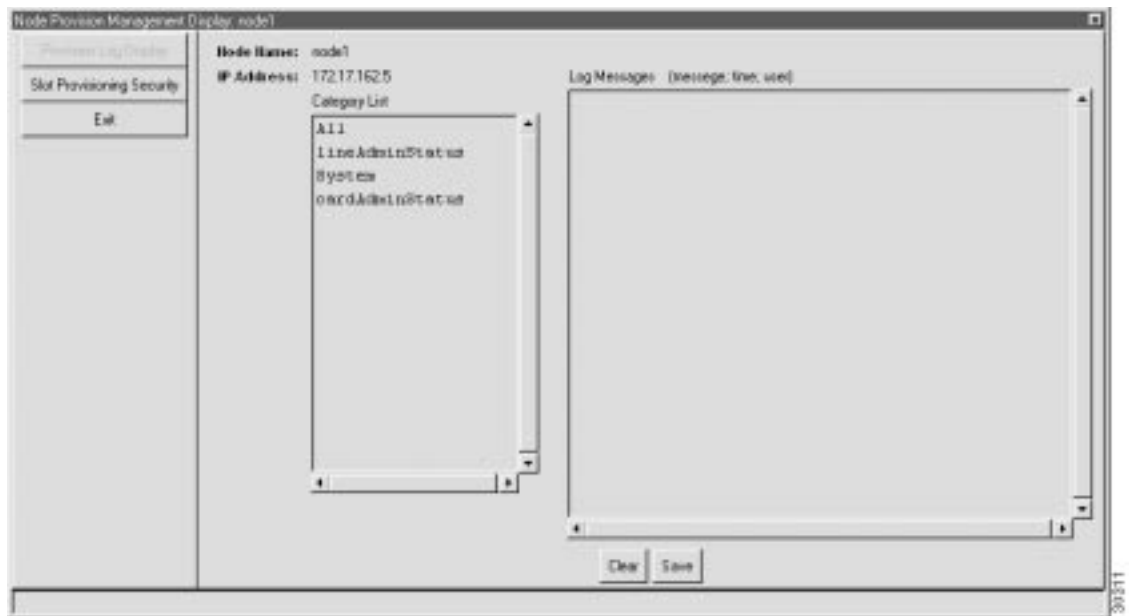
To launch the node log display, right-click the node icon in net view, and select **Node Provision Log** from the popup menu. (See Figure 11-5.)

Figure 11-5 Node Popup Menu



EMS launches the node provision log display. (See Figure 11-6.)

Figure 11-6 Node Provision Log Display



The information in the node provision log is categorized as follows:

- **All** shows all logged messages from each of the following log categories described below.
- **CrossConnect** shows all cross-connect provisioning activity.
- **System** shows systems-related provisioning activity (such as alarm changes, database reset, and software upgrade).
- **LineAdminStatus** shows card and line administrative status provisioning activities (in service/out of service).

- **IPAddress** displays IP Address modifications.
- **CardAdminStatus** displays the cards' admin status (in service/out of service).

Any of these categories can be selected singularly (click the desired category in the Category List box) to display specific types of system information.

Slot Provisioning Security

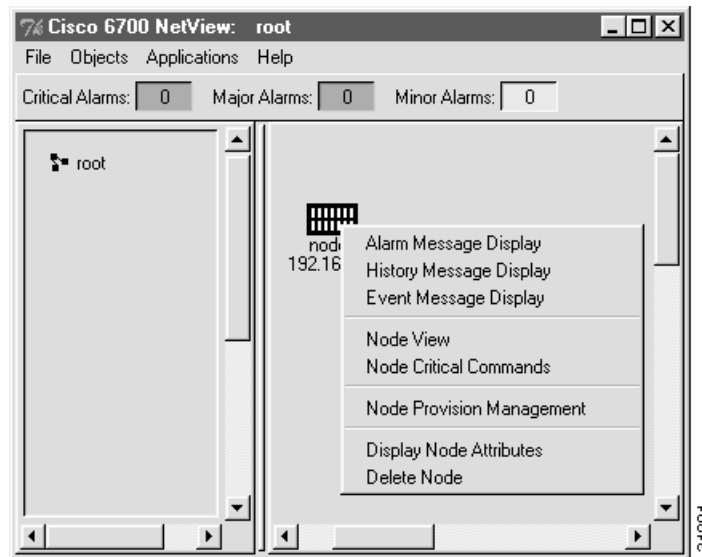
The EMS slot provisioning security function allows selected slots in the Cisco 6732 or Cisco 6705 chassis to be protected from further provisioning changes. Protected slots, including the lines and cards in the protected slots, cannot be changed or modified.

