



Cisco IOS XR Session Border Controller Command Reference

Cisco IOS XR Software Release 3.4

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Cisco IOS XR Session Border Controller Command Reference
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Preface

This document describes the commands that support Session Border Controller (SBC) applications using Cisco IOS XR Software Release 3.3.

The preface contains the following sections:

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Changes to This Document

[Table 1](#) lists the technical changes made to this document since it was first printed.

Table 1 *Changes to This Document*

Revision	Date	Change Summary
OL-10946-01	October 2006	Initial release of this document.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. This section explains the product documentation resources that Cisco offers.

Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a library of technical product documentation on a portable medium. The DVD enables you to access installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the HTML documentation and some of the PDF files found on the Cisco website at this URL:

<http://www.cisco.com/univercd/home/home.htm>

The Product Documentation DVD is created monthly and is released in the middle of the month. DVDs are available singly or by subscription. Registered Cisco.com users can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at the Product Documentation Store at this URL:

<http://www.cisco.com/go/marketplace/docstore>

Ordering Documentation

You must be a registered Cisco.com user to access Cisco Marketplace. Registered users may order Cisco documentation at the Product Documentation Store at this URL:

<http://www.cisco.com/go/marketplace/docstore>

If you do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Documentation Feedback

You can provide feedback about Cisco technical documentation on the Cisco Technical Support & Documentation site area by entering your comments in the feedback form available in every online document.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to do the following:

- Report security vulnerabilities in Cisco products
- Obtain assistance with security incidents that involve Cisco products
- Register to receive security information from Cisco

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For emergencies only—security-alert@cisco.com

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532



Tip

We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked encryption key or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT to find other means of encrypting the data before sending any sensitive material.

Product Alerts and Field Notices

Modifications to or updates about Cisco products are announced in Cisco Product Alerts and Cisco Field Notices. You can receive Cisco Product Alerts and Cisco Field Notices by using the Product Alert Tool on Cisco.com. This tool enables you to create a profile and choose those products for which you want to receive information.

To access the Product Alert Tool, you must be a registered Cisco.com user. (To register as a Cisco.com user, go to this URL: <http://tools.cisco.com/RPF/register/register.do>) Registered users can access the tool at this URL: <http://tools.cisco.com/Support/PAT/do/ViewMyProfiles.do?local=en>

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>



Note

Use the **Cisco Product Identification Tool** to locate your product serial number before submitting a request for service online or by phone. You can access this tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link, clicking the **All Tools (A-Z)** tab, and then choosing **Cisco Product Identification Tool** from the alphabetical list. This tool offers three search options: by product ID or model name; by tree view; or, for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.



Tip

Displaying and Searching on Cisco.com

If you suspect that the browser is not refreshing a web page, force the browser to update the web page by holding down the Ctrl key while pressing F5.

To find technical information, narrow your search to look in technical documentation, not the entire Cisco.com website. On the Cisco.com home page, click the **Advanced Search** link under the Search box and then click the **Technical Support & Documentation**.radio button.

To provide feedback about the Cisco.com website or a particular technical document, click **Contacts & Feedback** at the top of any Cisco.com web page.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411

Australia: 1 800 805 227

EMEA: +32 2 704 55 55

USA: 1 800 553 2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco channel product offerings. To order and find out more about the *Cisco Product Quick Reference Guide*, go to this URL:

<http://www.cisco.com/go/guide>

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:
<http://www.cisco.com/go/marketplace/>
- Cisco Press publishes a wide range of general networking, training, and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the magazine for Cisco networking professionals. Each quarter, *Packet* delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can subscribe to *Packet* magazine at this URL:
<http://www.cisco.com/packet>
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:
<http://www.cisco.com/ipj>
- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:
<http://www.cisco.com/en/US/products/index.html>
- Networking Professionals Connection is an interactive website where networking professionals share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:
<http://www.cisco.com/discuss/networking>
- “What’s New in Cisco Documentation” is an online publication that provides information about the latest documentation releases for Cisco products. Updated monthly, this online publication is organized by product category to direct you quickly to the documentation for your products. You can view the latest release of “What’s New in Cisco Documentation” at this URL:
<http://www.cisco.com/univercd/cc/td/doc/abtnicd/136957.htm>
- World-class networking training is available from Cisco. You can view current offerings at this URL:
<http://www.cisco.com/en/US/learning/index.html>



SBC Commands on Cisco IOS XR Software

This module describes session border controller (SBC) commands on Cisco IOS XR software.



Note

The commands documented in this command reference module use complex modes and submodes. Accordingly, you must be in the correct configuration mode and submode to run each command. The “Examples” section provided for each command shows the hierarchy of modes and submodes required to run the command.

account

To define a SIP or H.323 adjacency account on an SBE, use the **account** command in the appropriate configuration mode. To remove this definition, use the **no** form of this command.

account *account-name*

no account *account-name*

Syntax Description	
	<i>account-name</i> Specifies the SBE account name.

Defaults	
	No account name is associated with the adjacency.

Command Modes	
	Adjacency SIP configuration Adjacency H.323 configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	
	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	
	The following example shows how to configure the H.323 adjacency h323ToIsp42 to account isp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# account isp42
```

The following example shows how to configure the SIP adjacency SipToIsp42 to account isp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# account isp42
```

action (CAC)

To configure the action to perform after this entry in an admission control table, use the **action (CAC)** command in CAC configuration mode.

action [**cac-complete** | **next-table** *goto-table-name* | **cac-complete**]

Syntax Description	Parameter	Description
	cac-complete	When an event matches this CAC policy is complete.
	<i>goto-table-name</i>	Specifies the table name identifying the next CAC table to process (or cac-complete, if processing should stop).

Defaults No default behavior or values

Command Modes CAC configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure the next table to process for the entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
```

■ **action (CAC)**

Related Commands	Command	Description
	action (RTG-SRC)	Configures the action to take if a routing entry is chosen.
	action (NA-DST)	Configures the action to perform after an entry in an admission control table.

action (NA-DST)

To configure the action of an entry in the number analysis table with entries of the table matching a dialed number (prefix or whole number) or the source adjacency or account, use the **action (NA-DST)** command in the appropriate configuration mode. To deconfigure the action, use the **no** form of this command.

action [**next-table** *goto-table-name* | **accept** | **reject**]

no action

Syntax Description		
next-table <i>goto-table-name</i>	Specifies the next number analysis table to process, if the event matches this entry.	
accept	Configures the call to be accepted if it matches the entry in the table.	
reject	Configures the call to be rejected if it matches the entry in the table.	

Defaults No default behavior or values

Command Modes

- NA-DST-number-table configuration mode
- NA-DST-prefix-table configuration mode
- NA-SRC-adjacency-table configuration mode
- NA-SRC-account-table configuration mode

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submodule. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the call to be accepted if it matches the entry in the new number analysis table MyNaTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-number-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# action accept
```

The following example shows how to configure the call to be accepted if it matches the start of the entry in the new number analysis table MyNaTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-prefix-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# action accept
```

The following example shows how to configure the call to be accepted if it matches the source adjacency entry in the new number analysis table MyNaTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-src-adjacency-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# action accept
```

The following example shows how to configure the call to be accepted if it matches the source account entry in the new number analysis table MyNaTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-src-account-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# action accept
```

Related Commands

Command	Description
action (RTG-SRC)	Configures the action to take if a routing entry is chosen.
action (CAC)	Configures the action to perform after an entry in an admission control table.

action (RTG-SRC)

To configure the action to take if a routing entry is chosen, use the **action (RTG-SRC)** command in the appropriate configuration mode. To delete the action, use the **no** form of this command.

action [**next-table** *goto-table-name* | **complete** | **reject**]

no action

Syntax Description	
next-table <i>goto-table-name</i>	Specifies the next routing table to process if the event matches the entry.
complete	Completes the action. This keyword is supported for <i>rtg-round-robin-table</i> routing tables only.
reject	Rejects the indicated action.

Defaults No default behavior or values

Command Modes

- RTG-SRC-address-table configuration
- RTG-SRC-adjacency-table configuration
- RTG-SRC-account-table configuration
- RTG-round-robin-table configuration
- RTG-DST-address-table configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the match-value of an entry in the new routing table MyRtgTable and if any calls match this criterion, they are rejected.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-address-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-address 1471
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# action reject
```

The following example shows how to configure the match-value of an entry in the new routing table MyRtgTable and if any calls match this criterion, they are rejected.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-adjacency-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-adjacency 1471
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# action reject
```

The following example shows how to configure the match-value of an entry in the new routing table MyRtgTable and if any calls match this criterion, they are rejected.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-account-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-account 1471
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# action reject
```

The following example shows how to configure the match-value of an entry in the new routing table MyRtgTable and if any calls match this criterion, they are rejected.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-round-robin-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-address 1471
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# action reject
```

The following example configures the match-value of an entry in the new routing table MyRtgTable and if any calls match this criterion, they are rejected.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-dst-address-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-address 1471
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# action complete
```

Related Commands

Command	Description
action (NA-DST)	Configures the action of an entry in the number analysis table with entries of the table matching a dialed number (prefix or whole number) or the source adjacency or account.
action (CAC)	Configures the action to perform after an entry in an admission control table.

activate

To initiate the SBC service when all SBE or DBE address configuration have been successfully committed, use the **activate** command in the appropriate configuration mode. To deactivate the SBE service of the SBC, use the **no** form of this command.

activate

no activate

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes DBE configuration
SBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to activate the DBE on the service mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe
RP/0/0/CPU0:router (config-sbc-dbe)# activate
```

The following example shows how to activate the SBE on the service mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router (config-sbc-sbe)# activate
```

■ activate

Related Commands	Command	Description
	deact-mode	Indicates how to implement the deactivation of an SBE.

active-cac-policy-set

To set the active CAC-policy-set within an SBE entity, use the **active-cac-policy-set** command in SBE configuration mode. To deconfigure the active policy set, leaving the SBE with no active policy set, use the **no** form of this command.

active-cac-policy-set *policy-set-id*

no active-cac-policy-set *policy-set-id*

Syntax Description	<i>policy-set-id</i>	Integer identifying the policy set that should be made active. Range is 1 to 2147483647.
---------------------------	----------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	SBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to activate policy set 1 on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router (config-sbc-sbe)# active-cac-policy-set 1
```

active-call-policy-set

To set the active routing policy set within an SBE entity, use the **active-call-policy-set** command in SBE configuration mode. To deconfigure the active routing policy set, leaving the SBE with no active routing policy set, use the **no** form of this command.

active-call-policy-set *policy-set-id*

active-call-policy-set

Syntax Description

<i>policy-set-id</i>	Integer that identifies the policy set that should be made active. Range is 1 to 2147483647.
----------------------	---

Defaults

No default behavior or values

Command Modes

SBE configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

If another policy set was previously active, it is made inactive by executing this command. The SBE is created with no active routing policy set; an active routing policy set must be explicitly configured using this command.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to activate policy set 1 on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router (config-sbc-sbe)# active-call-policy-set 1
```

address ipv4

To configure the address of the authentication server, use the **address ipv4** command in server configuration mode. To remove the address configuration for the authentication server, use the **no** form of this command.

address ipv4 *server-name*

no address ipv4 *server-name*

Syntax Description	<i>server-name</i>	Specifies the DNS name or IP address of the authentication server.
---------------------------	--------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Server configuration
----------------------	----------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure authentication servers acctsvr and acctsvr2 on mySbc for the authentication RADIUS client:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius authentication
RP/0/0/CPU0:router(config-sbc-sbe-auth)# server acctsvr
RP/0/0/CPU0:router(config-sbc-sbe-auth-ser)# address ipv4 10.0.0.1
RP/0/0/CPU0:router(config-sbc-sbe-auth-ser)# exit
RP/0/0/CPU0:router(config-sbc-sbe-auth)# server acctsvr2
RP/0/0/CPU0:router(config-sbc-sbe-auth-ser)# address acctsvr2
```

alias

To configure the endpoint alias of an H.323 adjacency, use the **alias** command in adjacency H.323 configuration mode. To remove this configuration, use the **no** form of this command.

alias *alias-name*

no alias

Syntax Description	<i>alias-name</i> Specifies the alias of the H.323 adjacency endpoint.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Adjacency H.323 configuration
----------------------	-------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the H.323 adjacency h323ToIsp42 endpoint alias to foo:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# alias foo
```

Related Commands	Command	Description
	attach-controllers	Configures a DBE to attach to a controller.

attach

To attach an adjacency to an account on an SBE, use the **attach** command in the appropriate configuration mode. To detach the adjacency from an account on an SBE, use the **no** form of this command.

attach

no attach *force*

Syntax Description

force Executes a forced detach.

