

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` (except on EX8200 switches)
- Specifies Rapid Spanning Tree Protocol (RSTP) and Link Layer Discovery Protocol (LLDP)

This topic describes:

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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 Power over Ethernet (PoE) port, you can configure some parameters for the PoE interface. The PoE interfaces are enabled by default. For detailed information on 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 configure the logical port as a trunk port. See [Port Role Configuration with the J-Web Interface \(with CLI References\)](#) 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 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 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 port in an EX2200, EX3200, and EX4200 switch always has a PIC value of 1. An uplink port in an EX4500 switch has a PIC value of 1 if it is on the left-hand uplink module and a PIC value of 2 if it is on the right-hand uplink module.

For an EX2200, EX3200, or EX4500 switch or an EX4200 standalone switch, *fpc* refers to the switch itself and is always 0. In a Virtual Chassis configuration, *fpc* refers to the member ID. In an EX8200 switch, *fpc* refers to the line card number.

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

- **802.3ad**—Specify an aggregated Ethernet bundle. See [Configuring Aggregated Ethernet Interfaces \(CLI Procedure\)](#).
- **auto-negotiation**—Enable or disable autonegotiation 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 using IPv4:

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

To specify an IP address for the logical unit using IPv6:

```
[edit]
user@switch# set interfaces interface-name unit logical-unit-number family inet6
address ip-address
```



NOTE: Access interfaces on EX2200, EX3200, EX4200, and EX4500 switches are set to **family ethernet-switching** by default. You might have to delete this or another user-configured family setting before changing the setting to **family inet** or **family inet6**.

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

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