Note Only level 3 users are able to provision slot security. Level 1 and level 2 users can view existing security settings, but they cannot add, modify, or delete slot security settings.

To provision slot security on a node, complete the following steps starting from the EMS net view:

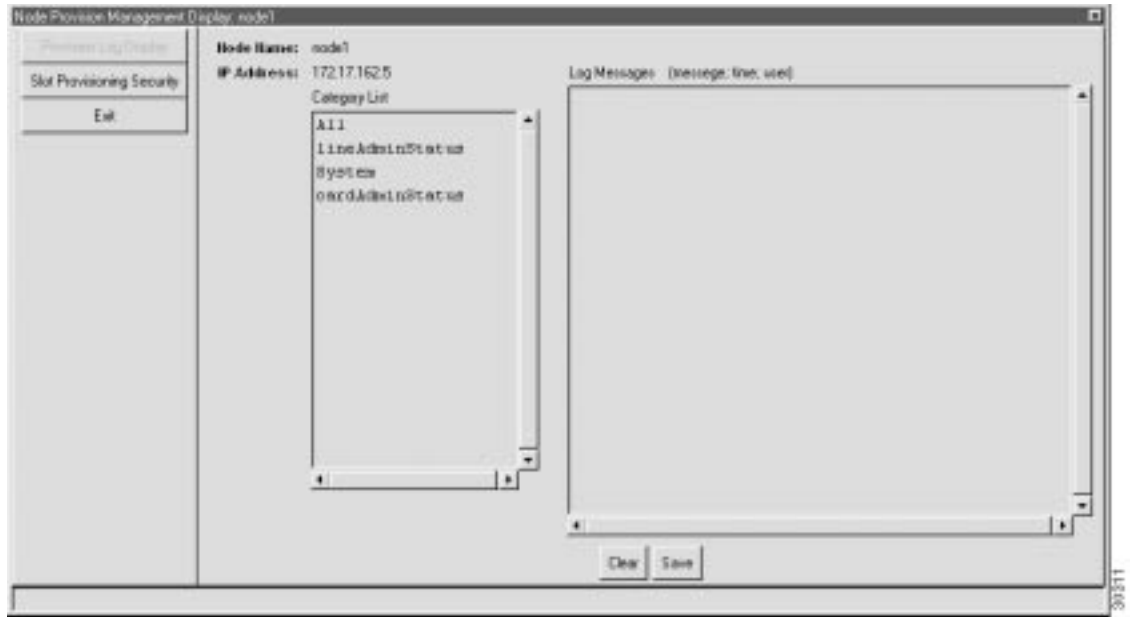
- Step 1** Right-click the desired node icon and select **Node Provision Management** from the popup menu. (See Figure 11-7.)

