Provisioning Nodes

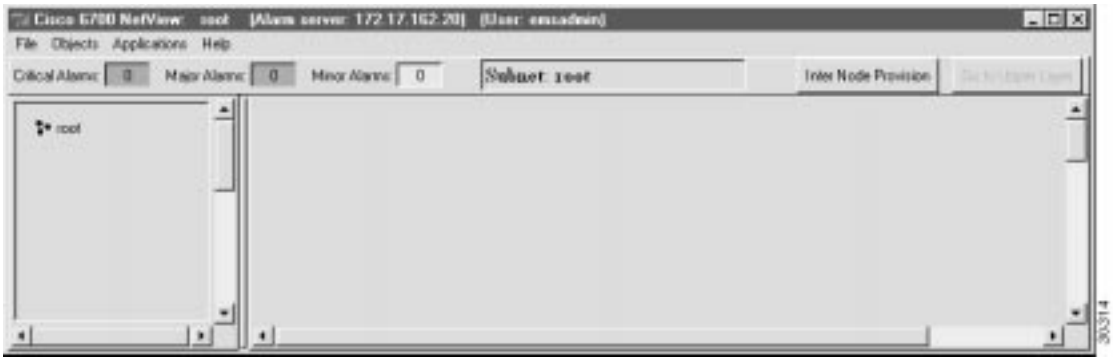
This chapter describes the setup and configuration of the EMS net view, including the following procedures:

- Creating Nodes
- Creating End Node Lists
- Creating Subnets

Creating Nodes

After logging in with a valid username and password, EMS presents the net view. (See Figure 4-1.) Net view displays the Cisco 6700 network topology, including all nodes and subnets.

Figure 4-1 Net View

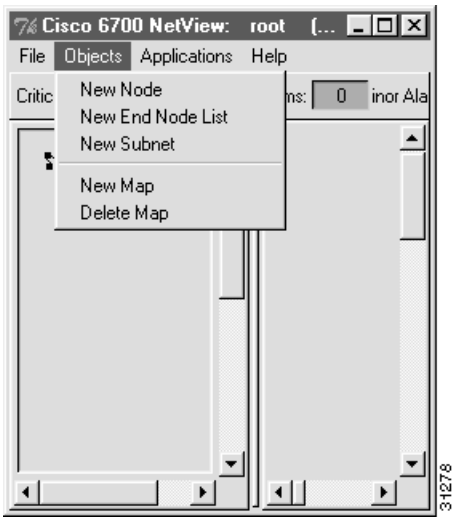


Before EMS can communicate with the NE, you must create a node in the net view. EMS uses nodes to represent each NE in the network.

To create a node:

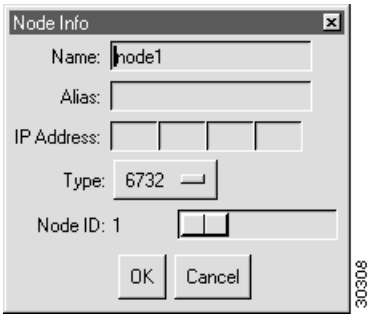
Step 1 From the net view, select **Objects > New Node** to create a new node.

Figure 4-2 Net View Menu



EMS presents the node information window. (See Figure 4-3.)

Figure 4-3 Node Information Window



Step 2 Enter a node name (and optional node alias) for the NE. The node name identifies the node in the net view; the node alias provides additional description information (such as location or organization name).

Note The node name and node alias must not include spaces, quotation marks or other non-alphanumeric characters.

Step 3 In the IP address text box, enter the primary IP address of the NE. If you are provisioning the NE for the first time, enter the default IP address: **192.168.0.2**.

Step 4 In the **Type** field, and select the proper NE type (**6732** or **6705**).

Step 5 EMS provides a default node ID number for the NE. Consult your EMS administrator for the correct node ID for use with this NE. Highlight the number and enter a new node ID, or use the slider to change the node ID.

Step 6 Click **OK** when finished. You will return to the net view. The newly created node will appear as an icon, with the node name and IP address below the icon. (See Figure 4-4.)

Figure 4-4 Net View: Node Created

Note The Cisco 6705 icon is smaller than the Cisco 6732 icon shown in Figure 4-4.

Working with Nodes

Use the following procedures to modify, move, delete, or view a node in EMS.

