



Interface Range Specification

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The Interface Range Specification feature allows specification of a range of interfaces to which subsequent commands are applied and supports definition of macros that contain an interface range.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see 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 for Interface Range Specification”](#) section on page 8.

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to <http://tools.cisco.com/ITDIT/CFN/jsp/index.jsp>. An account on Cisco.com is not required.

Contents

- [Prerequisites for Interface Range Specification, page 2](#)
- [Restrictions for Interface Range Specification, page 2](#)
- [Information About Interface Range Specification, page 2](#)
- [How to Configure Interface Range Specification, page 2](#)
- [Configuration Examples For Interface Range Specification, page 5](#)
- [Feature Information for Interface Range Specification, page 8](#)



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Prerequisites for Interface Range Specification

VLAN switch virtual interfaces (SVIs) are required for the interface range specification.

Restrictions for Interface Range Specification

Each command you enter while you are in interface configuration mode with the **range** keyword is executed as it is entered. The commands are not batched together for execution after you exit interface mode. If you exit interface configuration mode while the commands are being executed, some commands may not be executed on some interfaces in the range. Wait until the command prompt reappears before exiting interface configuration mode.

The **interface range** command works only with VLAN interfaces that have been created with the **interface vlan** command (the **show running-configuration** command displays the VLAN interfaces). VLAN interfaces not displayed by the **show running-configuration** command cannot be used with the **interface range** command.

Information About Interface Range Specification

- [Overview of Interface Range Specification, page 2](#)
- [Benefits of Interface Range Specification, page 2](#)

Overview of Interface Range Specification

The Interface Range Specification feature allows specification of a range of interfaces to which subsequent commands are applied and supports definition of macros that contain an interface range. The Interface Range Specification feature is implemented with the **range** keyword, which is used with the **interface** command. In the interface configuration mode with the **range** keyword, all entered commands are applied to all interfaces within the range until you exit the interface configuration mode.

Benefits of Interface Range Specification

The Interface Range Specification feature makes configuration easier because:

- Identical commands can be entered once for a range of interfaces, rather than being entered separately for each interface.
- Interface ranges can be saved as macros.

How to Configure Interface Range Specification

- [Defining a Range Macro, page 3](#)
- [Configuring a Range of Interfaces, page 4](#)

Defining a Range Macro

To define an interface range macro, perform this task:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **define interface-range** *macro-name interface-range*
4. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	define interface-range <i>macro_name</i> <i>interface-range</i> Example: Router# define interface-range macro1 ethernet 1/2 - 5	Defines the interface-range macro and saves it in NVRAM.
Step 4	end Example: Router# end	Exits the current configuration mode and returns to privileged EXEC mode.

Configuring a Range of Interfaces

To configure a range of interfaces, perform this task:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface range {macro *macro_name*}**
4. **interface range {vlan *vlan_ID* - *vlan_ID*} [, {vlan *vlan_ID* - *vlan_ID*}...]**
5. **interface range {{ethernet | fastethernet | gigabitethernet} *slot/interface - interface*} [, {{ethernet | fastethernet | gigabitethernet} *slot/interface - interface*}...]**
6. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	interface range {macro <i>macro_name</i>} Example: Router(config)# interface range macro macro1	Enables an interface range macro. <ul style="list-style-type: none"> • You can enter one macro or up to five comma-separated ranges.
Step 4	interface range {vlan <i>vlan_ID</i> - <i>vlan_ID</i>} [, {vlan <i>vlan_ID</i> - <i>vlan_ID</i>}...] Example: Router(config)# interface range vlan 500 - 506	Enables the VLAN IDs. <ul style="list-style-type: none"> • Comma-separated ranges can include both VLANs and physical interfaces.
Step 5	interface range {{ethernet fastethernet gigabitethernet} <i>slot/interface - interface</i>} [, {{ethernet fastethernet gigabitethernet} <i>slot/interface - interface</i>}...] Example: Router(config)# interface range fastethernet 5/1 - 5, gigabitethernet 1/1 - 2	Selects the range of interfaces to be configured. <ul style="list-style-type: none"> • The space before the dash is required. For example, the command interface range gigabitethernet 1 - 5 is valid; the command interface range gigabitethernet 1-5 is not valid.
Step 6	end Example: Router(config-if)# end	Exits the current configuration mode and returns to privileged EXEC mode.

