



# RADIUS Route Download

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## History for the RADIUS Route Download Feature

Release	Modification
12.2(8)T	This feature was introduced.
12.2(28)SB	This feature was integrated into Cisco IOS Release 12.2(28)SB.

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## Feature Overview

The RADIUS Route Download feature allows users to configure their network access server (NAS) to send static route download requests to authorization, authentication, and accounting (AAA) servers specified by a named method list. Before this feature, RADIUS authorization for static route download requests could be sent only to AAA servers specified by the default method list.

This feature extends the functionality of the **aaa route download** command to allow users to specify the name of the method list that will be used to direct static route download requests to the AAA servers. The **aaa route download** command may be used to specify a separate method list for downloading static routes. This method list can be added by using the **aaa authorization configuration** command.

## Benefits

The RADIUS Route Download feature allows users to specify a separate method list for static route download requests; that is, the NAS can direct RADIUS authorization for static route download requests to servers specified by a method list in addition to the default method list.

## Prerequisites

AAA network security must be enabled before you perform the tasks in this feature. For information about enabling AAA, refer to the AAA section in the *Cisco IOS Security Configuration Guide*, Release 12.4.

## Configuration Tasks

See the following sections for configuration tasks for the RADIUS Route Download feature. Each task in the list is identified as either required or optional.

- [Configuring RADIUS Route Download](#) (required)
- [Verifying RADIUS Route Download](#) (optional)

## Configuring RADIUS Route Download

To configure the NAS to send static route download requests to the servers specified by a named method list, use the following commands in global configuration mode:

	Command	Purpose
Step 1	Router(config)# <b>aaa authorization configuration</b> <i>method-name</i> [ <b>radius</b>   <b>tacacs+</b>   <b>group</b> <i>group-name</i> ]	Downloads static route configuration information from the AAA server using RADIUS.
Step 2	Router(config)# <b>aaa route download</b> [ <i>time</i> ] [ <b>authorization</b> <i>method-list</i> ]	Enables the static route download feature. Use the <b>authorization</b> <i>method-list</i> attributes to specify a named method list to which RADIUS authorization requests for static route downloads are sent.

## Verifying RADIUS Route Download

To verify the routes that are installed, use the **show ip route** command in EXEC mode.

To display information that is associated with RADIUS, use the **debug radius** command in privileged EXEC mode.

## Configuration Examples

This section provides the following configuration examples:

- [RADIUS Route Download Configuration Example](#)

### RADIUS Route Download Configuration Example

The following example shows how to configure the NAS to send static route download requests to the servers specified by the method list named “list1”:

```
aaa new-model
aaa group server radius rad1
    server 10.2.2.2 auth-port 1645 acct-port 1646
!
aaa group server tacacs+ tac1
    server 172.17.3.3
!
aaa authorization configuration default group radius
aaa authorization configuration list1 group rad1 group tac1
aaa route download 1 authorization list1

tacacs-server host 172.17.3.3
tacacs-server key cisco
tacacs-server administration
!
radius-server host 10.2.2.2 auth-port 1645 acct-port 1646
radius-server key cisco
```

## Additional References

The following sections provide references related to RADIUS Route Download.

## Related Documents

Related Topic	Document Title
AAA Overview	“AAA Overview” chapter in the <i>Cisco IOS Security Configuration Guide</i> , Release 12.4
Configuring Large-Scale Dial-Out	“Configuring Large-Scale Dial-Out” chapter in the <i>Cisco IOS Dial Technologies Configuration Guide</i> , Release 12.4
Cisco IOS Dial Technologies	<i>Cisco IOS Dial Technologies Command Reference</i> , Release 12.4

## Standards

Standard	Title
None	—

## MIBs

MIB	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

## RFCs

RFC	Title
None	—

## Technical Assistance

Description	Link
The Cisco Technical Support website contains thousands of pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	<a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a>

# Command Reference

This section documents the following modified command only.

- [aaa route download](#)

# aaa route download

To enable the static route download feature and set the amount of time between downloads, use the **aaa route download** command in global configuration mode. To disable this function, use the **no** form of this command.

```
aaa route download [time] [authorization method-list]
```

```
no aaa route download
```

<b>Syntax Description</b>	<i>time</i>	(Optional) Time between downloads, in minutes. The range is from 1 to 1440 minutes.
	<b>authorization</b> <i>method-list</i>	(Optional) Specify a named method list to which RADIUS authorization requests for static route downloads are sent. If these attributes are not set, all RADIUS authorization requests will be sent to the servers that are specified by the default method list.

**Defaults** The default period between downloads (updates) is 720 minutes.

**Command Modes** Global configuration

Command History	Release	Modification
	12.0(3)T	This command was introduced.
	12.1	This command was integrated into Cisco IOS Release 12.1.
	12.2(8)T	The <b>authorization</b> keyword was added; the <i>method-list</i> argument was added.
	12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.

**Usage Guidelines** This command is used to download static route details from the authorization, authentication, and accounting (AAA) server if the name of the router is *hostname*. The name passed to the AAA server for static routes is *hostname-1*, *hostname-2*... *hostname-n*—the router downloads static routes until it fails an index and no more routes can be downloaded.

**Examples** The following example sets the AAA route update period to 100 minutes:

```
aaa route download 100
```

The following example sets the AAA route update period to 10 minutes and sends static route download requests to the servers specified by the method list name “list1”:

```
aaa route download 10 authorization list1
```

## Related Commands

Command	Description
<b>aaa authorization configuration default</b>	Downloads static route configuration information from the AAA server using TACACS+ or RADIUS.
<b>clear ip route download</b>	Clears static routes downloaded from a AAA server.
<b>show ip route</b>	Displays all static IP routes, or those installed using the AAA route download function.

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