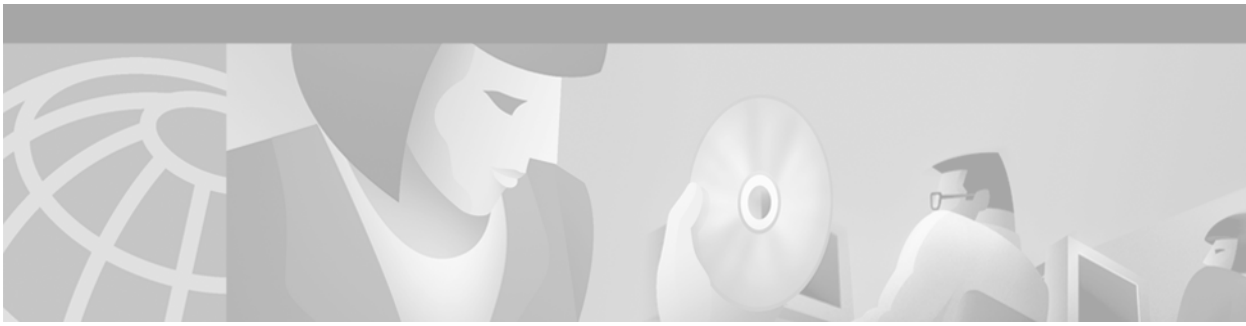

Cisco 7500 Series Line Card Configuration Commands

This chapter contains Cisco IOS software commands used to configure characteristics for Cisco 7500 series line cards. Line cards are any I/O card that can be inserted in a modular chassis (including the Cisco 7500 RSP cards).

For more information on Cisco 7000 series hardware configuration, see the Core/High-End Routers documentation section of Cisco.com at http://www.cisco.com/univercd/cc/td/doc/product/core/index.htm or on the Documentum CD-ROM.

service single-slot-reload-enable

To enable single line card reloading for all line cards in a Cisco 7500 series router, use the **service single-slot-reload-enable** global configuration command. To disable single line card reloading for the line cards, use the **no** form of this command.

service single-slot-reload-enable

no service single-slot-reload-enable

Syntax Description

This command has no arguments or keywords.

Defaults

Single line card reloading is disabled by default.

Command Modes

Global configuration mode

Command History

Release	Modification
12.0(13)S	This command was introduced.
12.1(5)T	This command was integrated in Cisco IOS Release 12.1 T.

Usage Guidelines

Before the introduction of this command, the only method of correcting a line card hardware failure or a severe software error for one line card on a Cisco 7500 series router required the execution of a Cbus Complex, a process that reloaded every line card on the network backplane. The time taken to complete the Cbus Complex was often inconvenient, and no network traffic could be routed or switched during the Cbus Complex process.

The **service single-slot-reload-enable command** allows users to correct a line card failure on a Cisco 7500 series router by reloading the failed line card without reloading any other line cards on the network backplane. During the single line card reload process, all physical lines and routing protocols on the other line cards of the network backplane remain active. A single line card reload is also substantially faster than the Cbus Complex process

Examples

In the following example, single line card reloading is enabled for all lines cards on a Cisco 7513 router:

```
c7513(config)# service single-slot-reload-enable
```

Related Commands

Command	Description
show diag	Displays hardware information on line cards.
show running-config	Displays configuration information.

slave auto-sync config

To turn on automatic synchronization of configuration files for a Cisco 7507 or Cisco 7513 router that is configured for High System Availability (HSA) using Dual RSP Cards, use the **slave auto-sync config** global configuration command. To turn off automatic synchronization, use the **no** form of the command.

slave auto-sync config

no slave auto-sync config

Syntax Description

This command has no arguments or keywords.

Defaults

Enabled

Command Modes

Global configuration

Command History

Release	Modification
11.1	The command was introduced.

Usage Guidelines

Use this command for a Cisco 7507 or Cisco 7513 router that is configured for dual RSP cards. On the Cisco 7507 and Cisco 7513 router, you can install two RSP cards in a single router to improve system availability. Dual RSP Cards is a High System Availability (HSA) feature.

