



Cisco IOS High Availability Command Reference

active (call home)

To enable a destination profile for Call Home, use the **active** command in call home profile configuration mode. To disable a profile, use the **no** form of the command. To enable a user-defined profile, use the **default** form of the command, or to disable the CiscoTac-1 predefined profile, use the **default** form of the command.

active

no active

default active

Command Default

A user-defined destination profile is automatically enabled in Call Home after it is created. The predefined CiscoTac-1 profile is disabled.

Command Modes

Call home profile configuration (cfg-call-home-profile)

Command History

Release	Modification
12.2(33)SXH	This command was introduced.
12.2(33)SRC	This command was integrated into Cisco IOS XE Release 12.2(33)SRC.
12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines

A destination profile in Call Home is enabled when it is created. To disable a profile, use the **no active** command.

Examples

The following shows how to disable a destination profile that is automatically activated upon creation:

```
Switch(config)# call-home
Switch(cfg-call-home)# profile cisco
Switch(cfg-call-home-profile)# no active
```

The following shows how to reactivate a destination profile that is disabled:

```
Switch(config)# call-home
Switch(cfg-call-home)# profile cisco
Switch(cfg-call-home-profile)# active
```

■ active (call home)

Related Commands	Command	Description
	call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
	profile (call home)	Configures a destination profile to specify how alert notifications are delivered for Call Home and enters call home profile configuration mode.
	show call-home	Displays Call Home configuration information.

alert-group

To enable an alert group, use the **alert-group** command in call home configuration mode. To disable an alert group, use the **no** form of this command.

alert-group { **all** | **configuration** | **diagnostic** | **environment** | **inventory** | **syslog** }

no alert-group

Syntax Description

all	Specifies all the alert groups.
configuration	Specifies the configuration alert group.
diagnostic	Specifies the diagnostic alert group.
environment	Specifies the environmental alert group.
inventory	Specifies the inventory alert group.
syslog	Specifies the syslog alert group.

Command Default

All alert groups are enabled.

Command Modes

Call home configuration (cfg-call-home)

Command History

Release	Modification
12.2(33)SXH	This command was introduced.
12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines

An *alert group* is a predefined subset of Call Home alerts supported on a platform. Different types of Call Home alerts are grouped into different alert groups depending on their type. The alert are as follows:

- Configuration
- Diagnostic
- Environment
- Inventory
- Syslog



Note

The diagnostic alert group is not supported in Cisco IOS Release 12.4(24)T.

Call Home trigger events are grouped into alert groups with each alert group assigned command-line interface commands to execute when an event occurs. These alert group trigger events and executed commands are platform-dependent. For more information, see the platform-specific configuration guides on the Smart Call Home site on Cisco.com at:

http://www.cisco.com/en/US/products/ps7334/serv_home.html

Examples

The following example shows how to enable a specific alert group:

```
Router(config)# call-home
Router(cfg-call-home)# alert-group configuration
```

The following example shows how to enable all alert groups:

```
Router(cfg-call-home)# alert-group all
```

The following example shows how to disable a specific alert group:

```
Router(cfg-call-home)# no alert-group syslog
```

The following example shows how to disable all alert groups:

```
Router(cfg-call-home)# no alert-group all
```

Related Commands

call-home (global configuration)	Enters call home configuration mode.
show call-home	Displays call home configuration information.

call-home (global configuration)

To enter call home configuration mode for configuration of Call Home settings, use the **call-home (global configuration)** command in global configuration mode.

call-home

Syntax Description This command has no arguments or keywords.

Command Default No default behavior or values.

Command Modes Global configuration (config)

Command History	Release	Modification
	12.2(33)SXH	This command was introduced.
	12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
	12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
	12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines When you use the **call-home** command, you enter call home configuration mode and can configure settings for the Call Home feature. Some of the available call home configuration commands are shown in the Examples section.

Examples The following example shows how to enter call home configuration mode and lists the commands that are available for Call Home configuration in Cisco IOS XE Release 2.6:

```
Router(config)# call-home
Router(cfg-call-home)#?
Call-home configuration commands:
  alert-group          Enable or disable alert-group
  contact-email-addr  System Contact's email address
  contract-id         Contract identification for Cisco AutoNotify
  copy                Copy a call-home profile
  customer-id        Customer identification for Cisco AutoNotify
  default             Set a command to its defaults
  exit               Exit from call-home configuration mode
  mail-server        Configure call-home mail_server
  no                 Negate a command or set its defaults
  phone-number       Phone number of the contact person
  profile            Enter call-home profile configuration mode
  rate-limit        Configure call-home message rate-limit threshold
  rename            Rename a call-home profile
  sender            Call home msg's sender email addresses
```

call-home (global configuration)

site-id	Site identification for Cisco AutoNotify
street-address	Street address for RMA part shipments
vrf	VPN Routing/Forwarding instance name

Related Commands

Command	Description
alert-group	Enables an alert group.
contact-email-addr	Assigns the e-mail address to be used for customer contact for Call Home.
contract-id	Assigns the customer's contract identification number for Call Home.
copy profile	Creates a new destination profile with the same configuration settings as an existing profile.
customer-id (call home)	Assigns a customer identifier for Call Home.
mail-server	Configures an SMTP e-mail server address for Call Home.
phone-number	Assigns the phone number to be used for customer contact for Call Home.
profile (call home)	Configures a destination profile to specify how alert notifications are delivered for Call Home and enters call home profile configuration mode.
rate-limit (call home)	Configures the maximum number of messages per minute for Call Home.
rename profile	Changes the name of a destination profile.
sender	Assigns the e-mail addresses to be used in the from and reply-to fields in messages for Call Home.
service call-home	Enables Call Home.
show call-home	Displays Call Home configuration information.
site-id	Assigns a site identifier for Call Home.
street-address	Specifies a street address where RMA equipment for Call Home can be sent.
vrf (call home)	Associates a VRF instance for Call Home e-mail message transport.

call-home request

To submit information about your system to Cisco for report and analysis information, use the **call-home request** command in privileged EXEC mode.

```
call-home request { bugs-list | command-reference | config-sanity | output-analysis
  "show-command" | product-advisory } { profile name [ccoid user-id] | ccoid user-id [profile
  name]
```

Syntax Description		
bugs-list		Requests report of known bugs in the running version and in the currently applied features.
command-reference		Requests report of reference links to all commands in the running configuration.
config-sanity		Requests report of information on best practices related to the current running configuration.
output-analysis " <i>show-command</i> "		Sends the output of the specified CLI show command for analysis. The show command must be contained in quotes (" ").
product-advisory		Requests report of Product Security Incident Response Team (PSIRT) notices, End of Life (EOL) or End of Sales (EOS) notices, or field notices (FN) that may affect devices in your network.
profile <i>name</i>		Specifies an existing Call Home destination profile to which the request is sent. If no profile is specified, the request is sent to the CiscoTAC-1 profile.
ccoid <i>user-id</i>		Specifies the identifier of a registered Smart Call Home user. If a <i>user-id</i> is specified, the resulting analysis report is sent to the e-mail address of the registered user. If no <i>user-id</i> is specified, the report is sent to the contact e-mail address of the device.

Command Default No default behavior or values.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(33)SXI	This command was introduced.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines When you use this command, an analysis report is sent by Cisco to a configured contact e-mail address. The recipient profile does not need to be enabled for the call-home request. The profile should specify the e-mail address where the transport gateway is configured so that the request message can be forwarded to the Cisco TAC and the user can receive the reply from the Smart Call Home service.

Based on the keyword option specified, the output of a predetermined set of commands as applicable to your system such as the **show running-config all**, **show version**, and **show module** (standalone) or **show module switch all** (VS system) commands, is sent to Cisco for analysis.

