



Configuration Partitioning

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The Configuration Partitioning feature provides modularization (“partitioning”) of the running configuration state to provide granular access to the running configuration in Cisco IOS software.

This feature is enabled by default in Cisco IOS software images that include this feature.

The configuration state of a device is retrieved dynamically whenever a user issues the **show running-config** command. When the Configuration Partitioning feature is enabled, the system groups the configuration state of the device into parts (called “partitions”) so that only the configuration state the user wishes to review is retrieved when generating a displayed list of commands in the running configuration. This feature improves performance for high-end systems with complex configurations because only a part of the running configuration state is processed when generating the running configuration command list, as opposed to the existing method of processing the entire system configuration state.

Default configuration partitions are provided by the introduction of this feature; other Cisco IOS software features may define their own command partitions in later releases.

Finding Feature Information in This Module

This feature was introduced in software images for the Cisco 7600 series in Release 12.2(33)SRB. Additional release integration updates will be added to the [“Feature Information for Configuration Partitioning”](#) section on page 24 as they become available.

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Information About Configuration Partitioning

To use the Configuration Partitioning feature, you should understand the following concepts:

- [System Running Configurations](#)
- [Retrieving the Running Configuration for Display or Copy Operations](#)
- [Benefits of Partitioning the Running Configuration](#)

System Running Configurations

Managing the configuration of any Cisco IOS software-based device involves managing the startup configuration (startup-config), which is a file stored in nonvolatile memory, and the running configuration (running-config), which is the set of all configuration options currently in effect on the system. Typically, the startup configuration file is loaded when the system boots, and changes to the system's running configuration, applied using the command-line interface (CLI), are saved by copying the running configuration to a configuration file (either locally or on the network), which can then be used to configure the device at startup, or used to configure other devices.

Retrieving the Running Configuration for Display or Copy Operations

In the Cisco IOS software configuration model, the configuration state is maintained in a distributed manner, with each component storing its own configuration state. To retrieve global configuration information, the software must poll every component to collect the distributed information. This configuration state retrieval operation is performed by a process known as nonvolatile generation (NVGEN), and it is invoked by commands such as **show running-config**, which is used to display the current configuration state, and **copy system:running-configuration**, which is used to save the running configuration by copying it to a file. When invoked, the NVGEN process queries each system component, each interface instance, and all other configured component objects in a standard sequence. A running configuration file is constructed as NVGEN traverses the system performing these queries, and it is this “virtual file” that is displayed or copied.

Benefits of Partitioning the Running Configuration

The Configuration Partitioning feature is the latest in a series of Configuration Generation Performance Enhancement Features for Cisco IOS software. (See the [“Related Documents”](#) section on page 17 for related features.) This feature improves the system's response time by providing a method for querying only the system component you wish to review when issuing the **show running-config** command.

When the Configuration Partitioning feature is enabled, the system groups the configuration state of the device into parts (called “partitions”) for the purpose of generating the virtual running configuration file (the list of configuration commands). A new command, **show running-config partition**, allows you to display only the part of the running configuration that you want to examine, rather than having to display the entire running configuration at once, or displaying only lines that match a certain string.

The key benefit of this feature is that it increases system performance by allowing the system to run the NVGEN process for only the collection of system components (such as specific interfaces) that you need to display. This is in contrast to other existing extensions to the **show running-config** command, which only *filter* the generated list after all system components have been processed.

The selective processing of the system's configuration state for the purpose of generating a partial running configuration is called "configuration partitioning."

More granular access to configuration information offers important performance benefits for high-end routing platforms with very large configuration files, while also enhancing configuration management by allowing advanced configuration features to be implemented at a more granular level. Advanced configuration options include Cisco IOS software support for provisioning of customer services, Config Rollback, Config Locking, and configuration access control.

How to Use the Configuration Partitioning Feature

This section contains the following tasks:

- [Displaying Configuration Partitions, page 3](#) (optional)
- [Disabling the Configuration Partitioning Feature, page 5](#) (optional)

Displaying Configuration Partitions

The main method of taking advantage of this feature is by using the **show running-config partition *part*** command, which is a specialized extension to the **show running-config** command.



Note

The **partition *part*** command extension is not available for the **more:system running-config** command.