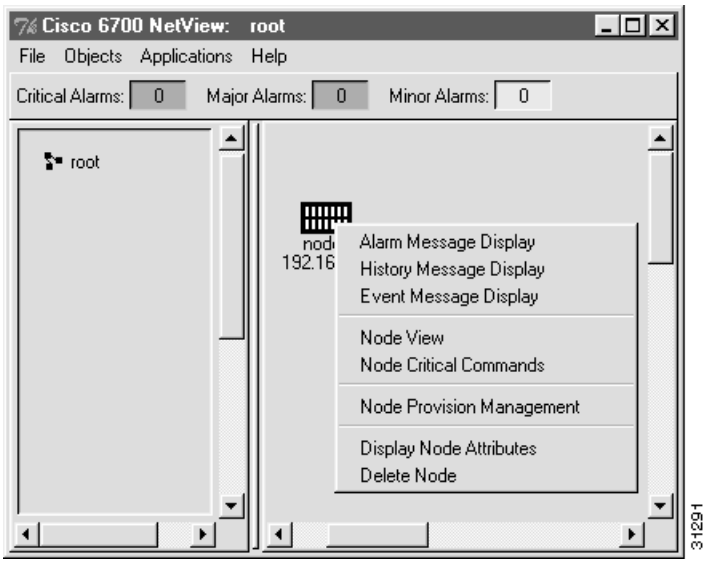
Moving Nodes

To move a node, move the cursor to the node you would like to move. While pressing the **Shift** key, click and drag the node to its new location.

Modifying a Node

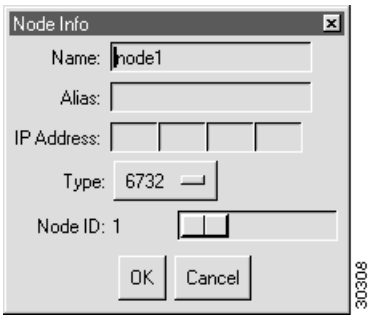
Step 1 Right-click the node icon to bring up the node popup menu. (See Figure 4-5.)

Figure 4-5 Node Popup Menu



Step 2 Select **Display Node Attributes** to display the node information window. (See Figure 4-6.)

Figure 4-6 Node Information Window



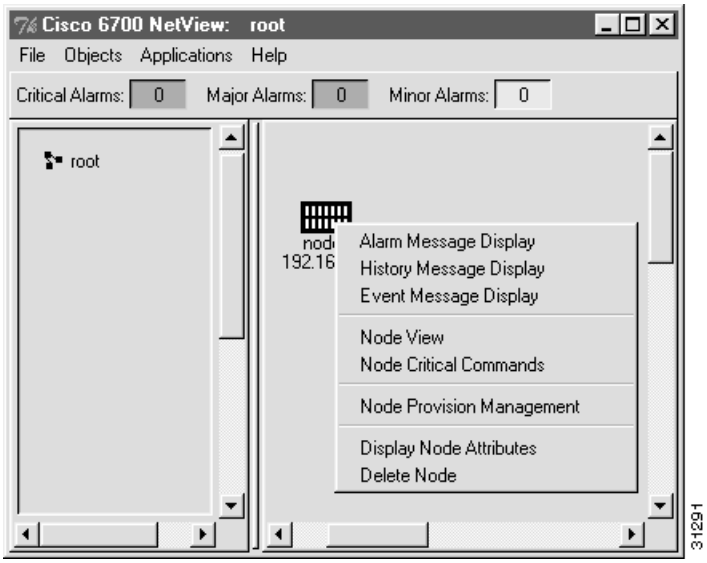
Step 3 From the node information window, the name, alias, IP address, and node ID can be modified.

Note You cannot change the chassis type (6705 or 6732) of an existing node from the node information window. If the node chassis type is incorrect, delete the node and create a new node with the correct chassis type.

Deleting a Node

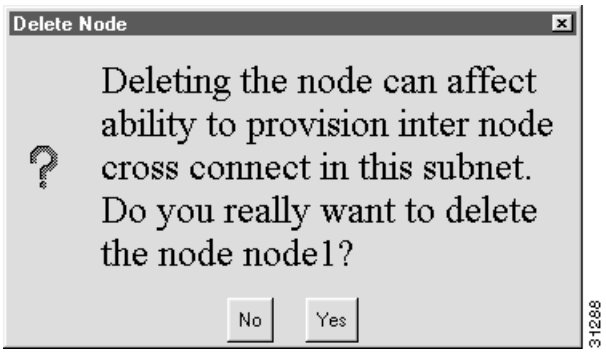
Step 1 Right-click the node icon to bring up the node popup menu. (See Figure 4-5.)