Examples

The following example shows a request for analysis of the **show diagnostic result module all** command to be sent to the contact information specified for the Call Home destination profile named “TG”:

```
Router# call-home request output-analysis "show diagnostic result module all" profile TG
```

The following example shows a request for the known bugs list to be sent to the Call Home destination profile named “CiscoTAC-1” and a registered CCO userid “myuserid”:

```
Router# call-home request bugs-list profile CiscoTAC-1 ccoid myuserid
```

Related Commands

call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
call-home send	Executes an EXEC-level CLI command and sends the command output for Call Home using e-mail.
call-home send alert-group	Manually sends an alert group message for Call Home.
service call-home	Enables Call Home.
show call-home	Displays Call Home configuration information.

call-home send

To execute an EXEC-level CLI command and send the command output for Call Home using e-mail, use the **call-home send** command in privileged EXEC mode.

```
call-home send "exec-command" {email email-addr [tac-service-request request-number] |
tac-service-request request-number [email email-addr]}
```

Cisco 7600 Series Routers in Cisco IOS Release 12.2(33)SRC

```
call-home send "exec-command" {email email-addr [service-number SR] | service-number SR}
```

Syntax Description		
	<i>"exec-command"</i>	Specifies an EXEC-level CLI command to be executed. The command output is sent by e-mail. The EXEC command must be contained in quotes (" ").
	email <i>email-addr</i>	Specifies the e-mail address to which the CLI command output is sent. If no e-mail address is specified, the command output is sent to the Cisco TAC at attach@cisco.com .
	service-number <i>SR</i>	(Cisco 7600 Series Routers in Cisco IOS Release 12.2(33)SRC) Specifies an active TAC case number to which the command output pertains. This number is required only if no e-mail address (or a TAC e-mail address) is specified, and will appear in the e-mail subject line.
	tac-service-request <i>request-number</i>	Specifies the TAC service request number that appears in the subject line of the e-mail. This keyword is optional if used after entering the email option.

Command Default This command has no default behavior or values.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(33)SRC	This command was introduced.
	12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI. The service-number keyword option is replaced by the tac-service-request keyword option.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines This command causes the specified CLI command to be executed on the system. The command must be enclosed in quotes (" "), and can be any EXEC-level command, including commands for all modules. The command output is then sent by e-mail to the specified e-mail address. If no e-mail address is specified, the command output is sent to the Cisco TAC at attach@cisco.com. The e-mail will be sent in long text format with the service number, if specified, in the subject line.

Examples

This example shows how to send a CLI command and have the command output e-mailed:

```
Router# call-home send "show diagnostic result module all" email support@example.com
```

Related Commands

call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
call-home send alert-group	Manually sends an alert group message for Call Home.
service call-home	Enables Call Home.
show call-home	Displays Call Home configuration information.

call-home send alert-group

To manually send an alert group message for the Call Home feature, use the **call-home send alert-group** command in privileged EXEC mode.

Cisco Catalyst 6500 Series Switches, Cisco Catalyst 4500 Series Switches, Cisco 7600 Series Routers

```
call-home send alert-group { configuration | diagnostic module number | inventory } [profile profile-name]
```

Cisco ASR 1000 Series Aggregation Services Routers

```
call-home send alert-group { configuration | diagnostic slot number | inventory } [profile profile-name]
```

Syntax Description		
configuration		Sends the configuration alert-group message to the destination profile.
diagnostic module <i>number</i>		(Cisco Catalyst 6500 series switches, Cisco Catalyst 4500 series switches, and Cisco 7600 series routers) Sends the diagnostic alert-group message to the destination profile for a specific module, slot/subslot, or slot/bay number. This option is not supported on the Cisco ASR 1000 Series Router.
inventory		Sends the inventory call-home message.
profile <i>profile-name</i>		(Optional) Specifies the name of the destination profile.
diagnostic slot <i>number</i>		(Cisco ASR 1000 Series Routers) Sends the diagnostic alert-group message to destination profiles for the specified slot, such as R0 for Route Processor slot 0.

Command Default A Call Home alert group message is not manually sent.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(33)SXH	This command was introduced.
	12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
	12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
	12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6. The diagnostic slot R0 keyword option was added.

Usage Guidelines When you enter the module number, you can enter the number of the module, the slot/subslot, or the slot/bay number.

**Note**

The Cisco ASR 1000 Series Router does not support the **module** keyword option. Instead, use the **slot** keyword.

If you do not specify the **profile** *profile-name*, the message is sent to all subscribed destination profiles. If you do specify a profile, the destination profile does not need to be subscribed to the alert group.

Only the configuration, diagnostic, and inventory alert groups can be manually sent.

Examples

The following example shows how to send the configuration alert-group message to the destination profile:

```
Router# call-home send alert-group configuration
```

The following example shows how to send the diagnostic alert-group message to all subscribed destination profiles that have lower severity subscription than the diagnostic result for a specific module, slot/subslot, or slot/bay number:

```
Router# call-home send alert-group diagnostic module 3/2
```

The following example shows how to send the diagnostic alert-group message to the destination profile named CiscoTAC-1 for a specific module, slot/subslot, or slot/bay number:

```
Router# call-home send alert-group diagnostic module 3/2 profile CiscoTAC-1
```

The following example shows how to send the diagnostic alert-group message to the destination profile named CiscoTAC-1 on RP slot 0 on a Cisco ASR 1000 Series Router:

```
Router# call-home send alert-group diagnostic slot R0 profile CiscoTAC-1
```

The following example shows how to send an inventory call-home message to the destination profile:

```
Router# call-home send alert-group inventory
```

Related Commands

call-home (global configuration)	Enters call home configuration mode.
call-home test	Manually sends a Call Home test message to a destination profile.
service call-home	Enables Call Home.
show call-home	Displays Call Home configuration information.

call-home test

To manually send a Call Home test message to a destination profile, use the **call-home test** command in privileged EXEC mode.

call-home test [*“test-message”*] **profile** *profile-name*

Syntax Description	<i>“test-message”</i>	(Optional) Test message text enclosed in required quotation marks (“ ”).
	profile <i>profile-name</i>	Specifies the name of the destination profile.

Command Default This command has no default behavior or values.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(33)SXH	This command was introduced.
	12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
	12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
	12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines This command sends a test message to the specified destination profile. If you enter test message text, you must enclose the text in quotes (“ ”) if it contains spaces. If you do not enter a message, a default message is sent.

Examples The following example shows how to manually send a Call Home test message with the text “test of the day” to the profile named CiscoTAC-1:

```
Router# call-home test "test of the day" profile CiscoTAC-1
```

Related Commands		
call-home (global configuration)		Enters call home configuration mode for configuration of Call Home settings.
call-home send alert-group		Manually sends an alert group message for Call Home.
service call-home		Enables Call Home.
show call-home		Displays Call Home configuration information.

clear ip rsvp high-availability counters

To clear (set to zero) the Resource Reservation Protocol (RSVP) traffic engineering (TE) high availability (HA) counters that are being maintained by a Route Processor (RP), use the **clear ip rsvp high-availability counters** command in privileged EXEC mode.

clear ip rsvp high-availability counters

Syntax Description This command has no arguments or keywords.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(33)SRA	This command was introduced.
	12.2(33)SRB	Support for In-Service Software Upgrade (ISSU) was added.
	12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.

Usage Guidelines Use the **clear ip rsvp high-availability counters** command to clear (set to zero) the HA counters, which include state, ISSU, resource failures, and historical information.

Examples The following example clears all the HA information currently being maintained by the RP:

```
Router# clear ip rsvp high-availability counters
```

Related Commands	Command	Description
	show ip rsvp high-availability counters	Displays the RSVP TE HA counters that are being maintained by an RP.

clear issu state

To clear the state and current version of the Route Processors (RPs) during the In Service Software Upgrade (ISSU) process, use the **clear issu state** command in user EXEC or privileged EXEC mode.

clear issu state

Syntax Description This command has no arguments or keywords.

Command Modes User EXEC (>
Privileged EXEC (#)

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

Usage Guidelines This command clears the state and current version of RPs during the ISSU process.

Examples The following example clears state and current version of the RPs during the ISSU process:

```
Router# clear issu state
```

configure issu set rollback timer

To configure the rollback timer value, use the **configure issu set rollback timer** command in global configuration mode.

configure issu set rollback timer *seconds*

Syntax Description	<i>seconds</i>	The rollback timer value, in seconds. The valid timer value range is from 0 to 7200 seconds (two hours). A value of 0 seconds disables the rollback timer.
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Command Default Rollback timer value is 45 minutes.

Command Modes Global configuration (config)

Command History	Release	Modification
	12.2(28)SB	This command was introduced.
	12.2(31)SGA	This command was integrated into Cisco IOS Release 12.2(31)SGA.
	12.2(33)SRB	Enhanced Fast Software Upgrade (eFSU) support was added on the Cisco 7600 series routers. In Service Software Upgrade (ISSU) is not supported in Cisco IOS Release 12.2(33)SRB.
	12.2(33)SRB1	ISSU is supported on the Cisco 7600 series routers in Cisco IOS Release 12.2(33)SRB.
	12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines Use the **configure issue set rollback timer** command to configure the rollback timer value. Note that you can enable this command only when the Route Processors (RPs) are in the init state.

