



Service Selection Gateway Commands

This chapter presents commands for configuring and maintaining Cisco IOS Service Selection Gateway (SSG) applications. The commands are presented in alphabetical order.

address-pool



Note

Effective with Cisco IOS Release 15.0(1)M, the **address-pool** command is not available in Cisco IOS software.

To define local IP pools that are to be used by Service Selection Gateway (SSG) to assign IP addresses to users for which SSG is acting as a RADIUS client, use the **address-pool** command in SSG-radius-proxy configuration mode. To remove a local IP pool, use the **no** form of this command.

address-pool *start-ip end-ip* [**domain** *domain-name*]

no address-pool *start-ip end-ip* [**domain** *domain-name*]

Syntax Description

<i>start-ip</i>	First IP address of the local IP address pool.
<i>end-ip</i>	Last IP address of the local IP address pool.
domain	(Optional) IP address pool for a specific domain.
<i>domain-name</i>	(Optional) Name of the domain.

Defaults

SSG does not assign IP addresses from a local IP pool.

Command Modes

SSG-radius-proxy configuration

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2 T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to configure SSG to assign an IP address taken from a local pool to a user for which SSG is acting as a RADIUS client. SSG assigns an IP address from a local pool only when one has not been assigned by one of the following methods:

- Assignment in the Access-Accept from the AAA server
- Assignment in the Access-Request received from the client
- Assignment from an Autodomain service (tunnel or proxy) that does not have the **auto-domain nat user-address** configuration enabled



Note

You must have SSG the AutoDomain configured in order for an IP address to be assigned from an Autodomain tunnel.

You can use this command to define a global local IP address pool or an IP address pool for a specific domain by using the **domain** keyword. You cannot create pools with more than 20,000 addresses.

**Note**

Using IP address pools within SSG is completely standalone and unrelated to Cisco IOS IP local pools.

Examples

The following example shows how to configure a local IP address pool for SSG:

```
address-pool 172.16.16.0 172.16.20.0
```

The following example shows how to configure a local IP address pool for the domain named “cisco”.

```
address-pool 172.21.21.0 172.21.25.0 domain cisco
```

Related Commands

Command	Description
clear ssg radius-proxy client-address	Clears all hosts connected to a specific RADIUS client.
clear ssg radius-proxy nas-address	Clears all hosts connected to a specific NAS.
forward accounting-start-stop	Proxies accounting start, stop, and update packets generated by any RADIUS clients to the AAA server.
idle-timeout (SSG)	Configures a host object timeout value.
server-port	Defines the ports for the SSG RADIUS proxy.
show ssg tcp-redirect group	Displays the pool of IP addresses configured for a router or a specific domain.
ssg enable	Enables SSG.
ssg radius-proxy	Enables SSG RADIUS Proxy.
ssg tcp-redirect	Configures the RADIUS proxy IP address and shared secret.

attribute



Note

Effective with Cisco IOS Release 15.0(1)M, the **attribute** command is not available in Cisco IOS software.

To configure an attribute in a local service profile, use the **attribute** command in profile configuration mode. To delete an attribute from a service profile, use the **no** form of this command.

attribute *radius-attribute-id* [*vendor-id*] [*cisco-vsa-type*] *attribute-value*

no attribute *radius-attribute-id* [*vendor-id*] [*cisco-vsa-type*] *attribute-value*

Syntax Description

<i>radius-attribute-id</i>	RADIUS attribute ID to be configured.
<i>vendor-id</i>	(Optional) Vendor ID. Required if the RADIUS attribute ID is 26, indicating a vendor-specific attribute (VSA). The Cisco vendor ID is 9.
<i>cisco-vsa-type</i>	(Optional) Cisco VSA type. Required if the vendor ID is 9, indicating a Cisco VSA.
<i>attribute-value</i>	Attribute value. The following optional attribute values are also supported: <ul style="list-style-type: none"> L<i>interval</i>—Required to change an interim accounting interval. Specifies the new accounting interval in seconds. Q—Configures the token bucket parameters for the Service Selection Gateway (SSG) Hierarchical Policing feature.

Defaults

For the **L***interval* option: If the L option is not defined, the accounting records for a service profile will be sent at the interval configured by the **ssg accounting interval** command. If the **ssg accounting interval** command is not set, the accounting records are sent every 600 seconds.

Otherwise, no default behavior or values are set.

Command Modes

Profile configuration

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 NRP.
12.2(4)B	The L and Q attributes were introduced as an <i>attribute-value</i> .
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.2(13)T	This command was modified for Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to configure attributes in local service profiles.

For the SSG Open Garden feature, use this command to configure the Service Route, DNS Server Address, and Domain Name attributes in a local service profile before adding the service to the open garden.

To change the SSG accounting interval for a service profile, use the *Linterval* option in the **attribute** command. For example, if L80 is entered as the attribute value, the service profile sends accounting information every 80 seconds. Interim accounting can be disabled by entering the value (in seconds) as 0 (for instance, L0). When interim accounting is disabled, the normal accounting stops and starts are still sent.

For the SSG Hierarchical Policing feature, use the Q option to configure the token bucket parameters (token rate, normal burst, and excess burst). The syntax for the Q option is as follows:

```
Router(config-prof)# attribute radius-attribute-id vendor-id cisco-vsa-type
"QU;upstream-committed-rate;upstream-normal-burst;
[upstream-excess-burst];D;downstream-committed-rate;
downstream-normal-burst;[downstream-excess-burst]"
```

The variables are used to configure upstream (U) and downstream (D) policing. The upstream traffic is the traffic that travels from the subscriber to the network, and the downstream traffic is the traffic that travels from the network to the subscriber.