Because this feature offers improved performance for existing commands, this feature is enabled by default in Cisco IOS software images that support this feature. To quickly determine if this feature is supported and running on your system, issue the **show running-config partition ?** command in privileged EXEC mode.

SUMMARY STEPS

1. **show running-config partition ?**
2. **show runningconfig partition *part***

DETAILED STEPS

Step 1 **show running-config partition ?**

Issuing this command will show you the list of running configuration parts available for display on your system.

If the Configuration Partitioning feature is supported on your system and is enabled, you will see the string "config partition is TRUE" as the first line of help output.

If you receive an error message when entering the command syntax shown here, this feature is not supported on your system. See the command documentation for the **show running-config** command for existing extensions of that command in other releases that allow you to show only part of the running configuration.

**Note**

The list of available configuration parts may vary by software image and is dependent on what features are currently configured.

```
Router# show running-config partition ?
config partition is TRUE
  access-list      All access-list configurations
  boot             All boot configurations
  class-map        All class-map configurations
  common           All remaining unregistered configurations
  global-cdp       All global cdp configurations
  interface        All Interface specific Configurations
  ip-as-path       All IP as-path configurations
  ip-community     All IP community list configurations
  ip-domain-list   All ip domain list configurations
  ip-prefix-list   All ip prefix-list configurations
  ip-static-routes All IP static configurations
  line             All line mode configurations
  policy-map       All policy-map configurations
  route-map        All route-map configurations
  router           All routing configurations
  snmp             All SNMP configurations
  tacacs           All TACACS configurations
```

Choose the part of the running configuration you want to display, and use the associated keyword as the *part* argument in Step 2.

Step 2 **show running-config partition *part***

As an example, to have the system perform the NVGEN process on only the components associated with the access-list parts of the running configuration state, and display only the access-list related configurations, you would enter the **show running-config partition access-list** command:

```
Router# show running-config partition access-list
Building configuration...

Current configuration : 127 bytes
!
Configuration of Partition access-list
!
!
!
access-list 90 permit 0.0.0.0 1.2.3.5
access-list 100 permit 10 any any
!
end
```

**Note**

This command also allows you to run the NVGEN process and display the resulting output for specific interfaces. This is a key capability of this feature, as it was designed for systems with numerous active interfaces.

In the following example, the main configuration partition is the interface configuration, and the specific part of the configuration to be generated is the configuration for FastEthernet interface 0/0.

```
Router# show running-config partition interface fastethernet0/0
Building configuration...

Current configuration : 213 bytes
!
```

```

Configuration of Partition interface FastEthernet0/0
!
!
interface FastEthernet0/0
 ip address 10.4.2.39 255.255.255.0
 no ip route-cache cef
 no ip route-cache
 duplex half
 ipv6 enable
 no cdp enable
!
!
end

```

Disabling the Configuration Partitioning Feature

Because this feature offers improved performance for existing commands, this feature is enabled by default for Cisco IOS software images that support this feature. However, you may want to disable this feature if you determine that it is not needed, as this feature does use a small amount of system resources (memory and CPU utilization). To disable configuration partitioning, perform the following task, which assumes you are starting in user EXEC mode.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **no parser config partition**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	no parser config partition Example: Router(config)# no parser config partition Disabling config partitioning Router(config)#	Disables the configuration partitioning feature.

What to Do Next

To reenable the feature after it has been disabled, use the **parser config partition** command in global configuration mode.



Note

As this feature is enabled by default, only the **no** form will appear in the running configuration file, or will be written to the startup configuration file when you issue the **copy running-config startup-config** command.

Configuration Examples for Configuration Partitioning

This section provides examples of displaying configuration partitions with the **show running-config partition** command:

- [Displaying Configuration Partitions: Example](#)

Displaying Configuration Partitions: Example

In this example, the **show running-config partition** command is used with related commands in a series of steps an administrator might take to check the status of a specific interface and the current configuration of some of the system's other components. Comparable filtered output from the standard **show running-config** command (for example, **show running-config | include access-list**) is included for demonstration purposes.