Examples The following example sets the rollback timer value to 3600 seconds, or 1 hour:

```
Router(config)# configure issu set rollback timer 3600
```

Related Commands	Command	Description
	issu acceptversion	Halts the rollback timer and ensures the new Cisco IOS software image is not automatically aborted during the ISSU process.
	show issu rollback timer	Displays the current setting of the ISSU rollback timer.

contact-email-addr

To assign the e-mail address to be used for customer contact for Call Home, use the **contact-email-addr** command in call home configuration mode. To remove the assigned e-mail address, use the **no** form of this command.

contact-email-addr *email-address*

no contact-email-addr *email-address*

Syntax Description

<i>email-address</i>	Up to 200 characters in standard e-mail address format (contactname@domain) with no spaces.
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Command Default

No e-mail address is assigned for customer contact.

Command Modes

Call home configuration (cfg-call-home)

Command History

Release	Modification
12.2(33)SXH	This command was introduced.
12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines

To support the Call Home feature, the **contact-email-addr** command must be configured.

Examples

The following example configures the e-mail address “username@example.com” for customer contact:

```
Router(config)# call-home
Router(cfg-call-home)# contact-email-addr username@example.com
```

Related Commands

call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
show call-home	Displays call home configuration information.

contract-id

To assign the customer's contract identification number for Call Home, use the **contract-id** command in call home configuration mode. To remove the contract ID, use the **no** form of this command.

contract-id *alphanumeric*

no contract-id *alphanumeric*

Syntax Description	<i>alphanumeric</i>	Contract number, using up to 64 alphanumeric characters. If you include spaces, you must enclose your entry in quotes (" ").
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Command Default	No contract ID is assigned.
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Command Modes	Call home configuration (cfg-call-home)
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Command History	Release	Modification
	12.2(33)SXH	This command was introduced.
	12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
	12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
	12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines	You must have a service contract for your Cisco device to use the Smart Call Home service. You can specify this contract number in the Call Home feature using the contract-id (call home) command.
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Examples	The following example configures "Company1234" as the customer contract ID:
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```
Router(config)# call-home
Router(cfg-call-home)# contract-id Company1234
```

Related Commands	call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
	show call-home	Displays call home configuration information.

copy profile

To create a new destination profile with the same configuration settings as an existing profile, use the **copy profile** command in call home configuration mode.

copy profile *source-profile* *target-profile*

Syntax Description

<i>source-profile</i>	Name of the existing destination profile that you want to copy.
<i>target-profile</i>	Name of the new destination profile that you want to create from the copy.

Command Default

No default behavior or values.

Command Modes

Call home configuration (cfg-call-home)

Command History

Release	Modification
12.2(33)SXH	This command was introduced.
12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines

To simplify configuration of a new profile, use the **copy profile** command when an existing destination profile has configuration settings that you want to use as a basis for a new destination profile.

After you create the new profile, you can use the **profile (call home)** command to change any copied settings that need different values.

Examples

The following example creates a profile named “profile2” from an existing profile named “profile1”:

```
Router(config)# call-home
Router(cfg-call-home)# copy profile profile1 profile2
```

Related Commands

call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
profile (call home)	Configures a destination profile to specify how alert notifications are delivered for Call Home and enters call home profile configuration mode.
show call-home	Displays call home configuration information.

crashdump-timeout

To set the longest time that the newly active Route Switch Processor (RSP) will wait before reloading the formerly active RSP, use the **crashdump-timeout** command in redundancy mode. To reset the default time that the newly active RSP will wait before reloading the formerly active RSP, use the **no** form of this command.

crashdump-timeout [*mm* | *hh:mm*]

no crashdump-timeout

Syntax Description		
<i>mm</i>	(Optional) The time, in minutes, that the newly active RSP will wait before reloading the formerly active RSP. The range is from 5 to 1080 minutes.	
<i>hh:mm</i>	(Optional) The time, in hours and minutes, that the newly active RSP will wait before reloading the formerly active RSP. The range is from 5 minutes to 18 hours.	

Command Default The default timeout for this command is 5 minutes.

Command Modes Redundancy

Command History	Release	Modification
	12.0(22)S	This command was introduced on the Cisco 7500 series routers.
	12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S.
	12.2(20)S	Support was added for the Cisco 7304 router. The Cisco 7500 series router is not supported in Cisco IOS Release 12.2(20)S.
	12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
	12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
	12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(31)SXH.

Usage Guidelines Use this command to specify the length of time that the newly active RSP will wait before reloading the previously active RSP. This time can be important when considering how long to wait for a core dump to complete before reloading the RSP.

In networking devices that support stateful switchover (SSO), the newly active primary processor runs the core dump operation after the switchover has taken place. Following the switchover, the newly active RSP will wait for a period of time for the core dump to complete before attempting to reload the formerly active RSP.

In the event that the core dump does not complete within the time period provided, the standby RSP is reset and reloaded based on the **crashdump timeout** command setting, regardless of whether it is still performing a core dump.

**Note**

The core dump process adds the slot number to the core dump file to identify which processor generated the file content. For more information on how to configure the system for a core dump, refer to the *Cisco IOS Configuration Fundamentals Configuration Guide*, Release 12.4.

Examples

The following example sets the time before the previously active RSP is reloaded to 10 minutes:

```
Router(config-r)# crashdump-timeout 10
```

customer-id (call home)

To assign a customer identifier for Call Home, use the **customer-id** command in call home configuration mode. To remove the customer ID, use the **no** form of this command.

customer-id *alphanumeric*

no customer-id *alphanumeric*

Syntax Description	<i>alphanumeric</i>	Customer identifier, using up to 256 alphanumeric characters. If you include spaces, you must enclose your entry in quotes (“ ”).
---------------------------	---------------------	---

Command Default	No customer ID is assigned.
------------------------	-----------------------------

Command Modes	Call home configuration (cfg-call-home)
----------------------	---

Command History	Release	Modification
	12.2(33)SXH	This command was introduced.
	12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
	12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
	12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
	Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines	The customer-id command is optional.
-------------------------	---

Examples The following example configures “Customer1234” as the customer ID:

```
Router(config)# call-home
Router(cfg-call-home)# customer-id Customer1234
```

Related Commands	call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
	show call-home	Displays call home configuration information.

destination (call home)

To configure the message destination parameters in a profile for Call Home, use the **destination (call home)** command in call home profile configuration mode. To remove the destination parameters, use the **no** form of this command.

```
destination {address {email address | http url} | message-size-limit size | preferred-msg-format
{long-text | short-text | xml} | transport-method {email | http}}
```

```
no destination {address {email address | http url} | message-size-limit size |
preferred-msg-format {long-text | short-text | xml} | transport-method {email | http}}
```

Syntax Description

address { email <i>address</i> http <i>url</i> }	Configures the address type and location to which Call Home messages are sent, where: <ul style="list-style-type: none"> email <i>address</i>—Email address, up to 200 characters. http <i>url</i>—URL, up to 200 characters.
message-size-limit <i>size</i>	Displays maximum Call Home message size for this profile, in bytes. The range is from 50 to 3145728. The default is 3145728.
preferred-msg-format { long-text short-text xml }	Specifies the message format for this profile, where: <ul style="list-style-type: none"> long-text—Format for use in standard e-mail providing a complete set of information in message. short-text—Format for use with text pagers providing a smaller set of information in the message, including host name, timestamp, error message trigger, and severity level. xml—Format that includes a complete set of information in the message, including XML tags. This is the default.
transport-method	Specifies the transport method for this profile, where: <ul style="list-style-type: none"> email—Messages are sent using e-mail. This is the default. http—Messages are sent using HTTP or HTTPS.

Command Default

No destination address type is configured. If you do not configure the **destination (call home)** command, the following defaults are configured for the profile:

- message-size-limit**—3,145,728 bytes
- preferred-msg-format**—XML
- transport-method**—E-mail

Command Modes

Call home profile configuration (cfg-call-home-profile)

Command History

Release	Modification
12.2(33)SXH	This command was introduced.
12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.

Release	Modification
12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.
12.2(52)SG	This command was integrated into Cisco IOS Release 12.2(52)SG.
Cisco IOS XE Release 2.6	This command was integrated into Cisco IOS XE Release 2.6.

Usage Guidelines

You can repeat the **destination (call home)** command in call home profile configuration mode to configure different message parameters for a profile. There is no default for the **destination address** form of the command, and an address must be configured for every profile.

For a user-defined profile, you can enable both e-mail and HTTP as accepted transport methods, by entering the **destination transport-method email** command and also the **destination transport-method http** command for the profile.

For the CiscoTAC-1 predefined profile, only one transport method can be enabled at a time. If you enable a second transport method, the existing method is automatically disabled. By default, e-mail can be used to send information to the Cisco Smart Call Home backend server, but if you want to use a secure HTTPS transport, you need to configure HTTP.

Examples

The following examples shows configuration of both transport methods for a user profile:

