



Configuring Ports

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Server and Uplink Ports on the Fabric Interconnect

Each fabric interconnect has a set of ports in a fixed port module that you can configure as either server ports or uplink Ethernet ports. These ports are not reserved. They cannot be used by a Cisco UCS instance until you configure them. You can add expansion modules to increase the number of uplink ports on the fabric interconnect, or to add uplink Fibre Channel ports to the fabric interconnect.

You need to create LAN pin groups and SAN pin groups to pin traffic from servers to an uplink port.

Each fabric interconnect can include the following types of ports:

- | | |
|------------------------------|--|
| Server Ports | Server ports handle data traffic between the fabric interconnect and the adapter cards on the servers.

You can only configure server ports on the fixed port module. Expansion modules do not include server ports. |
| Uplink Ethernet Ports | Uplink Ethernet ports handle Ethernet traffic between the fabric interconnect and the next layer of the network. All network-bound Ethernet traffic is pinned to one of these ports. |

You can configure uplink Ethernet ports on either the fixed module or an expansion module.

Uplink Fibre Channel Ports Uplink Fibre Channel ports handle FCoE traffic between the fabric interconnect and the next layer of the network. All network-bound FCoE traffic is pinned to one of these ports.

You can only configure uplink Fibre Channel ports on an expansion module. The fixed module does not include uplink Fibre Channel ports.

Configuring Server Ports

You can only configure server ports on the fixed port module. Expansion modules do not include server ports.

This task describes only one method of configuring ports. You can also configure ports from a right-click menu, from the **General** tab for the port, or in the LAN Uplinks Manager.

Procedure

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- Step 1** In the **Navigation** pane, click the **Equipment** tab.
 - Step 2** In the **Equipment** tab, expand **Fabric Interconnects** ► *Fabric Interconnect_Name* ► **Fixed Module** ► **Unconfigured Ports** .
 - Step 3** Click one or more ports under the **Unconfigured Ports** node.
 - Step 4** Drag the selected port or ports and drop them in the **Server Ports** node.
The port or ports are configured as server ports, removed from the list of unconfigured ports, and added to the **Server Ports** node.
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Configuring Uplink Ethernet Ports

You can configure uplink Ethernet ports on either the fixed module or an expansion module.

This task describes only one method of configuring uplink Ethernet ports. You can also configure uplink Ethernet ports from a right-click menu or from the **General** tab for the port.

Procedure

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- Step 1** In the **Navigation** pane, click the **Equipment** tab.
 - Step 2** On the **Equipment** tab, expand **Equipment** ► **Fabric Interconnects** ► *Fabric_Interconnect_Name*.
 - Step 3** Depending upon the location of the ports you want to configure, expand one of the following:
 - **Fixed Module**
 - **Expansion Module**

- Step 4** Click one or more of the ports under the **Unconfigured Ports** node.
- Step 5** Drag the selected port or ports and drop them in the **Uplink Ethernet Ports** node.
The port or ports are configured as uplink Ethernet ports, removed from the list of unconfigured ports, and added to the **Uplink Ethernet Ports** node.
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Reconfiguring a Port on a Fabric Interconnect

Procedure

- Step 1** In the **Navigation** pane, click the **Equipment** tab.
- Step 2** On the **Equipment** tab, expand **Equipment** ► **Fabric Interconnects** ► *Fabric_Interconnect_Name*.
- Step 3** Depending upon the location of the ports you want to reconfigure, expand one of the following:
- **Fixed Module**
 - **Expansion Module**
- Step 4** Click the port or ports you want to reconfigure.
- Step 5** Drag the selected port or ports and drop them in the appropriate node.
The port or ports are reconfigured as the appropriate type of port, removed from the original node, and added to the new node.
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Example: Reconfiguring an Uplink Ethernet Port as a Server Port

- 1 Expand the **Uplink Ethernet Ports** node and select the port you want to reconfigure.
- 2 Drag the port and drop it into the **Server Ports** node.

Enabling a Port on a Fabric Interconnect

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
- Step 2** On the **LAN** tab, expand **LAN** ► **LAN Cloud**.
- Step 3** Expand *Fabric_Interconnect_Name* ► **Ports**.
- Step 4** Right-click the port that you want to enable and choose **Enable Port**.
- Step 5** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
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Disabling a Port on a Fabric Interconnect

Procedure

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- Step 1** In the **Navigation** pane, click the **LAN** tab.
 - Step 2** On the **LAN** tab, expand **LAN** ► **LAN Cloud**.
 - Step 3** Expand *Fabric_Interconnect_Name* ► **Ports**.
 - Step 4** Right-click the port that you want to disable and choose **Disable Port**.
 - Step 5** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
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Unconfiguring a Port on a Fabric Interconnect

Procedure

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- Step 1** In the **Navigation** pane, click the **Equipment** tab.
 - Step 2** On the **Equipment** tab, expand **Equipment** ► **Fabric Interconnects** ► *Fabric_Interconnect_Name*.
 - Step 3** Depending upon the location of the ports you want to unconfigure, expand one of the following:
 - **Fixed Module**
 - **Expansion Module**
 - Step 4** Click the port or ports you want to unconfigure.
 - Step 5** Drag the selected port or ports and drop them in the **Unconfigured Ports** node.
The port or ports are unconfigured, removed from the original node, and added to the new node.
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Uplink Ethernet Port Channels

An uplink Ethernet port channel allows you to group several physical uplink Ethernet ports (link aggregation) to create one logical Ethernet link for the purpose of providing fault-tolerance and high-speed connectivity. In Cisco UCS Manager, you create a port channel first and then add uplink Ethernet ports to the port channel. You can add up to eight uplink Ethernet ports to a port channel.