Note

The *part* argument can consist of multiple partition name keywords, as in **show running-config part router eigrp 1**.

```
gt3-7200-3# show running-config partition ?
access-list      All access-list configurations
boot             All boot configurations
class-map        All class-map configurations
global-cdp       All global cdp configurations
interface        All interface specific Configurations
ip-as-path       All IP as-path configurations
ip-community     All IP community list configurations
ip-domain-list   All ip domain list configurations
ip-static-routes All IP static configurations
line             All line mode configurations
policy-map       All policy-map configurations
route-map        All route-map configurations
router           All routing configurations
service          All service configurations
snmp             All SNMP configurations
gt3-7200-3# show running-config partition access-list
Building configuration...

Current configuration : 87 bytes
!
!
!
!
access-list 90 permit 0.0.0.0 1.2.3.5
access-list 100 permit 10 any any
```

```

!
end

gt3-7200-3# show running-config | include access-list
access-list 90 permit 0.0.0.0 1.2.3.5
access-list 100 permit 10 any any
gt3-7200-3#

gt3-7200-3# show running-config partition boot
Building configuration...

Current configuration : 51 bytes
!
boot network tftp://service_config.txt
!
!
!
end

gt3-7200-3# show running-config partition class-map
Building configuration...

Current configuration : 78 bytes
!
!
!
class-map match-all abc
  match any
class-map match-all xyz
!
!
!
end

gt3-7200-3# show running-config | begin class-map
class-map match-all abc
  match any
class-map match-all xyz
!
!

gt3-7200-3# show running-config partition global-cdp
Building configuration...

Current configuration : 43 bytes
!
!
!
cdp timer 20
cdp holdtime 100
!
end

gt3-7200-3# sh run | inc cdp
cdp timer 20
cdp holdtime 100
gt3-7200-3#

gt3-7200-3# show ip interface brief
Interface                IP-Address      OK? Method Status          Protocol
FastEthernet0/0          unassigned      YES NVRAM    administratively down down
Ethernet2/0               10.4.2.32       YES NVRAM    up              up
Ethernet2/1              unassigned      YES NVRAM    administratively down down
Ethernet2/2              unassigned      YES NVRAM    administratively down down

```

Ethernet2/3	unassigned	YES	NVRAM	administratively	down	down
Serial3/0	unassigned	YES	NVRAM	administratively	down	down
Serial3/1	unassigned	YES	NVRAM	administratively	down	down
Serial3/2	unassigned	YES	NVRAM	administratively	down	down
Serial3/3	unassigned	YES	NVRAM	administratively	down	down
Loopback0	unassigned	YES	NVRAM	administratively	down	down
Loopback234	unassigned	YES	NVRAM	administratively	down	down

```
gt3-7200-3# show running-config partition interface fastethernet0/0
Building configuration...
```

```
Current configuration : 98 bytes
```

```
!
!
!
interface FastEthernet0/0
  no ip address
  no ip route-cache
  shutdown
  duplex half
!
!
end
```

```
gt3-7200-3# show running-config partition interface ethernet2/0
Building configuration...
```

```
Current configuration : 122 bytes
```

```
!
!
!
interface Ethernet2/0
  ip address 10.4.2.32 255.255.255.0
  no ip proxy-arp
  no ip route-cache
  duplex half
!
!
end
```

```
gt3-7200-3# show running-config partition interface ethernet2/1
Building configuration...
```

```
Current configuration : 94 bytes
```

```
!
!
!
interface Ethernet2/1
  no ip address
  no ip route-cache
  shutdown
  duplex half
!
!
end
```

```
gt3-7200-3# show running-config partition interface ethernet2/2
Building configuration...
```

```
Current configuration : 94 bytes
```

```
!
!
!
interface Ethernet2/2
```

```
no ip address
no ip route-cache
shutdown
duplex half
!
!
end

gt3-7200-3# show running-config partition interface ethernet2/3
Building configuration...

Current configuration : 94 bytes
!
!
!
interface Ethernet2/3
no ip address
no ip route-cache
shutdown
duplex half
!
!
end

gt3-7200-3# show running-config partition interface serial3/0
Building configuration...

Current configuration : 103 bytes
!
!
!
interface Serial3/0
no ip address
no ip route-cache
shutdown
serial restart-delay 0
!
!
end

gt3-7200-3# show running-config partition interface serial3/1
Building configuration...

Current configuration : 103 bytes
!
!
!
interface Serial3/1
no ip address
no ip route-cache
shutdown
serial restart-delay 0
!
!
end

gt3-7200-3# show running-config partition interface serial3/2
Building configuration...

Current configuration : 103 bytes
!
!
!
interface Serial3/2
```

```

no ip address
no ip route-cache
shutdown
serial restart-delay 0
!
!
end

gt3-7200-3# show running-config partition interface serial3/3
Building configuration...

Current configuration : 103 bytes
!
!
!
interface Serial3/3
no ip address
no ip route-cache
shutdown
serial restart-delay 0
!
!
end

gt3-7200-3# show running-config partition interface loopback0
Building configuration...

Current configuration : 79 bytes
!
!
!
interface Loopback0
no ip address
no ip route-cache
shutdown
!
!
end

gt3-7200-3# show running-config partition interface loopback1
                                     ^
% Invalid input detected at '^' marker.

gt3-7200-3# show running-config partition interface loopback234
Building configuration...

Current configuration : 81 bytes
!
!
!
interface Loopback234
no ip address
no ip route-cache
shutdown
!
!
end

gt3-7200-3# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
gt3-7200-3(config)# interface ethernet 2/0.1
gt3-7200-3(config-subif)# exit
gt3-7200-3(config)# exit