Figure 4-7 Node Popup Menu



Step 2 Select **Delete Node** to delete the node. EMS asks you to confirm the deletion. (See Figure 4-8.)

Figure 4-8 Confirm Node Deletion



Step 3 Click **Yes** to delete the node.

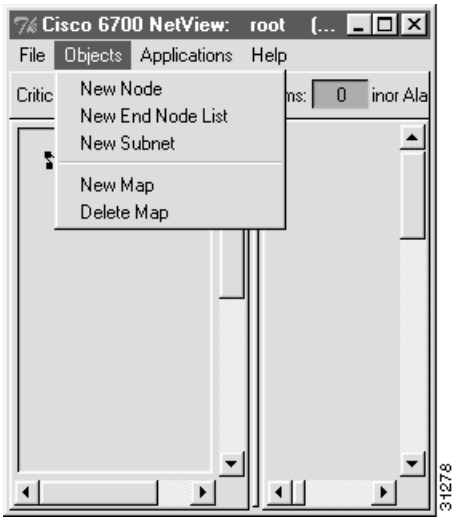
Creating End Node Lists

End node lists are used to represent a large number of Cisco 6732 or Cisco 6705 nodes with a single icon.

Creating an End Node List

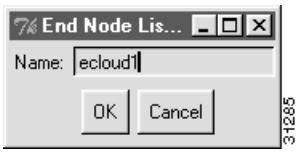
Step 1 From the net view menu, select **Objects** > **New End Node List**. (See Figure 4-9.)

Figure 4-9 Net View Menu



Step 2 EMS asks for the name of the new end node list. (See Figure 4-10.)

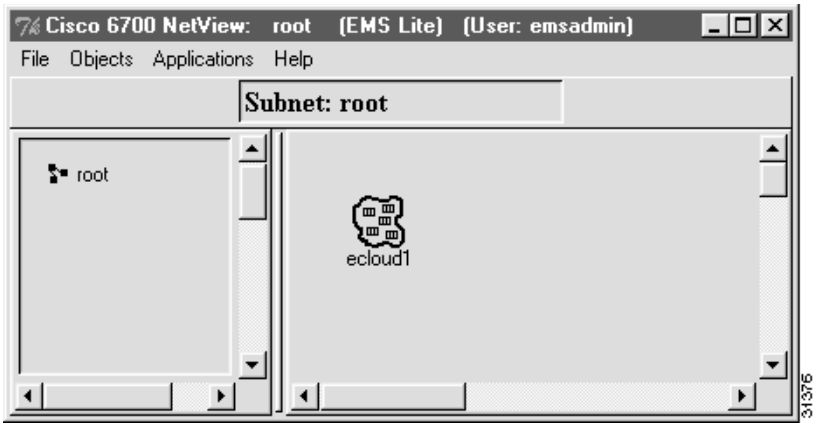
Figure 4-10 End Node List Name



Step 3 Enter a name for the end node list and click **OK**.

The new end node list icon appears in the net view window. (See Figure 4-11.)

Figure 4-11 Net View with End Node List Icon



Moving an End Node List Icon

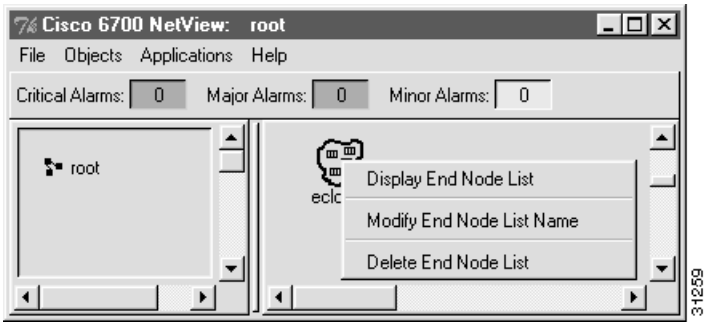
To move an end node list icon, move the cursor to the icon you would like to move. While holding down the **Shift** key, click and drag the icon to its new location.