Defaults

No default behavior or values

Command Modes

Adjacency H.323 configuration

Adjacency SIP configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Use the *force* argument to tear all SBE calls down.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to attach the H.323 adjacency to h323ToIsp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# attach
```

attach-controllers

To configure a DBE to attach to a controller, use the **attach-controllers** command in VDBE configuration mode. To detach from a controller, use the **no** form of this command.

attach-controllers

no attach-controllers *force*

Syntax Description	<i>force</i>	Executes a forced detach. In such cases, all calls through this vDBE are immediately torn down.
---------------------------	--------------	---

Defaults	No default behaviour or values
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Command Modes	VBDE configuration
----------------------	--------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure a DBE to attach to a controller:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdb
RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# attach-controllers
```

authentication endpoint

To configure the H.323 adjacency to use endpoint authentication, use the **authentication endpoint** command in Adjacency H.323 configuration mode. To remove this configuration, use the **no** form of this command.

authentication endpoint

no authentication endpoint

Syntax Description This command has no arguments or keywords.

Defaults By default, no authentication procedures are performed.

Command Modes Adjacency H.323 configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure the H.323 adjacency h323ToIsp42 to use endpoint authentication:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# authentication endpoint
```

■ authentication endpoint

Related Commands	Command	Description
	authentication-key	Configures the H.323 adjacency authentication key.

authentication-key

To configure the H.323 adjacency authentication key, use the **authentication-key** command in Adjacency H.323 configuration mode. To deconfigure the H.323 adjacency authentication key, use the **no** form of this command.

authentication-key *key*

no authentication-key

Syntax Description	<i>key</i>	Specifies the authentication key. (This is valid only when authentication is turned on.)
---------------------------	------------	--

Defaults	No default behavior or values
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Command Modes	Adjacency H.323 configuration
----------------------	-------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure H.323 adjacency h323ToIsp42 to use authentication key FG56KJ:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# authentication-key FG56KJ
```

■ authentication-key

Related Commands	Command	Description
	authentication endpoint	Configures an H.323 adjacency to use endpoint authentication.

billing

To configure local and remote billing policies, use the **billing** command in SBE configuration mode. To reset all parameters to their default values, use the **no** form of this command.

billing {local | remote}

no billing {local | remote}

Syntax Description	local	remote
	Configures local billing policies.	Configures remote billing policies.

Defaults No default behavior or values

Command Modes SBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to enter the local billing mode for mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# billing local
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)#
```

Related Commands	Command	Description
	cache	Configures the name of the local or remote directory where to store the billing information.
	critical-alarm-threshold	Configures the threshold at which a critical alarm is generated if the CDR file reaches that size.
	ldr-check	Configures the time of day to run the long duration check.
	local-address	Configures the local IPv4 address.
	major-alarm-threshold	Configures the threshold at which a major alarm is generated if the CDR file reaches that size.
	minor-alarm-threshold	Configures the threshold at which a minor alarm is generated if the CDR file reaches that size.

cache

To configure the local or remote billing directory where to store the billing records, use the **cache** command in the appropriate configuration mode. The billing directory is created under the default billing path. To unset the local or remote billing directory, use the **no** form of this command.

cache *name*

no cache

Syntax Description

<i>name</i>	Specifies the local or remote billing directory under the default billing path. See Usage Guidelines.
-------------	---

Defaults

The default drives for billing are:

- **harddisk:** for local billing
- **disk0:** for remote billing

After an SBC instance is created:

- A predefined billing directory is mounted onto the Replication Data Service File System (RDSFS).
- The billing directory name contains a prefix followed by *_instance-name*.
- The billing directory prefix is **sbcl** for local billing and **sber** for remote billing.

For example, if an SBC instance **mysbc** is created, the two new RDSFS-mounted billing directories are:

- **harddisk:/sbcl_mysbc** for local billing
- **disk0:/sber_mysbc** for remote billing

Command Modes

Billing local configuration

Billing remote configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.1	The path parameter was changed to the name parameter.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure a cache named mybillingrecords:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# billing local  
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)# cache mybillingrecords
```

cac-table

To create or configure an admission control table, use the **cac-table** command in CAC-policy-set configuration mode. To delete the admission control table, use the **no** form of this command.

cac-table *table-name*

no cac-table *table-name*

Syntax Description	<i>table-name</i>	Specifies the admission control table.
Defaults	No default behavior or values	
Command Modes	CAC-policy-set configuration	
Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.
Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>	
Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to create the admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)#
```

Related Commands	Command	Description
	description	Configures the descriptive text describing an admission control table within the context of an SBE policy set.
	match-type	Configures the match-type of an admission control table within the context of an SBE policy set.

callee-dscp

To configure the DSCP to apply to signaling packets sent to the original callee, use the **callee-dscp** command in CAC table configuration mode. To deconfigure the DSCP and set the DSCP value to 0, use the **no** form of this command.

```
callee-dscp dscp
```

```
no callee-dscp
```

Syntax Description	<i>dscp</i>	Specifies the DSCP value with which to mark signaling packets. Range is 0 to 63.
---------------------------	-------------	--

Defaults	<i>dscp: 0</i>
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Command Modes	CAC table configuration
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Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use DSCP AF41 for packets sent from the SBC to the original callee:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# callee-dscp 34
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
RP/0/0/CPU0:router(config-sbc-sbe)#
```

callee-fax-qos-profile

To configure the QoS profile to use for media packets sent to the original callee, use the **callee-fax-qos-profile** command in CAC table configuration mode. To return to the default behavior, use the **no** form of this command.

callee-fax-qos-profile *profile-name*

no callee-fax-qos-profile

Syntax Description

profile-name Specifies a QoS profile.

Defaults

No default behavior or values

Command Modes

CAC table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note

This command can be executed only at the per-call scope. CAC policy does not activate if this command is configured at any other scope.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure calls to the acme account to use the fax QoS profile enterprise for packets sent from the SBC to the original callee:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# callee-fax-qos-profile
enterprise
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
RP/0/0/CPU0:router(config-sbc-sbe)#
```

callee-ip-precedence

To configure the IP precedence to apply to signaling packets sent to the original callee, use the **callee-ip-precedence** command in CAC table configuration mode. To remove this configuration and set the IP precedence to its default (which is 0), use the **no** form of this command.

callee-ip-precedence *value*

no callee-ip-precedence

Syntax Description	<i>value</i>	Specifies the IP precedence with which to mark signaling packets. Range is 0 to 7.
---------------------------	--------------	--

Defaults	The default value is 0.
-----------------	-------------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use IP precedence 4 for packets sent from the SBC to the original callee:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# callee-ip-precedence 4
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

callee-ip-TOS

To configure the IP ToS to apply to signaling packets sent to the original callee, use the **callee-ip-TOS** command in CAC table configuration mode. To return to the default IP ToS (which is 0), use the **no** form of this command.

callee-ip-TOS *value*

no callee-ip-TOS

Syntax Description

<i>value</i>	Specifies the IP ToS with which to mark signaling packets. This may be a value of 0 (normal service) or a bitfield consisting of one or more of the following bits OR'ed together: <ul style="list-style-type: none"> 8: Minimize delay. 4: Maximize throughput. 2: Maximize reliability. 1: Minimize monetary cost.
--------------	--

Defaults

The default value is 0 (normal service).

Command Modes

CAC table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use IP ToS 3 for packets sent from the SBC to the original callee:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# callee-ip-TOS 3
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

callee-privacy

To configure the level of privacy processing to perform on messages sent from callee to caller, use the **callee-privacy** command in CAC table configuration mode. To delete the maximum number of channels in the given entry in the admission control table, use the **no** form of this command.

callee-privacy [*callee_priv_setting*]

no callee-privacy

Syntax Description

<i>callee_priv_setting</i>	Indicates specific callee privacy setting. Values are: <ul style="list-style-type: none"> never: Never hides the identity. account-boundary: Hides the identity if caller is different account from callee. always: Always hides the identity.
----------------------------	---

Defaults

callee_priv_setting=never

Command Modes

CAC table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the entry to always hide callee identity in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1  
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix  
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable  
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1  
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# callee-privacy always
```

callee-video-qos-profile

To configure the QoS profile to use for media packets sent to the original callee, use the **callee-video-qos-profile** command in CAC table configuration mode. To return to the default behavior, use the **no** form of this command.

callee-video-qos-profile *profile-name*

no callee-video-qos-profile

Syntax Description	<i>profile-name</i> Specifies the QoS profile.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note

The **callee-video-qos-profile** can be executed only at the per-call scope. CAC policy won't activate if configured at any other scope.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use the video QoS profile enterprise for packets sent from the SBC to the original callee:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# callee-video-qos-profile
enterprise
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

callee-voice-qos-profile

To configure the QoS profile to use for media packets sent to the original callee, use the **callee-voice-qos-profile** command in CAC table configuration mode. To return to the default behavior, use the **no** form of this command.

callee-voice-qos-profile *profile-name*

no callee-voice-qos-profile

Syntax Description

profile-name Specifies the QoS profile.

Defaults

No default behavior or values

Command Modes

CAC table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note

This command can be executed only at the per-call scope. CAC policy does not activate if this command is configured at any other scope.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use the voice QoS profile enterprise for packets sent from the SBC to the original callee.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# callee-voice-qos-profile
enterprise
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-dscp

To configure the DSCP to apply to signaling packets sent to the original caller, use the **caller-dscp** command in CAC table configuration mode. To deconfigure the DSCP and set the DSCP value to 0, use the **no** form of this command.

caller-dscp *dscp*

no caller-dscp

Syntax Description	<i>dscp</i>	Specifies the DSCP value with which to mark signaling packets. Range is 0 to 63.
---------------------------	-------------	--

Defaults	The default value is 0.
-----------------	-------------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use DSCP AF31 for packets sent from the SBC to the original caller:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# caller-dscp 26
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-fax-qos-profile

To configure the QoS profile to use for media packets sent to the original caller, use the **caller-fax-qos-profile** command in CAC table configuration mode. To remove this configuration, use the **no** form of this command.

caller-fax-qos-profile *profile-name*

no caller-fax-qos-profile

Syntax Description

profile-name Specifies the QoS profile.

Defaults

No default behavior or values

Command Modes

CAC table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note

This command can be executed only at the per-call scope. CAC policy does not activate if this command is configured at any other scope.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use the fax QoS profile enterprise for packets sent from the SBC to the original caller:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# caller-fax-qos-profile
enterprise
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-ip-precedence

To configure the IP precedence to apply to signaling packets sent to the original caller, use the **caller-ip-precedence** command in CAC table configuration mode. To return the configuration to the default IP precedence (which is 0), use the **no** form of this command.

caller-ip-precedence *value*

no caller-ip-precedence

Syntax Description	<i>value</i>	Specifies the IP precedence with which to mark signaling packets. Range is 0 to 7.
---------------------------	--------------	--

Defaults	The default value is 0.
-----------------	-------------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
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To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The IP precedence is not be applied until you run the CAC decision process. This means that some initial signaling packets sent to the caller do not receive any particular IP precedence marking. If a DSCP has been configured in this submode, the DSCP value takes precedence, and the IP precedence value is not used.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use IP precedence 3 for packets sent from the SBC to the original caller:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# caller-ip-precedence 3
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-ip-TOS

To configure the IP ToS to apply to signaling packets sent to the original caller, use the **caller-ip-TOS** command in CAC table configuration mode. To return to the default IP ToS (which is 0), use the **no** form of this command.

caller-ip-TOS *value*

no caller-ip-TOS

Syntax Description	<i>value</i>	Specifies the IP ToS with which to mark signaling packets. This may be a value of 0 (normal service) or a bitfield consisting of one or more of the following bits OR'ed together: 8: Minimize delay. 4: Maximize throughput. 2: Maximize reliability. 1: Minimize monetary cost.
---------------------------	--------------	---

Defaults	The default value is 0 (normal service).
-----------------	--

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use IP ToS 12 for packets sent from the SBC to the original caller:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# caller-ip-TOS 12
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-privacy

To configure the level of privacy processing to perform on messages sent from caller to callee, use the **caller-privacy** command in CAC table configuration mode. To delete the maximum number of channels in the given entry in the admission control table, use the **no** form of this command.

caller-privacy [*privacy-setting*]

no caller-privacy

Syntax Description	<i>privacy_setting</i>	Indicates specific caller privacy setting. Possible values include: <ul style="list-style-type: none"> • never: Never hides the identity. • account-boundary: Hides the identity if caller is different account from callee. • always: Always hides the identity.
---------------------------	------------------------	--

Defaults	<i>privacy_setting=never</i>
-----------------	------------------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the entry to always hide caller identity in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# caller-privacy always
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-video-qos-profile

To configure the QoS profile to use for media packets sent to the original caller, use the **caller-video-qos-profile** command in CAC table configuration mode. To remove this configuration, use the **no** form of this command.

caller-video-qos-profile *profile-name*

no caller-video-qos-profile

Syntax Description

profile-name Specifies the Qos profile.