```

```
gt3-7200-3#
00:13:05: %SYS-5-CONFIG_I: Configured from console by console
gt3-7200-3#sh run part int e2/0.1
gt3-7200-3# show running-config partition interface ethernet2/0.1
Building configuration...

Current configuration : 58 bytes
!
!
!
interface Ethernet2/0.1
  no ip route-cache
!
!
end
gt3-7200-3# show run partition ip?
ip-as-path ip-community ip-domain-list ip-static-routes

gt3-7200-3#sh run part ip-as
gt3-7200-3#sh run part ip-as-path
Building configuration...

Current configuration : 125 bytes
!
!
!
ip as-path access-list 2 permit $ABC
ip as-path access-list 2 permit $xyz*
ip as-path access-list 2 permit qwe*
!
end
gt3-7200-3# show running-config partition ip-community
Building configuration...

Current configuration : 92 bytes
!
!
!
ip community-list standard asd permit
ip community-list expanded qwe deny uio*
!
end

gt3-7200-3# show running-config | include ip community
ip community-list standard asd permit
ip community-list expanded qwe deny uio*
gt3-7200-3#
gt3-7200-3# show running-config partition ip-domain-list
Building configuration...

Current configuration : 70 bytes
!
ip domain-list iop
ip domain-list tyu
ip domain-list jkl
!
!
!
end
gt3-7200-3# show running-config partition ip-static-routes
Building configuration...

Current configuration : 98 bytes
!
```

```

!
!
ip route 0.0.0.0 0.0.0.0 Ethernet2/0
ip route 171.69.1.129 255.255.255.255 10.4.29.1
!
end

gt3-7200-3# show running-config partition line
Building configuration...

Current configuration : 489 bytes
!
!
!
!
line con 0
  exec-timeout 0 0
  transport output lat pad v120 mop telnet rlogin udptn nasi
  stopbits 1
line aux 0
  transport output lat pad v120 mop telnet rlogin udptn nasi
  stopbits 1
line vty 0
  password lab
  login
  transport input lat pad v120 mop telnet rlogin udptn nasi
  transport output lat pad v120 mop telnet rlogin udptn nasi
line vty 1 4
  login
  transport input lat pad v120 mop telnet rlogin udptn nasi
  transport output lat pad v120 mop telnet rlogin udptn nasi
!
end
gt3-7200-3# show running-config partition policy-map
Building configuration...

Current configuration : 162 bytes
!
!
!
policy-map qwer
  description policy-map qwer.
  class xyz
    shape peak 8000 32 32
policy-map p1
policy-map sdf
  class abc
    set precedence 4
!
!
!
end
gt3-7200-3# show running-config partition route-map
Building configuration...

Current configuration : 65 bytes
!
!
!
route-map iop permit 10
!
route-map rty permit 10
!
!