Displaying an End Node List

To display the list of nodes in an end node list:

Step 1 From net view, right-click the end node list icon. EMS displays a popup menu. (See Figure 4-12.)

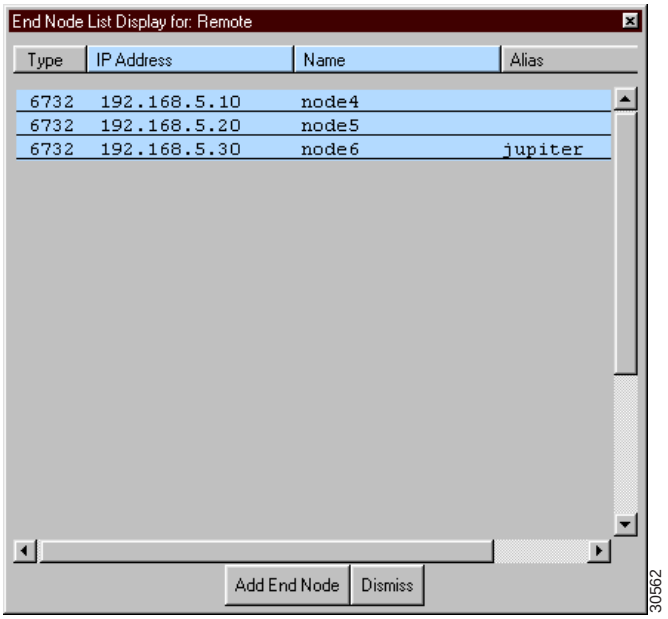
Figure 4-12 End Node List Popup Menu



Step 2 Select **Display End Node List** from the popup menu.

EMS opens the end node list display. (See Figure 4-13.) Each node in the end node list is included in the list, along with its node ID and IP address.

Figure 4-13 End Node List Display



Note The end node list display can also be openend by double-clicking the end node list icon in net view.

Opening a Node View from the End Node List

From the end node list display, click any node listing to open the node view for that node.

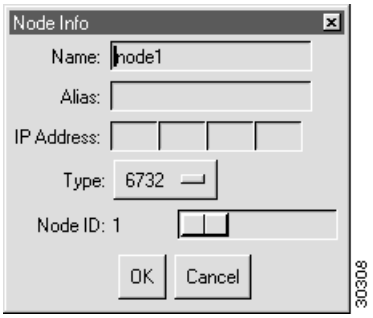
Adding a Node to an End Node List

To add a node to the end node list:

Step 1 Open the end node list display, as shown in the "Displaying an End Node List" section on page 4-6.

Step 2 Click the **Add End Node** button at the bottom of the display. You will be prompted to enter information for the new node, including a node name and IP address. (See Figure 4-14.)

Figure 4-14 Enter Node Information



Step 3 Enter a node name (and optional node alias) for the NE. The node name identifies the node in the net view; the node alias provides additional description information (such as location or organization name).

Note The node name and node alias must not include spaces, quotation marks, or other non-alphanumeric characters.

Step 4 In the IP address text box, enter the primary IP address of the NE. If you are provisioning the NE for the first time, enter the default IP address: **192.168.0.2**.

Step 5 In the **Type** field, and select the proper NE type (**6732** or **6705**).

Step 6 EMS provides a default node ID number for the NE. Consult your EMS administrator for the correct node ID for use with this NE. Highlight the number and enter a new node ID, or use the slider to change the node ID.

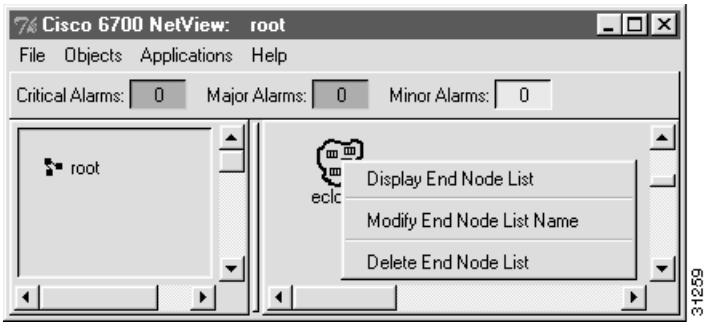
Step 7 Click **OK** when you are finished. You will return to the end node list display, with the new end node included in the list.