Defaults

No default behavior or values

Command Modes

CAC table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note

The **caller-video-qos-profile** command can be executed only at the per-call scope. CAC policy does not activate if this command is configured at any other scope.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use the video QoS profile enterprise for packets sent from the SBC to the original caller:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# caller-video-qos-profile
enterprise
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

caller-voice-qos-profile

To configure the QoS profile to use for media packets sent to the original caller, use the **caller-voice-qos-profile** command in CAC table configuration mode. To remove this configuration, use the **no** form of this command.

caller-voice-qos-profile *profile-name*

no caller-voice-qos-profile

Syntax Description	<i>profile-name</i> Specifies the QoS profile.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note	This command can be executed only at the per-call scope. CAC policy does not activate if this command is configured at any other scope.
-------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure calls from the acme account to use the voice QoS profile enterprise for packets sent from the SBC to the original caller:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope call
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type src-account
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# match-value acme
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# caller-voice-qos-profile
enterprise
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

call-policy-set

To create a new policy set, use the **call-policy-set** command in SBE configuration mode. To delete the policy set, use the **no** form of this command.

```
call-policy-set policy-set-id
```

```
no call-policy-set policy-set-id
```

Syntax Description	<i>policy-set-id</i>	Specifies the integer that identifies the policy set.
---------------------------	----------------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	SBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to create an empty policy set, identified by number 1, on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# exit
RP/0/0/CPU0:router(config-sbc-sbe)#
```

Related Commands

Command	Description
first-call-routing-table	Configures the name of the first policy table to process when performing the routing stage of policy for new-call events.
first-number-analysis-table	Configures the name of the first policy table to process when performing the number analysis stage of policy.
first-reg-routing-table	Configures the name of the first policy table to process when performing the routing stage of policy for subscriber-registration events.

category (NA-DST)

To configure the entry category in the number analysis table with entries of the table matching a part of or the whole dialed number, use the **category** command in the appropriate configuration mode. To deconfigure the category of an entry, use the **no** form of this command.

category *category-name*

no category *category-name*

Syntax Description

<i>category-name</i>	Specifies a category to assign to the event.
----------------------	--

Defaults

No default behavior or values

Command Modes

NA-DST number configuration
NA-DST prefix configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the category of entry 1 in the new number analysis table MyNaTable matching the whole number:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-number-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# category external
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# exit
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# exit
RP/0/0/CPU0:router(config-sbc-sbe)#
```

category (NA-SRC)

To configure the entry `category` in the number analysis table with entries of the table matching the source account or adjacency, use the **category** command in NA-SCR configuration mode. To deconfigure the entry `category` in the number analysis table, use the **no** form of this command.

category *category-name*

no category *category-name*

Syntax Description	<i>category-name</i>	Specifies a category to assign to the event.
--------------------	----------------------	--

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	NA-SCR account configuration NA-SCR adjacency configuration
---------------	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the category of entry 1 in the new NA table MyNaTable matching the source account:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-src-account-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# category external
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# exit
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# exit
RP/0/0/CPU0:router(config-sbc-sbe)#
```

clear services

To clear call statistics, calls, billing recorded, and cached information, use the **clear services** command in EXEC mode.

clear services [**call-destroy** *call-index* | **media-stats** | **call-stats** | **flush-cdr-file** | **radius-client** **radius-server-stats** [*client-name* | *server-name*] | **radius-client-stats** *client-name*]

Syntax Description		
call destroy <i>client-index</i>		Clears the identified call. (SBE only.)
media-stats		Clears all statistics collected by the media gateway manager of the DBE.
call-stats		Clears all recorded call stats. (SBE only.)
flush-cdr-file		Writes all cached local billing records to disk. (SBE only.)
radius-client radius-server-stats [<i>client-name</i> <i>server-name</i>]		Clears all statistics for the specified RADIUS server or client. (SBE only.)
radius-client-stats <i>client-name</i>		Clears all statistics fro the specified local RADIUS client. (SBE only.)

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0s	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The **media-stats** keyword is related to DBE. All other keywords apply to SBE.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples

The following example shows how to destroy call 5:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe calls
```

```
SBC Service "mySbc"
Call      State      Type
-----
1         inactive  data
2         active    video
3         activating audio
4         active    audio
5         inactive  unknown
```

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call 5 branches
```

```
SBC Service "mySbc"
Call: 5
State: inactive
Type: unknown

Branch      Calling Number  Called Number
1          102 789 767    -
2          -            105 659 896
```

```
RP/0/0/CPU0:router# clear services sbc mySbc sbe call-destroy 5
```

The following example shows how to clear all the statistics collected by the media gateway manager of the DBE:

```
RP/0/0/CPU0:router# clear services sbc mySbc dbe media-stats
```

The following example shows how to clear all the call statistics by the SBE:

```
RP/0/0/CPU0:router# clear services sbc mySbc sbe call-stats
```

The following example shows how to write all cached local billing records to disk:

```
RP/0/0/CPU0:router# clear services sbc mySbc sbe flush-cdr-file
```

The following example shows how to clear all the statistics for the specified RADIUS server:

```
RP/0/0/CPU0:router# clear services sbc mySbc sbe radius-client radius1 radius-server-stats
acctsvr
```

The following example shows how to clear all the statistics for the local RADIUS clients:

```
RP/0/0/CPU0:router# clear services sbc mySbc sbe radius-client-stats readius1
```

codecs

To configure the codecs supported by the media gateway, use the **codecs** command in Media-gateway configuration mode. To set the codec support to nothing, use the **no** form of this command.

codecs *codec-list*

no codecs

Syntax Description	<i>codec-list</i>	Specifies the supported codecs.
---------------------------	-------------------	---------------------------------

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Media-gateway configuration
----------------------	-----------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to set media gateway 10.0.0.1’s supported codecs to *m=audio 6000 RTP/AVP 4* and *a=rtpmap:0 PCMU/8000* (as defined in RFC 1890):

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# media-gateway ipv4 10.0.0.1
RP/0/0/CPU0:router(config-sbc-sbe-media-gateway)# codecs "m=audio 6000 RTP/AVP
4,a=rtpmap:0 PCMU/8000"
```

complete

To complete the CAC- or call-policy set after committing the full set, use the **complete** command in the appropriate configuration mode. To change entries, use the **no** form of this command.

complete

no complete

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes CAC-policy-set configuration
Call-policy-set configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The SBC checks that the routing-policy is self-consistent and can be set as the active policy set. When this command is issued, you cannot alter the CAC-policy-set.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to complete a cac-policy set, identified by number 1, on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# complete
RP/0/0/CPU0:C12406_CH(config-sbc-sbe)# exit
```

congestion-cleared

To configure the percentage of system resources used such that the DBE can signal a congestion event has cleared to the SBE, use the **congestion-cleared** command in VDBE configuration mode. To remove this configuration, use the **no** form of this command.

congestion-cleared *percentage*

no congestion-cleared

Syntax Description	<i>percentage</i>	Specifies the percentage of system resources to signal congestion that has passed to the SBE.
---------------------------	-------------------	---

Defaults	<i>percentage=60</i>
-----------------	----------------------

Command Modes	VDBE configuration
----------------------	--------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the DBE to signal congestion that has passed to the SBE at 90 percent of system resources consumed:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdb
RP/0/0/CPU0:router(config-sbc-dbe-vdb)# congestion-cleared 90
```

■ congestion-cleared

Related Commands

Command	Description
congestion-threshold	Configures the percentage of system resources used such that the DBE signals a congestion event to the SBE.

congestion-threshold

To configure the percentage of system resources used such that the DBE signals a congestion event to the SBE, use the **congestion-threshold** command in VDBE configuration mode. To remove this configuration, use the **no** form of this command.

congestion-threshold *percentage*

no congestion-threshold

Syntax Description	<i>percentage</i>	Specifies the percentage value of system resources to signal congestion to the SBE. Range is 0 to 100.
---------------------------	-------------------	--

Defaults By default, this command assumes that *percentage* is 60 percent.

Command Modes VDBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The DBE tracks service card capacity as a function of number of calls (against a maximum of 2,500 per DBE instance in R0) and bandwidth (where the service card has a maximum forwarding rate of 500,000 packets per second in R0).

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure the DBE to signal a congestion event to the SBE at 95 percent of maximum capacity:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdbe
RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# congestion-threshold 95
```

■ congestion-threshold

Related Commands	Command	Description
	congestion-cleared	Configures the percentage of system resources used such that the DBE can signal a congestion event has cleared to the SBE.

control address aaa

To configure an SBE to use a given IPv4 AAA control address when contacting an authentication or billing server, use the **control address aaa ipv4** command in **sbc** configuration mode. To deconfigure the IPv4 AAA control address, use the **no** form of this command.

```
control address aaa ipv4 ip_address
```

```
no control address aaa ipv4 ip_address
```

Syntax Description	ipv4 ip_address Specifies the IPv4 AAA control address.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	SBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the SBE to use address 10.1.0.1 as its AAA control address:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# control address aaa ipv4 10.1.0.1
```

Related Commands	Command	Description
	control address h248	Configures IPv4 H.248 control addresses.

control address h248

To configure an SBE to use a given IPv4 H.248 control address, port, or transport for H.248 communications when acting as a media gateway controller, use the **control address h248** command in SBE configuration mode. To deconfigure the given IPv4 H.248 control address when acting as a media gateway controller, use the **no** form of this command.

control address h248 [*index value* | **ipv4** *ipv4_ip_address* | **port** *port-number* | **transport** *transport-type*]

no control address h248 [*index value* | **ipv4** *ipv4_ip_address* | **port** *port-number* | **transport** *transport-type*]

Syntax Description	Parameter	Description
	index <i>value</i>	Specifies the unique identifier of the H.248 control address to set. Range is 0 to 4294967295.
	ipv4 <i>ip_address</i>	Specifies the IPv4 H.248 control address.
	port <i>port-number</i>	Specifies the port number.
	transport <i>transport-type</i>	Specifies the transport type. Possible values include udp or tcp for underlying transport.

Defaults No default behavior or values

Command Modes SBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the SBE to use address 10.1.0.1 as its H.248 control address:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# control address h248 ipv4 10.1.0.1
```

Related Commands

Command	Description
control address aaa	Configures AAA control addresses.

critical-alarm-threshold

To configure the threshold at which a critical alarm is generated if the CDR file reaches that size, use the **critical-alarm-threshold** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

critical-alarm-threshold *threshold*

no critical-alarm-threshold

Syntax Description	<i>threshold</i>	Specifies the threshold (in MBs) when the alarm is generated.
---------------------------	------------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Billing local configuration Billing remote configuration
----------------------	---

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to set the critical alarm threshold to 1000 MB:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# billing local
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)# critical-alarm-threshold 1000
RP/0/0/CPU0:C12406_CH(config-sbc-sbe-lclbill)# exit
```

dbe-location-id

To configure an H.323 adjacency to use a given media gateway DBE location when routing media, use the **dbe-location-id** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

dbe-location-id *dbe-location-id*

no dbe-location-id

Syntax Description

dbe-location-id Specifies the DBE location ID of the DBE. A value of 0 denotes that the adjacency is within the local network.

