Configuring MultiGigabit Ports on WS-C3560CX-8PD-S

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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.

Overview of MultiGigabit Ports

Cisco's Multigigabit Ethernet technology allows you to leverage 802.11ac Wave 2 speeds on your device. Beginning with Cisco IOS XE 3.7.E1 and IOS 15.2(3) E1, you can configure the WS-C3560CX-8XPD-S module to auto-negotiate multiple speeds on switch ports, and support 100 Mbps, 1 Gbps, 2.5 Gbps, and 5 Gbps speeds on Category 5e cables, and up to 10 Gbps over Category6 and Category 6a cables.

Beginning with Cisco IOS XE 3.9.E1 and IOS 15.2(5) E1, by default, interface speeds are downshifted on multigigabit ports. When an interface is unable to establish a high speed link, the line rate is automatically downshifted or reduced to a lower speed. The interface tries up to four times to reestablish a link using the current speed, before downshifting to the next available lower speed. For multigigabit interfaces to support downshifting, the interface speed must be set to **auto** on both sides of the link.

The WS-C3560CX-8XPD-S module has 8 ports, of which the 6 ports are 1-Gigabit Ethernet ports and 2 ports are multigigabit ports. The module also has 2 SFP+ ports.

Restrictions for MultiGigabit Ports

The following restrictions apply:

- MultiGigabit ports do not support 10Mbps speed.
- MultiGigabit ports do not support half-duplex mode.
- MultiGigabit ports do not support EEE.
- Multigigabit ports support downshift only when interface speed is set to **auto** on both sides of the link.

Supported Cable Types and Maximum Length

The following table lists the types of cables and the maximum length of cables supported on the Multigigabit ports.

Cable Type	100M	1G	2.5G	5G	10G
Category5E	Yes	Yes	Yes	Yes	Not Available
Category6	Yes	Yes	Yes	Yes	Yes (55 meters)
Category6A	Yes	Yes	Yes	Yes	Yes

Setting the Interface Speed

To set port speed to 100Mbps/1000Mbps/2500Mbps/5000Mbps/10000Mbps on a Multigigabit Ethernet interface (on a 1000Base-T port), perform this task:

Note Only 2 ports on the WS-C3560CX-8XPD-S module support Multigigabit Ethernet.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface tengigabitethernet***slot/interface*
4. **speed** [*100* | *1000* | *2500* | *5000* | *10000* | **auto** [*100* | *1000* | *2500* | *5000* | *10000*]]
5. **[no] downshift disable**
6. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable**	Enables privileged EXEC mode.

	Command or Action	Purpose
	Example: `Device> enable`	• Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**interface tengigabitethernet***slot/interface* **Example:** `Device(config)# interface tengigabitethernet 1/0/2`	Specifies the interface to be configured.
Step 4	**speed** [*100* | *1000* | *2500* | *5000* | *10000* | **auto** [*100* | *1000* | *2500* | *5000* | *10000*]] **Example:** `Device (config-if)# speed 5000`	Sets the interface speed. **Note** 10G speed is supported only on Category6 and Category6a cables.
Step 5	**[no] downshift disable** **Example:** `Device(config-if)# no downshift disable`	By default, downshift is enabled on multigigabit ports. The **downshift disable** command disables downshift on the specified interface. The **no downshift disable** command enables downshift on the interface.
Step 6	**end** **Example:** `Device(config)# end`	Returns to privileged EXEC mode.

What to do next

To restore autonegotiation (default setting), enter the **no speed** command in the interface configuration mode.

Examples: Setting the Interface Speed

This example shows how to set the interface speed to 5G on the Multigigabit Ethernet interface 1/0/2:

```
Switch(config)# interface tengigabitethernet 1/0/2
Switch (config-if)# speed 5000
```

This example shows how to allow the Multigigabit Ethernet interface 1/0/2 to autonegotiate the speed and duplex mode:

```
Switch(config)# interface tengigabitethernet 1/0/2
Switch(config-if)# speed auto
```

This example shows how to limit speed negotiation to 2.5G on the Multigigabit Ethernet interface 1/0/1:

```
Switch(config)# interface tengigabitethernet 1/0/1
Switch(config-if)# speed auto 2500
```