Note

Cisco UCS uses Link Aggregation Control Protocol (LACP), not Port Aggregation Protocol (PAgP), to group the uplink Ethernet ports into a port channel.

Creating an Uplink Ethernet Port Channel

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
- Step 2** On the **LAN** tab, expand **LAN ► LAN Cloud**.
- Step 3** Expand the node for the fabric interconnect where you want to add the port channel.
- Step 4** Right-click the **Port Channels** node and choose **Add Ports**.
- Step 5** In the **Set Port Channel Name** page of the **Create Port Channel** wizard, do the following:

- a) Complete the following fields:

Name	Description
ID field	The identifier for the port channel.
Name field	A user-defined name for the port channel. This name can be between 1 and 16 alphanumeric characters. You cannot use spaces or any special characters, and you cannot change this name after the object has been saved.

- b) Click **Next**.

- Step 6** In the **Add Ports** page of the **Create Port Channel** wizard, do the following:
- a) In the **Ports** table, choose one or more ports to include the port channel.
- b) Click the **>>** button to add the ports to the **Ports in the port channel** table.
You can use the **<<** button to remove ports from the port channel.

Note Cisco UCS Manager warns you if you select a port that has been configured as a server port. You can click **Yes** in the dialog box to reconfigure that port as an uplink Ethernet port and include it in the port channel.

- Step 7** Click **Finish**.

Enabling an Uplink Ethernet Port Channel

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
- Step 2** On the **LAN** tab, expand **LAN ► LAN Cloud**.
- Step 3** Expand the node for the fabric interconnect that includes the port channel you want to enable.
- Step 4** Expand the **Port Channels** node.
- Step 5** Right-click the port channel you want to enable and choose **Enable Port Channel**.

Disabling an Uplink Ethernet Port Channel

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
 - Step 2** On the **LAN** tab, expand **LAN ► LAN Cloud**.
 - Step 3** Expand the node for the fabric interconnect that includes the port channel you want to disable.
 - Step 4** Expand the **Port Channels** node.
 - Step 5** Right-click the port channel you want to disable and choose **Enable Port Channel**.
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Adding Ports to an Uplink Ethernet Port Channel

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
 - Step 2** On the **LAN** tab, expand **LAN ► LAN Cloud**.
 - Step 3** Expand the node for the fabric interconnect that includes the port channel to which you want to add ports.
 - Step 4** Right-click the port channel and choose **Add Ports**.
 - Step 5** In the **Add Ports** dialog box:
 - a) In the **Ports** table, chose one or more ports to include the port channel.
 - b) Click the **>>** button to add the ports to the **Ports in the port channel** table.
You can use the **<<** button to remove ports from the port channel.
 - c) Click **Finish**.
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Removing Ports from an Uplink Ethernet Port Channel

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
 - Step 2** On the **LAN** tab, expand **LAN ► LAN Cloud**.
 - Step 3** Expand **Fabric_Interconnect_Name ► Port Channels ► Port_Channel_ID**.
 - Step 4** Right-click the port you want to remove from the port channel and choose **Delete**.
 - Step 5** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
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Deleting an Uplink Ethernet Port Channel

Procedure

- Step 1** In the **Navigation** pane, click the **LAN** tab.
 - Step 2** On the **LAN** tab, expand **LAN** ► **LAN Cloud**.
 - Step 3** Expand the node for the fabric interconnect where you want to delete the port channel.
 - Step 4** Click the **Port Channels** node.
 - Step 5** In the **General** tab for the **Port Channels** node, choose the port channel you want to delete.
 - Step 6** Right-click the port channel and choose **Delete**.
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Configuring Server Ports with the Internal Fabric Manager

Internal Fabric Manager

The Internal Fabric Manager provides a single interface where you can configure server ports for a fabric interconnect in a Cisco UCS instance. The Internal Fabric Manager is accessible from the **General** tab for that fabric interconnect.

Some of the configuration that you can do in the Internal Fabric Manager can also be done in nodes on the **Equipment** tab, on the **LAN** tab, or in the LAN Uplinks Manager.

Launching the Internal Fabric Manager

Procedure

- Step 1** In the **Navigation** pane, click the **Equipment** tab.
 - Step 2** On the **Equipment** tab, expand **Equipment** ► **Fabric Interconnects** ► *Fabric_Interconnect_Name*.
 - Step 3** Click **Fixed Module**.
 - Step 4** In the **Work** pane, click **Internal Fabric Manager** in the **Actions** area. The Internal Fabric Manager opens in a separate window.
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Configuring a Server Port with the Internal Fabric Manager

Procedure

- Step 1** In the Internal Fabric Manager, click the down arrows to expand the **Unconfigured Ports** area.
 - Step 2** Right-click the port that you want to configure and choose **Configure as Server Port**.
 - Step 3** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
 - Step 4** If you have completed all tasks in the Internal Fabric Manager, click **OK**.
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Unconfiguring a Server Port with the Internal Fabric Manager

Procedure

- Step 1** In the Internal Fabric Manager, click the server port in the **Server Ports** table.
 - Step 2** Click **Unconfigure Port**.
 - Step 3** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
 - Step 4** If you have completed all tasks in the Internal Fabric Manager, click **OK**.
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Enabling a Server Port with the Internal Fabric Manager

Procedure

- Step 1** In the Internal Fabric Manager, click the server port in the **Server Ports** table.
 - Step 2** Click **Enable Port**.
 - Step 3** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
 - Step 4** If you have completed all tasks in the Internal Fabric Manager, click **OK**.
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Disabling a Server Port with the Internal Fabric Manager

Procedure

- Step 1** In the Internal Fabric Manager, click the server port in the **Server Ports** table.
 - Step 2** Click **Disable Port**.
 - Step 3** If Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
 - Step 4** If you have completed all tasks in the Internal Fabric Manager, click **OK**.
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