What to Do Next

You can verify the configuration of a range of Interfaces by using the **show running-configuration** command.

Configuration Examples For Interface Range Specification

This section provides the following configuration examples:

- [Range Macro Definition: Example, page 5](#)
- [Single Range Configuration: Example, page 5](#)
- [Multiple Range Configuration: Example, page 6](#)

Range Macro Definition: Example

This example shows how to define an interface-range macro named `enet_list` to select Fast Ethernet interfaces 5/1 through 5/4:

```
Router(config)# define interface-range enet_list fastethernet 5/1 - 4
Router(config)#
```

Single Range Configuration: Example

This example shows how to reenable all Fast Ethernet interfaces 5/1 to 5/5:

```
Router(config)# interface range fastethernet 5/1 - 5
Router(config-if)# no shutdown
Router(config-if)#
*Oct 6 08:24:35: %LINK-3-UPDOWN: Interface FastEthernet5/1, changed state to up
*Oct 6 08:24:35: %LINK-3-UPDOWN: Interface FastEthernet5/2, changed state to up
*Oct 6 08:24:35: %LINK-3-UPDOWN: Interface FastEthernet5/3, changed state to up
*Oct 6 08:24:35: %LINK-3-UPDOWN: Interface FastEthernet5/4, changed state to up
*Oct 6 08:24:35: %LINK-3-UPDOWN: Interface FastEthernet5/5, changed state to up
*Oct 6 08:24:36: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/
5, changed state to up
*Oct 6 08:24:36: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/
3, changed state to up
*Oct 6 08:24:36: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/
4, changed state to up
Router(config-if)#
```

Multiple Range Configuration: Example

This example shows how to use a comma to add different interface type strings to the range to reenable all Fast Ethernet interfaces in the range 5/1 to 5/5 and both Gigabit Ethernet interfaces 1/1 and 1/2:

```
Router(config-if)# interface range fastethernet 5/1 - 5 , gigabitethernet 1/1 - 2
Router(config-if)# no shutdown
Router(config-if)#
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface FastEthernet5/1, changed state to up
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface FastEthernet5/2, changed state to up
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface FastEthernet5/3, changed state to up
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface FastEthernet5/4, changed state to up
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface FastEthernet5/5, changed state to up
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface GigabitEthernet1/1, changed state to
up
*Oct 6 08:29:28: %LINK-3-UPDOWN: Interface GigabitEthernet1/2, changed state to
up
*Oct 6 08:29:29: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/
5, changed state to up
*Oct 6 08:29:29: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/
3, changed state to up
*Oct 6 08:29:29: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/
4, changed state to up
Router(config-if)#
```

Additional References

Related Documents

Related Topic	Document Title
Interface commands: define interface-range , interface range , and interface vlan .	Cisco IOS Interface and Hardware Component Command Reference
Configuration commands: show running-configuration .	Cisco IOS Configuration Fundamentals Command Reference

Standards

Standard	Title
None	

MIBs

MIB	MIBs Link
None	

RFCs

RFC	Title
None	

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Interface Range Specification

Table 1 lists the features in this module and provides links to specific configuration information. Only features that were introduced or modified in Cisco IOS Release 12.1(5)T or a later release appear in the table.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://tools.cisco.com/ITDIT/CFN/jsp/index.jsp>. An account on Cisco.com is not required.



Note

Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 1 Feature Information for Interface Range Specification

Feature Name	Releases	Feature Information
Interface Range Specification.	12.1(5)T 12.2(2)D 12.2(4)B 12.2(8)T 12.2(14)SX 12.2(33)SRA	The Interface Range Specification feature allows specification of a range of interfaces to which subsequent commands are applied and supports definition of macros that contain an interface range. The following commands were introduced or modified: define interface-range, interface range.

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