

# Overview

---

The Cisco 6700 series Element Management System (EMS) is a powerful operations and management tool with a graphical user interface. EMS enables users to provision, manage, and monitor up to 2,500 Cisco 6700 nodes within a Cisco 6700 network.

## EMS Terms

Table 1-1 describes some of the terms used throughout this EMS guide.

**Table 1-1 EMS Terms**

Term	Definition
NE	Network element—The physical Cisco 6732 or Cisco 6705 chassis. Occasionally, the term “Cisco 6700 NE” is used for added clarity.
node	The EMS representation of a NE in the Cisco 6700 network (shown as an icon in the EMS net view).
slot	A space in the Cisco 6732 or Cisco 6705 chassis used to house a card.
card	A modular element placed in a slot of the Cisco 6732 or Cisco 6705 chassis. A card that provides one or more user traffic interfaces (lines) is called a <b>line card</b> ; a card that does not offer user traffic interfaces is called a <b>common card</b> .
line	An interface designed to carry user traffic (data or voice) across the Cisco 6700 network.
port	An interface designed to carry non-user traffic (such as management traffic) from the Cisco 6700 NE to a network device or workstation.

## EMS Views

Table 1-2 describes the different windows (views) seen in EMS.

**Table 1-2 EMS Views**

View	Description	How to Open	How to Close
Net view	A view of the Cisco 6700 network, using icons to represent installed nodes. Individual nodes are created and modified in net view.	Net view appears when EMS is initially launched.	Select <b>File &gt; Exit</b> from the menu bar. This closes EMS.
Inter-node provision window	A special display used to configure connections between nodes.	From net view, click the <b>Inter Node Provision</b> button at the top right of the window.	Select <b>File &gt; Exit</b> from the menu bar to return to net view.

**Table 1-2 EMS Views (continued)**

View	Description	How to Open	How to Close
<b>Node view</b>	A graphic representation of a Cisco 6732 or Cisco 6705 chassis, complete with installed cards. Lines and cards are provisioned from node view.	From net view, double-click a node, or right-click a node and select <b>Node View</b> from the popup menu.	Select <b>File &gt; Exit</b> from the menu bar to return to net view.
<b>NE provision window</b>	A window used to set important NE parameters such as IP address, timing source, and node ID.	From node view, double-click the <b>node nameplate</b> (located at the top of the screen).	Select <b>Exit</b> from the function bar to return to node view.
<b>Plugin slot provision window</b>	A window used to provision a slot for a particular card.	From node view, double-click any empty slot.	Select <b>Exit</b> from the function bar to return to node view.
<b>Plugin card provision window</b>	A window used to set individual card settings.	From node view, double-click any card.	Select <b>Exit</b> from the function bar to return to node view.
<b>Line provision window</b>	A window used to set individual line settings and parameters.	From node view, double-click any line.	Select <b>Exit</b> from the function bar to return to node view.

Each view is further detailed in the following sections.

## Net View

Net view appears when EMS is initially launched. It displays the topology of the Cisco 6700 network. (See Figure 1-1.) From net view, all nodes, subnets, and end node lists can be created or modified.

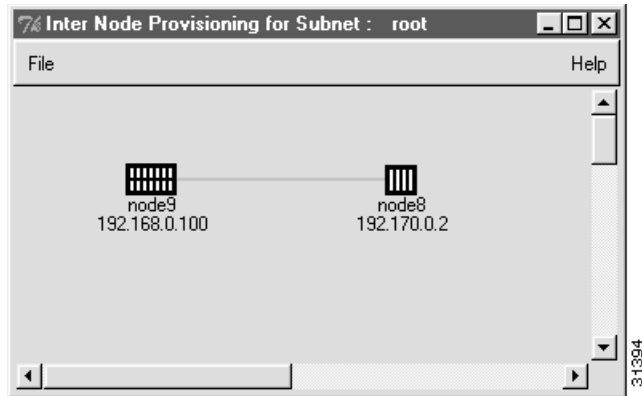
**Figure 1-1 Net View**



## Inter-Node Provision Window

The inter node provision window is used to provision connections between two or more NEs. (See Figure 1-2.) By clicking the visual links drawn between nodes, inter-node connections can be created, modified, or deleted.

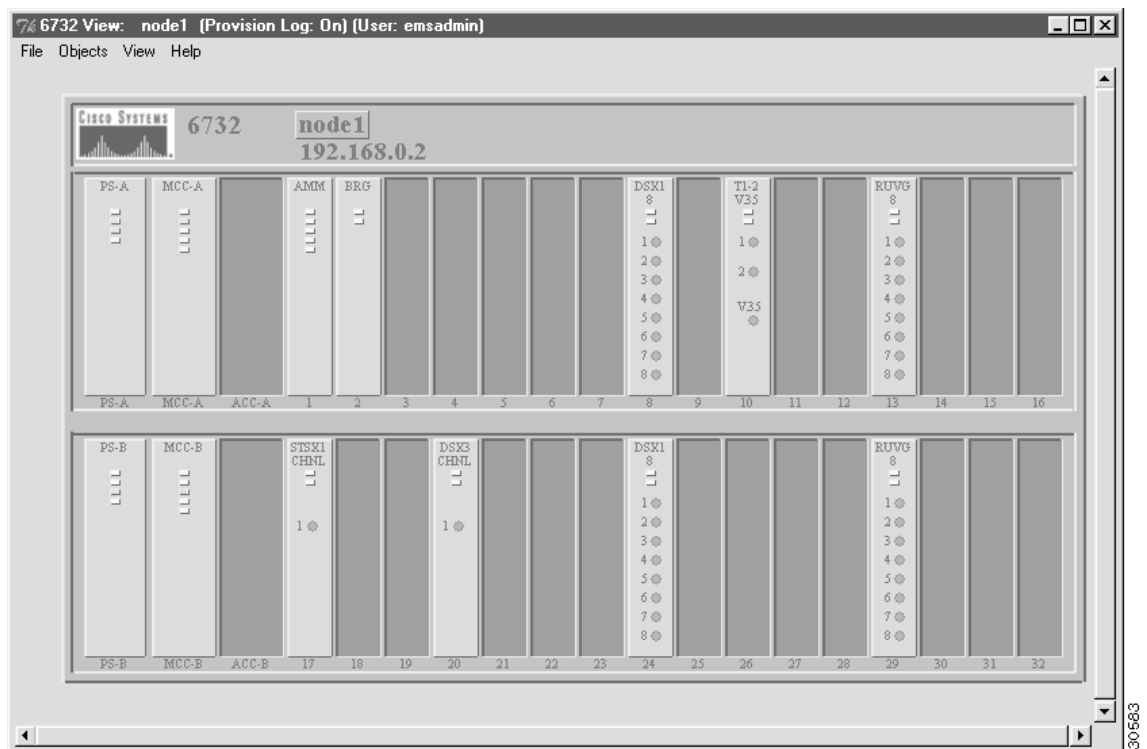
**Figure 1-2 Inter-Node Provision Window**



## Node View

The EMS node view provides a graphical representation of a Cisco 6700 NE, complete with installed cards and LEDs. (See Figure 1-3 and Figure 1-4.) Use node view to provision all slots, cards, and lines in the NE.