Examples

In the following example, the Cisco AV pair Upstream Access Control List (inac1) attribute is configured in the local service profile called "cisco.com":

```
Router(config)# local-profile cisco.com
Router(config-prof)# attribute 26 9 1 "ip:inac1#101=deny tcp 10.2.1.0 0.0.0.255 any eq 21"
```

In the following example, the Session-Timeout attribute is deleted from the local service profile called "cisco.com":

```
Router(config)# local-profile cisco.com
Router(config-prof)# no attribute 27 600
```

In the following example, the local profile "cisco.com" is configured to send an interim accounting update every 90 seconds:

```
Router(config)# local-profile cisco.com
Router(config-prof)# attribute 26 9 1 "L90"
```

In the following example, the SSG Hierarchical Policing parameters are set for upstream and downstream traffic:

```
Router(config)# local-profile cisco.com
Router(config-prof)# attribute 26 9 251 "QU:8000:16000:20000:D10000:20000:30000"
```

In the following example, an open garden service called "opencisco.com" is defined.

```
Router(config)# local-profile opencisco.com
Router(config-prof)# attribute 26 9 251 "Oopengarden1.com"
Router(config-prof)# attribute 26 9 251 "D10.13.1.5"
Router(config-prof)# attribute 26 9 251 "R10.1.1.0;255.255.255.0"
Router(config-prof)# exit
Router(config)# ssg open-garden opencisco.com
```

Related Commands	Command	Description
	debug ssg data	Displays SSG QoS information.
	local-profile	Configures a local service profile.
	show ssg connection	Displays information about a particular SSG connection, including the policing parameters.
	show ssg host	Displays information about an SSG host, including whether policing is enabled or disabled and the policing configurations of a particular host.
	show ssg open-garden	Displays a list of all configured open garden services.
	ssg accounting interval	Specifies the interval at which accounting updates are sent to the server.
	ssg open-garden	Designates a service, defined in a local service profile, to be an open garden service.
	ssg qos police	Enables SSG Hierarchical Policing on a router.

authorization list



Note

Effective with Cisco IOS Release 15.0(1)M, the **authorization list** command is not available in Cisco IOS software.

To specify the server group that Service Selection Gateway (SSG) uses for authorization of transparent autologon users, use the **authorization list** command in transparent auto-logon configuration mode. To remove the server group specification, use the **no** form of this command.

authorization list *list-name*

no authorization list *list-name*

Syntax Description

<i>list-name</i>	Name of the server group that will be used for authorization of transparent autologon users.
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Defaults

The default server group is used for user authorization.

Command Modes

Transparent auto-logon configuration

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
15.0(1)M	This command was removed.

Usage Guidelines

The server group must be configured using authentication, authorization, and accounting (AAA) commands.

Examples

The following example configures SSG to use the server group named “alpha” for authorization of transparent autologon users:

```
Router(config-login-transparent)# authorization list alpha
```

Related Commands

Command	Description
ssg login transparent	Enables the SSG Transparent Autologon feature.

authorization pending maximum



Note

Effective with Cisco IOS Release 15.0(1)M, the **authorization pending maximum** command is not available in Cisco IOS software.

To specify the maximum number of Service Selection Gateway (SSG) transparent autologon access requests that can be pending at a given time, use the **authorization pending maximum** command in transparent auto-logon configuration mode. To remove the specification, use the **no** form of this command.

authorization pending maximum *number*

no authorization pending maximum *number*

Syntax Description

<i>number</i>	Maximum number of access requests that can be pending at a given time. Range is 1 to 5000.
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Defaults

No maximum limit is set.

Command Modes

Transparent auto-logon configuration

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
15.0(1)M	This command was removed.

Usage Guidelines

When the number of SSG transparent autologon access requests reaches the configured maximum, SSG issues a system logging message. Any received packets that cause SSG to send a new RADIUS request are dropped at the Cisco Express Forwarding (CEF) path.

Examples

The following example specifies that the maximum number of access requests that can be pending is 10:

```
Router(config-login-transparent)# authorization pending maximum 10
```

Related Commands

Command	Description
sbg login transparent	Enables the SSG Transparent Autologon feature.

authorization rate-limit



Note

Effective with Cisco IOS Release 15.0(1)M, the **authorization rate-limit** command is not available in Cisco IOS software.

To specify the maximum number of Service Selection Gateway (SSG) transparent autologon authorization requests sent per second to the authentication, authorization, and accounting (AAA) server, use the **authorization rate-limit** command in transparent auto-logon configuration mode. To remove the specification, use the **no** form of this command.

authorization rate-limit *number*

no authorization rate-limit *number*

Syntax Description

<i>number</i>	Maximum number of authorization requests sent per second. Range is from 1 to 10000.
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Defaults

No rate limit is set.

Command Modes

Transparent auto-logon configuration

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
15.0(1)M	This command was removed.

Usage Guidelines

This command must be configured on the basis of the number of requests that the AAA server can handle per second. When the number of authorization requests per second reaches the configured rate limit, SSG issues a syslog message. A syslog message is generated only once for each time the rate-limit value is reached.

Examples

The following example specifies that the maximum number of authorization requests is 10:

```
Router(config-login-transparent)# authorization rate-limit 10
```

Related Commands

Command	Description
ssg login transparent	Enables the SSG Transparent Autologon feature.

clear ssg connection



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg connection** command is not available in Cisco IOS software.

To remove the connections of a given host and a service name, use the **clear ssg connection** command in privileged EXEC mode.

clear ssg connection *ip-address service-name* [*interface*]

Syntax Description

<i>ip-address</i>	IP address of an active Service Selection Gateway (SSG) connection.
<i>service-name</i>	Name of an active SSG connection.
<i>interface</i>	(Optional) Interface to which the host is connected.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 node route processor.
12.2(2)B	The <i>interface</i> argument was added.
12.2(4)B	This command was integrated into Cisco IOS Release 12.2(4)B.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Examples

The following example shows how to remove the service connection for “Service1” to host 192.168.1.1, connected through Fast Ethernet:

```
Router# clear ssg connection 192.168.1.1 fastethernet Service1
```

Related Commands

Command	Description
show ssg connection	Displays the connections of a given host and a service name.

clear ssg host



Note

Effective with Cisco IOS Release 15.0(1)M, the **address-pool** command is not available in Cisco IOS software.

