Configure System MTU

Feature History for MTU

This table provides release and platform support information for the features explained in this module.

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

Table 1:

Release	Feature Name and Description	Supported Platform
Cisco IOS XE 17.18.1	The Maximum Transmission Unit (MTU) features discusses about two primary types of MTU: **1.** System MTU (Global MTU) **2.** Per-Port MTU (Interface MTU)	Cisco C9350 Series Smart Switches Cisco C9610 Series Smart Switches

Configure System MTU

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

Before you begin

Ensure you have the necessary privileges to access the device in EXEC mode.

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`	Displays MTU byte information
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 platform so fed switch active ifm interface_name <interface name> **Example:** `Device# show platform so fed switch active ifm interface_name <interface name>`	Displays the IP/IPv6 MTU.

The MTU size for switched packets is configured successfully, and changes are confirmed to persist upon a system restart.

Configure 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

Protocol-specific MTU configurations allow network professionals to adjust the maximum transmission unit (MTU) for different protocols to optimize performance and minimize packet fragmentation. This is crucial for efficiently managing network traffic across various interfaces.

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

- Gigabit Ethernet Interface

```
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
```

- Forty Gigabit Ethernet Interface

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

Effective MTU configuration reduces the risk of fragmentation and ensures efficient packet transmission across network segments.

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 9350 Series Switches)*

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 9610 Series Switches)*

Standards and RFCs

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