**Figure 1-3 Cisco 6732 Node View**



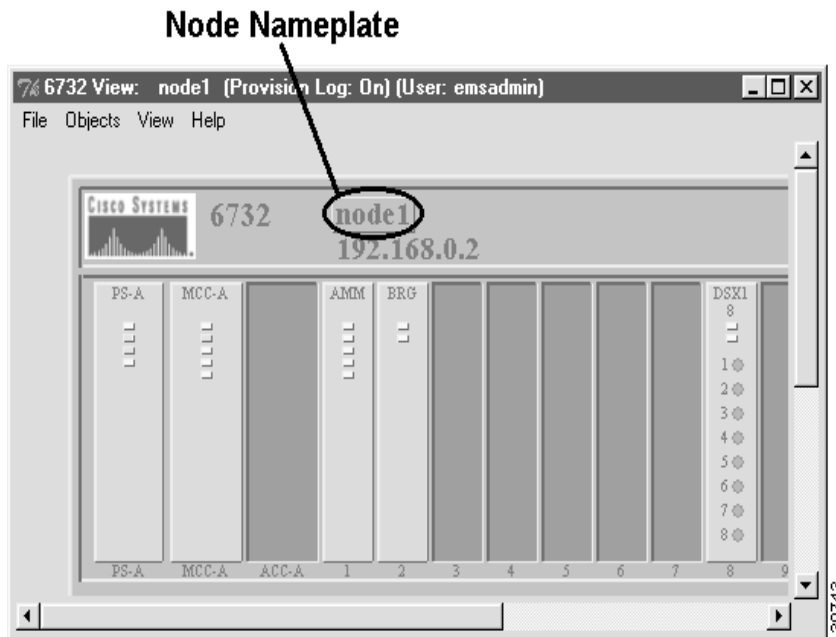
**Figure 1-4 Cisco 6705 Node View**



## NE Provision Window

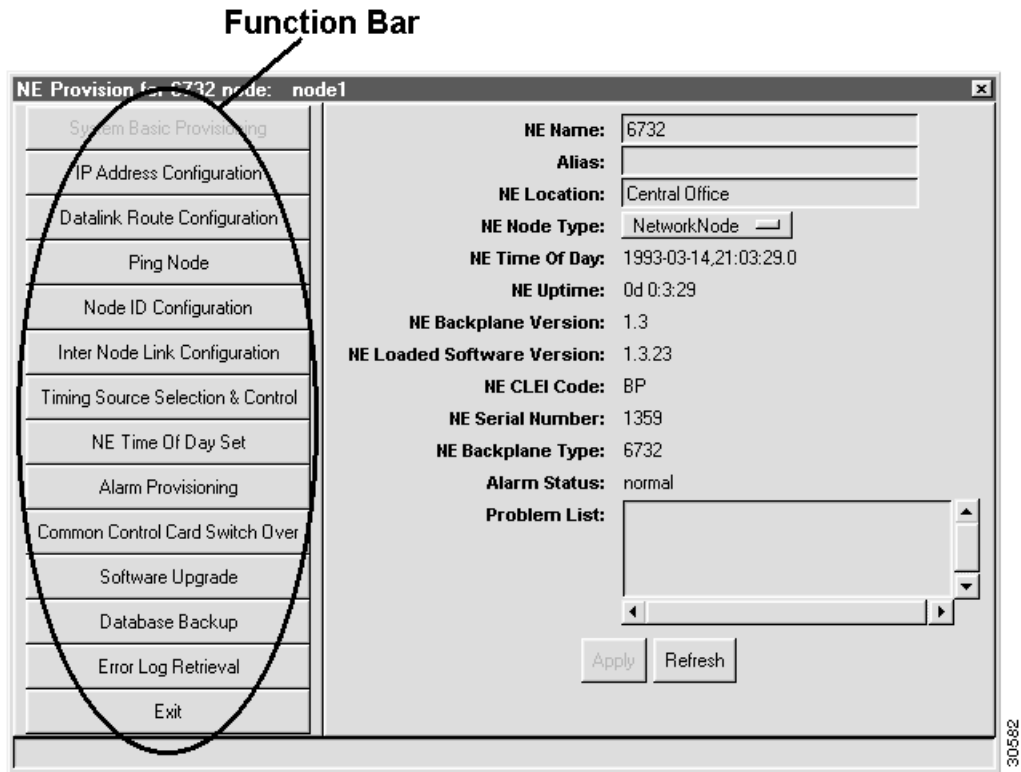
The NE provision window is used to provision important NE parameters. To open the NE provision window, double-click the **node nameplate** in node view. (See Figure 1-5.)

**Figure 1-5 Node Nameplate**



Double-clicking the node nameplate launches the NE provision window. (See Figure 1-6.) The left side of the display contains the **function bar**, a group of buttons used to navigate the NE provision window.

**Figure 1-6 NE Provision Window and Function Bar**

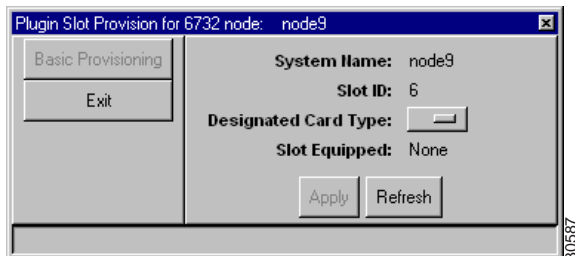


In Figure 1-6, note that the **System Basic Provisioning** button is grayed out in the button bar. This indicates that the system basic provisioning window is now open. To open a different provisioning window, click one of the buttons in the function bar.

## Plugin Slot Provision Window

The plugin slot provision window (see Figure 1-7) is used to provision a slot for a particular type of card.

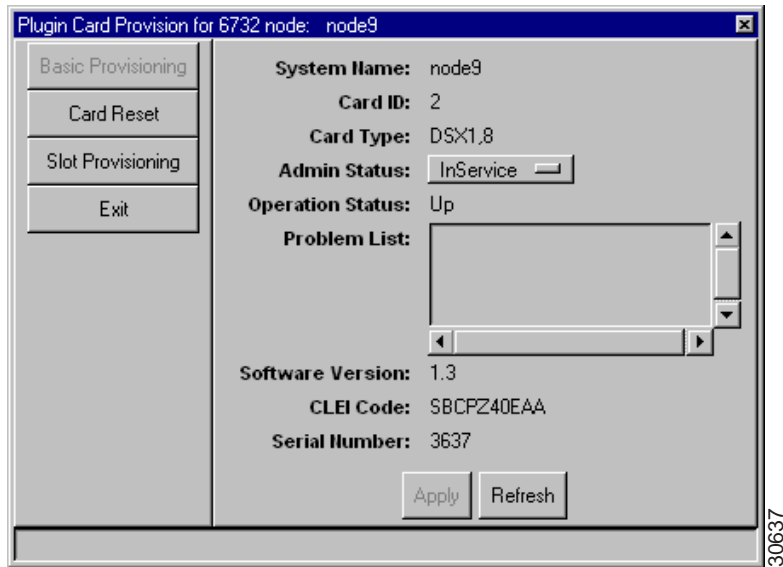
**Figure 1-7 Plugin Slot Provisioning Window**



