Ethernet Menu Tasks

This chapter describes the Ethernet menu tasks for Element Manager and contains these sections:

Note The instructions in this chapter apply only to Server Switches that run Ethernet gateways.

Viewing the Static ARP Table

To view the static ARP table, follow these steps:

Step 1 Click the **Ethernet** menu and choose **ARP**.

The ARP window opens and displays the static ARP table. Table 9-1 describes the fields in this table.

Table 9-1 ARP Table Field Descriptions

Field	Description
Port	Port (in slot#port# format) on your Server Switch to which the host connects.
NetAddress	IP address of the host.
PhysAddress	MAC address of the host.
Type	Type of route between the host and your Server Switch, either static or dynamic.

Adding a Static Address to the ARP Table

To add a static address to the ARP table, follow these steps:

Step 1 Click the **Ethernet** menu and choose **ARP**.

The ARP window opens and displays the static ARP table.

Step 2 Click **Insert Ethernet**.

The Insert static Ethernet ARP window opens.

Step 3 Click the **...** button next to the Port field.

The choose Port window opens.

Step 4 Check the check box of the Ethernet gateway port to which you want to assign the new entry, and then click **OK**.

Step 5 Enter the IP address of the static host in the Net Address field.

Step 6 Enter the MAC address of the static host in the MAC field, and then click **Insert**.

Viewing Ethernet Routes

To view Ethernet routes, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Routes**.

The Routes window opens. Table 9-2 describes the fields in this window.

Table 9-2 Routes Window Field Descriptions

Field	Description
Dest	Destination IP address of the route.
Mask	Subnet mask of the route.
NextHop	IP address of the next hop on the Ethernet route (address of the Ethernet router).
Port	Ethernet gateway port of the route.
Type	Identifies the type of route as direct or indirect.
Proto	Protocol that the route runs.
NextHopAS	Autonomous System Number of the next hop.

Creating an Ethernet Route

To create an Ethernet route, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Routes**.

The Routes window opens.

Step 2 Click **Insert**.

The Insert Routes window opens.

Step 3 Enter the destination IP address in the Dest field.

Step 4 Enter the subnet mask in the Mask field.

Step 5 Enter the IP address of the next hop in the NextHop field, and then click **Insert**.

Deleting an Ethernet Route

To delete an Ethernet route, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Routes**.

The Routes window opens.

Step 2 Click the route to delete, and then click **Delete**.

Viewing IP Addresses

To view IP addresses, follow these steps:

Step 1 Click the **Ethernet** menu and choose **IP Addresses**.

The IP Addresses window opens. Table 9-3 describes the fields in this window.

Table 9-3 IP Addresses Window Field Descriptions

Field	Description
Port	Index value that uniquely identifies the interface to which this entry is applicable.
Address	IP address to which this entry's addressing information pertains.
Netmask	Subnet mask associated with the IP address of this entry.
BcastAddrFormat	IP broadcast address format used on this interface.
ReasmMaxSize	Size of the largest IP datagram which this entity can reassemble from incoming IP fragmented datagrams received on this interface.
Type	Identifies the address as a primary or backup address.
Status	Identifies the port as active or backup.

Viewing Trunk Groups

To view the trunk groups on your Server Switch, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens. Table 9-4 describes the fields in this window.

Table 9-4 Trunking Window Field Descriptions

Field	Description
ID	Trunk group identifier.
Name	Trunk group name.
Port Members	Physical Ethernet gateway ports that belong to this trunk group.
Distribution Type	Packet forwarding distribution algorithm of the trunk group.
Enabled	Identifies the trunk group as enabled or disabled.
MTU	Maximum transmission unit of the trunk group.
MAC Address	MAC address assigned to this trunk group.
IfIndex	Logical port identifier that represents the trunk group.

Creating a Trunk Group

To create a trunk group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens.

Step 2 Click **Insert**.

The Insert Trunk Groups window opens.

Step 3 Enter an integer value (between 1 and 256) in the ID field.

Step 4 Enter a name, with ASCII characters in the Name field.

Step 5 Click the **...** button in the Port Members field.

The choose Ports window opens.

Step 6 Check the check box of any port that you want to add to the trunk group. Uncheck any box that you want to omit from the group. Click **OK**.

Step 7 Choose the radio button of a distribution type in the Distribution Type field.

Step 8 (Optional) Check the **Enabled** check box to enable the new group when you create it. To disable the new group, uncheck the box.

Step 9 Click **Insert**.

The new group appears as a row in the Trunking window.

Deleting a Trunk Group

To delete a trunk group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens.

Step 2 Click the entry of the trunk group that you want to delete, and then click **Delete**.

