

Configuring Gigabit Ethernet Interfaces (CLI Procedure)

An Ethernet interface must be configured for optimal performance in a high-traffic network. EX-series switches include a factory default configuration that:

- Enables all the network interfaces on the switch
- Sets a default port mode (access)
- Sets default link settings
- Specifies a logical unit (unit 0) and assigns it to family `ethernet-switching`
- Specifies Spanning Tree Protocol (STP) and Link Layer Discovery Protocol (LLDP)

This topic describes:

- Configuring VLAN Options and Port Mode on page 1
- Configuring the Link Settings on page 1
- Configuring the IP Options on page 2

Configuring VLAN Options and Port Mode

The factory default configuration includes a default VLAN and enables interfaces for the access port mode. Access interfaces typically connect to network devices such as PCs, printers, IP telephones, and IP cameras.

If you are connecting a desktop phone or wireless access point or a security camera to a PoE port, you can configure some parameters for the PoE interface. The PoE interfaces are enabled by default. For detailed information on the PoE settings, see *Configuring PoE (CLI Procedure)*.

If you are connecting a device to other switches and to routers on the LAN, you need to assign the interface to a logical port and you need to configure the logical port as a trunk port. See *Port Role Configuration with the J-Web Interface—CLI Reference* for more information about port configuration.

To configure a Gigabit Ethernet interface or 10-Gigabit Ethernet interface for trunk port mode:

```
[edit]
user@switch#set interfaces interface-name unit logical-unit-number family
ethernet-switching port-mode trunk
```

Configuring the Link Settings

EX-series switches include a factory default configuration that enables interfaces with the following link settings:

- All the Gigabit Ethernet interfaces are set to **auto-negotiation**.
- The speed for Gigabit Ethernet interfaces is set to **auto**, allowing the interface to operate at 10m, 100m or 1g. The link operates at the highest possible speed, depending on the capabilities of the remote end.
- The flow control for Gigabit Ethernet interfaces and 10-Gigabit Ethernet interfaces is set to **enabled**.
- The link mode is set to **auto**, allowing the interface to operate as either full duplex or half duplex. The link operates as full duplex unless this mode is not supported at the remote end.
- The 10-Gigabit Ethernet interfaces (for the EX-UM-2XFP uplink module) default to **no auto-negotiation**. The default speed is 10g and the default link mode is full duplex.

To configure the link settings:

- Set link settings for a Gigabit Ethernet interface:

```
[edit]
user@switch# set interfaces ge-fpc/pic/port ether-options
```

- Set link settings for a 10-Gigabit Ethernet interface:

```
[edit]
user@switch# set interfaces xe-fpc/1/port ether-options
```



NOTE: An uplink module in an EX-series switch is always PIC 1. The 10-Gigabit Ethernet interface is available only with the EX-UM-2XFP uplink module.

The ether-options statement allows you to modify the configuration for:

- 802.3ad—Specify an aggregated Ethernet bundle. See Configuring Aggregated Ethernet Interfaces (CLI Procedure).
- auto-negotiation—Enable or disable auto-negotiation of flow control, link mode, and speed.
- flow-control—Enable or disable flow control.
- link-mode—Specify **full-duplex**, **half-duplex**, or **automatic**.
- speed—Specify **10m**, **100m**, **1g**, or **autonegotiation**.

Configuring the IP Options

To specify an IP address for the logical unit:

```
[edit]
```

```
user@switch# set interfaces interface-name unit logical-unit-number family inet  
address ip-address
```

- Related Topics**
- Configuring Gigabit Ethernet Interfaces (J-Web Procedure)
 - Monitoring Interface Status and Traffic
 - show interfaces
 - show interfaces
 - Understanding Interface Naming Conventions on EX-series Switches