Figure 11-7 Node Popup Menu



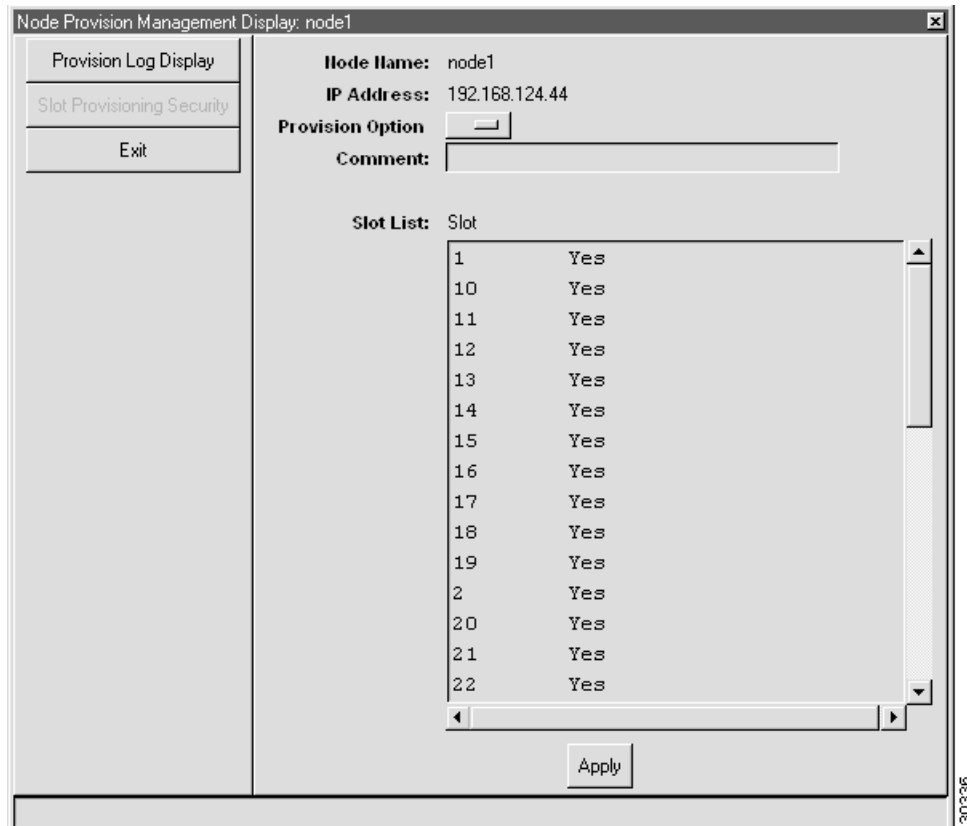
EMS launches the node provision window. (See Figure 11-8.)

Figure 11-8 Node Provision Window



Step 2 Click the **Slot Provisioning Security** tab from the function bar. (See Figure 11-9.)

Figure 11-9 Slot Provisioning Security



- Step 3** In the **Slot List** window, click the slots to be provisioned.
- Step 4** Set the **Provision Option** to **Yes** (allow slot provisioning) or **No** (disallow slot provisioning).
- Step 5** Optionally, you can enter a **Comment** which will be displayed next to the affected slots in the slot list.
- Step 6** Click **Apply** to provision the slots.

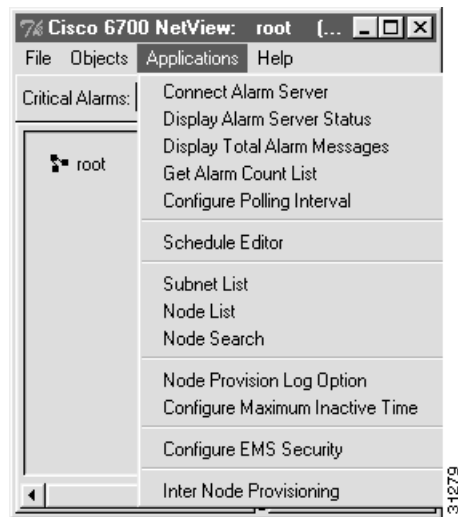
Schedule Editor

The EMS schedule editor lets you schedule software utilities such as database backups and software upgrades.

Note Only level 3 users are able to create, modify, or delete scheduled activities. Level 1 and level 2 users can view existing schedule settings, but they cannot make changes.

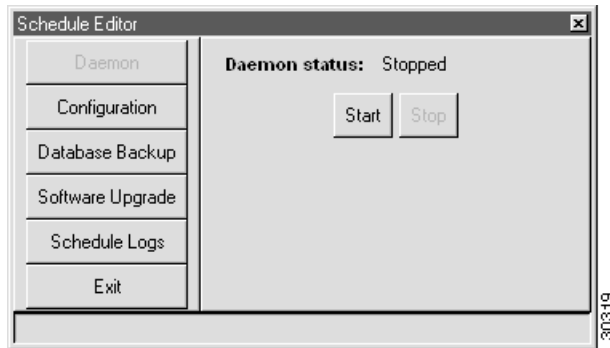
To open the schedule editor, select **Applications > Schedule Editor** from the net view menu. (See Figure 11-10.)