Deleting an End Node List

To delete an end node list:

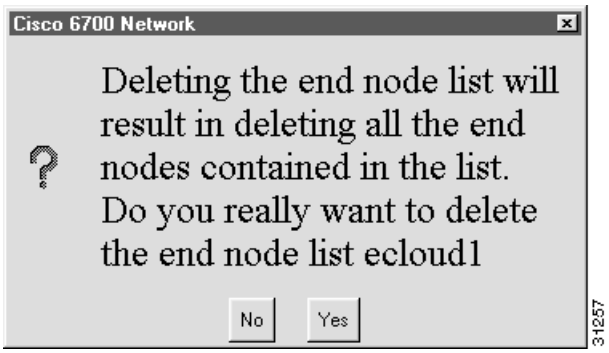
Step 1 In net view, right-click the end node list icon. EMS displays the popup menu. (See Figure 4-15.)

Figure 4-15 End Node List Popup Menu



Step 2 Select **Delete End Node List** from the popup menu. EMS displays a dialog box, asking you to confirm the deletion.

Figure 4-16 Confirm End Node List Delete



Step 3 Click **Yes** to delete the end node list.

Creating Subnets

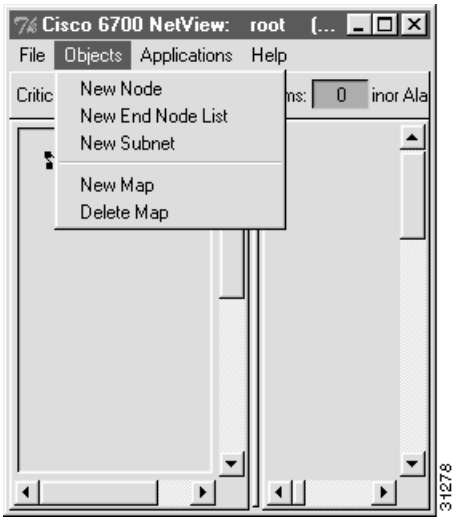
Subnets are used to segment the Cisco 6700 network into regional or local subnetworks. The use of subnets in EMS allows you to arrange multiple networks in a hierarchy.

Creating a Subnet

To create a new subnet:

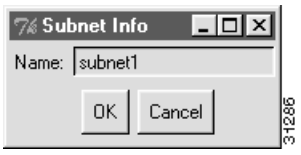
Step 1 In net view, select **Objects > New Subnet** from the menu. (See Figure 4-17.)

Figure 4-17 Net View Menu



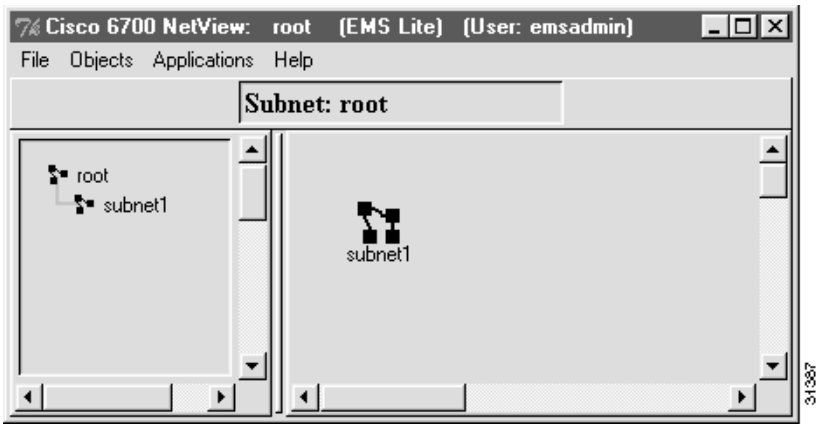
EMS prompts you for a subnet name. (See Figure 4-18.)

Figure 4-18 Enter Subnet Name



Step 2 Enter a name and click **OK**. The net view now contains a subnet icon in the network topology.