Defaults

No default behavior or values

Command Modes

Adjacency H.323 configuration
Adjacency SIP configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure H.323 adjacency h323ToIsp42 to use DBE location ID 1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# dbe-location-id 1  
RP/0/0/CPU0:C12406_CH(config-sbc-sbe-adj-h323)# exit
```

deact-mode

To specify the action to take upon DBE or SBE deactivation, use the **deact-mode** command in the appropriate configuration mode. To revert to the default value, use the **no** form of this command.

deact-mode *deact-type*

no deact-mode

Syntax Description	<i>deact-type</i>
	<p>Specifies the action to take upon DBE deactivation:</p> <ul style="list-style-type: none"> <i>abort</i>: All calls dropped with no signaling. <i>normal</i>: Service change signalled to SBE, and all calls immediately terminated. <i>quiesce</i>: No new calls accepted. Deactivation occurs only after existing calls have terminated naturally. <p>Specifies the action to take upon SBE deactivation:</p> <ul style="list-style-type: none"> <i>abort</i>: All calls dropped with no signaling. <i>normal</i>: Existing calls are torn down gracefully. <i>quiesce</i>: No new calls accepted. Existing calls are allowed to terminate.

Defaults By default, this command assumes the *normal* parameter.

Command Modes DBE configuration
SBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to set the DBE to deactivate in quiesce mode to prepare the device for hardware maintenance:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe  
RP/0/0/CPU0:router(config-sbc-dbe)# deact-mode quiesce
```

description

To configure descriptive text for a policy set, an adjacency, or a number analysis table, use the **description** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

description *description*

no description *description*

Syntax Description

<i>description</i>	Specifies the object you are describing.
--------------------	--

Defaults

No default behavior or values

Command Modes

Adjacency H.323 configuration
 Adjacency SIP configuration
 Call-policy-set configuration
 CAC-policy-set configuration
 CAC-table configuration
 NA-DST configuration
 NA-DST-prefix-table configuration
 NA-SRC-adjacency-table configuration
 RTG-DST-address-table configuration
 RTG-SRC-address-table configuration
 RTG-SRC-adjacency-table configuration
 RTG-SRC-account-table configuration
 RTG-round-robin-table configuration
 NA-SRC-account-table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

description

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the H.323 adjacency h323ToIsp42 to use the description test adjacency:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# description test adjacency
```

The following example shows how to set the SIP adjacency SipToIsp42 to use the description test adjacency:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# description test adjacency
```

The following example shows how to create a description for number analysis table MyNaTable with entries that match the whole dialed number:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-number-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# description "My first number analysis table"
```

The following example shows how to create an empty policy set, identified by number 1, on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# description "empty set"
```

The following example shows how to set the description of an admission control table, MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# description "My first CAC table"
```

The following example shows how to create a description for number analysis table MyNaTable with entries that match the start of the dialed number:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-prefix-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# description "My first number analysis table"
```

The following example shows how to create an empty policy set, identified by number 1, on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# description "empty set"
```

disabled

To disable the caching and sending of messages for a RADIUS account, use the **disabled** command in RADIUS accounting configuration mode.

disabled

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes RADIUS accounting mode (config-sbc-sbe-acc)

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to stop the sending of messages from the cache for RADIUS client instance radius1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius accounting radius1
RP/0/0/CPU0:router(config-sbc-sbe-acc)# disabled
```

Related Commands	Command	Description
	radius	Configures a RADIUS client for accounting purposes.

dst-adjacency

To configure the destination adjacency of an entry in a routing table, use the **dst-adjacency** command in the appropriate configuration mode. To delete the destination adjacency, use the **no** form of this command.

dst-adjacency *target-adjacency*

no dst-adjacency *target-adjacency*

Syntax Description	<i>target-adjacency</i>	Specifies the string that identifies the destination adjacency to use.
--------------------	-------------------------	--

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	RTG-DST-address-table configuration RTG-SRC-address-table configuration RTG-SRC-adjacency-table configuration RTG-SRC-account-table configuration RTG-round-robin-table configuration
---------------	---

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The *target-adjacency* argument is mandatory for routing tables entries with match-type **round-robin**.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the destination adjacency of an entry in the new routing table MyRtgTable to softswitch1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-dst-address-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# dst-adjacency softswitch1
```

The following example shows how to configure the destination adjacency of an entry in the new routing table MyRtgTable to softswitch1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-address-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# dst-adjacency softswitch1
```

The following example shows how to configure the destination adjacency of an entry in the new routing table MyRtgTable to softswitch1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-adjacency-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# dst-adjacency softswitch1
```

The following example shows how to configure the destination adjacency of an entry in the new routing table MyRtgTable to softswitch1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-account-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# dst-adjacency softswitch1
```

The following example shows how to configure the destination adjacency of an entry in the new routing table MyRtgTable to softswitch1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-round-robin-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# dst-adjacency softswitch1
```

dscp

To configure a DSCP with which to mark IP packets belonging to a given QoS profile, use the **dscp** command in the appropriate configuration mode. To return to the default, use the **no** form of this command.

dscp *value*

no dscp

Syntax Description

<i>value</i>	Specifies the DSCP value with which to mark packets. Range is 0 to 63.
--------------	--

Defaults

The default DSCP value is 0.

Command Modes

QOS fax configuration
 QOS video configuration
 QOS voice configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the QoS profile to mark IP packets with a DSCP of 10:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# qos fax residential  
RP/0/0/CPU0:router(config-sbc-sbe-qos-fax)# dscp 10
```

The following example shows how to configure the QoS profile to mark IP packets with a DSCP of 10:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# qos video residential  
RP/0/0/CPU0:router(config-sbc-sbe-qos-video)# dscp 10
```

The following example shows how to configure the QoS profile to mark IP packets with a DSCP of 10:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# qos voice residential  
RP/0/0/CPU0:router(config-sbc-sbe-qos-voice)# dscp 10
```

dtmf-duration

To configure the default duration of a DTMF event (in milliseconds), use the **dtmf-duration** command in VDBE configuration mode. To remove this configuration, use the **no** form of this command.

dtmf-duration *duration*

no dtmf-duration

Syntax Description	<i>duration</i>	Specifies the time for a DTMF event (in milliseconds). Range is 1 to 1000.
--------------------	-----------------	--

Defaults	<i>duration</i> : 200ms
----------	-------------------------

Command Modes	DBE configuration
---------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to set the default duration of a DTMF event to 250 ms:
----------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdbe
RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# dtmf-duration 250
```

dtmf-relay

To configure DTMF relay for an adjacency, use the **dtmf-relay** command in Adjacency H.323 configuration mode. To deconfigure DTMF relay for an adjacency, use the **no** form of this command.

dtmf-relay *rtp-nte*

no dtmf-relay

Syntax Description	
	<i>rtp-nte</i> (Optional) Enables rtp-nte support.

Defaults By default, *rtp-nte* is assumed to be specified.

Command Modes Adjacency H.323 configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Note the following points:

- All adjacencies support passing DTMF as H.245 UserInputIndication (alphanumeric), or in-band
- By default, H.323 negotiates support for RFC 2833 *RTP Named Telephone Events* (rtp-nte) with the signaling peer, as well as the above two methods.
- When a call is routed between two adjacencies, one of which is configured to support rtp-nte and one of which is not, DTMF interworking is enabled.
- In DTMF interworking, H.245 UserInputIndications are converted to RFC 2833 packets and vice versa. When DTMF interworking is enabled for a call, the rtp-nte adjacency must be configured with the dynamic RTP payload type that the remote endpoint uses for RFC 2833.
- The simplest configuration is to use the same value for all H.323 adjacencies. For mixed configurations, the requirements apply to all rtp-nte adjacencies.
- All endpoints on that adjacency that support RFC 2833 use the same receive RTP dynamic payload type.
- This dynamic payload type is configured on the adjacency in advance of call setup.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to disable rtp-nte support on the H.323 adjacency h323ToIsp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# dtmf-relay
```

early-media-deny

To configure whether to disallow early-media for an entry in an admission control table, use the **early-media-deny** command in CAC table configuration mode. To return to the default value, use the **no** form of this command.

early-media-deny

no early-media-deny

Syntax Description This command has no arguments or keywords.

Defaults By default, early-media is allowed.

Command Modes CAC table configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to disallow early-media for an existing entry in the admission control table MyCacTable.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# early-media-deny
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

■ early-media-deny

Related Commands	Command	Description
	early-media-direction	Configures the direction of early-media to allow for an entry in an admission control table.
	early-media-timeout	Configures the time to allow early-media before a call is established.

early-media-direction

To configure the direction of early-media to allow for an entry in an admission control table, use the **early-media-direction** command in CAC table configuration mode. To remove this configuration and return to the default setting, use the **no** form of this command.

early-media-direction [*backward-half-duplex* | *forward-half-duplex* | *full-duplex*]

no early-media-direction

Syntax Description	
backward-half-duplex	Allows early-media in the backwards direction only.
forward-half-duplex	Allows early-media in the forwards direction only.
full-duplex	Allows early-media in both directions.

Defaults The default direction is full-duplex.

Command Modes CAC table configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the early-media-direction for an existing entry in the admission control table MyCacTable.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# early-media-direction
full-duplex
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

Related Commands

Command	Description
early-media-deny	Configures you to disallow early-media for an entry in an admission control table.
early-media-timeout	Configures the time to allow early-media before a call is established.

early-media-timeout

To configure the amount of time for which to allow early-media before a call is established, use the **early-media-timeout** command in CAC table configuration mode. To return to the default value, use the **no** form of this command.

early-media-timeout *value*

no early-media-timeout

Syntax Description	<i>value</i>	Specifies the timeout period (in seconds). A value of 0 means that calls are not timed out.
---------------------------	--------------	---

Defaults	<i>value</i> : 0
-----------------	------------------

Command Modes	CAC table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the early-media-timeout for an existing entry in the admission control table MyCacTable.

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# early-media-timeout 90
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# exit
```

■ **early-media-timeout**

```
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

Related Commands

Command	Description
early-media-deny	Configures you to disallow early-media for an entry in an admission control table.
early-media-direction	Configures the direction of early-media to allow for an entry in an admission control table.

edit

To configure a dial-string manipulation action for a number analysis table with entries of the table matching the whole dialed number, use the **edit** command in the appropriate configuration mode. To return to the default value, use the **no** form of this command.

```
edit [del-prefix pd] | [del-suffix sd] | [add-prefix pa] | [replace ds]
```

```
no edit
```

Syntax Description

del-prefix <i>pd</i>	Positive integer specifying a number of digits to delete from the front of the dialed digit string.
del-suffix <i>sd</i>	Positive integer specifying a number of digits to delete from the end of the dialed digit string.
add-prefix <i>pa</i>	String of digits to add to the front of the dialed string.
replace <i>ds</i>	String of digits to with which to replace the dialed.

Defaults

No default behavior or values

Command Modes

NA-DST-number-table configuration
 NA-DST-prefix-table configuration
 NA-SRC-account-table configuration
 NA-SRC-adjacency-table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure entry 1 to delete one digit from the first beginning of the dialed string in the new number analysis table MyNaTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-number-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-ent)# edit del-prefix 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-natable-ent)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-natable)# exit
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# exit
```

Related Commands

Command	Description
match-number	Configures the match value of an entry in a number analysis table.

entry

To create or modify an entry in a table, use the **entry** command in the appropriate configuration mode. To destroy the given entry in the admission control table, use the **no** form of this command.

entry *entry-id*

no entry *entry-id*

Syntax Description

<i>entry-id</i>	Specifies the table entry.
-----------------	----------------------------

Defaults

No default behavior or values

Command Modes

CAC table configuration
 NA-DST-number-table configuration
 NA-DST-prefix-table configuration
 NA-SRC-adjacency-table configuration
 NA-SRC-account-table configuration
 RTG-DST-address-table configuration
 RTG-SRC-address-table configuration
 RTG-SRC-adjacency-table configuration
 RTG-SRC-account-table configuration
 RTG-round-robin-table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.



Note

You cannot change the configuration of tables in the context of the active policy set. An entry may not be destroyed if the table is a part of the active policy set.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to create an entry in the new admission control table, MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)#
```

fast-register disable

To disable fast-path register support on the SIP adjacency, use the **fast-register disable** command in Adjacency SIP configuration mode. To enable fast-path register support, use the **no** form of this command.

fast-register disable

no fast-register disable

Syntax Description This command has no arguments or keywords.

Defaults By default, the fast-path register feature is enabled.

Command Modes Adjacency SIP configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Fast-path register is used to prevent the SBC from forwarding all SIP register messages to the softswitch, thus reducing the load on the softswitch. This is enabled by default and can be disabled using this command. When active, a SIP register message received from the same host and port as an existing registration, and with a nonzero expires interval, is immediately responded to without further parsing or other processing performed.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to disable fast-path register support on the SIP adjacency SipToIsp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# fast-register disable
```

■ fast-register disable

Related Commands	Command	Description
	fast-register-interval	Configures the fast-path register interval.

fast-register-interval

To configure the fast-path register interval (in seconds), use the **fast-register-interval** command in Adjacency SIP configuration mode. To deconfigure the fast-path register interval, use the **no** form of this command.

fast-register-interval *interval*

no fast-register-interval

Syntax Description	<i>interval</i>	Specifies the interval value in seconds. Range is 1 to 2000000.
---------------------------	-----------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Adjacency SIP configuration
----------------------	-----------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

If fast-path register support is enabled on this adjacency, this is the minimum expiry period accepted on a subscriber registration. The interval at which registrations are forwarded on to the softswitch is governed by the *reg-min-expiry* value.



Note The *interval* must be less than the *min-expiry* value.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to enable the fast-register interval on the SIP adjacency SipToIsp42 to 10s:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# fast-register-interval 10
```

Related Commands

Command	Description
fast-register disable	Disables fast-path register support on the SIP adjacency.

first-cac-scope

To configure the scope at which to begin defining limits when performing the Admission Control stage of policy, use the **first-cac-scope** command in CAC-policy-set configuration mode.