Figure 11-10 Schedule Editor



EMS launches the schedule editor. (See Figure 11-11.)

Figure 11-11 Schedule Editor



Starting and Stopping the Schedule Daemon

The schedule daemon must be activated for scheduled activities to take place. To activate the schedule daemon, click the **Daemon** tab, then click **Start**. You can stop the schedule daemon by clicking **Stop**.

Setting the Procedure Timeout

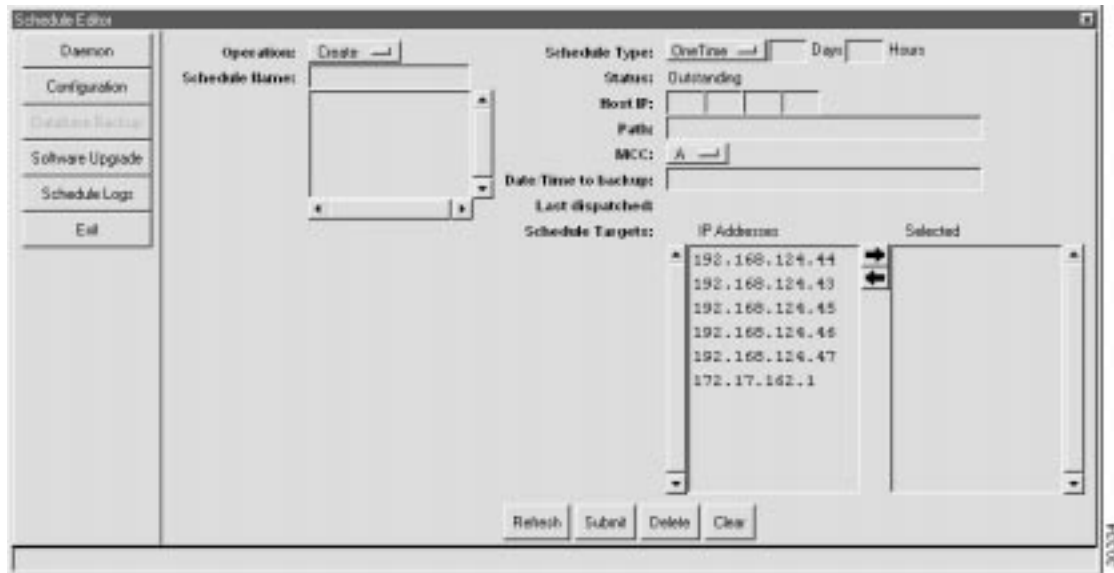
The schedule editor provides a configurable procedure timeout, allowing EMS to set a maximum time for database backup and software upgrade procedures. To set the timeout value, click the **Configuration** tab and enter the desired timeout length in minutes.

Note If the scheduled procedure takes longer than the timeout length, EMS will disconnect from the active node. The procedure will continue to run, but EMS will not be able to display status updates.

Scheduling a Database Backup

To schedule a database backup, click the **Database Backup** tab. EMS launches the database backup scheduler window. (See Figure 11-12.)

Figure 11-12 Database Backup Scheduler



Set the following parameters to schedule a database backup:

- **Operation:** Select **Create** to schedule a new database backup, or select **Modify/Delete** to edit or delete an existing schedule. The Modify/Delete option shows a list of schedules; select one from the list, and click **Delete** to remove the schedule or click **Submit** to save the schedule with changes.
- **Schedule Name:** Enter a name for the new schedule (**Create** only). Schedule names are limited to 10 alphanumeric characters.
- **Schedule Type:** Select **OneTime** for a one-time scheduled backup, or select **Repeat** for a recurring backup.
- **Days/Hours (Repeat only):** Enter the length of time to wait between performing another backup.
- **Host IP:** Enter the IP address of the TFTP server to receive the database backup.
- **Path:** Enter the directory path and filename where the database backup file will be sent.
- **Date/Time to Backup:** Enter the date and time that the backup will take place. For a repeating schedule, enter the date and time of the first backup to be performed. Use the following format when entering the date and time:
 - Date: MM/DD/YYYY
 - Time: HH:MM:SS

If only the time is entered, the date is assumed to be today. If neither the time nor date is entered, the backup will take place as soon as possible.
- **Schedule Targets:** Highlight the IP address of the node to be backed up in the **IP Addresses** list, and click the right arrow icon to move the address into the **Selected** list.

