Configuring Ports

This chapter includes the following sections:

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.

Server Ports

Configuring a Server Port

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

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope eth-server**	Enters Ethernet server mode.
Step 2	UCS-A /eth-server # **scope fabric** {**a** | **b**}	Enters Ethernet server fabric mode for the specified fabric.
Step 3	UCS-A /eth-server/fabric # **create interface** *slot-num port-num*	Creates an interface for the specified Ethernet server port.
Step 4	UCS-A /eth-server/fabric # **commit-buffer**	Commits the transaction to the system configuration.

The following example creates an interface for Ethernet server port 35 on slot 3 of fabric B, and commits the transaction:

```
UCS-A# scope eth-server
UCS-A /eth-server # scope fabric b
UCS-A /eth-server/fabric # create interface 1 12
UCS-A /eth-server/fabric* # commit-buffer
UCS-A /eth-server/fabric #
```

Deleting a Server Port

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope eth-server**	Enters Ethernet server mode.
Step 2	UCS-A /eth-server # **scope fabric** {**a** | **b**}	Enters Ethernet server fabric mode for the specified fabric.
Step 3	UCS-A /eth-server/fabric # **delete interface** *slot-num port-num*	Deletes the interface for the specified Ethernet server port.
Step 4	UCS-A /eth-server/fabric # **commit-buffer**	Commits the transaction to the system configuration.

The following example deletes the interface for Ethernet server port 35 on slot 3 of fabric B, and commits the transaction:

```
UCS-A# scope eth-server
UCS-A /eth-server # scope fabric b
```

```
UCS-A /eth-server/fabric # delete interface 1 12
UCS-A /eth-server/fabric* # commit-buffer
UCS-A /eth-server/fabric #
```

Uplink Ethernet Ports

Configuring an Uplink Ethernet Port

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

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope eth-uplink**	Enters Ethernet uplink mode.
Step 2	UCS-A /eth-uplink # **scope fabric** {**a** | **b**}	Enters Ethernet uplink fabric mode for the specified fabric.
Step 3	UCS-A /eth-uplink/fabric # **create interface** *slot-num port-num*	Creates an interface for the specified Ethernet uplink port.
Step 4	UCS-A /eth-uplink/fabric # **commit-buffer**	Commits the transaction to the system configuration.

The following example creates an interface for Ethernet uplink port 3 on slot 2 of fabric B, and commits the transaction:

```
UCS-A# scope eth-uplink
UCS-A /eth-uplink # scope fabric b
UCS-A /eth-uplink/fabric # create interface 2 3
UCS-A /eth-uplink/fabric* # commit-buffer
UCS-A /eth-uplink/fabric #
```

Deleting an Uplink Ethernet Port

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope eth-uplink**	Enters Ethernet uplink mode.
Step 2	UCS-A /eth-uplink # **scope fabric** {**a** | **b**}	Enters Ethernet uplink fabric mode for the specified fabric.
Step 3	UCS-A /eth-uplink/fabric # **delete interface** *slot-num port-num*	Deletes the interface for the specified Ethernet uplink port.
Step 4	UCS-A /eth-uplink/fabric # **commit-buffer**	Commits the transaction to the system configuration.

The following example deletes the interface for Ethernet uplink port 3 on slot 2 of fabric B, and commits the transaction:

```
UCS-A# scope eth-uplink
UCS-A /eth-uplink # scope fabric b
UCS-A /eth-uplink/fabric # delete interface 2 3
UCS-A /eth-uplink/fabric* # commit-buffer
UCS-A /eth-uplink/fabric #
```

Uplink Ethernet Port Channels

Configuring an Uplink Ethernet Port Channel

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope eth-uplink**	Enters Ethernet uplink mode.
Step 2	UCS-A /eth-uplink # **scope fabric** {**a** | **b** }	Enters Ethernet uplink fabric mode for the specified fabric.
Step 3	UCS-A /eth-uplink/fabric # **create port-channel** *port-num*	Creates a port channel on the specified Ethernet uplink port, and enters Ethernet uplink fabric port channel mode.
Step 4	UCS-A /eth-uplink/fabric/port-channel # {**enable** | **disable**}	(Optional) Enables or disables the administrative state of the port channel. The port channel is disabled by default.
Step 5	UCS-A /eth-uplink/fabric/port-channel # **set name** *port-chan-name*	(Optional) Specifies the name for the port channel.
Step 6	UCS-A /eth-uplink/fabric/port-channel # **set flow-control-policy** *policy-name*	(Optional) Assigns the specified flow control policy to the port channel.
Step 7	UCS-A /eth-uplink/fabric/port-channel # **commit-buffer**	Commits the transaction to the system configuration.

