



Configuring Ethernet Management Port

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Prerequisites for Ethernet Management Ports

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

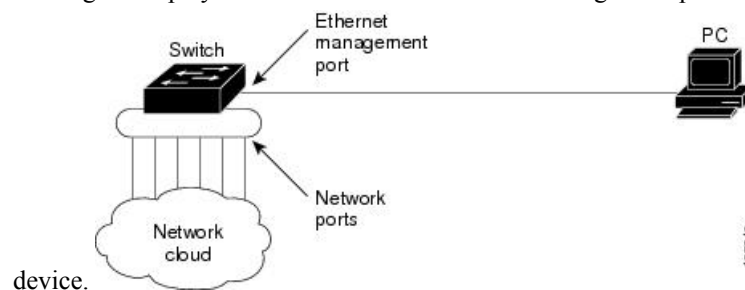
Information About the Ethernet Management Port

The Ethernet management port, also referred to as the *Gi0/0* or *GigabitEthernet0/0* port, is a VRF (VPN routing/forwarding) interface to which you can connect a PC. You can use the Ethernet management port instead of the device console port for network management. When managing a device stack, connect the PC to the Ethernet management port on a stack member.

Ethernet Management Port Direct Connection to a Device

Figure 1: Connecting a Switch to a PC

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

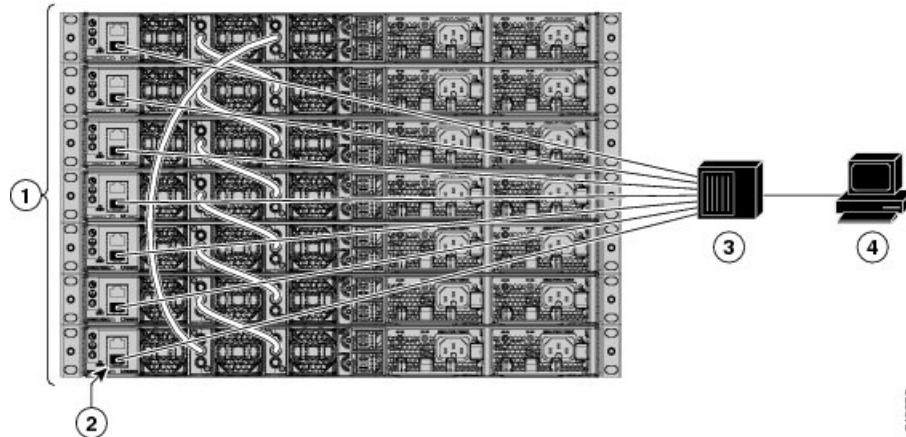


Ethernet Management Port Connection to Stack Devices using a Hub

In a stack with only stack devices, 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 switch through the hub, to the PC. If the active device fails and a new active device is elected, the active link is now from the Ethernet management port on the new active device to the PC.

Figure 2: Connecting a Device Stack to a PC

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



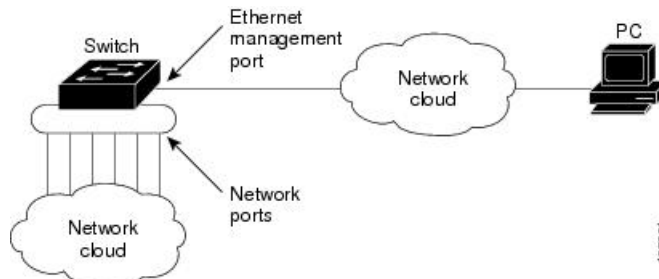
| | | | |
|---|-----------------|---|-----|
| 1 | Switch stack | 3 | Hub |
| 2 | Management port | 4 | PC |

Ethernet Management Port and Routing

By default, the Ethernet management port is enabled. The device 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.

Figure 3: Network Example with Routing Protocols Enabled

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



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 device 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 and IPv6 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 device might fail.

How to Configure the Ethernet Management Port

Disabling and Enabling the Ethernet Management Port

SUMMARY STEPS

1. `configure terminal`
2. `interface gigabitethernet0/0`
3. `shutdown`
4. `no shutdown`
5. `exit`
6. `show interfaces gigabitethernet0/0`

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|---|---|
| Step 1 | <code>configure terminal</code> Example: Device# <code>configure terminal</code> | Enters global configuration mode. |
| Step 2 | <code>interface gigabitethernet0/0</code> Example: Device(config)# <code>interface gigabitethernet0/0</code> | Specifies the Ethernet management port in the CLI. |
| Step 3 | <code>shutdown</code> Example: Device(config-if)# <code>shutdown</code> | Disables the Ethernet management port. |
| Step 4 | <code>no shutdown</code> Example: Device(config-if)# <code>no shutdown</code> | Enables the Ethernet management port. |
| Step 5 | <code>exit</code> Example: Device(config-if)# <code>exit</code> | Exits interface configuration mode. |
| Step 6 | <code>show interfaces gigabitethernet0/0</code> Example: Device# <code>show interfaces gigabitethernet0/0</code> | Displays the link status. 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 *Network Management Configuration Guide (Catalyst 3650 Switches)*.

Additional References for Ethernet Management Ports

Related Documents

| Related Topic | Document Title |
|---------------------------------|---|
| Bootloader configuration | <i>System Management Configuration Guide (Catalyst 3650 Switches)</i> |
| Bootloader commands | <i>System Management Command Reference (Catalyst 3650 Switches)</i> |

MIBs

| MIB | MIBs Link |
|--|--|
| All the 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> | http://www.cisco.com/support |

Feature History and Information for Ethernet Management Ports

| Release | Modification |
|--|------------------------------|
| Cisco IOS XE 3.3SE Cisco IOS XE 3.3SE | This feature was introduced. |