```

```
end
gt3-7200-3#sh run part router bgp 1
Building configuration...

Current configuration : 111 bytes
!
!
!
router bgp 1
  no synchronization
  bgp log-neighbor-changes
  distance bgp 2 2 2
  no auto-summary
!
!
end

gt3-7200-3#sh run part router egp ?
<0-65535> Remote autonomous system number

gt3-7200-3#sh run part router egp 1
Building configuration...

Current configuration : 46 bytes
!
!
!
router egp 1
  timers egp 20 20
!
!
end

gt3-7200-3# show running-config partition router ?
  bgp      Border Gateway Protocol (BGP)
  egp      Exterior Gateway Protocol (EGP)
  eigrp     Enhanced Interior Gateway Routing Protocol (EIGRP)
  isis      ISO IS-IS
  iso-igrp  IGRP for OSI networks
  mobile    Mobile routes
  odr       On Demand stub Routes
  ospf      Open Shortest Path First (OSPF)
  rip       Routing Information Protocol (RIP)

gt3-7200-3# show running-config partition router eigrp ?
<1-65535> Autonomous system number

gt3-7200-3# show running-config partition router eigrp 1
Building configuration...

Current configuration : 13 bytes
!
!
!
end

gt3-7200-3#
gt3-7200-3# sh run part router eigrp 2
Building configuration...

Current configuration : 57 bytes
!
!
```

```

!
router eigrp 2
  variance 10
  auto-summary
!
!
end

gt3-7200-3# show running-config partition router ?
  bgp      Border Gateway Protocol (BGP)
  egp      Exterior Gateway Protocol (EGP)
  eigrp     Enhanced Interior Gateway Routing Protocol (EIGRP)
  isis      ISO IS-IS
  iso-igrp  IGRP for OSI networks
  mobile    Mobile routes
  odr       On Demand stub Routes
  ospf      Open Shortest Path First (OSPF)
  rip       Routing Information Protocol (RIP)

gt3-7200-3# show running-config partition router isis ?
  WORD      ISO routing area tag
  |         Output modifiers
  <cr>

gt3-7200-3# show running-config partition router isis qwe
Building configuration...

Current configuration : 86 bytes
!
!
!
router isis qwe
  set-attached-bit route-map qwer
  use external-metrics
!
!
end

gt3-7200-3# show running-config partition router isis ?
  WORD      ISO routing area tag
  |         Output modifiers
  <cr>

gt3-7200-3# show running-config partition router iso
gt3-7200-3# show running-config partition router iso-igrp ?
  WORD      ISO routing area tag
  |         Output modifiers
  <cr>

gt3-7200-3# show running-config partition router iso-igrp
Building configuration...

Current configuration : 31 bytes
!
!
!
router iso-igrp
!
!
end

gt3-7200-3# show running-config | begin iso
router iso-igrp
!

```

```
router isis qwe
  set-attached-bit route-map qwer
  use external-metrics
!
router egp 1
  timers egp 20 20
!
router bgp 1
  no synchronization
  bgp log-neighbor-changes
  distance bgp 2 2 2
  no auto-summary
!
```

```
gt3-7200-3# show running-config partition router ?
  bgp      Border Gateway Protocol (BGP)
  egp      Exterior Gateway Protocol (EGP)
  eigrp     Enhanced Interior Gateway Routing Protocol (EIGRP)
  isis      ISO IS-IS
  iso-igrp  IGRP for OSI networks
  mobile    Mobile routes
  odr       On Demand stub Routes
  ospf      Open Shortest Path First (OSPF)
  rip       Routing Information Protocol (RIP)
```

```
gt3-7200-3# show running-config partition router mobile ?
| Output modifiers
<cr>
```

```
gt3-7200-3# show running-config partition router mobile
Building configuration...
```

```
Current configuration : 42 bytes
!
!
!
router mobile
  distance 20
!
!
end
```

```
gt3-7200-3# sh run | include router
router mobile
router odr
router eigrp 2
router ospf 4
router iso-igrp
router isis qwe
router egp 1
router bgp 1
```

```
gt3-7200-3# show running-config partition router ?
  bgp      Border Gateway Protocol (BGP)
  egp      Exterior Gateway Protocol (EGP)
  eigrp     Enhanced Interior Gateway Routing Protocol (EIGRP)
  isis      ISO IS-IS
  iso-igrp  IGRP for OSI networks
  mobile    Mobile routes
  odr       On Demand stub Routes
  ospf      Open Shortest Path First (OSPF)
  rip       Routing Information Protocol (RIP)
```

```
gt3-7200-3# show running-config partition router ospf ?
<1-65535> Process ID
```

```
gt3-7200-3# show running-config partition router ospf 4
Building configuration...
```

```
Current configuration : 64 bytes
!
!
!
router ospf 4
 log-adjacency-changes
 distance 4
!
!
end
```

```
gt3-7200-3# sh run part service
Building configuration...
```

```
Current configuration : 190 bytes
!
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service internal
service udp-small-servers
service tcp-small-servers
!
!
!
end
```

```
gt3-7200-3# sh run part snmp
Building configuration...
```

```
Current configuration : 84 bytes
!
!
!
snmp-server community user101 RW
snmp mib target list qwe host 0.0.0.0
!
end
```