The following example creates a port channel on port 13 of fabric A, sets the name to portchan13a, enables the administrative state, assigns the flow control policy named flow-con-pol432 to the port channel, and commits the transaction:

```
UCS-A# scope eth-uplink
UCS-A /eth-uplink # scope fabric a
UCS-A /eth-uplink/fabric # create port-channel 13
UCS-A /eth-uplink/fabric/port-channel* # set name portchan13a
UCS-A /eth-uplink/fabric/port-channel* # enable
UCS-A /eth-uplink/fabric/port-channel* # set flow-control-policy flow-con-pol432
UCS-A /eth-uplink/fabric/port-channel* # commit-buffer
UCS-A /eth-uplink/fabric/port-channel #
```

Deleting an Uplink Ethernet Port Channel

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope eth-uplink**	Enters Ethernet uplink mode.
Step 2	UCS-A /eth-uplink # **scope fabric** {**a**	**b** }	Enters Ethernet uplink fabric mode for the specified fabric.
Step 3	UCS-A /eth-uplink/fabric # **delete port-channel** *port-num*	Deletes the port channel on the specified Ethernet uplink port.
Step 4	UCS-A /eth-uplink/fabric # **commit-buffer**	Commits the transaction to the system configuration.

The following example deletes the port channel on port 13 of fabric A, and commits the transaction:

```
UCS-A# scope eth-uplink
UCS-A /eth-uplink # scope fabric a
UCS-A /eth-uplink/fabric # delete port-channel 13
UCS-A /eth-uplink/fabric* # commit-buffer
UCS-A /eth-uplink/fabric #
```

Adding a Member Port to an Uplink Ethernet Port Channel

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope eth-uplink**	Enters Ethernet uplink mode.
Step 2	UCS-A /eth-uplink # **scope fabric** {**a**	**b** }	Enters Ethernet uplink fabric mode for the specified fabric.
Step 3	UCS-A /eth-uplink/fabric # **scope port-channel** *port-num*	Enters Ethernet uplink fabric port channel mode for the specified port channel.
Step 4	UCS-A /eth-uplink/fabric/port-channel # **create member-port** *slot-num port-num*	Creates the specified member port from the port channel and enters Ethernet uplink fabric port channel member port mode.
Step 5	UCS-A /eth-uplink/fabric/port-channel # **commit-buffer**	Commits the transaction to the system configuration.

The following example adds the member port on slot 1, port 7 to the port channel on port 13 of fabric A, and commits the transaction.

```
UCS-A# scope eth-uplink
UCS-A /eth-uplink # scope fabric a
UCS-A /eth-uplink/fabric # scope port-channel 13
UCS-A /eth-uplink/fabric # create member-port 1 7
```

```
UCS-A /eth-uplink/fabric/port-channel* # commit-buffer
UCS-A /eth-uplink/fabric/port-channel #
```

Deleting a Member Port to an Uplink Ethernet Port Channel

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope eth-uplink**	Enters Ethernet uplink mode.
Step 2	UCS-A /eth-uplink # **scope fabric {a | b }**	Enters Ethernet uplink fabric mode for the specified fabric.
Step 3	UCS-A /eth-uplink/fabric # **scope port-channel** *port-num*	Enters Ethernet uplink fabric port channel mode for the specified port channel.
Step 4	UCS-A /eth-uplink/fabric/port-channel # **delete member-port** *slot-num port-num*	Deletes the specified member port from the port channel.
Step 5	UCS-A /eth-uplink/fabric/port-channel # **commit-buffer**	Commits the transaction to the system configuration.

The following example deletes a member port from the port channel on port 13 of fabric A, and commits the transaction:

```
UCS-A# scope eth-uplink
UCS-A /eth-uplink # scope fabric a
UCS-A /eth-uplink/fabric # scope port-channel 13
UCS-A /eth-uplink/fabric/port-channel # delete member-port 1 7
UCS-A /eth-uplink/fabric/port-channel* # commit-buffer
UCS-A /eth-uplink/fabric/port-channel #
```