



Configuring Ethernet Management Port

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

Prerequisites for Ethernet Management Ports

When connecting a PC to the Ethernet management port, you must first assign an IP address.

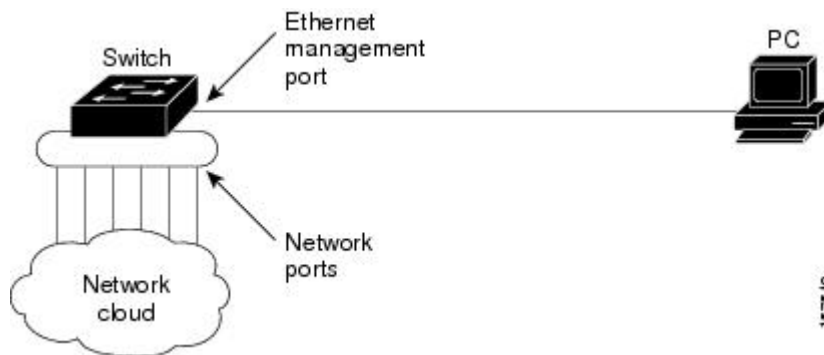
Information about the Ethernet Management Port

The Ethernet management port, also referred to as the *Fa0* or *fastethernet0* port, is a Layer 3 host port to which you can connect a PC. You can use the Ethernet management port instead of the switch console port for network management. When managing a switch stack, connect the PC to the Ethernet management port on a stack member.

Ethernet Management Port Direct Connection to a Switch

This figure displays how to connect the Ethernet management port to the PC for a switch or a standalone switch.

Figure 1: Connecting a Switch to a PC

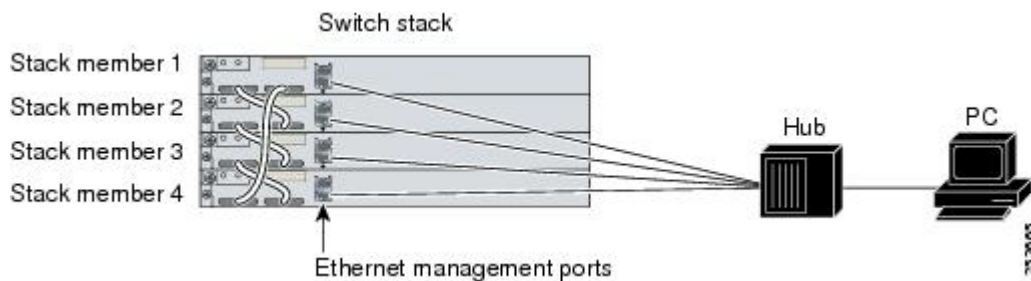


Ethernet Management Port Connection to Stack Switches using a Hub

In a stack with only stack switches, all the Ethernet management ports on the stack members are connected to a hub to which the PC is connected. The active link is from the Ethernet management port on the active switchstack master through the hub, to the PC. If the active switch fails and a new active switch is elected, the active link is now from the Ethernet management port on the new active switch to the PC.

This figure displays how a PC uses a hub to connect to a switch stack.

Figure 2: Connecting a Switch Stack to a PC

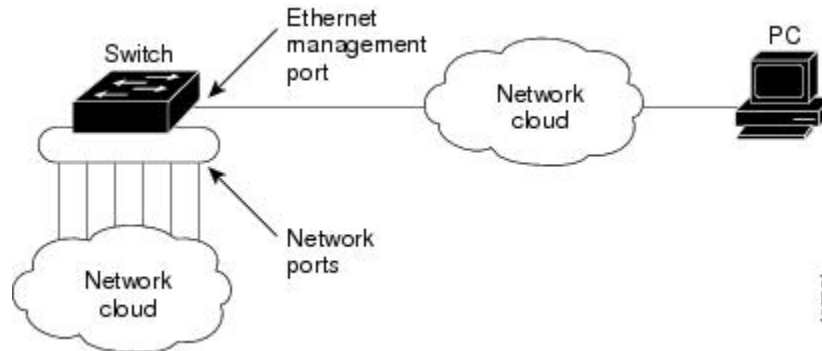


Ethernet Management Port and Routing

By default, the Ethernet management port is enabled. The switch cannot route packets from the Ethernet management port to a network port, and the reverse. Even though the Ethernet management port does not support routing, you may need to enable routing protocols on the port.

Enable routing protocols on the Ethernet management port when the PC is multiple hops away from the switch and the packets must pass through multiple Layer 3 devices to reach the PC.

Figure 3: Network Example with Routing Protocols Enabled



In the above figure, if the Ethernet management port and the network ports are associated with the same routing process, the routes are propagated as follows:

- The routes from the Ethernet management port are propagated through the network ports to the network.
- The routes from the network ports are propagated through the Ethernet management port to the network.

Because routing is not supported between the Ethernet management port and the network ports, traffic between these ports cannot be sent or received. If this happens, data packet loops occur between the ports, which disrupt the switch and network operation. To prevent the loops, configure route filters to avoid routes between the Ethernet management port and the network ports.

Supported Features on the Ethernet Management Port

The Ethernet management port supports these features:

- Express Setup (only in switch stacks)
- Network Assistant
- Telnet with passwords
- TFTP
- Secure Shell (SSH)
- DHCP-based autoconfiguration
- SMNP (only the ENTITY-MIB and the IF-MIB)
- IP ping
- Interface features
 - Speed—10 Mb/s, 100 Mb/s, and autonegotiation
 - Duplex mode—Full, half, and autonegotiation
 - Loopback detection

- Cisco Discovery Protocol (CDP)
- DHCP relay agent
- IPv4 access control lists (ACLs)
- Routing protocols

**Caution**

Before enabling a feature on the Ethernet management port, make sure that the feature is supported. If you try to configure an unsupported feature on the Ethernet Management port, the feature might not work properly, and the switch might fail.

How to Configure the Ethernet Management Port

Disabling and Enabling the Ethernet Management Port

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: Switch# <code>configure terminal</code>	Enters global configuration mode.
Step 2	interface fastethernet0 Example: Switch(config)# <code>interface fastethernet0</code>	Specifies the Ethernet management port in the CLI.
Step 3	shutdown Example: Switch(config-if)# <code>shutdown</code>	Disables the Ethernet management port.
Step 4	no shutdown Example: Switch(config-if)# <code>no shutdown</code>	Enables the Ethernet management port.
Step 5	exit Example: Switch(config-if)# <code>exit</code>	Exits interface configuration mode.
Step 6	show interfaces fastethernet0	Displays the link status.

	Command or Action	Purpose
	Example: Switch# <code>show interfaces fastethernet0</code>	To find out the link status to the PC, you can monitor the LED for the Ethernet management port. The LED is green (on) when the link is active, and the LED is off when the link is down. The LED is amber when there is a POST failure.

What to Do Next

Proceed to manage or configure your switch using the Ethernet management port. Refer to the *Catalyst 2960-XR Switch Network Management Configuration Guide*.

Additional References

Related Documents

Related Topic	Document Title
Bootloader configuration	<i>Catalyst 2960-XR Switch System Management Configuration Guide</i>
Bootloader commands	<i>Catalyst 2960-XR Switch System Management Command Reference</i>

Error Message Decoder

Description	Link
To help you research and resolve system error messages in this release, use the Error Message Decoder tool.	https://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi

MIBs

MIB	MIBs Link
All supported MIBs for this release.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<p>http://www.cisco.com/support</p>

Feature Information for Ethernet Management Ports

Release	Modification
Cisco IOS 15.0(2)EX1	This feature was introduced.