To remove a Service Selection Gateway (SSG) host object or a range of host objects, use the **clear ssg host** command in privileged EXEC mode. The command syntax of the **clear ssg host** command depends on whether the SSG port-bundle host key has been enabled with the **ssg port-map** global configuration command.

SSG Host Key Is Not Enabled

```
clear ssg host {all | range start-ip-address end-ip-address}
```

SSG Host Key Is Enabled

```
clear ssg host {all | ip-address | range [start-ip-address end-ip-address [interface]]}
```

Syntax Description

all	Clears all SSG host objects.
<i>ip-address</i>	Clears the specified SSG host object. This option is available only when SSG host key functionality is enabled.
range	Clears a specified range of SSG host objects.
<i>start-ip-address</i>	Host IP address. This argument specifies the beginning of an IP address range if it is followed by an <i>end-ip-address</i> value.
<i>end-ip-address</i>	(Optional) Host IP address that is used with the <i>ip-address</i> argument to specify a range of host objects.
<i>interface</i>	(Optional) SSG downlink interface through which the host or subscriber is connected, such as ATM, Fast Ethernet, or Virtual-Access. For more information, use the question mark (?) online help function.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 node route processor.
12.2(2)B	The <i>interface</i> argument was added for the SSG Host Key feature.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.2(15)B	This command was modified by the introduction of <ul style="list-style-type: none"> Syntax dependence on SSG host key The <i>start-ip-address</i> and <i>end-ip-address</i> arguments The all keyword
12.3(4)T	The modifications made in release 12.2(15)B were integrated into Cisco IOS Release 12.3(4)T.

Release	Modification
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to remove one, all, or a range of SSG host objects. You can specify the host objects to remove by entering the host IP addresses or the SSG downlink interface through which the subscriber is connected.



Note

The system deletes the specified host objects that exist *at the time* that you enter this command. The system may not delete host objects that are created *after* you enter the command or while the system is executing the command. Enter the **show ssg host** command to confirm that all specified host objects have been deleted.

You can specify the SSG downlink interface only when the SSG Host Key feature is enabled. To enable the host key, enter the **ssg port-map** command in global configuration mode. To disable the host key, enter the **no ssg port-map** command.



Note

The **ssg port-map** command does not take effect until after the router is reloaded.

Examples

SSG Port-Bundle Host Key Is Not Enabled

The following example shows how to delete host objects for a range of IP addresses:

```
Router# clear ssg host range 10.0.0.2 10.0.0.20
```

The following example shows how to delete all host objects:

```
Router# clear ssg host all
```

SSG Port-Bundle Host Key Is Enabled

The following example shows how to delete all host objects:

```
Router# clear ssg host all
```

The following example shows how to delete all host objects for subscribers connected through IP address 10.0.0.2:

```
Router# clear ssg host 10.0.0.2
```

The following example shows how to delete host objects for a specific range of IP addresses:

```
Router# clear ssg host range 10.0.0.2 10.0.0.20
```

The following example shows how to delete host objects for a specific IP address range and interface:

```
Router# clear ssg host range 10.0.0.2 10.0.0.20 FastEthernet 0/0
```

Related Commands

Command	Description
show ssg host	Displays information about a subscriber and current connections of the subscriber.
ssg port-map	Enables the SSG port-bundle host key.

clear ssg next-hop



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg next-hop** command is not available in Cisco IOS software.

To remove a next-hop table, use the **clear ssg next-hop** command in privileged EXEC mode.

clear ssg next-hop

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 node route processor.
12.2(4)B	This command was integrated into Cisco IOS Release 12.2(4)B.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

If you use this command to clear the next-hop table, nothing appears when you use the **show ssg next-hop** command. However, the next-hop table will still appear in the running configuration. To remove the next-hop table from the running configuration, use the **no** form of the **ssg next-hop download** command.

Examples

The following example shows how to remove the next-hop table:

```
Router# clear ssg next-hop
```

Related Commands

Command	Description
show ssg next-hop	Displays the next-hop table.
ssg next-hop download	Downloads the next-hop table from a RADIUS server.

clear ssg open-garden

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg open-garden** command is not available in Cisco IOS software.

To remove open garden configurations and all open garden service objects, use the **clear ssg open-garden** command in privileged EXEC mode.

clear ssg open-garden

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(5)DC	This command was introduced on the Cisco 6400 series node route processor.
12.2(4)B	This command was integrated into Cisco IOS Release 12.2(4)B.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

This command removes the open garden configuration by deleting all instances of the **ssg open-garden** global configuration command. This command also removes the service object of all the open garden services. The local service profiles of the open garden services are not deleted from the configuration.

Examples

In the following example, all open garden services are displayed and then removed:


```
Router# show ssg open-garden
```

```
nrp1-nrp2_og1
nrp1-nrp2_og2
nrp1-nrp2_og3
nrp1-nrp2_og4
```

```
Router# clear ssg open-garden
Router# show ssg open-garden
Router#
```

Related Commands

Command	Description
local-profile	Configures a local service profile.

 clear ssg open-garden

Command	Description
show ssg open-garden	Displays a list of all configured open garden services.
ssg open-garden	Designates a service, defined in a local service profile, as an open garden service.

clear ssg pass-through-filter

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg pass-through-filter** command is not available in Cisco IOS software.

To remove the downloaded filter for transparent pass-through, use the **clear ssg pass-through-filter** command in privileged EXEC mode.

clear ssg pass-through-filter

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 node route processor.
12.2(4)B	This command was integrated into Cisco IOS Release 12.2(4)B.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Removing the filter allows unauthenticated traffic to pass through the Service Selection Gateway in either direction without modification. If you use this command to clear the downloaded transparent pass-through filter, nothing will be displayed when you use the **show ssg pass-through-filter** command. However, the transparent pass-through filter will still appear in the running configuration. To remove the transparent pass-through filter from the running configuration, use the **no** form of the **ssg pass-through** command.