In automatic synchronization mode, when you issue a **copy** EXEC command that specifies the master's startup configuration (**nvram:startup-config**) as the target, the master also copies the same file to the slave's startup configuration (**slavenvram:startup-config**). Use this command when implementing HSA for simple hardware backup or for software error protection to ensure that the master and slave RSP contain the same configuration files.

Examples

The following example turns on automatic configuration file synchronization. When the **copy system:running-config nvram:startup-config** command is entered, the running configuration is saved to the startup configurations of both the master RSP and the slave RSP.

```
Router(config)# slave auto-sync config
Router(config)# end
Router# copy system:running-config nvram:startup-config
```

Related Commands

Command	Description
show controller cbus	Displays detailed information on the cards connected to the CBus controller.
show stacks	Displays the stack trace and version information of the master and slave RSP cards.

Command	Description
show version	Displays the software version running on the master and slave RSP cards.
slave sync config	Manually synchronizes configuration files on the master and slave RSP cards of a Cisco 7507 or Cisco 7513 router.

slave default-slot

To specify the default slave Route Switch Processor (RSP) card on a Cisco 7507 or Cisco 7513 router, use the **slave default-slot** global configuration command.

slave default-slot *processor-slot-number*

Syntax Description

processor-slot-number	Number of a processor slot that contains the default slave RSP. On the Cisco 7507 router, valid values are 2 or 3. On the Cisco 7513 router, valid values are 6 or 7. The default is the higher number processor slot.

Defaults

The default slave is the RSP card located in the higher number processor slot. On the Cisco 7507 router, processor slot 3 contains the default slave RSP. On the Cisco 7513 router, processor slot 7 contains the default slave RSP.

Command Modes

Global configuration

Command History

Release	Modification
11.1	The command was introduced.

Usage Guidelines

Use this command for a Cisco 7507 or Cisco 7513 router that is configured for Dual RSP Cards. On the Cisco 7507 and Cisco 7513 router, you can install two RSP cards in a single router to improve system availability. Dual RSP Cards is a High System Availability (HSA) feature.

The router uses the default slave information when booting as follows:

- If a system boot is due to powering up the router or using the **reload** EXEC command, then the specified default slave will be the slave RSP.
- If a system boot is due to a system crash or hardware failure, then the system ignores the default slave designation, and makes the crashed or faulty RSP card the slave RSP.

Examples

In the following example, the user sets the default slave RSP to processor slot 2 on a Cisco 7507 router:

```
c7507(config)# slave default-slot 2
```

Related Commands

Command	Description
reload	Reloads the operating system.
show controller cbus	Displays detailed information on the cards connected to the CBus controller.
show stacks	Displays the stack trace and version information of the master and slave RSP cards.
show version	Displays the software version running on the master and slave RSP cards.

slave image

To specify the image that the slave Route Switch Processor (RSP) runs on a Cisco 7507 or Cisco 7513 router, use the **slave image** global configuration command.

slave image {**system** | *file-url*}

Syntax Description

system	Loads the slave image that is bundled with the master system image. This is the default.
file-url	Loads the slave image from the specified file in a Flash file system. If you do not specify a filename, the first file on the specified Flash file system is the default file.

Defaults

The default is to load the image from the system bundle.

Command Modes

Global configuration

Command History

Release	Modification
11.1	This command was introduced.

Usage Guidelines

Use this command for a Cisco 7507 or Cisco 7513 router that is configured for Dual RSP Cards. On the Cisco 7507 and Cisco 7513 router, you can install two RSP cards in a single router to improve system availability. Dual RSP Cards is a High System Availability (HSA) feature.

Use the **slave image** command to override the slave image that is bundled with the master image.

When using HSA for simple hardware backup, ensure that the slave image is in the same location on the master and the slave RSP card. Thus, if the slave RSP card becomes the master, it will be able to find the slave image and download it to the new slave.

Examples

In the following example, the slave RSP is specified to run the rsp-dw-mz.ucode.111-3.2 image from slot 0:

```
c7507(config)# slave image slot0:rsp-dw-mz.ucode.111-3.2
```

Related Commands

Command	Description
show controller cbus	Displays detailed information on the cards connected to the CBus controller.
show stacks	Displays the stack trace and version information of the master and slave RSP cards.
show version	Displays the software version running on the master and slave RSP cards.
slave reload	Forces a reload of the image that the slave RSP card is running on a Cisco 7507 or Cisco 7513 router.

slave reload

To force a reload of the image that the slave Route Switch Processor (RSP) card is running on a Cisco 7507 or Cisco 7513 router, use the **slave reload** global configuration command.

slave reload

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

Global configuration

Command History

Release	Modification
11.1	The command was introduced.