Figure 4-19 Net View with Subnet Icon

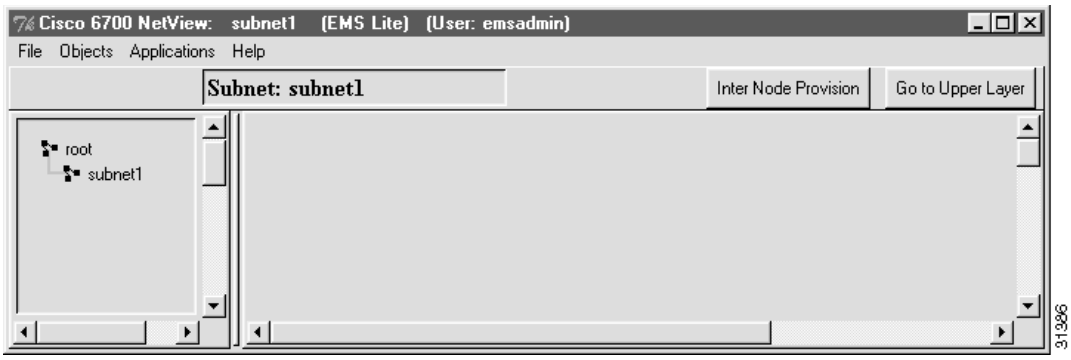


Note the left (hierarchical) frame of the net view, where the new subnet is shown in a hierarchical network view.

Opening a Subnet

From the net view, double-click the subnet icon. EMS displays the subnet topology in the net view. Note that the name of the subnet is displayed at the top of the right frame. (See Figure 4-20.)

Figure 4-20 Subnet View



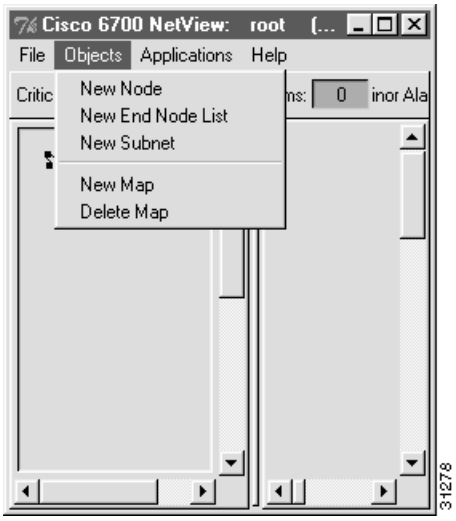
The subnet can now be configured with nodes and additional subnets.

Tips Each subnet is represented by two icons—the icon in the network frame (right frame), and the icon in the hierarchical frame (left frame). Either icon can be double-clicked to display the subnet topology.

Assigning Subnet Maps

Each subnet (including the root network) can be assigned a GIF file depicting the subnet map or other graphic icon. To assign a map (or replace an existing map), select **Objects > New Map** from the net view of the appropriate subnet. (See Figure 4-21.) To remove an existing map, select **Objects > Delete Map**.

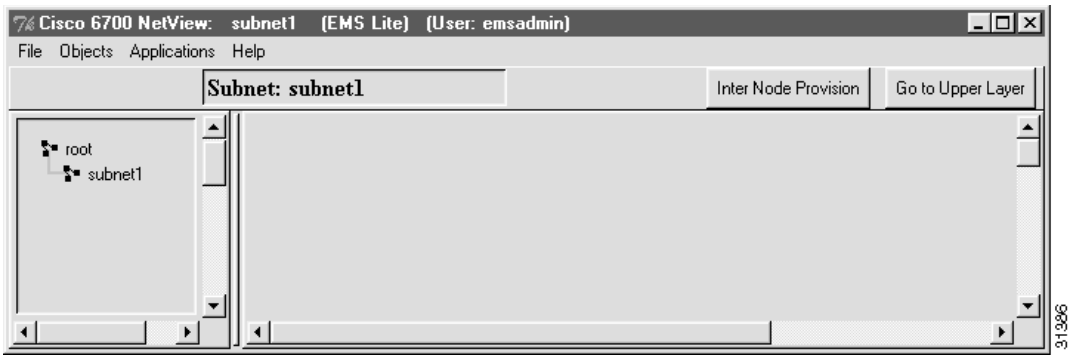
Figure 4-21 Net View Menu



Returning to the Root Network

To return to the root network topology, double-click the **root** icon in the hierarchical (left) frame. (See Figure 4-20.)

Figure 4-22 Subnet View



Alternatively, you can click the **Go To Upper Layer** button, located at the top right of the net view window. This button opens the view for the next-highest network or subnet (as indicated in the hierarchical frame).