



Configuring System MTU

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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.

Information about the MTU

The default maximum transmission unit (MTU) size for frames received and sent on all switch interfaces is 1500 bytes.

You can change the MTU size to support switched jumbo frames on all Gigabit Ethernet and 10-Gigabit Ethernet interfaces and to support routed frames on all routed ports.

Restrictions for System MTU

When configuring the system MTU values, follow these guidelines:

- The switch does not support the MTU on a per-interface basis.

- If you enter the **system mtu bytes** global configuration command, the command does not take effect on the switch. This command only affects the system MTU size on Fast Ethernet switch ports.

How to Configure MTU

Configuring the System MTU

Beginning in privileged EXEC mode, follow these steps to change the MTU size for switched and routed packets:

SUMMARY STEPS

1. **configure terminal**
2. **system mtu bytes**
3. **system mtu jumbo bytes**
4. **system mtu routing bytes**
5. **end**
6. **copy running-config startup-config**
7. **reload**
8. **show system mtu**

DETAILED STEPS

	Command or Action	Purpose
Step 1	configure terminal Example: Switch# configure terminal	Enters global configuration mode.
Step 2	system mtu bytes Example: Switch(config)# system mtu 2500	(Optional) Changes the MTU size for all Fast Ethernet interfaces on the switch. The range is 1500 to 1998 bytes; the default is 1500 bytes.
Step 3	system mtu jumbo bytes Example: Switch(config)# system mtu jumbo 7500	(Optional) Changes the MTU size for all Gigabit Ethernet and 10-Gigabit Ethernet interfaces on the switch or the switch stack. The range is 1500 to 9198 bytes; the default is 1500 bytes.
Step 4	system mtu routing bytes Example: Switch(config)# system mtu routing 2000	(Optional) Changes the system MTU for routed ports. You can also set the maximum MTU to be advertised by the routing protocols that support the configured MTU size. The system routing MTU is the maximum MTU for routed packets and is also the maximum MTU that the switch advertises in routing updates for protocols such as OSPF.

	Command or Action	Purpose
		Note This command is not supported on switches running the LAN base feature set.
Step 5	end Example: Switch(config)# end	Returns to privileged EXEC mode.
Step 6	copy running-config startup-config Example: Switch# copy running-config startup-config	Saves your entries in the configuration file.
Step 7	reload Example: Switch# reload	Reloads the operating system.
Step 8	show system mtu Example: Switch# show system mtu	Verifies your settings.

Configuration Examples for System MTU

This example shows how to set the maximum packet size for a Gigabit Ethernet port to 7500 bytes:

```
Switch(config)# system mtu 1900
Switch(config)# system mtu jumbo 7500
Switch(config)# exit
```

If you enter a value that is outside the allowed range for the specific type of interface, the value is not accepted. This example shows the response when you try to set Gigabit Ethernet interfaces to an out-of-range number:

```
Switch(config)# system mtu jumbo 25000
                  ^
% Invalid input detected at '^' marker.
```

This is an example of output from the **show system mtu** command:

```
Switch# show system mtu
Global Ethernet MTU is 1500 bytes.
```

Additional References for System MTU

Error Message Decoder

Description	Link
To help you research and resolve system error messages in this release, use the Error Message Decoder tool.	https://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi

MIBs

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

Feature Information for System MTU

Release	Modification
Cisco IOS 15.0(2)EX1	This feature was introduced.