Additional References

The following sections provide references related to the Configuration Partitioning feature.

Related Documents

Related Topic	Document Title
Running configuration performance enhancement— parser config cache for interfaces.	Configuration Generation Performance Enhancements (Phase 1) feature module, Release 12.2(25)S
Provisioning of customer services, Config Rollback, Config Locking, and configuration access control	Contextual Configuration Diff Utility feature module, Release 12.2(33)SRA
Configuration management—Config change logging.	Configuration Change Notification and Logging feature module, Release 12.2(33)SRA)
Configuration management —Quick-save for config change logging ¹ .	Configuration Logger Persistency feature module, Release 12.2(33)SRA
Cisco IOS software configuration access control and config session locking (“Config Lock”).	Exclusive Configuration Change Access and Access Session Locking , Release 12.2(33)SRA

1. The “Configuration Logger Persistency” feature allows saving just the commands entered since the last startup-config file was generated, rather than saving the entire startup configuration.

Standards

Standard	Title
No standards are associated with this feature.	—

MIBs

MIB	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	—

RFCs

RFC	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register on Cisco.com.	http://www.cisco.com/techsupport

Command Reference

This section documents only commands that are new or modified.

- [parser config partition](#)
- [show running-config partition](#)

parser config partition

To disable the partitioning of the running configuration use the **no parser config partition** command in global configuration mode. To reenale configuration partitioning, use the **parser config partition** command.



Note

This command is not related to disk partitioning.

parser config partition

no parser config partition

Syntax Description

No arguments or keywords.

Command Default

Enabled

Command Modes

Global configuration (config)

Command History

Release	Modification
12.2(33)SRB	This command was introduced.

Usage Guidelines

This command controls (enables or disables) the Configuration Partitioning feature.



Note

This command is not related to disk partitions or disk partitioning.

To display the list of commands that make up the current running configuration for a specific part (“partition”) of the system’s global running configuration, use the **show running-config partition** command in privileged EXEC mode.

The Configuration Partitioning feature uses a small amount of system resources. The **no parser config partition** command allows you to disable this feature if the feature is not needed on your system.



Note

Only the **no** form of this command will appear in configuration files. To determine if config partitioning is supported on your system and whether it is enabled, use the **show running-config parser ?** command.

Examples

The following example shows the steps required to disable partitioning of the system running configuration:

```
Router> enable
Router# config t
Enter configuration commands, one per line. End with CNTL/Z.
```

■ parser config partition

```
Router(config)# no parser config partition
System configured
```

Related Commands

Command	Description
show running-config partition	Displays the list of commands that make up the current running configuration for a specific part of the system's global running configuration. When used with the ? CLI help keyword, can also be used to determine the availability and status of the Configuration Partitioning feature.

show running-config partition

To display the list of commands that make up the current running configuration for a specific part of the system's global running configuration, use the **show running-config partition** command in Privileged Exec mode.

show running-config partition *part*

Syntax Description

part

The *part* argument will consist of one or more keyword options. These keywords represent a partition of the system's running configuration state, as a major-descriptor and, in some cases, one or more minor-descriptors.