Editing a Trunk Group

Trunk groups can be edited as follows:

- Changing a Trunk Group Name, page 9-6
- Adding or Removing Physical Ethernet Gateway Ports from a Trunk Group, page 9-6
- Changing the Distribution Type of a Trunk Group, page 9-7
- Enabling or Disabling a Trunk Group, page 9-7

Changing a Trunk Group Name

To change a trunk group name, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens.

Step 2 Double-click the cell in the Name column of the entry with a name that you want to change.

The cell becomes editable.

Step 3 Enter the new trunk group name, and then press the **Enter** key.

Step 4 Click **Apply**.

Note You can make multiple changes before you click **Apply**, but you must click it to make the changes in the configuration file on the Server Switch.

Adding or Removing Physical Ethernet Gateway Ports from a Trunk Group

To add or remove physical Ethernet gateway ports from a trunk group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens.

Step 2 Double-click the cell in the Port Members column of the entry to which you want to add or remove ports.

The choose Ports window opens.

Step 3 Check the check boxes in the Choose Ports window of ports to add to the group. Uncheck the boxes of ports to remove. Click **OK**.

Step 4 Click **Apply**.

Note You can make multiple changes before you click **Apply**, but you must click it to make the changes in the configuration file on the Server Switch.

Changing the Distribution Type of a Trunk Group

To change the distribution type of a trunk group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens.

Step 2 Click the cell in the Distribution Type column of the trunk group with a distribution type that you want to change.

A drop-down menu appears.

Step 3 Choose a new distribution type from the drop-down menu.

Step 4 Click **Apply**.

Note You can make multiple changes before you click **Apply**, but you must click it to make the changes in the configuration file on the Server Switch.

Enabling or Disabling a Trunk Group

To enable or disable a trunk group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Trunking**.

The Trunking window opens.

Step 2 Click the cell in the Enabled column of the trunk group with the enabled/disabled status that you want to change.

A drop-down menu appears.

Step 3 Choose **true** (to enable) or **false** (to disable) from the drop-down menu.

Step 4 Click **Apply**.

Note You can make multiple changes before you click **Apply**, but you must click it to make the changes in the configuration file on the Server Switch.

Viewing Bridge Groups

To view the bridge groups on the Server Switch, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Bridging**.

The Bridging window opens. Table 9-5 explains the fields in this window.

Table 9-5 Bridging Window Field Descriptions

Field	Description
ID	Unique numeric identifier of the bridge group.
Name	Name in ASCII characters, of the bridge group.
Ethernet Port	Ethernet interface that is assigned to this bridge group. A value of zero (0) means that no interface is currently assigned.
IB Port	InfiniBand interface that is assigned to this bridge group. A value of zero (0) means that no interface is currently assigned.
Broadcast Forwarding	Configures whether this bridge group should forward broadcast packets. Enabling broadcast forwarding can cause broadcast storms in a network if the network is not configured properly.
Broadcast Forwarding Mode	Active broadcast forwarding mode.
Loop Protection Method	Loop protection method of this bridge group.
IP Multicast	Specifies if the group forwards IP-V4 multicast packets.
IP Multicast Mode	Active IP multicast mode.
Redundancy Group	Redundancy group to which this bridge group is assigned.
Admin Failover Priority	Failover priority of the bridge group.
Oper Failover Priority	Active failover priority of the bridge group.

Creating a Bridge Group

To create a bridge group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Bridging**.

The Bridging window opens

Step 2 Click **Add**.

The Add Bridge Group window opens.

Step 3 (Optional) Enter an integer in the **ID** field to assign a numeric identifier to the bridge group.

Element Manager automatically populates this field.

Step 4 Enter a plain-text identifier of ASCII characters in the Name field.

Step 5 Click the **Groups** tab.

Step 6 Click **Select** in the Ethernet Port field.

The Bridge Port window opens.

Step 7 From the Port drop-down menu, choose the Ethernet gateway port to assign to the bridge group.

Step 8 (Optional) Enter the VLAN in the VLAN field of the Ethernet gateway port to assign to the bridge group.

Step 9 Click **OK**.

Step 10 Click **Select** in the InfiniBand Port field.

The Bridge Port window opens.

Step 11 From the Port drop-down menu, choose the internal InfiniBand port on the Ethernet gateway to assign to the bridge group.

Step 12 Enter the partition key in the P_Key field of the partition to add the internal port.

Step 13 Click **OK**.

Step 14 (Optional) Check the **Enabled** check box in the Broadcast Forwarding field to enable broadcast forwarding.

Step 15 Choose **one** or **none** from the drop-down menu in the Loop Protection Method field.

Step 16 (Optional) Check the **Enabled** check box in the IP Multicast field to enable IP multicasting.

Step 17 Click **Add**.

Deleting a Bridge Group

To delete a bridge group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Bridging**.

The Bridging window opens.

Step 2 Click the bridge group entry that you want to delete, and then click **Delete**.