Examples

The following example shows how to remove the downloaded transparent pass-through filter:

```
Router# clear ssg pass-through-filter
```

Related Commands

Command	Description
show ssg pass-through-filter	Displays the downloaded filter for transparent pass-through.
ssg pass-through	Enables transparent pass-through.

clear ssg pending-command



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg pending-command** command is not available in Cisco IOS software.

To remove all pending commands, use the **clear ssg pending-command** command in privileged EXEC mode.

clear ssg pending-command

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 node route processor.
12.2(4)B	This command was integrated into Cisco IOS Release 12.2(4)B.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to clear pending commands.

Examples

The following example shows how to clear pending commands:

```
Router# clear ssg pending-command
```

Related Commands

Command	Description
show ssg pending-command	Displays current pending commands.

clear ssg prepaid default-quota

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg prepaid default-quota** command is not available in Cisco IOS software.

To clear the Service Selection Gateway (SSG) prepaid default quota counters, use the **clear ssg prepaid default-quota** command in privileged EXEC mode.

clear ssg prepaid default-quota

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(11)T	This command was introduced.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

SSG maintains two counters to keep track of the number of times the SSG prepaid default quota has been allotted. One counter is for the total number of default quotas allotted by SSG (irrespective of how many times the prepaid server has become available and unavailable). The other counter keeps track of the number of default quotas allotted by SSG during the latest instance of prepaid server unavailability. The **clear ssg prepaid default-quota** command clears the SSG default quota counters.

The **show ssg prepaid default-quota** command displays the number of default quotas that SSG has allocated since the last time the **clear ssg prepaid default-quota** command was entered.

Examples

The following example shows how to clear the default quota counter for all quotas allocated by SSG:

```
Router# clear ssg prepaid default-quota
```

Related Commands

Command	Description
show ssg prepaid default-quota	Displays the values of the SSG prepaid default quota counters.

clear ssg radius-proxy client-address



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg radius-proxy client-address** command is not available in Cisco IOS software.

To clear all hosts connected to a specific RADIUS client, use the **clear ssg radius-proxy client-address** command in privileged EXEC mode.

client ssg radius-proxy client-address *ip-address*

Syntax Description

<i>ip-address</i>	IP address of a RADIUS client.
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Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to clear all hosts connected to a specific RADIUS client. This command deactivates and destroys all host objects associated with the specified RADIUS client.

Examples

The following example shows how to clear all hosts connected to the RADIUS client that has the IP address 172.16.0.0:

```
clear ssg radius-proxy client-address 172.16.0.0
```

Related Commands

Command	Description
address-pool	Defines local IP pools to be used by SSG to assign IP addresses to users for which SSG is acting as a RADIUS client.
clear ssg radius-proxy nas-address	Clears all hosts connected to a specific NAS.
idle-timeout (SSG)	Configures a host object timeout value.
show ssg tcp-redirect group	Displays the pool of IP addresses configured for a router or for a specific domain.
ssg enable	Enables SSG.
ssg radius-proxy	Enables SSG RADIUS Proxy.
ssg tcp-redirect	Configures the RADIUS proxy IP address and shared secret.

clear ssg radius-proxy nas-address



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg radius-proxy nas-address** command is not available in Cisco IOS software.

To clear all hosts connected to a specific network access server (NAS), use the **clear ssg radius-proxy nas-address** command in privileged EXEC mode.

client ssg radius-proxy nas-address *ip-address*

Syntax Description

<i>ip-address</i>	IP address of a RADIUS client.
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Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to clear all hosts connected to a specific NAS. This command deactivates and destroys all host objects associated with the specified NAS client.



Note

Service Selection Gateway (SSG) does not currently notify RADIUS clients when a host object is removed from the SSG.


Examples

The following example shows how to clear all hosts connected to the NAS with IP address 172.16.0.0:

```
clear ssg radius-proxy nas-address 172.16.0.0
```

Related Commands

Command	Description
address-pool	Defines local IP pools to be used by SSG to assign IP addresses to users for which SSG is acting as a RADIUS client.
clear ssg radius-proxy nas-address	Clears all hosts connected to a specific RADIUS client.
forward accounting-start-stop	Proxies accounting start, stop, and update packets generated by any RADIUS clients to the AAA server.
idle-timeout (SSG)	Configures a host object timeout value.

 **clear ssg radius-proxy nas-address**

server-port	Defines the ports for the SSG RADIUS proxy.
show ssg tcp-redirect group	Displays the pool of IP addresses configured for a router or for a specific domain.
ssg enable	Enables SSG.
ssg radius-proxy	Enables SSG RADIUS Proxy.
ssg tcp-redirect	Configures the RADIUS proxy IP address and shared secret.

clear ssg service

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg service** command is not available in Cisco IOS software.

To remove a service object and all connection objects of the service, use the **clear ssg service** command in privileged EXEC mode.

```
clear ssg service {service-name | all}
```

Syntax Description

<i>service-name</i>	Service name.
all	Clears all service objects.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(3)DC	This command was introduced on the Cisco 6400 node route processor.
12.2(4)B	This command was integrated into Cisco IOS Release 12.2(4)B.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.2(15)B	The all keyword was added.
12.3(4)T	The all keyword was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to remove one or all service objects and all connection objects of the services.

**Note**

When you use the **all** keyword, the system deletes all service objects that exist *at the time* that you enter this command. The system may not delete service objects that are created *after* you enter the command or while the system is executing the command. Enter the **show ssg service** command to confirm that all service objects have been deleted.


Examples

The following example show how to remove all service objects and connections:

```
Router# clear ssg service all
```

The following example shows how to remove a service called “Perftest”:

```
Router# clear ssg service Perftest
```

 clear ssg service

Related Commands	Command	Description
	show ssg binding	Displays service names that have been bound to interfaces and the interfaces to which they have been bound.
	show ssg service	Displays the information for a service.
	ssg bind service	Specifies the interface for a service.

clear ssg user transparent all

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg user transparent all** command is not available in Cisco IOS software.

To delete all Service Selection Gateway (SSG) transparent autologon transparent pass-through (TP), suspect (SP), unidentified (NR), and authorizing (WA) users, use the **clear ssg user transparent all** command in privileged EXEC mode.

clear ssg user transparent all

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to clear all SSG transparent autologon users, including pass-through (TP), suspect (SP), unidentified (NR), and authorizing (WA) users.

Examples

The following example deletes all TP, SP, NR, and WA users:

```
Router# clear ssg user transparent all
```

Related Commands

Command	Description
ssg login transparent	Enables the SSG Transparent Autologon feature.

clear ssg user transparent passthrough



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg user transparent passthrough** command is not available in Cisco IOS software.

To delete Service Selection Gateway (SSG) transparent autologon transparent pass-through (TP) users, use the **clear ssg user transparent passthrough** command in privileged EXEC mode.

```
clear ssg user transparent passthrough {all | ip-address}
```

Syntax Description

all	Deletes all pass-through user entries.
ip-address	Deletes the entry for the specified IP address.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Examples

The following example deletes all pass-through user entries:

```
Router# clear ssg user transparent passthrough all
```

Related Commands

Command	Description
ssg login transparent	Enables the SSG Transparent Autologon feature.

clear ssg user transparent suspect

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg user transparent suspect** command is not available in Cisco IOS software.

To delete Service Selection Gateway (SSG) transparent autologon suspect (SP) user entries, use the **clear ssg user transparent suspect** command in privileged EXEC mode.

clear ssg user transparent suspect {all | *ip-address*}

Syntax Description

all	Deletes all suspect user entries.
<i>ip-address</i>	Deletes the entry for the specified IP address.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

An SSG transparent autologon suspect (SP) user is a user whose authentication, authorization, and accounting (AAA) authorization resulted in an Access Reject.

Examples

The following example deletes all suspect user entries:

```
Router# clear ssg user transparent suspect
```

Related Commands

Command	Description
ssg login transparent	Enables the SSG Transparent Autologon feature.

clear ssg user transparent unidentified



Note

Effective with Cisco IOS Release 15.0(1)M, the **clear ssg user transparent unidentified** command is not available in Cisco IOS software.

To delete all Service Selection Gateway (SSG) transparent autologon unidentified user (NR) entries, use the **clear ssg user transparent unidentified** command in privileged EXEC mode.

```
clear ssg user transparent unidentified {all | ip-address}
```

Syntax Description

all	Deletes all unidentified user entries.
ip-address	Deletes the entry for the specified IP address.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(1a)BW	This command was introduced.
12.3(3)B	This command was integrated into Cisco IOS Release 12.3(3)B.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Examples

The following example clears all unidentified user entries:

```
Router# clear ssg user transparent unidentified all
```

Related Commands

Command	Description
ssg login transparent	Enables the SSG Transparent Autologon feature.

client-address



Note

Effective with Cisco IOS Release 15.0(1)M, the **client-address** command is not available in Cisco IOS software.

To configure a RADIUS client to proxy requests from a specified IP address to a RADIUS server and to enter SSG-radius-proxy-client configuration mode, use the **client-address** command in SSG-radius-proxy configuration mode. To remove a client from the client list, use the **no** form of this command.

client-address *ip-address* [**vrf** *vrf-name*]

no client-address *ip-address*

Syntax Description

<i>ip-address</i>	IP address of a RADIUS client.
vrf <i>vrf-name</i>	(Optional) Associates a configured VPN routing/forwarding (VRF) instance with a RADIUS client.

Defaults

No default behavior or values.

Command Modes

SSG-radius-proxy configuration

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.2(15)B	This command was modified to enter SSG-radius-proxy-client mode.
12.3(4)T	The modifications from 12.2(15)B were integrated into Cisco IOS Release 12.3(4)T.
12.3(11)T	The vrf <i>vrf-name</i> option was introduced.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to configure the RADIUS client to proxy requests from a specified IP address to a RADIUS server. You can also use this command to enter SSG-radius-proxy-client mode.

Examples

The following example shows how to enter SSG-radius-proxy-client mode:

```
client-address 172.16.0.0
```

The following example shows how to configure a RADIUS client to proxy all requests from IP address 172.16.0.0 to the RADIUS server and assigns the shared secret “cisco” to the client:

```
client-address 172.16.0.0
key cisco
```

The following example defines a RADIUS client that is connected to SSG through a VRF called “BLUE”:

```
ip vrf BLUE
rd 1:1
!
ssg radius-proxy
client-address 10.1.1.1 vrf BLUE
key cisco
!
```

Related Commands

Command	Description
address-pool	Defines local IP pools to be used by SSG to assign IP addresses to users for whom SSG is acting as a RADIUS client.
clear ssg radius-proxy client-address	Clears all hosts connected to a specific RADIUS client.
host-route insert	Inserts a host route via the RADIUS client address into the VRF configured for the RADIUS client.
key (SSG-radius-proxy-client)	Configures the shared secret between SSG and a RADIUS client.
server-port	Configures the ports on which SSG listens for RADIUS-requests from configured RADIUS clients.
session-identifier (SSG-radius-proxy-client)	Overrides SSG’s automatic RADIUS client session identification.
show ssg radius-proxy	Displays the pool of IP addresses configured for a router or for a specific domain.
ssg radius-proxy	Enables SSG RADIUS Proxy and enters SSG-radius-proxy mode.

destination access-list

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **destination access-list** command is not available in Cisco IOS software.

To specify packets for port-mapping by specifying an access list to compare against subscriber traffic, use the **destination access-list** command in SSG portmap configuration mode. To remove this specification, use the **no** form of this command.

destination access-list *access-list-number*

no destination access-list *access-list-number*

Syntax Description

<i>access-list-number</i>	Integer from 100 to 199 that is the number or name of an extended access list.
---------------------------	--

Defaults

SSG does not use an access list when port-mapping subscriber traffic.

