



## Configuring Ethernet Management Port

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### Prerequisites for Ethernet Management Port

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

### Information About the Ethernet Management Port

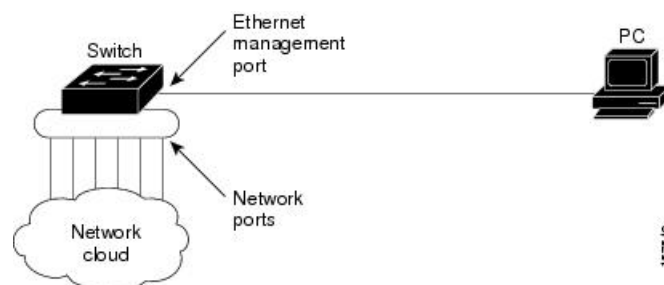
The Ethernet management port, also referred to as the *Gi0/0* or *GigabitEthernet0/0* port, is a VRF (VPN routing/forwarding) interface to which you can connect a PC. You can use the Ethernet management port instead of the device console port for network management.

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 Device 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 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 switch 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**

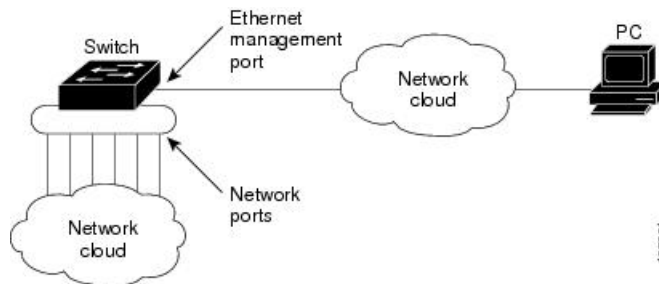
This figure displays how a PC uses a hub to connect to a device stack.

## 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 device stacks)
- Network Assistant
- Telnet with passwords
- TFTP

- Secure Shell (SSH)
- DHCP-based autoconfiguration
- SNMP (only ENTITY-MIB and 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

**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
<b>Step 1</b>	<b>configure terminal</b> <b>Example:</b> Device# <b>configure terminal</b>	Enters global configuration mode.
<b>Step 2</b>	<b>interface gigabitethernet0/0</b> <b>Example:</b> Device(config)# <b>interface gigabitethernet0/0</b>	Specifies the Ethernet management port in the CLI.
<b>Step 3</b>	<b>shutdown</b> <b>Example:</b> Device(config-if)# <b>shutdown</b>	Disables the Ethernet management port.
<b>Step 4</b>	<b>no shutdown</b> <b>Example:</b>	Enables the Ethernet management port.

	Command or Action	Purpose
	Device(config-if) # <b>no shutdown</b>	
<b>Step 5</b>	<b>exit</b> <b>Example:</b> Device(config-if) # <b>exit</b>	Exits interface configuration mode.
<b>Step 6</b>	<b>show interfaces gigabitethernet0/0</b> <b>Example:</b> Device# <b>show interfaces gigabitethernet0/0</b>	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 device 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 GigabitEthernet0/0 management interface.

```
Device# configure terminal
Device(config)# interface gigabitethernet0/0
Device(config-if)# vrf forwarding Mgmt-vrf
Device(config-if)#ip address 192.168.247.10 255.255.0.0
Device(config-if)# end
```

```
Device# 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
```

This example shows how to configure IP address on the TenGigabitEthernet0/1 management interface.

```
Device# configure terminal
Device(config)# interface TenGigabitEthernet0/1
Device(config-if)# vrf forwarding Mgmt-vrf
Device(config-if)#ip address 192.168.247.20 255.255.0.0
Device(config-if)# negotiation auto
Device(config-if)# end
```

```

Device#show running-config interface Te0/1
Building configuration...

Current configuration : 118 bytes
!
interface TenGigabitEthernet0/1
 vrf forwarding Mgmt-vrf
 ip address 192.168.247.20 255.255.0.0
 negotiation auto
end

```

## Additional References for Ethernet Management Port

### Related Documents

Related Topic	Document Title
<b>Bootloader configuration</b>	See the <i>System Management</i> section of this guide.
<b>Bootloader commands</b>	See the <i>System Management Commands</i> section of the <i>Command Reference (Catalyst 9200 Series Switches)</i>

## 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 Fuji 16.9.2	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.

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>.

