

## EX-series Switches Interfaces Overview

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EX-series switches have two types of interfaces: network and special interfaces. This topic provides brief information on these interfaces. For additional information, see the *JUNOS Software Network Interfaces Configuration Guide* at <http://www.juniper.net/techpubs/software/junos/junos90/index.html>.

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### Network Interfaces

Network interfaces connect to the network and carry network traffic. EX-series switches support the following types of network interfaces:

- LAN access interfaces—EX-series switches provide either 24 or 48 network ports, depending on the switch model. These ports can be used to connect a personal computer, laptop, file server, or printer to the network. When you power on an EX-series switch and use the factory-default configuration, the software automatically configures interfaces in access mode for each of the network ports. The default configuration also enables auto-negotiation for both speed and for link mode.
- Trunk interfaces—EX-series access switches can be connected to a distribution switch or customer edge (CE) router. To use a port for this type of connection, you must explicitly configure the port interface for trunk mode. The interfaces from the distribution switch to the access switches should also be configured for trunk mode.
- Power over Ethernet (PoE) interfaces— EX-series switches provide PoE network ports with the various switch models providing either 8, 24, or 48 PoE ports. These ports can be used to connect VoIP telephones, wireless access points, video cameras, and point-of-sale devices to safely receive power from the same access ports that are used to connect personal computers to the network. PoE interfaces are enabled by default in the factory configuration.
- Aggregated Ethernet interfaces—EX 3200 and EX 4200 switches allow you to group Ethernet interfaces at the physical layer to form a single link layer interface, also known as a *link aggregation group (LAG)* or *bundle*. These aggregated Ethernet interfaces help to balance traffic and increase the uplink bandwidth.

### Special Interfaces

Special interfaces include:

- Virtual chassis port (VCP) interfaces—Each EX 4200 switch has two dedicated *virtual chassis ports (VCPs)* on its rear panel. These ports can be used to interconnect two to ten EX 4200 switches as a *virtual chassis*, which functions as a single network entity. See Understanding the High-Speed Interconnection of the Virtual Chassis Members. When you power on EX-series switches that are interconnected in this manner, the software automatically configures the VCP interfaces for the dedicated ports that have been interconnected. These VCP interfaces, which are called **vcp-0** and **vcp-1**, are not configurable or modifiable. It is also possible to interconnect EX 4200 switches across wider distances (up to 40 km) by using the EX-UM-2XFP uplink module ports. To use an EX-UM-2XFP uplink module port as a virtual chassis port, you must explicitly set the uplink VCP interface using the request virtual-chassis vc-port command.
- Management interface—The JUNOS software for EX-series switches automatically creates the switch's management Ethernet interface, **me0**. The management Ethernet interface provides an out-of-band method for connecting to the switch. To use **me0** as a management port, you must configure its logical port, **me0.0**, with a valid IP address. You can connect to the management interface over the network using utilities such as ssh and telnet. Simple Network Management Protocol (SNMP) can use the management interface to gather statistics from the switch. (The management interface **me0** is analogous to the **fxp0** interfaces on JUNOS routers.)
- Virtual Management Ethernet (VME) interface—On EX 4200 series switches, there is a VME interface. This is a logical interface that is used for virtual chassis configurations and allows you to manage all the members of the virtual chassis through the master. For more information on VME, see Understanding Global Management of a Virtual Chassis Configuration.
- Console port—Each EX-series switch has a serial port, labeled console, for connecting tty-type terminals to the switch using standard PC-type tty cables. The console port does not have a physical address or IP address associated with it. However, it is an interface in the sense that it provide access to the switch. On EX 4200 switches that are configured as a virtual chassis, you can access the master and configure all members of the virtual chassis through any member's console port. For more information on the console port in a virtual chassis, see Understanding Global Management of a Virtual Chassis Configuration.
- Loopback—A software-only virtual interface that is always up. This interface provides a stable and consistent interface and IP address on the switch.

#### Related Topics

- EX 3200 and EX 4200 Switches Hardware Overview
- PoE and EX-series Switches Overview
- Understanding Interface Naming Conventions on EX-series Switches
- Understanding Aggregated Ethernet Interfaces and LACP
- Understanding Layer 3 Subinterfaces
- Example: Configuring Aggregated Ethernet High-Speed Uplinks Between a Virtual Chassis Access Switch and a Virtual Chassis Distribution Switch
- Example: Configuring Aggregated Ethernet High-Speed Uplinks with LACP Between a Virtual Chassis Access Switch and a Virtual Chassis Distribution Switch