```
Router(config)# call-home
Router(cfg-call-home)# profile example
Router(cfg-call-home-profile)# destination transport-method email
Router(cfg-call-home-profile)# destination transport-method http
```

The following example shows a profile configuration for e-mail messaging using long-text format:

```
Router(config)# call-home
Router(cfg-call-home)# profile example
Router(cfg-call-home-profile)# destination address email username@example.com
Router(cfg-call-home-profile)# destination preferred-msg-format long-text
```

The following example shows part of a Syslog alert notification (when subscribed to receive syslog alerts) using long-text format on a Cisco ASR 1006 router:

```
TimeStamp : 2009-12-03 12:26 GMT+05:00
Message Name : syslog
Message Type : Call Home
Message Group : reactive
Severity Level : 2
Source ID : ASR1000
Device ID : ASR1006@C@FOX105101DH
Customer ID : username@example.com
Contract ID : 123456789
Site ID : example.com
Server ID : ASR1006@C@FOX105101DH
Event Description : *Dec 3 12:26:02.319 IST: %CLEAR-5-COUNTERS: Clear counter on all
interfaces by console
System Name : mcp-6ru-3
Contact Email : username@example.com
Contact Phone : +12223334444
Street Address : 1234 Any Street Any City Any State 12345
Affected Chassis : ASR1006
Affected Chassis Serial Number : FOX105101DH
Affected Chassis Part No : 68-2584-05
Affected Chassis Hardware Version : 2.1
```

Command Output Name : show logging
Attachment Type : command output
MIME Type : text/plain
Command Output Text :
Syslog logging: enabled (1 messages dropped, 29 messages rate-limited, 0 flushes, 0 overruns, xml disabled, filtering disabled)

No Active Message Discriminator.

No Inactive Message Discriminator.

Console logging: disabled
Monitor logging: level debugging, 0 messages logged, xml disabled,
filtering disabled
Buffer logging: level debugging, 112 messages logged, xml disabled,
filtering disabled
Exception Logging: size (4096 bytes)
Count and timestamp logging messages: disabled
Persistent logging: disabled

No active filter modules.

Trap logging: level informational, 104 message lines logged

Log Buffer (1000000 bytes):

```
*Dec 3 07:16:55.020: ASR1000-RP HA: RF status CID 1340, seq 93, status
RF_STATUS_REDUNDANCY_MODE_CHANGE, op 0, state DISABLED, peer DISABLED
*Dec 3 07:17:00.379: %ASR1000_MGMTVRF-6-CREATE_SUCCESS_INFO: Management vrf Mgmt-intf
created with ID 4085, ipv4 table-id 0xFF5, ipv6 table-id 0x1E000001
*Dec 3 07:17:00.398: %NETCLK-5-NETCLK_MODE_CHANGE: Network clock source not available.
The network clock has changed to freerun
*Dec 3 07:17:00.544: %LINEPROTO-5-UPDOWN: Line protocol on Interface LI-Null0, changed
state to up
*Dec 3 07:17:00.545: %LINK-3-UPDOWN: Interface EOBC0, changed state to up
*Dec 3 07:17:00.545: %LINK-3-UPDOWN: Interface Lsmpi0, changed state to up
*Dec 3 07:17:00.546: %LINK-3-UPDOWN: Interface LIIN0, changed state to up
*Dec 3 07:17:00.546: %LINK-3-UPDOWN: Interface GigabitEthernet0, changed state to down
*Dec 3 07:17:01.557: %LINEPROTO-5-UPDOWN: Line protocol on Interface EOBC0, changed state
to up
*Dec 3 07:17:01.557: %LINEPROTO-5-UPDOWN: Line protocol on Interface Lsmpi0, changed
state to up
*Dec 3 07:17:01.558: %LINEPROTO-5-UPDOWN: Line protocol on Interface LIIN0, changed state
to up
*Dec 3 07:17:01.558: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0,
changed state to down
*Dec 3 07:17:01.818: %DYNCMD-7-CMDSET_LOADED: The Dynamic Command set has been loaded
from the Shell Manager
*Dec 3 07:16:30.926: %CMRP-5-PRERELEASE_HARDWARE: R0/0: cmand: 2 is pre-release hardware
*Dec 3 07:16:24.147: %HW_IDPROM_ENVMON-3-HW_IDPROM_CHECKSUM_INVALID: F1: cman_fp: The
idprom contains an invalid checksum in a sensor entry. Expected: 63, calculated: fe
*Dec 3 07:16:24.176: %CMFP-3-IDPROM_SENSOR: F1: cman_fp: One or more sensor fields from
the idprom failed to parse properly because Success.
*Dec 3 07:16:27.669: %CPPHA-7-START: F1: cpp_ha: CPP 0 preparing image
/tmp/sw/fp/1/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:27.839: %CPPHA-7-START: F1: cpp_ha: CPP 0 startup init image
/tmp/sw/fp/1/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:28.659: %CPPHA-7-START: F0: cpp_ha: CPP 0 preparing image
/tmp/sw/fp/0/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:28.799: %CPPHA-7-START: F0: cpp_ha: CPP 0 startup init image
/tmp/sw/fp/0/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
```

```
*Dec 3 07:16:32.557: %CPPHA-7-START: F1: cpp_ha: CPP 0 running init image
/tmp/sw/fp/1/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:32.812: %CPPHA-7-READY: F1: cpp_ha: CPP 0 loading and initialization
complete
*Dec 3 07:16:33.532: %CPPHA-7-START: F0: cpp_ha: CPP 0 running init image
/tmp/sw/fp/0/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:33.786: %CPPHA-7-READY: F0: cpp_ha: CPP 0 loading and initialization
complete
.
.
.
```

Example: Sample Message Using XML Format

The following example shows part of a Syslog alert notification using XML format on a Cisco ASR 1006 router when the **destination preferred-msg-format xml** command for a profile is configured:

```
<?xml version="1.0" encoding="UTF-8"?>
<soap-env:Envelope xmlns:soap-env="http://www.w3.org/2003/05/soap-envelope">
<soap-env:Header>
<aml-session:Session xmlns:aml-session="http://www.cisco.com/2004/01/aml-session"
soap-env:mustUnderstand="true"
soap-env:role="http://www.w3.org/2003/05/soap-envelope/role/next">
<aml-session:To>http://tools.cisco.com/neddce/services/DDCEService</aml-session:To>
<aml-session:Path>
<aml-session:Via>http://www.cisco.com/appliance/uri</aml-session:Via>
</aml-session:Path>
<aml-session:From>http://www.cisco.com/appliance/uri</aml-session:From>
<aml-session:MessageId>M0:FOX105101DH:CEC1E73E</aml-session:MessageId>
</aml-session:Session>
</soap-env:Header>
<soap-env:Body>
<aml-block:Block xmlns:aml-block="http://www.cisco.com/2004/01/aml-block">
<aml-block:Header>
<aml-block:Type>http://www.cisco.com/2005/05/callhome/syslog</aml-block:Type>
<aml-block:CreationDate>2009-12-03 12:29:02 GMT+05:00</aml-block:CreationDate>
<aml-block:Builder>
<aml-block:Name>ASR1000</aml-block:Name>
<aml-block:Version>2.0</aml-block:Version>
</aml-block:Builder>
<aml-block:BlockGroup>
<aml-block:GroupId>G1:FOX105101DH:CEC1E73E</aml-block:GroupId>
<aml-block:Number>0</aml-block:Number>
<aml-block:IsLast>true</aml-block:IsLast>
<aml-block:IsPrimary>true</aml-block:IsPrimary>
<aml-block:WaitForPrimary>false</aml-block:WaitForPrimary>
</aml-block:BlockGroup>
<aml-block:Severity>2</aml-block:Severity>
</aml-block:Header>
<aml-block:Content>
<ch:CallHome xmlns:ch="http://www.cisco.com/2005/05/callhome" version="1.0">
<ch:EventTime>2009-12-03 12:29:01 GMT+05:00</ch:EventTime>
<ch:MessageDescription>*Dec 3 12:29:01.017 IST: %CLEAR-5-COUNTERS: Clear counter on all
interfaces by console</ch:MessageDescription>
<ch:Event>
<ch:Type>syslog</ch:Type>
<ch:SubType></ch:SubType>
<ch:Brand>Cisco Systems</ch:Brand>
<ch:Series>ASR1000 Series Routers</ch:Series>
</ch:Event>
<ch:CustomerData>
<ch:UserData>
<ch:Email>username@example.com</ch:Email>
</ch:UserData>
```

```

<ch:ContractData>
<ch:CustomerId>username@example.com</ch:CustomerId>
<ch:SiteId>example.com</ch:SiteId>
<ch:ContractId>123456789</ch:ContractId>
<ch:DeviceId>ASR1006@C@FOX105101DH</ch:DeviceId>
</ch:ContractData>
<ch:SystemInfo>
<ch:Name>mcp-6ru-3</ch:Name>
<ch:Contact></ch:Contact>
<ch:ContactEmail>username@example.com</ch:ContactEmail>
<ch:ContactPhoneNumber>+12223334444</ch:ContactPhoneNumber>
<ch:StreetAddress>1234 Any Street Any City Any State 12345</ch:StreetAddress>
</ch:SystemInfo>
<ch:CCOID></ch:CCOID>
</ch:CustomerData>
<ch:Device>
<rme:Chassis xmlns:rme="http://www.cisco.com/rme/4.0">
<rme:Model>ASR1006</rme:Model>
<rme:HardwareVersion>2.1</rme:HardwareVersion>
<rme:SerialNumber>FOX105101DH</rme:SerialNumber>
<rme:AdditionalInformation>
<rme:AD name="PartNumber" value="68-2584-05" />
<rme:AD name="SoftwareVersion" value="" />
<rme:AD name="SystemObjectId" value="1.3.6.1.4.1.9.1.925" />
<rme:AD name="SystemDescription" value="Cisco IOS Software, IOS-XE Software
(PPC_LINUX_IOSD-ADVENTERPRISEK9-M), Experimental Version 12.2(20091118:075558)
[v122_33_xnf_asr_rls6_throttle-mcp_dev_rls6_102]
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Wed 18-Nov-09 01:14 by " />
</rme:AdditionalInformation>
</rme:Chassis>
</ch:Device>
</ch:CallHome>
</aml-block:Content>
<aml-block:Attachments>
<aml-block:Attachment type="inline">
<aml-block:Name>show logging</aml-block:Name>
<aml-block:Data encoding="plain">
<![CDATA[
Syslog logging: enabled (1 messages dropped, 29 messages rate-limited, 0 flushes, 0
overruns, xml disabled, filtering disabled)

No Active Message Discriminator.

No Inactive Message Discriminator.

Console logging: disabled
Monitor logging: level debugging, 0 messages logged, xml disabled,
filtering disabled
Buffer logging: level debugging, 114 messages logged, xml disabled,
filtering disabled
Exception Logging: size (4096 bytes)
Count and timestamp logging messages: disabled
Persistent logging: disabled

No active filter modules.

Trap logging: level informational, 106 message lines logged

Log Buffer (1000000 bytes):

```

destination (call home)

```

*Dec 3 07:16:55.020: ASR1000-RP HA: RF status CID 1340, seq 93, status
RF_STATUS_REDUNDANCY_MODE_CHANGE, op 0, state DISABLED, peer DISABLED
*Dec 3 07:17:00.379: %ASR1000_MGMTVRF-6-CREATE_SUCCESS_INFO: Management vrf Mgmt-intf
created with ID 4085, ipv4 table-id 0xFF5, ipv6 table-id 0x1E000001
*Dec 3 07:17:00.398: %NETCLK-5-NETCLK_MODE_CHANGE: Network clock source not available.
The network clock has changed to freerun

*Dec 3 07:17:00.544: %LINEPROTO-5-UPDOWN: Line protocol on Interface LI-Null0, changed
state to up
*Dec 3 07:17:00.545: %LINK-3-UPDOWN: Interface EOBC0, changed state to up
*Dec 3 07:17:00.545: %LINK-3-UPDOWN: Interface Lsmpi0, changed state to up
*Dec 3 07:17:00.546: %LINK-3-UPDOWN: Interface LIIN0, changed state to up
*Dec 3 07:17:00.546: %LINK-3-UPDOWN: Interface GigabitEthernet0, changed state to down
*Dec 3 07:17:01.557: %LINEPROTO-5-UPDOWN: Line protocol on Interface EOBC0, changed state
to up
*Dec 3 07:17:01.557: %LINEPROTO-5-UPDOWN: Line protocol on Interface Lsmpi0, changed
state to up
*Dec 3 07:17:01.558: %LINEPROTO-5-UPDOWN: Line protocol on Interface LIIN0, changed state
to up
*Dec 3 07:17:01.558: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0,
changed state to down
*Dec 3 07:17:01.818: %DYNCMD-7-CMDSET_LOADED: The Dynamic Command set has been loaded
from the Shell Manager
*Dec 3 07:16:30.926: %CMRP-5-PRERELEASE_HARDWARE: R0/0: cmand: 2 is pre-release hardware
*Dec 3 07:16:24.147: %HW_IDPROM_ENVMON-3-HW_IDPROM_CHECKSUM_INVALID: F1: cman_fp: The
idprom contains an invalid checksum in a sensor entry. Expected: 63, calculated: fe
*Dec 3 07:16:24.176: %CMFP-3-IDPROM_SENSOR: F1: cman_fp: One or more sensor fields from
the idprom failed to parse properly because Success.
*Dec 3 07:16:27.669: %CPPHA-7-START: F1: cpp_ha: CPP 0 preparing image
/tmp/sw/fp/1/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:27.839: %CPPHA-7-START: F1: cpp_ha: CPP 0 startup init image
/tmp/sw/fp/1/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:28.659: %CPPHA-7-START: F0: cpp_ha: CPP 0 preparing image
/tmp/sw/fp/0/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:28.799: %CPPHA-7-START: F0: cpp_ha: CPP 0 startup init image
/tmp/sw/fp/0/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:32.557: %CPPHA-7-START: F1: cpp_ha: CPP 0 running init image
/tmp/sw/fp/1/0/fp/mount/usr/cpp/bin/cpp-mcplo-ucode
*Dec 3 07:16:32.812: %CPPHA-7-READY: F1: cpp_ha: CPP 0 loading and initialization
complete
.
.
.

```

Related Commands

Command	Description
call-home (global configuration)	Enters call home configuration mode for configuration of Call Home settings.
profile (call home)	Configures a destination profile to specify how alert notifications are delivered for Call Home and enters call home profile configuration mode.

frame-relay redundancy auto-sync lmi-sequence-numbers

To configure automatic synchronization of Frame Relay Local Management Interface (LMI) sequence numbers, use the **frame-relay redundancy auto-sync lmi-sequence-numbers** command in global configuration mode. To remove this command from the configuration file and restore the system to its default condition with respect to this command, use the **no** form of this command.

frame-relay redundancy auto-sync lmi-sequence-numbers

no frame-relay redundancy auto-sync lmi-sequence-numbers

Syntax Description This command has no arguments or keywords.

Command Default Automatic synchronization of Frame Relay LMI sequence numbers is disabled by default.

Command Modes Global configuration

Command History	Release	Modification
	12.0(22)S	This command was introduced on Cisco 7500 and 10000 series Internet routers.
	12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S on Cisco 7500 series routers.
	12.2(20)S	Support was added for the Cisco 7304 router. The Cisco 7500 series router is not supported in Cisco IOS Release 12.2(20)S.
	12.0(28)S	SSO support was added to the Multilink Frame Relay feature on the Cisco 12000 series Internet router and the Cisco 7500 series router.
	12.2(25)S	SSO support was added to the Multilink Frame Relay feature on the Cisco 12000 series Internet router.
	12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
	12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
	12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.

Usage Guidelines Enabling the **frame-relay redundancy auto-sync lmi-sequence-numbers** command improves the chances of a clean switchover on Frame Relay DTE interfaces when the peer Frame Relay DCE is intolerant of LMI errors. Use this command to configure LMI if the DCE fails the line protocol after fewer than three LMI errors and if changing the DCE configuration is neither possible nor practical.

Examples The following example enables synchronization of LMI DTE sequence numbers on a router that is running Frame Relay:

```
frame-relay redundancy auto-sync lmi-sequence-numbers
```

■ frame-relay redundancy auto-sync lmi-sequence-numbers

Related Commands	Command	Description
	debug frame-relay redundancy	Debugs Frame Relay redundancy on the networking device.

issu abortversion

To cancel the In Service Software Upgrade (ISSU) upgrade or downgrade process in progress and restore the router to its state before the process had started, use the **issu abortversion** command in user EXEC or privileged EXEC mode. This command is also available in diagnostic mode on the Cisco ASR 1000 Series Routers.

General Syntax

```
issu abortversion slot image
```

Cisco ASR 1000 Series Router Syntax

```
issu abortversion [verbose]
```

Syntax Description	slot	The specified slot on the networking device. Refer to your hardware documentation for information on the number of slots on your networking device.
	image	The new image to be loaded into the standby .
	verbose	Displays verbose information, meaning all information that can be displayed on the console during the process will be displayed.

Command Default This command is disabled by default.

Command Modes
 User EXEC (>)
 Privileged EXEC (#)
 Diagnostic (diag)

Command History	Release	Modification
	12.2(28)SB	This command was introduced.
	12.2(31)SGA	This command was integrated into Cisco IOS Release 12.2(31)SGA.
	12.2(33)SRB	Enhanced Fast Software Upgrade (eFSU) support was added on the Cisco 7600 series routers. ISSU is not supported in Cisco IOS Release 12.2(33)SRB.
	12.2(33)SRB1	ISSU is supported on the Cisco 7600 series routers in Cisco IOS Release 12.2(33)SRB.
	Cisco IOS XE Release 2.1	This command was introduced on the Cisco ASR 1000 Series Routers and introduced in diagnostic mode.
	12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.
	12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

The **issu abortversion** command allows the user to stop the ISSU process at any time before the user commits to completing the process by issuing the **issu commitversion** command. Before any action is taken, a check is performed to ensure that both RPs are either in the run version (RV) or load version (LV) state.

When the **issu abortversion** command is issued before the **issu runversion** command, the standby RP is reset and reloaded. When the **issu abortversion** command is issued after the **issu runversion** command, the network switches to the former Cisco IOS software version.

On Cisco ASR 1000 Series Routers, the **issu** command set, including this command, can be used to upgrade individual sub-packages and consolidated packages. The **request platform software package** command set can also be used for ISSU upgrades on this platform, and generally offer more options for each upgrade.

Previously, when ISSU was in a state other than Init, either the **issu commitversion** or **issu runversion** command had been issued, and the image being loaded or run was not present, the only way to return to the ISSU Init state was to clear the state manually and reload the router. Now, if either the **issu commitversion** or the **issu runversion** command is issued and the image cannot be located, the ISSU state is cleared automatically, and the standby RP is reloaded with the image that existed before the **issu abortversion** or the **issu loadversion** command was issued.

Examples

In the following example, the **issu abortversion** command resets and reloads the standby RP:

```
Router# issu abortversion bootdisk:c10k2-p11-mz.2.20040830
```

In the following example, the **issu abortversion** command is entered to abort an ISSU upgrade of a consolidated package on a Cisco ASR 1000 Series Router:

```
Router# issu abortversion

--- Starting installation state synchronization ---
Finished installation state synchronization

--- Starting installation changes ---
Cancelling rollback timer
Finished installation changes

SUCCESS: Target RP will now reload
```

Related Commands

Command	Description
issu acceptversion	Halts the rollback timer and ensures the new Cisco IOS software image is not automatically aborted during the ISSU process.
issu commitversion	Allows the new Cisco IOS software image to be loaded into the standby RP.
issu loadversion	Starts the ISSU process.
issu runversion	Forces a switchover of the active to the standby processor and causes the newly active processor to run the new image.
show issu state	Displays the state and current version of the during the ISSU process.

issu acceptversion

To halt the rollback timer and ensure the new Cisco IOS software image is not automatically aborted during the In Service Software Upgrade (ISSU) process, use the **issu acceptversion** command in user EXEC or privileged EXEC mode. This command is also available in diagnostic mode on the Cisco ASR 1000 Series Routers.

General Syntax

```
issu acceptversion { active slot-number | active slot-name slot-name }
```

Cisco ASR 1000 Series Routers syntax

```
issu acceptversion [verbose]
```

Syntax Description

<i>active slot-number</i>	The specified active slot on your networking device. Refer to your hardware documentation for information on the number of slots on your networking device.
active slot-name <i>slot-name</i>	Identifies a specific slot name.
verbose	Displays verbose information, meaning all information that can be displayed on the console during the process will be displayed.

Command Default

45 minutes from the time the **issu runversion** command is issued to the time the **issu acceptversion** is issued.

Command Modes

User EXEC (>)
Privileged EXEC (#)
Diagnostic (diag)

Command History

Release	Modification
12.2(28)SB	This command was introduced.
12.2(31)SGA	This command was integrated into Cisco IOS Release 12.2(31)SGA.
12.2(33)SRB	Enhanced Fast Software Upgrade (eFSU) support was added on the Cisco 7600 series routers. ISSU is not supported in Cisco IOS Release 12.2(33)SRB.
12.2(33)SRB1	ISSU is supported on the Cisco 7600 series routers in Cisco IOS Release 12.2(33)SRB.
Cisco IOS XE Release 2.1	This command was introduced on the Cisco ASR 1000 Series Routers, and introduced in diagnostic mode.
12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

Use the **issu acceptversion** command to ensure that the active Route Processor (RP) is running the new image, that the standby RP is running the old image, and that both RPs are in the run version (RV) state. If the **issu acceptversion** command is not issued within 45 minutes from the time the **issu runversion** command is issued, the new active RP is assumed to be unreachable, and the entire ISSU process is automatically rolled back to the previous version of the software. The rollback timer starts immediately after the user issues the **issu runversion** command.

If the rollback timer is set for a short period of time, such as 1 minute, and the standby RP is not yet in a hot standby state, you then have 15 1-minute extensions during which the router will wait for the standby state to become hot standby state. However, if the standby state becomes hot standby state within the 15-minute extension, the router will abort the ISSU process because the 1-minute rollback timer has expired. Therefore, it is not recommended to set the rollback timer shorter than the time required for the standby state to become hot standby state.

If the rollback timer is set to a long period of time, such as the default of 45 minutes, and the standby RP goes into the hot standby state in 7 minutes, you have 38 minutes (45 minus 7) to roll back if necessary.

Use the **configure issu set rollback timer** to configure the 45-minute default value on the rollback timer.

On Cisco ASR 1000 Series Routers, the **issu** command set, including this command, can be used to upgrade individual sub-packages and consolidated packages. The **request platform software package** command set can also be used for ISSU upgrades on this platform, and generally offer more options for each upgrade.

Examples

The following example shows how to halt the rollback timer and allow the ISSU process to continue:

```
Router# issu acceptversion b disk0:c10k2-p11-mz.2.20040830
```

The following example shows how to halt the rollback timer and allow the ISSU process to continue on a Cisco ASR 1000 Series Router:

```
Router# issu acceptversion
```

Related Commands

Command	Description
configure issu set rollback timer	Configures the rollback timer value.
issu abortversion	Cancels the ISSU upgrade or downgrade process in progress and restores the router to its state before the process had started.
issu commitversion	Allows the new Cisco IOS software image to be loaded into the standby RP.
issu loadversion	Starts the ISSU process.
issu runversion	Forces a switchover of the active to the standby processor and causes the newly active processor to run the new image.
show issu state	Displays the state and current version of the RPs during the ISSU process.

issu changeversion

To perform a single-step complete In-Service Software Upgrade (ISSU) upgrade process cycle, use the **issu changeversion** command in privileged EXEC mode.

issu changeversion *active-image*

Syntax Description	<i>active-image</i>	The active image on the networking device.
Command Default	No upgrade has happened.	
Command Modes	Privileged EXEC (#)	
Command History	Release	Modification
	12.2(33)SCD2	This command was introduced.

Usage Guidelines

The **issu changeversion** command starts a single-step complete upgrade process cycle. This command performs the logic for all four of the standard commands (**issu loadversion**, **issu runversion**, **issu acceptversion**, and **issu commitversion**) without any user intervention required to complete the next step.

The **issu changeversion** command allows the networking device to inform the system that the networking device is performing a complete upgrade cycle automatically, and allows the state transitions to move to the next step automatically.

Once the **issu changeversion** command is issued, the upgrade can be aborted using the **issu abortversion** command. An upgrade using the **issu changeversion** command may also be automatically aborted if the system detects any problems or an unhealthy system is determined during the upgrade.

The ISSU upgrade process consists of three states:

1. Initialization (INIT) state
2. Load version (LV) state
3. Run version (RV) state

Each of these states is defined by a set of variables, which are primary version (PV), secondary version (SV), current version (CV), and the ISSU state (IS). The transition of all these states is accomplished using the **issu changeversion** command, which automatically performs these state transitions.

Examples

The following example starts a single-step complete upgrade process cycle using the disk0:ubr10k4-k9p6u2-mz.122-33.SCC2 image from slot 0:

```
Router# issu changeversion disk0:ubr10k4-k9p6u2-mz.122-33.SCC2
```

Related Commands	Command	Description
	issu abortversion	Cancels the ISSU upgrade or downgrade process in progress and restores the router to its state before the process had started.
	issu acceptversion	Halts the rollback timer and ensures the new Cisco IOS software image is not automatically aborted during the ISSU process.
	issu commitversion	Allows the new Cisco IOS software image to be loaded into the standby RP.
	issu loadversion	Starts the ISSU process.
	issu runversion	Forces a switchover from the active RP to the standby RP and causes the newly active RP to run the new image specified in the issu loadversion command.
	show issu state	Displays the state and current version of the RPs during the ISSU process.

issu commitversion

To allow the new Cisco IOS software image to be loaded into the standby Route Processor (RP), use the **issu commitversion** command in user EXEC or privileged EXEC mode. This command is also available in diagnostic mode on the Cisco ASR 1000 Series Routers.

General Syntax

```
issu commitversion slot active-image
```

Cisco ASR 1000 Series Routers Syntax

```
issu commitversion [verbose]
```

Syntax Description	slot	The specified slot on the networking device. Refer to your hardware documentation for information on the number of slots on your networking device.
	active-image	The new image to be loaded into the active networking device.
	verbose	Displays verbose information, meaning all information that can be displayed on the console during the process will be displayed.

Command Default This command is disabled by default.

Command Modes
 User EXEC (>)
 Privileged EXEC (#)
 Diagnostic (diag)

Command History	Release	Modification
	12.2(28)SB	This command was introduced.
	12.2(31)SGA	This command was integrated into Cisco IOS Release 12.2(31)SGA.
	12.2(33)SRB	Enhanced Fast Software Upgrade (eFSU) support was added on the Cisco 7600 series routers. In Service Software Upgrade (ISSU) is not supported in Cisco IOS Release 12.2(33)SRB.
	12.2(33)SRB1	ISSU is supported on the Cisco 7600 series routers in Cisco IOS Release 12.2(33)SRB.
	Cisco IOS XE Release 2.1	This command was introduced on the ASR 1000 Series Routers, and introduced in diagnostic mode.
	12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.
	12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

The **issu commitversion** command verifies that the standby RP has the new Cisco IOS software image in its file system and that both RPs are in the run version (RV) state. If these conditions are met, then the following actions take place:

- The standby RP is reset and booted with the new version of Cisco IOS software.
- If both images are compatible, the standby RP moves into the stateful switchover (SSO) mode and is fully stateful for all clients and applications with which the standby RP is compatible.
- If both images are not compatible, the standby RP moves into Route Processor Redundancy Plus (RPR+) mode or RPR mode.
- If all conditions are correct, the RPs are moved into final state, which is the same as initial state.

Issuing the **issu commitversion** command completes the In Service Software Upgrade (ISSU) process. This process cannot be stopped or reverted to its original state without starting a new ISSU process.

Issuing the **issu commitversion** command at this stage is equivalent to entering both the **issu acceptversion** and the **issu commitversion** commands. Use the **issu commitversion** command if you do not intend to run in the current state for a period of time and are satisfied with the new software version.

On Cisco ASR 1000 series routers, the **issu** command set, including this command, can be used to upgrade individual subpackages and consolidated packages. The **request platform software package** command set can also be used for ISSU upgrades on this platform, and generally offer more options for each upgrade.

The **issu runversion** step can be bypassed on a Cisco ASR 1000 Series Router by using the **redundancy force-switchover** command to switchover between RPs and entering the **issu commitversion** command on the RP being upgraded. However, the **issu runversion** command is still available on this router and can still be used as part of the process for upgrading software using ISSU.

Previously, when ISSU was in a state other than Init, either the **issu commitversion** or **issu runversion** command had been issued, and the image being loaded or run was not present, the only way to return to the ISSU Init state was to clear the state manually and reload the router. Now, if either the **issu commitversion** or the **issu runversion** command is issued and the image cannot be located, the ISSU state is cleared automatically, and the standby RP is reloaded with the image that existed before the **issu abortversion** or the **issu loadversion** command was issued.

Examples

The following example shows how to reset the standby RP and reload it with the new Cisco IOS software version:

```
Router# issu commitversion a stby-disk0:c10k2-p11-mz.2.20040830
```

The following example shows how the standby RP or Cisco IOS process is reset and reloaded with the new Cisco consolidated package on the Cisco ASR 1000 Series Router:

```
Router# issu commitversion
```

```
--- Starting installation changes ---
Cancelling rollback timer
Saving image changes
Finished installation changes
```

```
Building configuration...
```

```
[OK]
```

```
SUCCESS: version committed: harddisk:ASR1000rp1-adviservicesk9.01.00.00.12-33.XN.bin
```

Related Commands

Command	Description
issu abortversion	Cancels the ISSU upgrade or downgrade process in progress and restores the router to its state before the process had started.
issu acceptversion	Halts the rollback timer and ensures the new Cisco IOS software image is not automatically aborted during the ISSU process.
issu loadversion	Starts the ISSU process.
issu runversion	Forces a switchover of the active to the standby processor and causes the newly active processor to run the new image.
show issu state	Displays the state and current version of the RPs during the ISSU process.

issu loadversion

To start the In Service Software Upgrade (ISSU) process, use the **issu loadversion** command in user EXEC or privileged EXEC mode. This command is also available in diagnostic mode on the Cisco ASR 1000 series routers.

General Syntax

```
issu loadversion active-slot active-image standby-slot standby-image [force]
```

Cisco ASR 1000 Series Routers Syntax