first-cac-scope *scope-name*

Syntax Description	<i>scope-name</i>	<p>Specifies the scope at which limits should be initially defined when performing the admission control stage of policy. Possible values are:</p> <ul style="list-style-type: none"> • global • call <p>One or more of the following scopes can be defined in a comma-separated list:</p> <ul style="list-style-type: none"> • src-adjacency • dst-adjacency • src-number • dst-number • src-account • dst-account • category
---------------------------	-------------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC-policy-set configuration
----------------------	------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p>
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to set the scope category as the first scope at which to define an admission control policy in configuration set 1 on mySbc:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1  
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-scope src-adjacency
```

first-cac-table

To configure the name of the first policy table to process when performing the Admission Control stage of policy, use the **first-cac-table** command in CAC-policy-set configuration mode. To remove this configuration, use the **no** form of this command.

first-cac-table *table-name*

no first-cac-table

Syntax Description	<i>table-name</i>	Specifies the admission control table that should be processed first.
--------------------	-------------------	---

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	CAC-policy-set configuration
---------------	------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to set the table RootCacTable as the first admission control table in configuration set 1 on mySbc:
----------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# first-cac-table RootCacTable
```

first-call-routing-table

To configure the name of the first policy table to process when performing the routing stage of policy for new-call events, use the **first-call-routing-table** command in Call-policy-set configuration mode. To deconfigure the name of the first policy table, use the **no** form of this command.

first-call-routing-table *table-name*

no first-call-routing-table

Syntax Description	<i>table-name</i>	Specifies the routing table that should be processed first.
--------------------	-------------------	---

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	Call-policy-set configuration
---------------	-------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the table RootCallRtgTable as the first routing table for new-call events in configuration set 1 on mySbc:
----------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# first-call-routing-table RootCallRtgTable
```

first-number-analysis-table

To configure the name of the first policy table to process when performing the number analysis stage of policy, use the **first-number-analysis-table** command in Call-policy-set configuration mode. To deconfigure the name of the first policy table, use the **no** form of this command.

first-number-analysis-table *table-name*

no first-number-analysis-table

Syntax Description	<i>table-name</i> Specifies the number analysis table that should be processed first.
---------------------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Call-policy-set configuration
----------------------	-------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
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To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the table RootNaTable as the first number analysis table in configuration set 1 on mySbc:
-----------------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# first-number-analysis-table RootNaTable
```

first-reg-routing-table

To configure the name of the first policy table to process when performing the routing stage of policy for subscriber-registration events, use the **first-reg-routing-table** command in Call-policy-set configuration mode. To deconfigure the name of the first policy table, use the **no** form of this command.

first-reg-routing-table *table-name*

no first-reg-routing-table

Syntax Description	<i>table-name</i>	Specifies the routing table that should be processed first.
--------------------	-------------------	---

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	Call-policy-set configuration
---------------	-------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
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To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the table RootRegRtgTable as the first routing table for subscriber-registration events in configuration set 1 on mySbc:
----------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# first-reg-routing-table RootRegRtgTable
```

h248 allow-all-mg

To configure the H.248 signaling stack to allow connections from all media gateways, use the **h248 allow-all-mg** command in SBE configuration mode. To deconfigure the H.248 signaling stack from allowing connections from all media gateways, use the **no** form of this command.

h248 allow-all-mg

no h248 allow-all-mg

Syntax Description This command has no arguments or keywords.

Defaults By default, connections are allowed from all media gateways.

Command Modes SBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure the H.248 signaling stack to allow any media gateway to connect to the SBE:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# h248 allow-all-mg
```

ip precedence

To configure an IP precedence with which to mark IP packets belonging to the given QoS profile, use the **ip precedence** command in the appropriate configuration mode. To return to the default behavior, use the **no** form of this command.

ip precedence *value*

no ip precedence

Syntax Description

value Specifies the IP precedence with which to mark packets. Range is 0 to 7.

Defaults

value: 0

Command Modes

QOS fax configuration
QOS video configuration
QOS voice configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the QoS profile to mark IP packets with a precedence of 1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# qos fax residential
RP/0/0/CPU0:router(config-sbc-sbe-qos-fax)# ip precedence 1
```

ip TOS

To configure an IP ToS (type of service) with which to mark IP packets belonging to the QoS profile, use the **ip TOS** command in the appropriate configuration mode. To return the QoS profile to setting the default IP ToS, use the **no** form of this command.

ip TOS *value*

no ip TOS

Syntax Description

value	Specifies the IP ToS with which to mark packets. This may be a value of 0 (normal service) or a bitfield consisting of one or more of the following bits OR'ed together: <ul style="list-style-type: none"> 8: Minimize delay. 4: Maximize throughput. 2: Maximize reliability. 1: Minimize monetary cost.
-------	--

Defaults

The default IP ToS is 0 (normal service).

Command Modes

QOS fax configuration
QOS video configuration
QOS voice configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the QoS profile to mark IP packets with a TOS to minimize delay and maximize throughput:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# qos fax residential  
RP/0/0/CPU0:router(config-sbc-sbe-qos-fax)# ip TOS 12
```

ipv4 address

To assign an IPv4 address to a particular SBC interface, use the **ipv4 address** command in interface SBC configuration mode. To remove the IPv4 address, use the **no** form of this command.

```
ipv4 address ipv4_address/prefix
```

```
no ipv4 address ipv4_address/prefix
```

Syntax Description	<i>ipv4_address/prefix</i> Specifies the IPv4 media address and prefix assign.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Interface SBC configuration
----------------------	-----------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
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To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to assign address 10.0.0.1/32 to interface 999:
-----------------	---

```
RP/0/0/CPU0:router(config)# interface sbc 999
RP/0/0/CPU0:router (config-if-sbc)# ipv4 address 10.0.0.1/32
```

ipv4

To create an IPv4 address within a DBE media address pool, use the **ipv4** command in Media-address configuration mode. To delete an IPv4 address within a DBE media address pool, use the **no** form of this command.

```
ipv4 ipv4_address [vrf vrf-name]
```

```
no ipv4 ipv4_address [vrf vrf-name]
```

Syntax Description

<i>ipv4_address</i>	Specifies the IPv4 media address.
<i>vrf vrf-name</i>	(Optional) Specifies the VRF name.

Defaults

No default behavior or values

Command Modes

Media-address configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure address 10.0.1.1 for use both for non-VPN media and for media to or from vpn3:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe media-address
RP/0/0/CPU0:router(config-sbc-dbe-media-address)# sbc mySbc dbe media-address ipv4
10.0.1.1
RP/0/0/CPU0:router(config-sbc-dbe-media-address)# sbc mySbc dbe media-address ipv4
10.0.1.1 vrf vpn3
```

Related Commands	Command	Description
	media-address	Configures a DBE media address pool and an address pool for use in a VRF.

key

To configure the authentication key of the accounting and authentication servers, use the **key** command in the appropriate server configuration mode. To disable any previously set authentication key, use the **no** form of this command.

key *key*

no key

Syntax Description	<i>key</i>	Specifies the authentication key. This is only valid if authentication is turned on.
---------------------------	------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Server configuration (accounting or authentication)
----------------------	---

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure accounting servers acctsvr with the authentication key HJ5689 and acctsvr2 with the authentication key cisco on mySbc for RADIUS client instance radius1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius accounting radius1
RP/0/0/CPU0:router(config-sbc-sbe-acc)# server acctsvr
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# key HJ5689
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# exit
RP/0/0/CPU0:router(config-sbc-sbe-acc)# server acctsvr2
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# key cisco
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# exit
RP/0/0/CPU0:router(config-sbc-sbe-acc)# exit
RP/0/0/CPU0:router(config-sbc-sbe)# exit
```

Idr-check

To configure the time of day to run the long duration check, tearing down calls over 24 hours long, use the **ldr-check** command in the appropriate configuration mode. To return to the default, use the **no** form of this command.

ldr-check *HH:MM*

no ldr-check

Syntax Description	<i>HH:MM</i> Specifies the time (in hours and minutes using a 24-hour clock). Range is 0 to 23.
---------------------------	---

Defaults	<i>HH:MM:0</i>
-----------------	----------------

Command Modes	Billing local configuration Billing remote configuration
----------------------	---

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the local long duration check to occur at 10.30 p.m.:
-----------------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# billing local
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)# ldr-check 22:30
```

local-address

To configure the local IPv4 addresses, use the **local-address ipv4** command in the appropriate configuration mode. To deconfigure the local IPV4 address, use the **no** form of this command.

```
local-address ipv4 ipv4_IP_address
```

```
no local-address
```

Syntax Description	
	<i>ipv4_IP_address</i> Specifies the local IPv4 address to be configured.

Defaults	
	No default behavior or values

Command Modes	
	Billing local configuration Billing remote configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	
	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	
	The following example shows how to configure the local-address to 10.20.1.1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# billing local
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)# local-address ipv4 10.20.1.1
RP/0/0/CPU0:router(config-sbc-sbe)# exit
```

local-id host

To configure the local identify name on a SIP adjacency, use the **local-id** command in Adjacency SIP configuration mode. To remove this configuration, use the **no** form of this command.

local-id host *name*

no local-id host

Syntax Description

<i>name</i>	Specifies the local identity name to present on outbound SIP messages. This may be a DNS name. This must not contain the port.
-------------	--

Defaults

When the name field is not set, the local signaling address is used in SIP messages.

Command Modes

Adjacency SIP configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to set the SIP local identity of SIP adjacency SipToIsp42 to mcarthur:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# local-id host mcarthur
```

local-port

To configure a DBE to use a given local port when connecting to the default MGC, use the **local-port** command in VDBE configuration mode. To return to the default value, use the **no** form of this command.

local-port *abcd*

no local-port *abcd*

Syntax Description	<i>abcd</i>	Specifies the local port. Range is 0 to 4294967295.
---------------------------	-------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	VDBE configuration
----------------------	--------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the DBE to use local port 5090:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdbe
RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# local-port 5090
```

location-id

To configure the location ID for a DBE, use the **location-id** command in DBE configuration mode.

location-id *location-id*

Syntax Description	<i>location-id</i> Specifies the location ID of the DBE. Range is 0 to 4294967295.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	DBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to set the location ID for a DBE to be 1:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe
RP/0/0/CPU0:router(config-sbc-dbe)# location-id 1
```

major-alarm-threshold

To configure the threshold (in MB) at which a major alarm is generated if the CDR file reaches that size, use the **major-alarm-threshold** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

major-alarm-threshold *threshold*

no major-alarm-threshold

Syntax Description	<i>threshold</i>	Specifies the threshold (in MB) at which an alarm is generated.
---------------------------	------------------	---

Defaults	No default behavior or values	
-----------------	-------------------------------	--

Command Modes	Billing local configuration Billing remote configuration	
----------------------	---	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to set the major alarm threshold to 500 MB:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# billing local
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)# major-alarm-threshold 500
```

■ major-alarm-threshold

Related Commands	Command	Description
	billing	Configures local and remote billing policies on the SBE.
	critical-alarm-threshold	Configures the threshold at which a critical alarm is generated if the CDR file reaches that size.
	minor-alarm-threshold	Configures the threshold at which a minor alarm is generated if the CDR file reaches that size.

marking

To config whether the QoS profile will mark packets with a DSCP value or an IP precedence and TOS value, use the **marking** command in the appropriate configuration mode. To return to the default behavior, use the **no** form of this command.

marking *type*

no marking

Syntax Description

<i>type</i>	Specifies the type of marking. Possible values are: <ul style="list-style-type: none"> dscp: Marks packets with a DSCP value. ip-precedence: Marks packets with an IP precedence and TOS value.
-------------	---

Defaults

No default behavior or values

Command Modes

QOS fax configuration
QOS video configuration
QOS voice configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the QoS profile to mark IP packets with DSCPs:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# qos fax residential
RP/0/0/CPU0:router(config-sbc-sbe-qos-fax)# marking dscp
```

match-account

To configure the match account of an entry in the number analysis or routing table whose entries match against the source account, use the **match-account** command in the appropriate configuration mode. To destroy the match value, use the **no** form of this command.

match-account *key*

no match-account *key*

Syntax Description	<i>key</i>	Specifies the account to match.
---------------------------	------------	---------------------------------

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	NA-SCR-account-table configuration RTG-SRC-account-table configuration
----------------------	---

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to create an entry in the new number analysis table MyNaTable and sets the source account it matches against:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-src-account-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# match-account router_eastern
```

Related Commands	Command	Description
	entry	Configures an entry in a number analysis table.

match-address

To configure the match value of an entry in a routing table whose entries match against the destination or source dialed number, use the **match-address** command in the appropriate configuration mode. To destroy the match value, use the **no** form of this command.