For example, in the command **show running-config partition router eigrp 1**, the major-descriptor for the *part* argument is the **router** keyword, and the minor-descriptors for the *part* argument are the **eigrp 1** keywords.

The actual list of *part* keyword options will depend on your system hardware, what feature set you are running, and what features are currently configured on your system.

Some examples of command *part* keyword options are provided here for reference. Use the **show running-config partition ?** command on your system to view the list of command options available on your system.

- **access-list**—Displays all running configuration commands that make up the access-list configuration partition.
- **boot**—Displays all running configuration commands that make up the boot configuration partition.
- **class-map**—Displays all running configuration commands that make up the class-map configuration partition.
- **global-cdp**—Displays all running configuration commands that make up the global CDP configuration partition.
- **interface [type slot/port/number]**—Displays all running configuration commands that make up the interfaces configuration partition or the configuration commands that are applied to the specified interface.
- **line**—Displays all running configuration commands that make up the line command configuration partition.
- **policy-map**—Displays all running configuration commands that make up the policy-map configuration partition.
- **route-map**—Displays all running configuration commands that make up the route-map configuration partition.
- **router [protocol]**—Displays all running configuration commands that make up the router configuration partition, or the configuration commands for the specified routing protocol.
- **service**—Displays all running configuration commands that make up the services (small server) configuration partition.
- **snmp**—Displays all running configuration commands that make up the SNMP configuration partition.
- **|** – Allows for the addition of output modifiers.

Command Default None

Command Modes Privileged Exec

Command History	Release	Modification
	12.2(33)SRB	This command was introduced for Cisco 7600 series images in Cisco IOS Release 12.2(33)SRb.

Usage Guidelines When the Configuration Partitioning feature is enabled, the system groups the configuration state of the device into parts (called “partitions”) for the purpose of generating the virtual running configuration file (the list of configuration commands). The selective processing of the system’s configuration state for the purpose of generating a partial running configuration is called “configuration partitioning.”

**Note**

This command is not related to hard drive or flash drive partitioning.

This granular access to configuration information offers important performance benefits for high-end routing platforms with very large configuration files, as the system wide generation of a complete virtual configuration file from all components on systems with large and complex configurations can become overly resource intensive and be unacceptably slow.

The **show running-config partition** command allows you to display only the part of the running configuration that you want to examine, while also allowing the system to process only the collection of system components (such as specific interfaces) that you need to display. This is in contrast to other existing extensions to the **show running-config** command, which only *filter* the generated list after all system components have been processed.

The Configuration Partitioning feature is enabled by default in Cisco IOS software images that support the feature. To disable the feature, use the **no parser config partition** command.

Examples In the following example, the system generates a view of the running configuration by polling only the components associated with the access-list parts of the running configuration state, and then displays only those access-list-related configuration commands.

```
Router# show running-config partition access-list
      Building configuration...

Current configuration : 127 bytes
!
Configuration of Partition access-list
!
!
!
access-list 90 permit 0.0.0.0 1.2.3.5
access-list 100 permit 10 any any
!
end
```

In the following example, only the main configuration partition associated with the interface configuration is queried, and only the configuration commands associated with FastEthernet interface 0/1 are displayed.

```
Router# show running-config partition interface fastethernet0/1
Building configuration...
```

```
Current configuration : 213 bytes
!
Configuration of Partition interface FastEthernet0/1
!
!
interface FastEthernet0/1
 ip address 10.4.2.39 255.255.255.0
 no ip route-cache cef
 no ip route-cache
 duplex half
 ipv6 enable
 no cdp enable
!
!
end
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the default startup configuration file.
show interfaces	Displays statistics for all interfaces configured on the router or access server.
show running-config	Generates and displays a virtual configuration file that lists all configuration commands that are in effect on the system.
show startup-config	Displays the contents of NVRAM (if present and valid) or displays the configuration file pointed to by the CONFIG_FILE environment variable. (Command alias for the more:nvram startup-config command.)

Feature Information for Configuration Partitioning

Table 1 lists the release history for this feature.

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

**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 Configuration Partitioning

Feature Name	Releases	Feature Information
Configuration Partitioning	12.2(33)SRB	This feature was introduced.

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