



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 the definition of macros that contain an interface range.

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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 Table at the end of this document.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Prerequisites for the Interface Range Specification

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

Restrictions for the Interface Range Specification

While you are in interface range configuration mode, each command that you enter is executed as it is entered. The commands are not batched for execution after you exit interface range configuration mode. If you exit interface range configuration mode while the commands are being executed, some commands might not be executed on some interfaces in the range. Wait until the command prompt reappears before exiting interface range configuration mode.

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

Information About the Interface Range Specification

Overview of the Interface Range Specification

The Interface Range Specification feature allows specification of a range of interfaces to which subsequent commands are applied, and it supports the definition of macros that contain an interface range. The Interface Range Specification feature is implemented with the **interface range** command, which causes the device to enter interface range configuration mode. In this mode, all entered commands are applied to all interfaces within the range at the time the commands are entered.

Benefits of the 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 the Interface Range Specification

Defining an Interface-Range Macro

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: Device> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	configure terminal Example: Device# configure terminal	Enters global configuration mode.
Step 3	define interface-range <i>macro-name</i> <i>interface-range</i> Example: Device(config)# define interface-range macro1 ethernet 1/2 - 5	Defines the interface-range macro and saves it in NVRAM. <ul style="list-style-type: none"> <i>interface-range</i>—Type of interface range. See the usage guidelines for this command in the <i>Cisco IOS Interface and Hardware Component Command Reference</i>. In the example, the <i>interface-typeslot/first-interfacelast-interface</i> format to used to enter the interface range.
Step 4	end Example: Device(config)# end	Returns to privileged EXEC mode.

Configuring a Range of Interfaces

SUMMARY STEPS

- enable
- configure terminal
- interface range macro *macro-name*
- interface range vlan *vlan-id* - *vlan-id* [, vlan *vlan-id* - *vlan-id*...]
- interface range {ethernet | fastethernet | gigabitethernet} *slot/interface* - *interface* [, {ethernet | fastethernet | gigabitethernet} *slot/interface* - *interface*...]
- end

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Device> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Device# configure terminal	Enters global configuration mode.
Step 3	interface range macro <i>macro-name</i> Example: Device(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> [, <i>vlan</i> <i>vlan-id</i> - <i>vlan-id</i>...] Example: Device(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 {<i>ethernet</i> <i>fastethernet</i> <i>gigabitethernet</i>} <i>slot/interface</i> - <i>interface</i> [, {<i>ethernet</i> <i>fastethernet</i> <i>gigabitethernet</i>} <i>slot/interface</i> - <i>interface</i>...] Example: Device(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 1/2 - 5 is valid; the command interface range gigabitethernet 1/2-5 is not valid.
Step 6	end Example: Device(config-if-range)# end	Returns to privileged EXEC mode.

What to Do Next

Proceed to the “Verifying Tunnel Configuration and Operation” section.

Configuration Examples for the Interface Range Specification

Example: Range Macro Definition

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

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

Example: Single Range Configuration

This example shows how to re-enable all Fast Ethernet interfaces 5/1 to 5/5:

```
Device(config)# interface range fastethernet 5/1 - 5
Device(config-if-range)# no shutdown
Device(config-if-range)#
*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
```

Example: Multiple Range Configuration

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

```
Device(config-if)# interface range fastethernet 5/1 - 5 , gigabitethernet 1/1 - 2
Device(config-if-range)# no shutdown
Device(config-if-range)#
*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
```

Additional References

Related Documents

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

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 the Interface Range Specification

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

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Table 1: Feature Information for the 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 Cisco IOS XE Release 3.2SE	The Interface Range Specification feature allows specification of a range of interfaces to which subsequent commands are applied, and it supports the definition of macros that contain an interface range. The following commands were introduced or modified: define interface-range , interface range .