Command Modes

SSG portmap configuration

Command History

Release	Modification
12.2(16)B	This command was introduced. This command replaces the ssg port-map destination access-list command.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

When the **destination access-list** command is configured, any traffic going to the default network and matching the access list will be port-mapped.

**Note**

A default network must be configured and routable from SSG in order for this command to be effective.

You can use multiple entries of the **destination access-list** command. The access lists are checked against the subscriber traffic in the order in which they are defined.

Examples

In the following example, SSG will port-map packets that are permitted by access list 100:

```
ssg port-map
 destination access-list 100
 source ip Ethernet0/0/0
!
```

destination access-list

```
.  
.   
.   
!  
access-list 100 permit ip 10.0.0.0 0.255.255.255 host 70.13.6.100  
access-list 100 deny ip any any
```

Related Commands

Command	Description
destination range	Identifies packets for port-mapping by specifying the TCP port range to compare against the subscriber traffic.
ssg port-map	Enables the SSG port-bundle host key and enters SSG portmap configuration mode.

destination range

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **destination range** command is not available in Cisco IOS software.

To identify packets for port-mapping by specifying the TCP port range to compare against the subscriber traffic, use the **destination range** command in SSG portmap configuration mode. To remove this specification, use the **no** form of this command.

destination range *port-range-start* **to** *port-range-end* [**ip** *ip-address*]

no destination range *port-range-start* **to** *port-range-end* [**ip** *ip-address*]

Syntax Description

<i>port-range-start</i>	Port number at the start of the TCP port range.
to	Specifies higher end of TCP port range.
<i>port-range-end</i>	Port number at the end of TCP port range.
ip <i>ip-address</i>	(Optional) Destination IP address in the packets.

Defaults

A TCP port range is not used in port-mapping subscriber traffic.

Command Modes

SSG portmap configuration

Command History

Release	Modification
12.2(16)B	This command was introduced. This command replaces the ssg port-map destination range command.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

If a destination IP address is not configured, a default network must be configured and routable from SSG in order for this command to be effective.

If the destination IP address is not configured, any traffic going to the default network whose destination port falls within the destination port range will be port-mapped.

You can use multiple entries of the **destination range** command. The port ranges are checked against the subscriber traffic in the order in which they were defined.

destination range**Examples**

In the following example, SSG will port-map any packets that are going to the default network and have a destination port within the range from 8080 to 8081:

```
ssg port-map  
destination range 8080 to 8081
```

Related Commands

Command	Description
destination access-list	Specifies packets for port-mapping by specifying an access list to compare against the subscriber traffic.
ssg port-map	Enables the SSG port-bundle host key and enters SSG portmap configuration mode.

dnis-prefix all service

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **dnis-prefix all service** command is not available in Cisco IOS software.

To configure the dial-out global service, use the **dnis-prefix all service** command in SSG dial-out configuration mode. To remove a service name and prevent further connections to the specified service, use the **no** form of this command.

dnis-prefix all service *service-name*

no dnis-prefix all service [*service-name*]

Syntax Description

<i>service-name</i>	Name of the dial-out global service.
---------------------	--------------------------------------

Defaults

Dial-out global service is not configured.

Command Modes

SSG dial-out configuration

Command History

Release	Modification
12.2(15)B	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to configure the dial-out global service used for users who are doing account logon with a structured username (*user@DNIS*). The service profile is downloaded when the user connects to the dial-out service. You can specify only one dial-out global service. If you configure this command more than once and use different service names each time, the previously configured service name is removed from the configuration.

If SSG is operating in SSG Autodomain basic mode, you should configure the dial-out tunnel service profile as the dial-out global service. If SSG is operating in SSG Autodomain extended mode, you should configure the virtual-user profile as the dial-out global service and configure dial-out tunnel service as an Autologon service within SSG Autodomain extended mode.

Examples

The following example shows how to configure a global dial-out service profile named “profile1” as the global dial-out service profile:

```
dnis-prefix all service profile1
```

The following example shows how to configure a global dial-out service profile when SSG is operating in SSG Autodomain basic mode:

```
dnis-prefix all service dialout_tunnel
```

The following example shows how to configure a global dial-out service profile when SSG is operating in SSG Autodomain extended mode:

```
dnis-prefix all service virtual-user
```

Related Commands

Command	Purpose
download exclude-profile (ssg dial-out)	Downloads the DNIS exclusion list locally or from a AAA server.
exclude dnis-prefix	Configures the DNIS filter by adding a DNIS prefix to the DNIS exclusion list.
show ssg dial-out exclude-list	Displays information about the DNIS prefix profile and the DNIS exclusion list.
ssg dial-out	Enters SSG dial-out configuration mode.

download exclude-profile (SSG dial-out)

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **download exclude-profile** (SSG dial-out) command is not available in Cisco IOS software.

To download the Dialed Number Identification Service (DNIS) exclusion list locally or from a authentication, authorization, and accounting (AAA) server, use the **download exclude-profile** command in SSG dial-out configuration mode. To remove the DNIS exclusion list from the configuration, use the **no** form of this command.

download exclude-profile *profile-name* [*password*]

no download exclude-profile *profile-name* [*password*]

Syntax Description

<i>profile-name</i>	Name of the DNIS exclusion list.
<i>password</i>	(Optional) Password of the DNIS exclusion list.

Defaults

A DNIS exclusion list is not downloaded.

Command Modes

SSG dial-out configuration

Command History

Release	Modification
12.2(15)B	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to download a DNIS exclusion list from the local profile configured in Service Selection Gateway (SSG) or from a AAA server. If you do not specify a profile name and password, SSG attempts to download the profile with the previously configured profile name and password. If there is no previously configured profile name and password, the DNIS exclusion list is not downloaded.

You can download only one DNIS exclusion list. If you attempt to use the **download exclude-profile** command more than once with different profile names, only the last profile name is downloaded, and the previously downloaded profiles are removed from the configuration.

Use the **no download exclude-profile** command to remove the downloaded DNIS exclusion list from the configuration.

You can configure the order in which SSG searches for the DNIS exclusion list using the **ssg service-search-order** command.