match-address *key*

no match-address *key*

Syntax Description	<i>key</i>	Specifies the string used to match the address.
---------------------------	------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	RTG-DST-address-table configuration RTG-SRC-address-table configuration
----------------------	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to create an entry in the new routing table MyRtgTable and sets the dialed number (destination address) it matches against:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-dst-address-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entr)# match-address 999
```

Related Commands	Command	Description
	entry	Configures an entry in a routing table.
	action (RTG-SRC)	Configures the action of an entry a routing table.

match-adjacency

To configure the match value of an entry in a number analysis or routing table whose entries match against the source adjacency, use the **match-adjacency** command in the appropriate configuration mode. To destroy the match value of the given entry in the routing table, use the **no** form of this command.

match-adjacency *key*

no match-adjacency *key*

Syntax Description	<i>key</i>	Specifies the match adjacency. Use an asterisk to match all adjacencies.
---------------------------	------------	--

Defaults	No default behavior or values	
-----------------	-------------------------------	--

Command Modes	RTG-SRC-adjacency-table configuration NA-SRC-adjacency-table configuration	
----------------------	---	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to create an entry in the new routing table MyRtgTable and sets the source adjacency it matches against:
-----------------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-src-adjacency-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-adjacency ADJ1
```

Related Commands

Command	Description
action (RTG-SRC)	Configures the action of an entry a routing table.

match-number

To configure the match value of an entry in the number analysis table whose entries match against the whole dialed number, use the **match-number** command in NA-DST-number-table configuration mode. To destroy the match value, use the **no** form of this command.

match-number *key*

no match-number *key*

Syntax Description	<i>key</i>	Specifies the string used to match the dialed number.
---------------------------	------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	NA-DST-number-table configuration
----------------------	-----------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to create an entry in the new NA table MyNaTable and sets the dialed number it matches against:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-number-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# match-number 9XXX
```

Related Commands	Command	Description
	category (NA-DST)	Configures the action of an entry a number analysis table.

match-prefix

To configure the match value of an entry in the number analysis table whose entries match against the start of the dialed number, use the **match-prefix** command in NA-DST-prefix-table configuration mode. To destroy the match value, use the **no** form of this command.

match-prefix *key*

no match-prefix *key*

Syntax Description	<i>key</i>	Specifies the string used to match the start of the dialed number.
---------------------------	------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	NA-DST-prefix-table configuration
----------------------	-----------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to create an entry in the new NA table MyNaTable and sets the dialed number prefix it matches against:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# na-dst-prefix-table MyNaTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-natable-entry)# match-prefix *X*
```

Related Commands	Command	Description
	action (NA-DST)	Configures the action of an entry a number analysis table.

match-type

To configure the match-type of an admission control table within the context of an SBE policy set, use the **match-type** command in CAC-table configuration mode. To delete the match-type of the admission control table, use the **no** form of this command.

match-type *table-type*

no match-type *table-type*

Syntax Description	<i>table-type</i>	Specifies the table type. This parameter controls the syntax of the match-value fields of the entries in the table. The table types available are: <ul style="list-style-type: none"> • policy-set • dst-prefix • src-prefix • src-adjacency • src-account • dst-adjacency • dst-account • category • event-type • all
---------------------------	-------------------	--

Defaults No default behavior or values

Command Modes CAC-table configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the match-type of the admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# match-type call-priority
```

Related Commands

Command	Description
cac-table	Configures admission control tables.
match-value	Configures the match-value of an entry in an admission control table.

match-value

To configure the match-value of an entry in an admission control table, use the **match-value** command in CAC-table configuration mode. To delete the match value in the given entry in the admission control table, use the **no** form of this command.

match-value *key*

no match-value *key*

Syntax Description	<i>key</i>	Specifies the string used to match events. The format of the key is determined by the match-type of the enclosing table.
---------------------------	------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC-table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the match-value for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# match-value 0208366
```

Related Commands	Command	Description
	match-type	Configures the match-type of an admission control table within the context of an SBE policy set.

max-bandwidth

To configure the maximum bandwidth for an entry in an admission control table, use the **max-bandwidth** command in CAC-table configuration mode. To delete the maximum bandwidth in the given entry in the admission control table, use the **no** form of this command.

max-bandwidth *mbw*

no max-bandwidth *mbw*

Syntax Description

<i>mbw</i>	Positive integer specifying the maximum rate at which call media should be admitted (in bytes per second) at the relevant scope.
------------	--

Defaults

No default behavior or values

Command Modes

CAC-table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the maximum bandwidth for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-bandwidth 600000
```

Related Commands	Command	Description
	entry	Configures an admission control table.

max-call-rate

To configure the maximum call rate for an entry in an admission control table, use the **max-call-rate** command in CAC-table configuration mode. To delete the maximum call rate in the given entry in the admission control table, use the **no** form of this command.

max-call-rate *mcr*

no max-call-rate *mcr*

Syntax Description	<i>mcr</i>	Positive integer specifying the maximum number of calls per minute to permit at the given scope.
---------------------------	------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC-table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the maximum call rate for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-call-rate 30
```

max-channels

To configure the maximum number of channels for an entry in an admission control table, use the **max-channels** command in CAC-table configuration mode. To delete the maximum number of channels in the given entry in the admission control table, use the **no** form of this command.

max-channels *mc*

no max-channels *mc*

Syntax Description	<i>mc</i>	Positive integer specifying the maximum number of media channels to permit at the relevant scope.
---------------------------	-----------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC-table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the maximum number of channels for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-channels 50
```

max-num-calls

To configure the maximum number of calls of an entry in an admission control table, use the **max-num-calls** command in CAC-table configuration mode. To delete the maximum number of calls in the given entry in the admission control table, use the **no** form of this command.

max-num-calls *mnc*

no max-num-calls *mnc*

Syntax Description	<i>mnc</i>	Positive integer specifying the maximum number of calls to permit at the relevant scope.
--------------------	------------	--

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	CAC-table configuration
---------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the maximum number of calls for an entry in the new admission control table MyCacTable:
----------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-num-calls 50
```

max-reg-rates

To configure the maximum rate of subscriber registrations for an entry in an admission control table, use the **max-reg-rates** command in **entry** configuration mode. To delete the maximum rate of subscriber registrations in the given entry in the admission control table, use the **no** form of this command.

max-reg-rates *mrr*

no max-reg-rates *mrr*

Syntax Description

mrr Positive integer specifying the maximum number of subscriber registrations per minute to permit at the relevant scope. Only one parameter may be supplied for each command.

Defaults

No default behavior or values

Command Modes

CAC-table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the maximum registration rate for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-reg-rates 150
```

max-regs-rate

To configure the maximum call number of subscriber registrations for an entry in an admission control table, use the **max-regs -rate** command in CAC-table configuration mode. To delete the maximum number of subscriber registrations in the given entry in the admission control table, use the **no** form of this command.

max-regs mrr

no max-regs mrr

Syntax Description	<i>mrr</i>	Positive integer specifying the maximum number of subscriber registrations to permit at the relevant scope.
---------------------------	------------	---

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC-table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submenu. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the maximum number of subscriber registrations for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-regs-rate 500
```

max-updates

To configure the maximum call updates for an entry in an admission control table, use the **max-updates** command in CAC-table configuration mode. To delete the maximum call updates in the given entry in the admission control table, use the **no** form of this command.

max-updates *mu*

no max-updates *mu*

Syntax Description	<i>mu</i>	Positive integer specifying the maximum number of updates to call media to permit at the relevant scope.
---------------------------	-----------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	CAC-table configuration
----------------------	-------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the maximum number of call updates for an entry in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# max-updates 500
```

media-address

To configure a DBE media address pool or create an address pool for use in a VRF, use the **media-address** command in DBE configuration mode. To delete the pool of addresses, use the **no** form of this command.

media-address [*vrf vrf-name*]

no media-address [*vrf vrf-name*]

Syntax Description	<i>vrf-name</i> (Optional) Specifies the per-VRF media address pool.
---------------------------	--

Defaults	No default behavior or values
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Command Modes	DBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submodule. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure an address pool for use in VRF vpn3:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe
RP/0/0/CPU0:router(config-sbc-dbe)# media-address vrf vpn3
RP/0/0/CPU0:router(config-sbc-dbe-media-address)#
```

media-bypass

To configure the H.323 or SIP adjacency to allow media traffic to bypass the DBE, use the **media-bypass** command in the appropriate configuration mode. To return to the default behavior, use the **no** form of this command.

media-bypass

no media-bypass

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes Adjacency SIP configuration
Adjacency H.323 configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

When configured, media traffic for calls originating and terminating on this adjacency flows direct between the endpoints and does not pass through the DBE. When deconfigured, media traffic must always pass through a gateway.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to allow media traffic for the SIP adjacency SipToIsp42 to bypass a gateway:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# media-bypass
```

media-timeout

To configure the time that the DBE should wait since the last media packet has been received on a call, before determining that the call has ceased and clearing up the call resources and signaling the SBE to do the same, use the **media-timeout** command in DBE media-address configuration mode.

media-timeout *timeout*

Syntax Description	<i>timeout</i>	Specifies the maximum time a DBE should wait since the last media packet has been received on a call, before determining that the call has ceased and before clearing up the call resources and signaling the SBE to do the same.
--------------------	----------------	---

Defaults	<i>timeout</i> : 30seconds
----------	----------------------------

Command Modes	DBE media-address configuration
---------------	---------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the DBE to wait 10 seconds after receiving the last media packet before cleaning up the call resources:
----------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe media-address
RP/0/0/CPU0:router(config-sbc-dbe-media-address)# media-timeout 10
```

Related Commands	Command	Description
	media-address	Configures a DBE media address pool and an address pool for use in a VRF.

minor-alarm-threshold

To configure the threshold (in MB) at which a minor alarm is generated if the CDR file reaches that size, use the **minor-alarm-threshold** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

minor-alarm-threshold *threshold*

no minor-alarm-threshold

Syntax Description	<i>threshold</i>	Specifies the threshold (in MB) at which an alarm is generated.
---------------------------	------------------	---

Defaults	No default behavior or values
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Command Modes	Billing local configuration Billing remote configuration
----------------------	---

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to set the minor alarm threshold to 50 MB:
-----------------	--

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# billing local
RP/0/0/CPU0:router(config-sbc-sbe-lclbill)# minor-alarm-threshold 50
```

nat-enable

To enable NAT support on the SIP adjacency, use the **nat-enable** command in Adjacency SIP configuration mode. To disable NAT support on the SIP adjacency, use the **no** form of this command.

nat-enable

no nat-enable

Syntax Description This command has no arguments or keywords.

Defaults By default, NAT procedures are not used.

Command Modes Adjacency SIP configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to enable NAT support on the SIP adjacency SipToIsp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# nat-enable
```

network-id

To configure the network ID, use the **network-id** command in SBE configuration mode. To deconfigure the network ID, use the **no** form of this command.

network-id *id*

no network-id

Syntax Description	<i>id</i> Specifies the eight-digit network ID. Range is 0 to 99999.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	SBE configuration mode
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Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to set the network ID to 0x56878905:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# network-id 0x56878905
```

pause

To pause resending the cache of messages to the RADIUS server, use the **pause** command in RADIUS accounting configuration mode.

pause

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes RADIUS accounting configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

When the sending of messages is stopped, new records are added to the cache, rather than being sent.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to stop the sending of messages from the cache for RADIUS client instance radius1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius accounting radius1
RP/0/0/CPU0:router(config-sbc-sbe-acc)# pause
```

Related Commands	Command	Description
	radius	Configures a RADIUS client for accounting purposes.
	resend	Begins resending cached messages for the RADIUS client.

port

To configure the port that the RADIUS server will use to receive Access-Request or Accounting-Request packets, use the **port** command in server configuration mode.

port *port-num*

no port

Syntax Description

<i>port-num</i>	Specifies the port where the RADIUS server receives access-request packets. Range is 1 to 65535.
-----------------	--

Defaults

Access-Request packets use default port 1812.

Accounting-Request packets use default port 1813.

Command Modes

RADIUS accounting configuration

RADIUS authentication configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure authentication server acctsvr to use port 1009 on mySbc for the authentication RADIUS client instance:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius authentication
RP/0/0/CPU0:router(config-sbc-sbe-auth)# server acctsvr
RP/0/0/CPU0:router(config-sbc-sbe-auth-ser)# port 1009
```

prefix

To configure whether the match-address of this entry matches the start of the source or destination address, use the **prefix** command in the appropriate configuration mode. To delete the match-type in the routing table, use the **no** form of this command.

prefix

no prefix

Syntax Description This command has no arguments or keywords.

Defaults By default, the match-address is not be denoted as a prefix.

Command Modes RTG-DST-address-table configuration
RTG-SRC-address-table configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure an entry to match dialed numbers starting with 9:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# call-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy)# rtg-dst-address-table MyRtgTable
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# match-address 9
RP/0/0/CPU0:router(config-sbc-sbe-rtgpolicy-rtgtable-entry)# prefix
```

priority

To configure the priority of the accounting or authentication server, use the **priority** command in RADIUS accounting configuration mode. To disable any previously set priority, use the **no** form of this command.

priority *pri*

no priority

Syntax Description

pri Specifies the priority. Range is 1 to 10.

Defaults

By default, this command assumes that *pri* is 1.