```
issu loadversion rp [0 | 1] file file-URL [bay bay-number] [slot slot-number] [force] [verbose]
```

Syntax Description

<i>active-slot</i>	The active slot on the networking device.
<i>active-image</i>	The active image on the networking device.
rp [0 1]	Specifies the Route Processor (RP) on the Aggregation Services Router to install the Cisco IOS-XE image. Entering rp 0 selects the RP in slot 0, and entering rp 1 selects the RP in slot 1.
file <i>file-URL</i>	Specifies the URL to the Cisco IOS-XE image file that will be used to perform this upgrade.
<i>standby-slot</i>	The standby slot on the networking device.
<i>standby-image</i>	The new image to be loaded into the standby networking device.
bay <i>bay-number</i>	Specifies the bay number within a SIP where a SPA is installed.
slot <i>slot-number</i>	Specifies the router slot number where a SIP is installed.
force	(Optional) Used to override the automatic rollback when the new Cisco IOS software version is detected to be incompatible, which is the case when as user intends to perform a fast software upgrade (FSU) in Route Processor Redundancy (RPR) mode.
verbose	Displays verbose information, meaning all information that can be displayed on the console during the process will be displayed.

Command Default

This command is disabled by default.

Command Modes

User EXEC (>)
Privileged EXEC (#)
Diagnostic (diag)

Command History

Release	Modification
12.2(28)SB	This command was introduced.
12.2(31)SGA	This command was integrated into Cisco IOS Release 12.2(31)SGA.

Release	Modification
12.2(33)SRB	Enhanced Fast Software Upgrade (eFSU) support was added on the Cisco 7600 series routers. ISSU is not supported in Cisco IOS Release 12.2(33)SRB.
12.2(33)SRB1	ISSU is supported on the Cisco 7600 series routers in Cisco IOS Release 12.2(33)SRB.
Cisco IOS XE Release 2.1	This command was introduced on the Cisco ASR 1000 Series Routers, and introduced in diagnostic mode.
12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

Enabling the **issu loadversion** command causes the standby RP to be reset and booted with the new Cisco IOS software image specified by the command. If both the active and standby RP images are ISSU-capable, ISSU-compatible, and have no configuration mismatches, then the standby RP moves into stateful switchover (SSO) mode, and both RPs move into the load version (LV) state.

It may take several seconds after the **issu loadversion** command is entered for Cisco IOS software to load into the standby RP and the standby RP to transition to SSO mode.

Cisco ASR 1000 Series Routers Usage Guidelines

On Cisco ASR 1000 Series Routers, the **issu** command set, including this command, can be used to upgrade individual sub-packages and consolidated packages. The **request platform software package** command set can also be used for ISSU upgrades on this platform, and generally offer more options for each upgrade.

The ISSU rollback timer starts at **issu loadversion** on the Cisco ASR 1000 Series Routers.

Previously, when ISSU was in a state other than Init, either the **issu commitversion** or **issu runversion** command had been issued, and the image being loaded or run was not present, the only way to return to the ISSU Init state was to clear the state manually and reload the router. Now, if either the **issu commitversion** or the **issu runversion** command is issued and the image cannot be located, the ISSU state is cleared automatically, and the standby RP is reloaded with the image that existed before the **issu abortversion** or the **issu loadversion** command was issued.

Examples

The following example shows how to initiate the ISSU process by loading the active image into the active RP slot and loading the standby image into the standby RP slot:

```
Router# issu loadversion a disk0:c10k2-p11-mz.2.20040830 b
stby-disk0:c10k2-p11-mz.2.20040830
```

The following example shows how to initiate an ISSU consolidated package upgrade on a Cisco ASR 1000 Series Router.

```
Router# issu loadversion rp 1 file
stby-harddisk:ASR1000rp1-advipservicesk9.01.00.00.12-33.XN.bin
```

```
--- Starting installation state synchronization --- Finished installation state
synchronization
```

```
--- Starting file path checking ---
Finished file path checking
```

```
--- Starting system installation readiness checking --- Finished system installation
readiness checking
```

```
--- Starting installation changes ---
Setting up image to boot on next reset
Starting automatic rollback timer
Finished installation changes
```

```
SUCCESS: Software will now load.
```

Related Commands

Command	Description
issu abortversion	Cancels the ISSU upgrade or downgrade process in progress and restores the router to its state before the process had started.
issu acceptversion	Halts the rollback timer and ensures the new Cisco IOS software image is not automatically aborted during the ISSU process.
issu commitversion	Allows the new Cisco IOS software image to be loaded into the standby RP.
issu runversion	Forces a switchover of the active to the standby processor and causes the newly active processor to run the new image.
show issu state	Displays the state and current version of the RPs during the ISSU process.

issu runversion

To force a switchover from the active Route Processor (RP) to the standby RP and cause the newly active RP to run the new image specified in the **issu loadversion** command, use the **issu runversion** command in user EXEC or privileged EXEC mode. This command is also available in diagnostic mode on the Cisco ASR 1000 Series Routers.

General Syntax

```
issu runversion slot image
```

Cisco ASR 1000 Series Routers Syntax

```
issu runversion [verbose]
```

Syntax Description	slot	The specified slot on the networking device. Refer to your hardware documentation for information on the number of slots on your networking device.
	image	The new image to be loaded into the standby RP.
	verbose	Displays verbose information, meaning all information that can be displayed on the console during the process will be displayed.

Command Default No default behavior or values.

Command Modes User EXEC (>)
Privileged EXEC (#)
Diagnostic (diag)

Command History	Release	Modification
	12.2(28)SB	This command was introduced.
	12.2(31)SGA	This command was integrated into Cisco IOS Release 12.2(31)SGA.
	12.2(33)SRB	Enhanced Fast Software Upgrade (eFSU) support was added on the Cisco 7600 series routers. ISSU is not supported in Cisco IOS Release 12.2(33)SRB.
	12.2(33)SRB1	ISSU is supported on the Cisco 7600 series routers in Cisco IOS Release 12.2(33)SRB.
	Cisco IOS XE Release 2.1	This command was introduced on the Cisco ASR 1000 Series Routers, and introduced in diagnostic mode.
	12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.
	12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

When a user enables the **issu runversion** command, a switchover is performed, and the standby RP is booted with the old image version following the reset caused by the switchover. As soon as the standby RP moves into the standby state, the rollback timer is started.

On Cisco ASR 1000 Series Routers, the **issu** command set, including this command, can be used to upgrade individual sub-packages and consolidated packages. The **request platform software package** command set can also be used for ISSU upgrades on this platform, and generally offer more options for each upgrade.

The **issu runversion** step can be bypassed on a Cisco ASR 1000 Series Router by using the **redundancy force-switchover** command to switchover between RPs and entering the **issu commitversion** command on the RP being upgraded. However, **issu runversion** is still available on this router and can still be used as part of the process for upgrading software using ISSU.

Previously, when ISSU was in a state other than Init, either the **issu commitversion** or **issu runversion** command had been issued, and the image being loaded or run was not present, the only way to return to the ISSU Init state was to clear the state manually and reload the router. Now, if either the **issu commitversion** or the **issu runversion** command is issued and the image cannot be located, the ISSU state is cleared automatically, and the standby RP is reloaded with the image that existed before the **issu abortversion** or the **issu loadversion** command was issued.

Examples

In the following example, the **issu runversion** command is used to switch to the redundant RP with the new Cisco IOS software image:

```
Router# issu runversion b stby-disk0:c10k2-p11-mz.2.20040830
```

In the following example, the **issu runversion** command is used to switch to the standby RP with the new Cisco IOS-XE consolidated package on the Cisco ASR 1000 Series Routers:

```
Router# issu runversion
```

```
--- Starting installation state synchronization ---  
Finished installation state synchronization
```

```
Initiating active RP failover  
SUCCESS: Standby RP will now become active
```

Related Commands

Command	Description
issu abortversion	Cancels the ISSU upgrade or downgrade process in progress and restores the router to its state before the process had started.
issu acceptversion	Halts the rollback timer and ensures the new Cisco IOS software image is not automatically aborted during the ISSU process.
issu commitversion	Commits the new Cisco IOS software image in the file system of the standby RP and ensures that both the active and standby RPs are in the RV state.
issu loadversion	Starts the ISSU process.
show issu state	Displays the state and current version of the RPs during the ISSU process.

issu set rollback-timer

To set the rollback timer for the software image to revert to the previous software image after an unfinished or unsuccessful in-service software upgrade (ISSU), use the **issu set rollback-timer** command in global configuration mode. To disable the timer, use the **no** form of this command.

```
issu set rollback-timer {seconds | hh:mm:ss}
```

```
no issu set rollback-timer
```

Syntax Description	
<i>seconds</i>	Rollback timer value in seconds.
<i>hh:mm:ss</i>	Rollback timer value in hours:minutes:seconds.

Command Default The default rollback timer value is 2700 seconds (45 minutes).

Command Modes Global configuration ((config)#)

Command History	Release	Modification
	12.2(33)SXI	Support for this command was introduced.

Usage Guidelines If the rollback timer expires during an ISSU, the software image reverts to the previous software image. To stop the timer, you must either accept or commit the new software image.

The timer duration can be set with one number (seconds), indicating the number of seconds, or as hours, minutes, and seconds with a colon as the delimiter (hh:mm:ss). The range is 0 to 7200 seconds (2 hours); the default is 2700 seconds (45 minutes). A setting of 0 disables the rollback timer.

Examples This example shows how to set the rollback timer to 3600 seconds (one hour) using both command formats:

```
Router(config)# issu set rollback-timer 3600
% Rollback timer value set to [ 3600 ] seconds
Router(config)# issu set rollback-timer 01:00:00
% Rollback timer value set to [ 3600 ] seconds
```

The following examples shows how to disable the rollback timer:

```
Router(config) no issu set rollback-timer
```

Related Commands	Command	Description
	show issu	Displays eFSU information.
	show issu rollback-timer	Displays eFSU rollback timer value.