Usage Guidelines

Use this command for a Cisco 7507 or Cisco 7513 router that is configured for Dual RSP Cards. On the Cisco 7507 and Cisco 7513 router, you can install two RSP cards in a single router to improve system availability. Dual RSP Cards is a High System Availability (HSA) feature.

After using the **slave image** global configuration command to specify the image that the slave RSP runs on a Cisco 7507 or Cisco 7513 router, use the **slave reload** command to reload the slave with the new image. The **slave reload** command can also be used to force the slave to reboot its existing image.

Examples

In the following example, an inactive slave RSP card is reloaded. If the slave reloads, it will return to an active slave state. If the master RSP fails, the slave RSP will become the master.

```
c7507(config)# slave reload
```

Related Commands

Command	Description
show controller cbus	Displays detailed information on the cards connected to the CBus controller.
show stacks	Displays the stack trace and version information of the master and slave RSP cards.
show version	Displays the software version running on the master and slave RSP cards.
slave image	Specifies the image that the slave RSP runs on a Cisco 7507 or Cisco 7513 router.

slave sync config

To manually synchronize configuration files on the master and slave Route Switch Processor (RSP) cards of a Cisco 7507 or Cisco 7513 router, use the **slave sync config** privileged EXEC command.

slave sync config

Syntax Description

This command has no arguments or keywords.

Defaults

Automatic synchronization is turned on.

Command Modes

Privileged EXEC

Command History

Release	Modification
11.1	The command was introduced.

Usage Guidelines

Use this command for a Cisco 7507 or Cisco 7513 router that is configured for Dual RSP Cards. On the Cisco 7507 and Cisco 7513 router, you can install two RSP cards in a single router to improve system availability. Dual RSP Cards is a High System Availability (HSA) feature.

This command allows you to synchronize the configuration files of the master and slave RSP cards on a case-by-case basis when you do not have automatic synchronization turned on. This command copies the master's configuration file to the slave RSP card.

Note You *must* use this command when you insert a new slave RSP card into a Cisco 7507 or Cisco 7513 router for the first time to ensure that the new slave is configured consistently with the master.

Examples

In the following example, the configuration files on the master and slave RSP card are synchronized:

```
c7507(config)# slave sync config
```

Related Commands

Command	Description
show controller cbus	Displays detailed information on the cards connected to the CBus controller.
show stacks	Displays the stack trace and version information of the master and slave RSP cards.
show version	Displays the software version running on the master and slave RSP cards.
slave auto-sync config	Turns on automatic synchronization of configuration files for a Cisco 7507 or Cisco 7513 router that is configured for HSA.

slave terminal

To enable access to the slave Route Switch Processor (RSP) console, use the **slave terminal** global configuration command. To disable access to the slave RSP console, use the **no** form of this command.

slave terminal

no slave terminal

Syntax Description

This command has no arguments or keywords.

Defaults

Enabled

Command Modes

Global configuration

Command History

Release	Modification
11.1	The command was introduced.

Usage Guidelines

The slave console does not have enable password protection. Thus, an individual connected to the slave console port can enter privileged EXEC mode and view or erase the configuration of the router. Use the **no slave terminal** command to disable slave console access and prevent security problems. When the slave console is disabled, users cannot enter commands.

If slave console access is disabled, the following message appears periodically on the slave console:

```
%%Slave terminal access is disabled. Use "slave terminal" command in master RSP
configuration mode to enable it.
```

Examples

In the following example, the user disables console access to the slave RSP:

```
c7507(config)# no slave terminal
```

Related Commands

Command	Description
show controller cbus	Displays detailed information on the cards connected to the CBus controller.
show stacks	Displays the stack trace and version information of the master and slave RSP cards.
show version	Displays the software version running on the master and slave RSP cards.
slave auto-sync config	Turns on automatic synchronization of configuration files for a Cisco 7507 or Cisco 7513 router that is configured for Dual RSP Cards.