



# Configuring System MTU

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## 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.

## 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. `show system mtu`

## DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	<b>configure terminal</b> <b>Example:</b> Switch# <code>configure terminal</code>	Enters global configuration mode.
<b>Step 2</b>	<b>system mtu bytes</b> <b>Example:</b> Switch(config)# <code>system mtu 2500</code>	(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.
<b>Step 3</b>	<b>system mtu jumbo bytes</b> <b>Example:</b> Switch(config)# <code>system mtu jumbo 7500</code>	(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.
<b>Step 4</b>	<b>system mtu routing bytes</b> <b>Example:</b> Switch(config)# <code>system mtu routing 2000</code>	(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.  <b>Note</b> This command is not supported on switches running the LAN base feature set.
<b>Step 5</b>	<b>end</b> <b>Example:</b> Switch(config)# <code>end</code>	Returns to privileged EXEC mode.
<b>Step 6</b>	<b>copy running-config startup-config</b> <b>Example:</b> Switch# <code>copy running-config startup-config</code>	Saves your entries in the configuration file.
<b>Step 7</b>	<b>show system mtu</b> <b>Example:</b> Switch# <code>show system mtu</code>	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 7500
Switch(config)# exit
```

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

```
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.
```

## 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.	<a href="https://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi">https://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi</a>

### MIBs

MIB	MIBs Link
All the 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: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

### 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>	<a href="http://www.cisco.com/support">http://www.cisco.com/support</a>

## Feature Information for System MTU

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