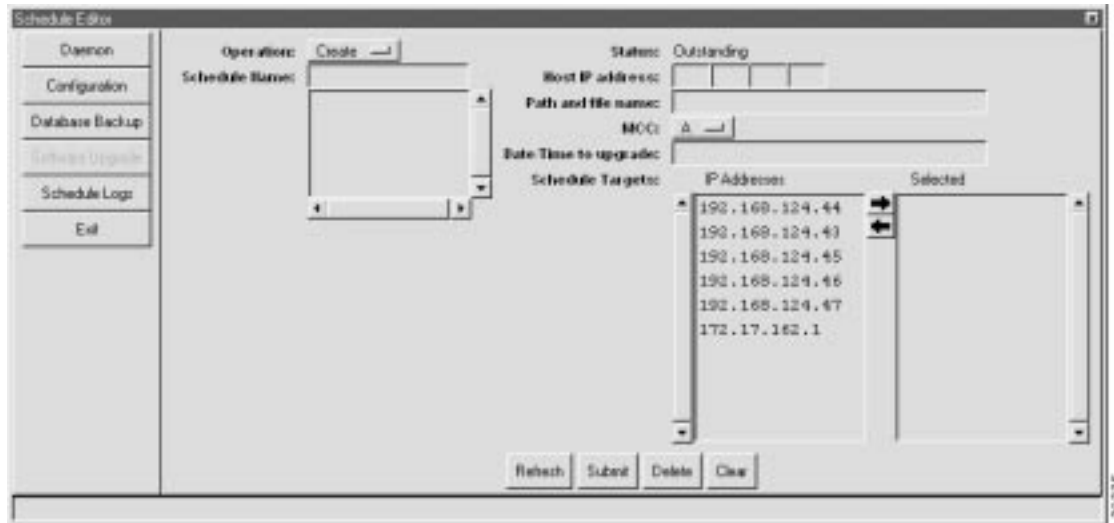
Note EMS displays the IP addresses of all nodes in the active subnet. If the node you wish to back up does not appear in the list, return to net view and select the proper subnet, then return to the schedule editor.

Click **Submit** to complete the new schedule.

Scheduling a Software Upgrade

To schedule a software upgrade, click the **Software Upgrade** tab. EMS launches the software upgrade scheduler window. (See Figure 11-12.)

Figure 11-13 Software Upgrade Scheduler



Set the following parameters to schedule a software upgrade:

- **Operation:** Select **Create** to schedule a new software upgrade, or select **Modify/Delete** to edit or delete an existing schedule. The Modify/Delete option shows a list of schedules; select one from the list, and click **Delete** to remove the schedule or click **Submit** to save the schedule with changes.
- **Schedule Name:** Enter a name for the new schedule (**Create** only). Schedule names are limited to 10 alphanumeric characters.
- **Host IP:** Enter the IP address of the TFTP server to provide the upgrade file.
- **Path:** Enter the directory path and filename where the upgrade file is located on the TFTP server.
- **Date/Time to Upgrade:** Enter the date and time that the backup will take place. For a repeating schedule, enter the date and time of the first backup to be performed. Use the following format when entering the date and time:
 - Date: MM/DD/YYYY
 - Time: HH:MM:SSIf only the time is entered, the date is assumed to be today. If neither the time nor date is entered, the backup will take place as soon as possible.
- **Schedule Targets:** Highlight the IP address of the node to be backed up in the **IP Addresses** list, and click the right arrow icon to move the address into the **Selected** list.

Note EMS displays the IP addresses of all nodes in the active subnet. If the node you wish to upgrade does not appear in the list, return to net view and select the proper subnet, then return to the schedule editor.

Click **Submit** to complete the new schedule.

Viewing the Schedule Log

Click the **Schedule Log** tab to display a detailed log of all scheduled activities. Click **Save Overview** to create a file containing the overview information (top list), or click **Save Detailed** to create a file containing detailed log information (bottom list).