Configuring Ethernet Management Port

- Prerequisites for Ethernet Management Ports, on page 1
- Restrictions for Ethernet Management Port, on page 1
- Information About the Ethernet Management Port, on page 1
- How to Configure the Ethernet Management Port, on page 4
- Example for Configuring IP Address on Ethernet Management Interface, on page 5
- Additional References for Ethernet Management Ports, on page 5
- Feature History for Ethernet Management Port, on page 6

Prerequisites for Ethernet Management Ports

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

Restrictions for Ethernet Management Port

The ethernet management port relay is not supported on the Cisco Catalyst 9500 Series Switches – High Performance.

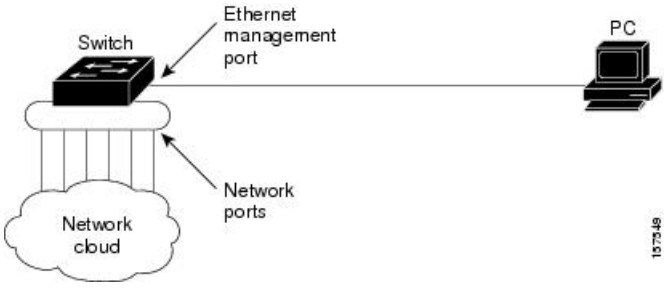
Information About the Ethernet Management Port

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.

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 device.



Ethernet Management Port with StackWise Virtual

Physically, the Ethernet management port needs to be connected from both active and standby switches to the uplink switch. Since the switches in a Cisco StackWise Virtual solution use a single management plane, the same IP address is applicable to both active and standby switches. After stateful switchover (SSO) between the active and standby switches, the Ethernet Management port on the active (previously standby) switch will link up and continue to support management functionalities.

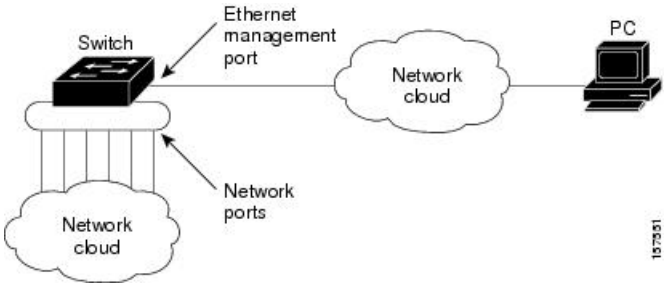
Note Any SSH, SCP, or Telnet sessions established by clients over the Ethernet management port IP address before stateful switchover to a new active switch in StackWise Virtual will be terminated and a new session has to be initiated after switchover.

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 2: 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, 1000 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

Procedure

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 2	**interface gigabitethernet0/0** **Example:** `Device(config)# interface gigabitethernet0/0`	Specifies the Ethernet management port in the CLI.
Step 3	**shutdown** **Example:** `Device(config-if)# shutdown`	Disables the Ethernet management port.
Step 4	**no shutdown** **Example:** `Device(config-if)# no shutdown`	Enables the Ethernet management port.
Step 5	**exit** **Example:** `Device(config-if)# exit`	Exits interface configuration mode.
Step 6	**show interfaces gigabitethernet0/0** **Example:** `Device# show interfaces gigabitethernet0/0`	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. See the Network Management section.

Example for Configuring IP Address on Ethernet Management Interface

This example shows how to configure IP address on the management interface.

```
Switch# configure terminal
Switch(config)# interface gigabitethernet1/0/1
Switch(config-if)# vrf forwarding Mgmt-vrf
Switch(config-if)#ip address 192.168.247.10 255.255.0.0
Switch(config-if)# end
```

```
Switch#show running-config interface Gi0/0
Building configuration...

Current configuration : 118 bytes
!
interface GigabitEthernet0/0
vrf forwarding Mgmt-vrf
ip address 192.168.247.10 255.255.0.0
negotiation auto
end
```

Additional References for Ethernet Management Ports

Related Documents

Related Topic	Document Title
Bootloader configuration	See the *System Management* section of this guide.
Bootloader commands	See the *System Management Commands* section of the *Command Reference (Catalyst 9500 Series Switches)*

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
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. 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. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/support

Feature History for Ethernet Management Port

This table provides release and related information for features explained in this module.

These features are available on all releases subsequent to the one they were introduced in, unless noted otherwise.

Release	Feature	Feature Information
Cisco IOS XE Everest 16.5.1a	Ethernet Management Port	The Ethernet management port is a VRF interface to which you can connect a PC. You can use the Ethernet management port instead of the device console port for network management. Support for this feature was introduced only on the C9500-12Q, C9500-16X, C9500-24Q, C9500-40X models of the Cisco Catalyst 9500 Series Switches.
Cisco IOS XE Fuji 16.8.1a	Ethernet Management Port	Support for this feature was introduced only on the C9500-32C, C9500-32QC, C9500-48Y4C, and C9500-24Y4C models of the Cisco Catalyst 9500 Series Switches.

Use Cisco Feature Navigator to find information about platform and software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn.