Configuring System MTU

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Information About the MTU

The default maximum transmission unit (MTU) size for payload received in Ethernet frame and sent on all device interfaces is 1500 bytes. The maximum value of System MTU is 9216 bytes.

System MTU Value Application

This table shows how the MTU values are applied.

Table 1: MTU Values

Configuration	system mtu command
Standalone switch	You can enter the **system mtu** command on a switch and it affects all ports on the switch. The range is from 1500 to 9216 bytes.

For more information about setting the MTU sizes, see the **system mtu** global configuration command in the command reference for this release.

Beginning from Cisco IOS XE Amsterdam 17.3.x, the minimum IPv6 system MTU is fixed at 1280 as per RFC 8200.

How to Configure MTU

The following tasks describe how you can configure MTU.

Configuring the System MTU

Follow these steps to change the MTU size for switched packets:

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. Enter your password, if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**system mtu** *bytes* **Example:** `Device(config)# system mtu 1900`	(Optional) Changes the MTU size for all interfaces.
Step 4	**end** **Example:** `Device(config)# end`	Enters global configuration mode, and returns to privileged EXEC mode.
Step 5	**copy running-config startup-config** **Example:** `Device# copy running-config startup-config`	Saves your entries in the configuration file.
Step 6	**show system mtu** **Example:** `Device# show system mtu`	Verifies your settings.

Configuring Protocol-Specific MTU

To override system MTU values on routed interfaces, configure protocol-specific MTU under each routed interface. To change the MTU size for routed ports, perform this procedure.

Procedure

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.

	Command or Action	Purpose
Step 2	**interface** *interface* **Example:** `Device(config)# interface gigabitethernet0/0`	Enters interface configuration mode.
Step 3	**ip mtu** *bytes* **Example:** `Device(config-if)# ip mtu 68`	Changes the IPv4 MTU size
Step 4	**ipv6 mtu** *bytes* **Example:** `Device(config-if)# ipv6 mtu 1280`	(Optional) Changes the IPv6 MTU size.
Step 5	**end** **Example:** `Device(config-if)# end`	Exits interface configuration mode, and returns to privileged EXEC mode.
Step 6	**copy running-config startup-config** **Example:** `Device# copy running-config startup-config`	Saves your entries in the configuration file.
Step 7	**show system mtu** **Example:** `Device# show system mtu`	Verifies your settings.

Configuration Examples for System MTU

Example: Configuring Protocol-Specific MTU

This example shows how you can configure protocol-specific MTU:

```
Device# configure terminal
Device(config)# interface gigabitethernet 0/1
Device(config-if)# ip mtu 900
Device(config-if)# ipv6 mtu 1286
Device(config-if)# end
```

Example: Configuring the System MTU

This example shows how you can configure the system MTU:

```
Device# configure terminal
Device(config)# system mtu 1600
Device(config)# exit
```

Additional References for System MTU

Related Documents

Related Topic	Document Title
For complete syntax and usage information for the commands used in this chapter.	See the *Interface and Hardware Commands* section in the *Command Reference (Catalyst 9400 Series Switches)*

Standards and RFCs

Standard/RFC	Title
RFC 8200	*Internet Protocol, Version 6 (IPv6) Specification*

Feature History for System MTU

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 16.6.1	System MTU	System MTU defines the maximum transmission unit size for frames transmitted on all interfaces of a switch.
Cisco IOS XE Cupertino 17.7.1	System MTU	This feature was implemented on supervisor modules C9400X-SUP-2 and C9400X-SUP-2XL.

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