Examples

The following example shows how to download a DNIS exclusion list with a profile name of “dnisprofile1” and a password of “abc”:

```
download exclude-profile dnisprofile1 abc
```

Related Commands

Command	Description
dnis-prefix all service	Configures the dial-out global service.
exclude dnis-prefix	Configures the DNIS filter by adding a DNIS prefix to the DNIS exclusion list.
show ssg dial-out exclude-list	Displays information about the DNIS exclusion list.
ssg dial-out	Enters SSG dial-out configuration mode.
ssg service-search-order	Specifies the order in which SSG searches for a service profile.

download exclude-profile (SSG PTA-MD)

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **download exclude-profile** (SSG PTA-MD) command is not available in Cisco IOS software.

To download a PPP Termination Aggregation-Multidomain (PTA-MD) exclusion list from the authentication, authorization, and accounting (AAA) server to the router, use the **download exclude-profile** command in SSG PTA-MD configuration mode. To remove all domains in the specified PTA-MD exclusion list, use the **no** form of this command.

download exclude-profile *profile-name* [*password*]

no download exclude-profile *profile-name* [*password*]

Syntax Description

<i>profile-name</i>	Name of the exclusion list to download.
<i>password</i>	(Optional) Password required to download the PTA-MD exclusion list from the AAA server. If no password is entered, the password used in the previous exclusion list download will be used to download the exclusion list.

Defaults

A PTA-MD exclusion list is not downloaded.

Command Modes

SSG PTA-MD configuration

Command History

Release	Modification
12.2(15)B	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

A PTA-MD exclusion list provides the option of passing the entire structured username in the form *user@service* to PPP for authenticating an SSG request. The entire structured username can be passed to PPP through the use of a PTA-MD exclusion list; if an entire structured username should be passed to PPP, the domain (the *@service* portion of the structured username) should be added to a PTA-MD exclusion list. The **download exclude-profile** command is used to download an exclusion list from the AAA server as part of the process for adding domains to an exclusion list using the router command-line interface (CLI).

PTA-MD exclusion lists can also be configured directly on the AAA server.

Examples

In the following example, a PTA-MD exclusion list that already includes “cisco”, “motorola”, “nokia”, and “voice-stream” is downloaded from the AAA server. After the exclusion list is downloaded, “microsoft” and “sun” are added to the exclusion list.

The exclusion list currently on the AAA server includes “cisco”, “motorola”, “nokia”, and “voice-stream”:

```

user = pta_md{
profile_id = 119
profile_cycle = 2
member = SSG-DEV
radius=6510-SSG-v1.1 {
check_items= {
2=cisco
}
reply_attributes= {
9,253="XPcisco"
9,253="XPmotorola"
9,253="XPnokia"
9,253="XPvoice-stream"
}
}

```

The PTA-MD exclusion list is then downloaded to the router from the AAA server. The password to download the exclusion list is “cisco”. After the PTA-MD exclusion list is downloaded, “microsoft” and “sun” are added to the list using the router CLI:

```

ssg multidomain ppp
download exclude-profile pta_md cisco
exclude domain microsoft
exclude domain sun

```

The enhancements to the exclusion list are then verified:

```

Router# show ssg multidomain ppp exclude-list

Profile name :pta_md
1  cisco
2  motorola
3  nokia
4  voice-stream

Domains added via CLI :
1  microsoft
2  sun

```

Related Commands

Command	Description
exclude (SSG PTA-MD)	Adds a domain name to the existing PTA-MD exclusion list.
show ssg multidomain ppp exclude-list	Displays the contents of the PTA-MD exclusion list.
ssg multidomain ppp	Enters PTA-MD configuration mode.

download exclude-profile (SSG-auto-domain)

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **download exclude-profile** (SSG-auto-domain) command is not available in Cisco IOS software.

To add domain names or Access Point Names (APNs) to the Service Selection Gateway (SSG) Autodomain exclusion list, use the **download exclude-profile** command in SSG-auto-domain configuration mode. To remove a name from the Autodomain exclusion list, use the **no** form of this command.

download exclude-profile *profile-name password*

no download exclude-profile *profile-name password*

Syntax Description

<i>profile-name</i>	Name for a list of excluded names that may be downloaded from the authentication, authorization, and accounting (AAA) server.
<i>password</i>	Password for a list of excluded names that may be downloaded from the AAA server.

Defaults

No default behavior or values.

Command Modes

SSG-auto-domain configuration

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use the **download exclude-profile** command to specify the name and password for a list of names that are excluded from being downloaded from the AAA server. Downloads from the AAA server occur at the time of entering the configuration and also on subsequent Route Processor reloads. By reentering the configuration command, you can synchronize with a modified table on the AAA server by forcing a new download. For every successful exclude-profile download, Service Selection Gateway (SSG) deletes the exclude entries added by the previous exclude-profile download and adds the new downloaded entries to the Autodomain exclusion list. The excluded name list introduces the following new attributes to the SSG Control-Info vendor-specific attributes (VSAs):

X—Excluded name list entry.

A—Add this name to the APN exclusion list.

D—Add this name to the domain name exclusion list.

■ download exclude-profile (SSG-auto-domain)

The following is an example profile using the new exclusion list attributes:

```
abc Password = "cisco" Service-Type = Outbound
Control-Info = XAapn1.gprs
Control-Info = XAapn2.com
Control-Info = XDcisco.com
Control-Info = XDcompany.com
```

Examples

The following example shows how to add a list of names called “abc” with the password “cisco” to the Autodomain exclusion list:

```
download exclude-profile abc cisco
```

Related Commands

Command	Description
exclude	Configures the Autodomain exclusion list.
mode extended	Enables extended mode for SSG Autodomain.
nat user-address	Enables Network Address Translation (NAT) on Autodomain tunnel service.
select	Configures the Autodomain selection mode.
show ssg auto-domain exclude-profile	Displays the contents of an Autodomain exclude-profile downloaded from the AAA server.
ssg enable	Enables SSG functionality.

exclude

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **exclude** command is not available in Cisco IOS software.