## Plugin Card Provision Window

The plugin card provision window (see Figure 1-8) is used to set slot and card parameters, such as card type and administrative status (in service or out of service).

**Figure 1-8 Plugin Card Provision Window**



## Line Provision Window

The line provision window (see Figure 1-9) is used to provision individual line parameters. Each type of line card uses a different line provision window; Figure 1-9 shows the line provision window for a DSX1/8 card.

Figure 1-9 DSX1/8 Line Provision Window

DSX1,8 Line Provision for 6732 node: node1

DSX1,8 Basic Provisioning	6732 Name: node1
15-Min PM Threshold	DSX1,8 Card Number: 8
1-Day PM Threshold	DSX1,8 Line Number: 1
15-Min PM Data	Admin Status: InService
1-Day PM Data	Operation Status: Down
Far End 15-Min PM Data	Interface Group: None
Far End 1-Day PM Data	Interface Group ID: 1
Exit	Interface Group Member ID: 0
	Line Coding: B8ZS
	Line Frame Type: ESF
	DS0 Mapping: D4
	Protect Group ID: 3
	Protect Unit Type: Protected
	Line Buildout: 534-655 Feet
	Loopback: Off
	Reset PM Count: No
	Line Test: Off
	DSX1,8 Problem List:
	Apply Refresh DS0 Signaling

31253

## Navigating EMS

The following sections describe the basic navigational techniques used to enter data and provision the Cisco 6700 NE.

### Using the Mouse

The following terms are used in this guide to describe actions involving the mouse:

- **Highlight:** position the cursor over an icon and press the left mouse button.
- **Click:** press the left mouse button once.
- **Double-click:** press the left mouse button twice in rapid succession.
- **Right-click:** press the right mouse button once.
- **Click and drag:** press and hold the left mouse button while moving (dragging) the cursor.

## Selecting Icons

- To select an individual icon, position the cursor over the icon. The icon turns orange when the cursor is positioned over the icon. Click, right-click, or double-click the highlighted icon.

## Highlighting List Entries

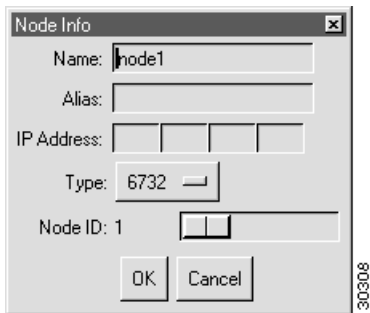
Selecting one or more entries from an EMS list is referred to as **highlighting** the entries.

- To highlight one entry in a list, position the cursor over the entry and press the left mouse button.
- To highlight multiple entries in a list, perform the following steps:
  - Position the cursor over the first entry in the list
  - Press and hold the left mouse button
  - Drag the cursor to the last entry in the list
  - Release the left mouse button

## Entering Data

The node information window (see Figure 1-10) is used to describe several methods of entering data in EMS:

**Figure 1-10 Node Information Window**



- **Text box:** The **Name**, **Alias**, and **IP Address** fields use text boxes for data entry. Position the cursor in the text field and enter text. You may move from one text box to the next by pressing the <Tab> key. For example, in the **IP Address** field, enter the first number, then press <Tab> to move to the next text box.
- **Pull-down list:** The **Type** field uses a pull-down list for data entry. Click the small rectangle at the right side of the list. EMS displays a list of choices; click the desired entry in the list.
- **Slider bar:** The **Node ID** field uses a slider bar for data entry. There are two ways to enter data in a slider bar field:
  - Click and drag the slider bar. The number (to the left of the bar) changes according to the position of the slider bar. Release the bar to set the desired entry.
  - Highlight the number to the left of the slider bar, and type the desired entry.



---

## Using Common Buttons

The following buttons appear in many EMS windows:

- **Clear:** Erases all text in the user-definable fields of a provisioning window.
- **Dismiss:** Closes the current window, without making provisioning changes.
- **Refresh:** Updates the display. After provisioning a node, slot, card, or line, press **Refresh** to redraw the current display and reflect all provisioning changes.