Command Modes

RADIUS accounting configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The priority determines which of the configured servers is selected as the default server and where all requests are sent. A RADIUS client contacts the RADIUS servers sequentially, in order of priority, to establish an active RADIUS session. Each RADIUS client sends call detail records to the currently active RADIUS server.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure accounting servers acctsvr as priority 1 and acctsvr2 as priority 2 on mySbc for RADIUS client instance radius1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius accounting radius1
RP/0/0/CPU0:router(config-sbc-sbe-acc)# server acctsvr
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# priority 1
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# exit
RP/0/0/CPU0:router(config-sbc-sbe-acc)# server acctsvr2
RP/0/0/CPU0:router(config-sbc-sbe-acc-ser)# priority 2
```

qos fax

To configure a fax QoS profile, use the **qos fax** command in SBE configuration mode. To destroy the given profile, use the **no** form of this command.

qos fax *qos-name*

no qos fax *qos-name*

Syntax Description	<i>qos-name</i> Specifies the QoS profile. The string default is reserved.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	SBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to enter the submode for configuring a fax QoS profile named residential:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# qos fax residential
RP/0/0/CPU0:router(config-sbc-sbe-fax)# exit
```

qos video

To configure a video QoS profile, use the **qos video** command in the SBE configuration mode. To destroy the given profile, use the **no** form of this command

```
qos video qos-name
```

```
no qos video qos-name
```

Syntax Description	<i>qos-name</i> Specifies the QoS profile. The string default is reserved.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	SBE configuration
----------------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to enter the submode for configuring a video QoS profile named residential:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# qos video residential
RP/0/0/CPU0:router(config-sbc-sbe-video)# exit
```

qos voice

To configure a voice QoS profile, use the **qos voice** command in SBE configuration mode. To destroy the given profile, use the **no** form of this command.

qos voice *qos-name*

no qos voice *qos-name*

Syntax Description	<i>qos-name</i>	Specifies the QoS profile. The string default is reserved.
--------------------	-----------------	--

Defaults	No default behavior or values
----------	-------------------------------

Command Modes	SBE configuration
---------------	-------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
------------------	--

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to enter the submode for configuring a voice QoS profile named residential:
----------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# qos voice residential
RP/0/0/CPU0:router(config-sbc-sbe-voice)# exit
```

radius

To create and configuring a RADIUS client for accounting or authentication purposes, use the **radius accounting** command in SBE configuration mode. To destroy the RADIUS client, use the **no** form of this command.

radius [**accounting** *client-name* | **authentication**]

no radius [**accounting** *client-name* | **authentication**]

Syntax Description

accounting <i>client-name</i>	Specifies the name to assign to the accounting RADIUS client.
authentication	Enables client authentication.

Defaults

No default behavior or values

Command Modes

SBE configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Each named client maintains a list of servers consisting of one active server and a set of standby servers. The list is traversed by the client in order of configured priority. An SBC instance can be configured with multiple clients (each with its own ordered set of servers) if call detail reports (CDRs) must be sent to multiple RADIUS servers simultaneously. CDRs are sent by the client to the currently active server. If the active server cannot be contacted, a standby server is used.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to create a RADIUS client instance called radius1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius accounting radius1
RP/0/0/CPU0:router(config-sbc-sbe-acc)# exit
```

Related Commands

Command	Description
disabled	Disables the caching and sending of messages for a RADIUS account.
pause	Pauses resending the cache of messages to the RADIUS server.
resend	Begins resending cached messages for the RADIUS client.

remote-address ipv4

To configure an H.323 or SIP adjacency to restrict the set of remote signaling peers that can be contacted over the adjacency to those with the given IP address prefix, use the **remote-address ipv4** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

```
remote-address ipv4 ipv4_IP_address/prefix
```

```
no remote-address
```

Syntax Description	<i>ipv4_IP_address/prefix</i> Specifies the IPv4 address and prefix length for the remote address.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Adjacency H.323 configuration Adjacency SIP configuration
----------------------	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples	The following example shows how to configure the SIP adjacency SipToIsp42 to match calls from 1.2.3.0/24 to this adjacency:
-----------------	---

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# remote-address ipv4 1.2.3.0/24
```

resend

To begin resending cached messages for the RADIUS client, use the **resend** command in RADIUS accounting configuration mode.

resend

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes RADIUS accounting configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure record resending for RADIUS client instance radius1:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# radius accounting radius1
RP/0/0/CPU0:router(config-sbc-sbe-acc)# resend
```

Related Commands	Command	Description
	radius	Configures a RADIUS client for accounting purposes.
	pause	Pauses resending the cache of messages to the RADIUS server.

rtp payload-type nte

To configure the dynamic RTP payload type for RFC 2833 *Named Telephone Event* (rtp-nte) packets for DTMF interworking, use the **rtp payload-type nte** command in adjacency H.323 configuration mode. To remove this configuration, use the **no** form of this command.

rtp payload-type nte *number*

no rtp payload-type nte

Syntax Description	<i>number</i>	Payload value. Range is 96 to 127.
---------------------------	---------------	------------------------------------

Defaults	No default behavior or values
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Command Modes	Adjacency H.323 configuration
----------------------	-------------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.	

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The payload type is used both for transmitting and receiving. Therefore, it must be the same value that is used on the peer.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to set the RTP payload type to 111 on the H.323 adjacency h323ToIsp42:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# rtp payload-type nte 111
```

show services sbc sbe call-policy-set

To show the properties associated with a given routing policy set or policy table, use the **show services sbc sbe call-policy-set** command in EXEC mode.

```
show services sbc sbc-name sbe call-policy-set id table name entry entry
```

Syntax Description		
	<i>id</i>	Specifies the numeric identifier of the routing policy set or table.
	<i>name</i>	Specifies the routing policy table whose entry is to be displayed.
	entry <i>entry</i>	Specifies the numeric identifier of the entry.

Defaults No default behavior or values

Command Modes EXEC mode

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to display the properties associated with the given routing policy set:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call-policy-set 1
```

```
Policy set 1
-----
Description                               Master policy set
Active policy set?                         Yes
First Number Analysis table                myFirstNATable
First call routing table                   myFirstCallRoutingTable
First registration routing table           myFirstRegRoutingTable
```

The following example shows how to display a summary of the routing policy tables associated with the given policy set:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call-policy-set 1 tables
```

```
Policy set 1 tables
Table name           Match type           Description
-----
NaSrcAdj             src-adjacency        First NA table
NaEuropeEmergency   dst-prefix           Euro emergency no. table
NaUKEmergency        dst-prefix           UK emergency no. table
startRouting         dst-prefix           Master routing table
internalRouting      src-adjacency        Routes internal calls
externalRouting      dst-prefix           Routes external calls
softswitchRoundRobin round-robin          Choose a softswitch
```

The following example shows how to display a summary of the entries associated with the given table:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call-policy-set 1 table NaSrcAdj entry 1
```

```
Policy set 1 table NaSrcAdj entry 1
Match value           porscheStuttgart
Next table            NaEuropeEmergency
```

Related Commands

Command	Description
description	Configures descriptive text for the CAC-policy-set.
first-number-analysis-table	Configures the name of the first policy table to process when performing the number analysis stage of policy.
first-call-routing-table	Configures the name of the first policy table to process when performing the routing stage of policy for new-call events.
first-reg-routing-table	Configures the name of the first policy table to process when performing the routing stage of policy for subscriber-registration events.

show services sbc sbe call-policy-sets

To list all of the routing policy sets on the SBE, use the **show services sbc sbe call-policy-sets** command in EXEC mode.

```
show services sbc sbc-name sbe call-policy-sets
```

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID

Task ID	Operations
sbc	read
firewall	read

Examples

The following example shows how to list all of the routing policy sets on the SBE:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call-policy-sets
```

```
Policy set      Comment
-----
1               Master policy set
2               Temporary policy set for editing
3               Night-time policy set, used from 10pm-6am
```

```
Active policy set = 1.
```

show services sbc sbe call-policy-set table entries

To display a summary of the entries associated with a given table, use the **show services sbc sbe call-policy-set table entries** command in EXEC mode.

show services sbc *sbc-name* sbe call-policy-set *id* table *name* entries

Syntax Description	<i>id</i>	Specifies the numeric identifier of the routing policy set to which the table belongs.
	<i>name</i>	Specifies the table whose entries are to be displayed.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to display a summary of the entries associated with the given table:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call-policy-set 1 table NaSrcAdj entries
```

```
Policy set 1 table NaSrcAdj entries
Entry Match value
```

```
-----
1      porscheStuttgart
2      porscheBerlin
3      lotus
4      lada
5      skoda
6      rover
```

show services sbc sbe calls

To list all the calls on the SBEs, use the **show services sbc sbe calls** command in EXEC mode.

show services sbc *sbc-name* sbe calls

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to list the complete call statistics for the current hour:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe calls
```

```
SBC Service "mySbc"
Call      State      Type
-----
 1        inactive  unknown
 2        active    video
 3        activating audio
 4        deactivating data
```

show services sbc sbe call-stats

To list the statistics for all the calls on the specified SBE, use the **show services sbc sbe call-stats** command in EXEC mode.

show services sbc *sbc-name* sbe call-stats *period*

Syntax Description	<i>period</i>	Specifies the interval when the statistics display: <ul style="list-style-type: none"> • current5mins • previous5mins • current15mins • previous15mins • currenthour • previoushour • currentday • previousday
---------------------------	---------------	--

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Readings are taken at 5-minute intervals past the hour (that is, 05, 10, 15, and so on). Current readings apply to the statistics since the last appropriate readings were taken.

If the time is now 12:34, *currenthour* will apply to the statistics collected since 11:35 and *current15mins* will be since 12:20. In this example, *previoushour* would be 10:35-11:35 and *previous15mins* would be 12:05-12:20.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples

The following example shows how to list the complete call statistics for the current hour:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe call-stats currenthour
```

```
SBC Service "mySbc"
Call statistics for the current hour:
  Active calls:                    5000
  Activating calls:                30
  Deactivating calls:              15
  Total call attempts:             100000
  Failed call attempts:            10
  Call routing failed:              1
  Call resources failed:           2
  Call media failed:               3
  Call signaling failed:            4
  Active call failures:             0
  Congestion failures:             0
  Unconnected emergency calls in progress: 6
  Connected emergency calls in progress: 24
```

Related Commands

Command	Description
show services sbc sbe calls	Lists all the calls on the SBEs.

show services sbc sbe gates

To list the gates created on the SBE, use the **show services sbc sbe gates** command in EXEC mode.

```
show services sbc sbc-name sbe gates
```

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to list the gates created on the SBE:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe gates
```

```
SBC Service "mySbc"
  Billing Correlator = value
  Media Gateway IP address = 1.2.3.4
  Number of flow pairs = 1
```

show services sbc sbe media-gateway-associations

To list all the media gateways associated with this SBE and statistics associated with the media gateway, use the **show services sbc sbe media-gateway-associations** command in EXEC mode.

show services sbc *sbc-name* sbe media-gateway-associations

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples

The following example shows how to list all the media gateways associated with this SBE and statistics associated with the media gateway:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe media-gateway-associations
```

```
SBC Service "mySbc" Media Gateway Associations
```

```
Media gateway 10.0.0.1:653
```

```
Gateway Protocol = megaco  
Transport Protocol = tcp  
Local address = a.b.c.d:e
```

	Sent	Received	Failed	Retried
Requests	100	200	10	5
Replies	20	20	0	-

```
Media gateway 10.0.0.2:34
```

```
Gateway Protocol = megaco  
Transport Protocol = udpip  
Local address = a.b.c.d:e
```

	Sent	Received	Failed	Retried
Requests	500	1000	500	200
Replies	1000	500	0	-

show services sbc sbe media-gateways

To list the gateway configuration and attachment status on SBE, use the **show services sbc sbe media-gateways** command in EXEC mode.

```
show services sbc sbc-name sbe media-gateways
```

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to list the gateway configuration and attachment status on SBEs:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe media-gateways

SBC Service "mySbc"
  Configured Gateway 10.0.0.1
  Configured Gateway 100.1.0.1
  Configured Gateway 172.3.4.9
```

show services sbc sbe qos-profiles

To list all QoS profiles, use the **show services sbc sbe qos-profiles** command in EXEC mode. If you specify a QoS profile, the details of that profile are shown.

```
show services sbc sbc-name sbe qos-profiles [profile-name]
```

Syntax Description	profile-name (Optional) Specifies the profile name.
---------------------------	---

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to list all of the QoS profiles on the SBE:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe qos-profiles

Profile name          Class
-----
Profile1              Voice
Profile2              Fax

# show services sbc mySbc sbe qos-profiles Profile1

QoS profile Profile1
  Class of Service    Voice
  Marking type        DSCP
  DSCP                 7
```

show services sbc sbe radius-client-stats

To list the RADIUS accounting client statistics for all accounting clients configured on an SBE, use the **show services sbc sbe radius-client-stats** command in EXEC mode.

show services sbc *sbc-name* sbe radius-client-stats *radius-client*

Syntax Description	<i>radius-client</i>	Specifies the RADIUS client to show.
---------------------------	----------------------	--------------------------------------

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to list the RADIUS accounting server statistics for all accounting servers configured on an SBE:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe radius-client-stats
```

show services sbc sbe radius-server-stats

To list the RADIUS server statistics for all accounting servers configured on a RADIUS client on an SBE, use the **show services sbc sbe radius-server-stats** command in EXEC mode.

show services sbc sbc-name sbe radius-server-stats *radius-client*

Syntax Description	<i>radius-client</i> Specifies the RADIUS client name.
---------------------------	--

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
-------------------------	--

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples

The following example shows how to list the RADIUS server statistics for all accounting servers configured on a radius client on an SBE:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe radius-server-stats radius1
```

```
SBC Service "mySbc"
Accounting servers
  acctsvr:
    Round Trip time:                10ms
    Access-request sent:            12
    Access-request retransmitted:    6
    Access-accept received:         12
    Access-rejects received:        0
    Access-Challenge received:      13
    Accounting-request sent:        1000
    Accounting-request retransmitted: 2
    Accounting-response received:    1000
    Malformed packets receivevd:    0
    Invalid authenticators received: 2
    Outstanding response:           3
    Timeouts occurred:              0
    Unknown packets:                4
    Packets dropped:                 0

  acctsvr2:
    Round Trip time:                15ms
    Access-request sent:            14
    Access-request retransmitted:    0
    Access-accept received:         13
    Access-rejects received:        0
    Access-Challenge received:      16
    Accounting-request sent:        0
    Accounting-request retransmitted: 0
    Accounting-response received:    0
    Malformed packets receivevd:    0
    Invalid authenticators received: 0
    Outstanding response:           0
    Timeouts occurred:              0
    Unknown packets:                0
    Packets dropped:                 0
```

show services sbc sbe vrf

To list all the currently assigned bindings between VRF name and VPN IDs within SBC, use the **show services sbc sbe vrf** command in EXEC mode.

show services sbc *sbc-name* sbe vrf

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	sbc	read
	firewall	read

Examples The following example shows how to list the assigned bindings between VRF name and VPN IDs:

```
RP/0/0/CPU0:router# show services sbc mySbc sbe vrf
```

```
SBC Service "mySbc" VRF name to VPN id bindings
```

VRF name	VPN id (per RFC2685)
Isp1Vpn1	00 05 01 : 01 11 11 11
Isp1Vpn2	00 05 01 : 01 22 22 22
Isp1Vpn3	00 05 01 : 01 33 33 33
Isp2Vpn1	01 43 02 : 00 00 00 01
Isp2Vpn2	01 43 02 : 00 00 00 02

signaling-address ipv4

To define the local IPv4 signaling address of an H.323 or SIP adjacency, use the **signaling-address ipv4** command in the appropriate configuration mode. To return to the default behavior, use the **no** form of this command.

signaling-address ipv4 *ipv4_IP_address*

no signaling-address

Syntax Description

ipv4_IP_address Specifies the IPv4 address for the signaling address of the SIP or H.323 adjacency.

Defaults

No default behavior or values

Command Modes

Adjacency H.323 configuration
Adjacency SIP configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

When defined, the SBE listens on this address for inbound call signaling from the adjacency. If two adjacencies share the same signaling address, a different remote domain name must be specified for each one.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the H.323 adjacency h323ToIsp42 to listen on signaling address 10.1.0.2:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# signaling-address ipv4 10.1.0.2
```

signaling-peer

To configure an H.323 or SIP adjacency to use the given remote signaling-peer, use the **signaling-peer** command in **adjacency sip** configuration mode. To remove this configuration, use the **no** form of this command.

signaling-peer *peer-name* **gk**

no signaling-peer

Syntax Description	peer-name	Specifies the IPv4 address in dotted decimal format.
	gk	Specifies the H.323 gatekeeper.

Defaults No default behavior or values

Command Modes Adjacency H.323 configuration
Adjacency SIP configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure the H.323 adjacency h323ToIsp42 to use gatekeeper 10.10.10.10:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# signaling-peer gk 10.10.10.10
```

The following example shows how to configure the SIP adjacency SipToIsp42 to use call agent athene:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# signaling-peer athene
```

Related Commands

Command	Description
signaling-peer-port	Configures an H.323 or SIP adjacency to use the given remote signaling-peer's port.

signaling-peer-port

To configure an H.323 or SIP adjacency to use the given remote signaling-peer's port, use the **signaling-peer-port** command in **adjacency sip** configuration mode. To remove this configuration, use the **no** form of this command.

signaling-peer-port *port-num*

no signaling-peer-port

Syntax Description	<i>port-num</i>	Specifies the number of the signaling port. Range is 1 to 65535.
---------------------------	-----------------	--

Defaults	By default, this command assumes that <i>port-num</i> is 5060.
-----------------	--

Command Modes	Adjacency H.323 configuration Adjacency SIP configuration
----------------------	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines	<p>To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i>.</p> <p>To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.</p>
-------------------------	---

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the H.323 adjacency h323ToIsp42 to use port 123 on the signaling peer:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# signaling-peer-port 123
```

The following example shows how to configure the SIP adjacency SipToIsp42 to port 123 as the signaling peer's port:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe  
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42  
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# signaling-peer-port 123
```

signaling-port

To define the local port of signaling address of an H.323 or SIP adjacency, use the **signaling-port** command in the appropriate configuration mode. To return to the default value, use the **no** form of this command.

signaling-port *port-num*

no signaling-port

Syntax Description	<i>port-num</i>	Specifies the number of the signaling peer. Range is 1 to 65535.
---------------------------	-----------------	--

Defaults	<i>port-num</i> : 5060
-----------------	------------------------

Command Modes	Adjacency H.323 configuration Adjacency SIP configuration
----------------------	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The SBE will listen on this port for inbound call signaling from the adjacency. The port will also be appended to the SBE’s contact header on outbound SIP requests and responses.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to configure the SIP adjacency SipToIsp42 to listen on signaling port 5000:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# signaling-port 5000
```

Related Commands	Command	Description
	signaling-peer	Configures a SIP adjacency to use the given remote signaling-peer.

transcode-deny

To forbid transcoding for this entry in an admission control table, use the **transcode-deny** command in CAC-table configuration mode. To allow transcoding for this entry in the admission control table, use the **no** form of this command.

transcode-deny

no transcode-deny

Syntax Description This command has no arguments or keywords.

Defaults By default, transcoding for this entry in the admission control table is allowed.

Command Modes CAC-table configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the entry to permit transcoding in the new admission control table MyCacTable:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# cac-policy-set 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable match-type dst-prefix
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy)# cac-table MyCacTable
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable)# entry 1
RP/0/0/CPU0:router(config-sbc-sbe-cacpolicy-cactable-entry)# transcode-deny
```

transcoder

To configure that the media gateway is a **transcoder**, use the `transcoder` command in Media-gateway configuration mode. To return to the default behavior, use the **no** form of this command.

transcoder

no transcoder

Syntax Description This command has no arguments or keywords.

Defaults By default, this command assumes the media gateway has no transcoding features.

Command Modes Media-gateway configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to set media gateway 10.0.0.1 to be a transcoder:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# media-gateway ipv4 10.0.0.1
RP/0/0/CPU0:router(config-sbc-sbe-media-gateway)# transcoder
```

transport

To configure a DBE to use either UDP or TCP for H.248 control signaling with the specified H.248 controller, use the `transport` command in controller H.248 configuration mode. To remove this configuration, use the **no** form of this command.

transport [*udp* | *tcp*]

no transport [*udp* | *tcp*]

Syntax Description

<i>udp</i> <i>tcp</i>	<ul style="list-style-type: none"> <i>udp</i>: Uses UDP transport for H.248 signaling. <i>tcp</i>: Uses TCP as a transport for H.248 signaling.
-------------------------	---

Defaults

By default, this command assumes `udp` signaling.

Command Modes

Controller H.248 configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to configure the H.248 controller with index 1 to use `tcp` signaling:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdbe
RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# controller h248 1
RP/0/0/CPU0:router(config-sbc-dbe-vdbe-h248)# transport tcp
```

use-any-local-port

To configure a DBE to use any available local port when connecting to the default MGC, use the **use-any-local-port** command in VDBE configuration mode. To remove this configuration, use the **no** form of this command.

use-any-local-port

no use-any-local-port

Syntax Description This command has no arguments or keywords.

Defaults The default behavior is to use any local port.

Command Modes VDBE configuration

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples The following example shows how to configure the DBE to use any local port:

```
RP/0/0/CPU0:router(config)# sbc mySbc dbe vdbe
RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# use-any-local-port
```

vrf (interface)

To assign an SBC interface to a VRF, use the **vrf** command in interface SBC configuration mode. To unassign an SBC interface from a VRF, use the **no vrf** form of this command.

vrf *vrf-name*

no vrf

Syntax Description	<i>vrf-name</i>	Specifies the name assigned to a VRF.
---------------------------	-----------------	---------------------------------------

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Interface SBC configuration
----------------------	-----------------------------

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to assign interface SBC10 to the VRF vpn3:

```
RP/0/0/CPU0:router(config)# interface sbc 10
RP/0/0/CPU0:router (config-if-sbc)# vrf vpn3
```

Related Commands	Command	Description
	vrf	Configures an H.323 adjacency as tied to a specific VPN.

vrf

To configure an H.323 or SIP adjacency as tied to a specific VPN, use the **vrf** command in the appropriate configuration mode. To remove this configuration, use the **no** form of this command.

```
vrf vrf_name
```

```
no vrf
```

Syntax Description	<i>vrf_name</i>	Specifies the VRF of this adjacency.
---------------------------	-----------------	--------------------------------------

Defaults	No default behavior or values
-----------------	-------------------------------

Command Modes	Adjacency H.323 configuration Adjacency SIP configuration
----------------------	--

Command History	Release	Modification
	Release 3.4.0	No modification.
	Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

The adjacency will only receive incoming signaling from this VPN. The adjacency’s outgoing signaling is routed in the relevant VRF.

Task ID	Task ID	Operations
	sbc	read, write
	firewall	read, write

Examples

The following example shows how to assign the H.323 adjacency h323ToIsp42 to VRF vpn3:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency h323 h323ToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-h323)# vrf vpn3
```

The following example shows how to configure the SIP adjacency SipToIsp42 to VPN using VRF vpn3:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# adjacency sip SipToIsp42
RP/0/0/CPU0:router(config-sbc-sbe-adj-sip)# vrf vpn3
```

Related Commands

Command	Description
vrf vpn-id	Assigns an SBC interface to a VRF.

vrf vpn-id

To configure a globally unique VPN ID to the given VPN routing and forwarding instance (VRF), use the **vrf vpn-id** command in SBE configuration mode. To delete the previously assigned VRF name, use the **no** form of this command.

```
vrf vrf-name vpn-id vpn-id
```

```
no vrf vrf-name vpn-id vpn-id
```

Syntax Description

<i>vrf-name</i>	Specifies the VRF to which the VPN ID is to be assigned.
<i>vpn-id</i>	A 7-byte, globally unique identifier for the VPN (as defined by RFC 2685).

Defaults

No default behavior or values

Command Modes

SBE configuration

Command History

Release	Modification
Release 3.4.0	No modification.
Release 3.3.0	This command was introduced on the Cisco XR 12000 Series Router.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

To use this command, you must be in the correct configuration mode and submode. The “Examples” section shows the hierarchy of modes and submodes required to run the command.

This is used by SBC to unambiguously identify VRFs when programming remote DBEs.

For more information about this command, see RFC2685.

Task ID

Task ID	Operations
sbc	read, write
firewall	read, write

Examples

The following example shows how to assign the 7-byte VPN ID 00010203040506 to the VRF named fred:

```
RP/0/0/CPU0:router(config)# sbc mySbc sbe
RP/0/0/CPU0:router(config-sbc-sbe)# vrf fred vpn-id 00010203040506
```

Related Commands	Command	Description
	show services sbc sbe vrf	Lists all the currently assigned bindings between VRF name and VPN IDs within SBC.



HR	Cisco IOS XR Interface and Hardware Component Command Reference
IR	Cisco IOS XR IP Addresses and Services Command Reference
MCR	Cisco IOS XR Multicast Command Reference
MNR	Cisco IOS XR System Monitoring Command Reference
MPR	Cisco IOS XR MPLS Command Reference
QR	Cisco IOS XR Modular Quality of Service Command Reference
RR	Cisco IOS XR Routing Command Reference
SBR	Cisco IOS XR Session Border Controller Command Reference
SMR	Cisco IOS XR System Management Command Reference
SR	Cisco IOS XR System Security Command Reference

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