Adding Bridge Forwarding to a Bridge Group

To add a bridge group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Bridging**.

The Bridging window opens

Step 2 Click the bridge group to which you want to add bridge forwarding, and then click **Edit**.

The Edit Bridge Group window opens.

Step 3 Click the **Forwarding** tab.

Step 4 Click **Add**.

The Add Bridge Forwarding window opens.

Step 5 Choose **eth** or **ib** from the drop-down menu in the Port Type field.

Step 6 Enter the destination IP address in the Destination Address field.

Step 7 Enter an integer value from 0 to 32 in the Destination Length field.

Step 8 Enter the IP address of the next hop in the Next Hop field.

Step 9 Enter the subnet prefix of the next hop in the Subnet Prefix field.

Step 10 Enter an integer value from 0 to 32 in the Prefix Length field.

Step 11 Click **Add**.

Adding a Subnet to a Bridge Group

To add a subnet to a bridge group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Bridging**.

The Bridging window opens

Step 2 Click the bridge group to which you want to add bridge forwarding, and then click **Edit**.

The Edit Bridge Group window opens.

Step 3 Click the **Subnet** tab.

Step 4 Click **Add**.

The Add Subnet window opens.

Step 5 Enter a subnet prefix in the Subnet Prefix field.

Step 6 Enter an integer value from 0 to 32 in the Prefix Length field.

Step 7 Click **Add**.

Viewing Redundancy Groups

To view the redundancy groups on your Server Switch, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Redundancy**.

The Redundancy Groups window opens. Table 9-6 describes the fields in this window.

Table 9-6 Redundancy Groups Window Field Descriptions

Field	Description
Group ID	Unique numerical identifier of the redundancy group.
Name	ASCII-text name of the redundancy group.
Group P_Key	16-bit multicast partition key used by this redundancy group.
Load Balancing	Used to enable/disable load balancing for this bridge group.

Table 9-6 Redundancy Groups Window Field Descriptions (continued)

Field	Description
Bridge Group Members	Indicates the bridge groups that are assigned to this redundancy group.
Broadcast Forwarding	Displays true if broadcast forwarding is enabled, otherwise displays false.
IP Multicast	Displays true if multicast forwarding is enabled, otherwise displays false.
Member Force Reelection	Displays true if the group is configured to reelect a new primary when a new member joins, otherwise displays false.

Creating a Redundancy Group

To create a redundancy group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Redundancy**.

The Redundancy Groups window opens.

Step 2 Click **Add**.

The Add Redundancy Group window opens.

Step 3 (Optional) Enter an integer value in the ID field. Element Manager automatically populates this field.

Step 4 Enter a name for the redundancy group in the Name field.

Step 5 (Optional) Check the **Enabled** check box in the Load Balancing field to apply load balancing to this redundancy group.

Step 6 (Optional) Check the **Enabled** check box in the Broadcast Forwarding field to apply broadcast forwarding to this redundancy group.

Step 7 (Optional) Check the **Enabled** check box in the IP Multicast field to apply the multicast forwarding feature to this redundancy group.

Step 8 (Optional) Check the **Enabled** check box in the Member Force Reelection field to force the redundancy group to elect a new primary when a new member joins.

Step 9 Click **Add Member**.

The Add Member window opens.

Step 10 Choose a bridge group from the Bridge Group drop-down menu.

Step 11 Click **Add**.

The entry appears in the Members field.

Step 12 (Optional) Repeat Step 9 through Step 11 to add additional members.

Step 13 Click **Apply**.

Editing a Redundancy Group

To edit a redundancy group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Redundancy**.

The Redundancy Groups window opens.

Step 2 Click the entry of the redundancy group to edit, and then click **Edit**.

The Edit Redundancy Group window opens.

Step 3 (Optional) Change the name in the Name field.

Step 4 (Optional) Check or uncheck **Enabled** in the Load Balancing field.

Step 5 (Optional) Check or uncheck **Enabled** in the Broadcast Forwarding field.

Step 6 (Optional) Check or uncheck **Enabled** in the IP Multicast field.

Step 7 (Optional) Check or uncheck **Enabled** in the Member Force Reelection field.

Step 8 (Optional) Click a bridge group member, and then click **Remove** to remove a bridge group member.

Step 9 (Optional) Click **Add Member** to add a bridge group member. (See the "Creating a Redundancy Group" section on page 9-12.

Step 10 Click **Apply**.

Deleting a Redundancy Group

To delete a redundancy group, follow these steps:

Step 1 Click the **Ethernet** menu and choose **Redundancy**.

The Redundancy Groups window opens.

Step 2 Click the entry of the redundancy group that you want to delete, and then click **Delete**.

The Delete Redundancy Group window opens.

Step 3 Click **Yes**.