To add Access Point Names (APNs) and domain names to a Service Selection Gateway (SSG) Autodomain exclusion list, use the **exclude** command in SSG-auto-domain mode. To remove an APN or domain name from the Autodomain exclusion list, use the **no** form of this command.

exclude {apn | domain} *name*

no exclude {apn | domain} *name*

Syntax Description

apn	Adds an APN to the exclusion list.
domain	Adds a domain to the exclusion list.
<i>name</i>	Name of the APN or domain to be added to the exclusion list.

Command Default

No default behavior or values.

Command Modes

SSG-auto-domain

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use the **exclude** command to add an APN or a domain to the Autodomain exclusion list. APN and domain names that are not on an exclusion list are used to perform Autodomain for a user. You can use the **no download exclude-profile** command to remove a domain or APN name that is downloaded from the AAA server.

Examples

The following example shows how to add the APN named “abc” to the exclusion list:

```
exclude apn abc
```

The following example shows how to add the domain named “xyz” to the exclusion list:

```
exclude domain xyz
```

Related Commands	Command	Description
	exclude	Adds to the Autodomain download exclusion list.
	mode extended	Enables extended mode for SSG Autodomain.
	nat user-address	Enables NAT on Autodomain tunnel service.
	select	Configures the Autodomain selection mode.
	show ssg auto-domain exclude-profile	Displays the contents of an Autodomain exclude-profile downloaded from the AAA server.
	ssg enable	Enables SSG functionality.

exclude (SSG PTA-MD)

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **exclude** (SSG PTA-MD) command is not available in Cisco IOS software.

To add a domain to a PPP Termination Aggregation-Multidomain (PTA-MD) exclusion list, use the **exclude** command in SSG PTA-MD configuration mode. To remove a domain from the PTA-MD exclusion list, use the **no** form of this command.

exclude [domain *name* | **all-domains**]

no exclude [domain *name* | **all-domains**]

Syntax Description

domain	(Optional) Adds a domain to the exclusion list.
<i>name</i>	(Optional) Name of the domain to be added to the exclusion list.
all-domains	(Optional) Excludes all domains; in effect, disables parsing of PPP structured usernames.

Defaults

A domain is not included in a PTA-MD exclusion list.

Command Modes

SSG PTA-MD configuration

Command History

Release	Modification
12.2(15)B	This command was introduced in PTA-MD configuration mode.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

A PTA-MD exclusion list provides the option of passing an entire structured username in the form *user@service* to PPP for authenticating a Service Selection Gateway (SSG) request. The entire structured username can be passed to PPP through the use of a PTA-MD exclusion list; if an entire structured username should be passed to PPP, the domain (the *@service* portion of the structured username) should be added to a PTA-MD exclusion list. The **exclude** command is used to add a domain to the exclusion list as part of the process for adding domains to an exclusion list using the router command-line interface (CLI).

PTA-MD exclusion lists can also be configured directly on the authentication, authorization, and accounting (AAA) server.

To disable all parsing of PPP structured usernames during authentication, use the **exclude all-domains** command.

Examples

Adding Domains to an Existing PTA-MD Exclusion List

In the following example, a PTA-MD exclusion list that already includes “cisco”, “motorola”, “nokia”, and “voice-stream” is downloaded from the AAA server. After the exclusion list is downloaded, “microsoft” and “sun” are added to the exclusion list.

The exclusion list currently on the AAA server includes “cisco”, “motorola”, “nokia”, and “voice-stream”:

```

user = pta_md{
  profile_id = 119
  profile_cycle = 2
  member = SSG-DEV
  radius=6510-SSG-v1.1 {
    check_items= {
      2=cisco
    }
  }
  reply_attributes= {
    9,253="XPcisco"
    9,253="XPmotorola"
    9,253="XPnokia"
    9,253="XPvoice-stream"
  }
}

```

In the following example, the PTA-MD exclusion list is downloaded to the router from the AAA server. The password to download the exclusion list is “cisco”. After the PTA-MD exclusion list is downloaded, “microsoft” and “sun” are added to the list using the router CLI:

```

ssg multidomain ppp
  download exclude-profile pta_md cisco
  exclude domain microsoft
  exclude domain sun

```

The enhancements to the exclusion list are then verified:

```

Router# show ssg multidomain ppp exclude-list

Profile name :pta_md
1  cisco
2  motorola
3  nokia
4  voice-stream

Domains added via CLI :
1  microsoft
2  sun

```

Disabling Parsing of PPP Structured Usernames

In the following example, parsing of PPP structured usernames is disabled:

```

exclude all-domains

```

Related Commands

Command	Description
download exclude-profile (SSG PTA-MD)	Downloads the PTA-MD exclusion list from the AAA server to the router.

Command	Description
show ssg multidomain ppp exclude-list	Displays the contents of the PTA-MD exclusion list.
ssg multidomain ppp	Enters PTA-MD configuration mode.

exclude dnis-prefix



Note

Effective with Cisco IOS Release 15.0(1)M, the **exclude dnis-prefix** command is not available in Cisco IOS software.

To configure the Dialed Number Identification Service (DNIS) filter by adding a DNIS prefix to the DNIS exclusion list, use the **exclude dnis-prefix** command in SSG dial-out configuration mode. To remove a DNIS prefix from the DNIS exclusion list, use the **no** form of this command.

exclude dnis-prefix *dnis-prefix*

no exclude dnis-prefix *dnis-prefix*

Syntax Description

<i>dnis-prefix</i>	DNIS prefix to be added to the DNIS exclusion list.
--------------------	---

Defaults

No DNIS prefix is added to the DNIS exclusion list.

Command Modes

SSG dial-out configuration

Command History

Release	Modification
12.2(15)B	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to add a DNIS prefix to the DNIS exclusion list. You can use this command to add multiple DNIS prefixes to the DNIS exclusion list. When a user dials with a DNIS whose prefix is in the DNIS exclusion list, the service logon for that user is rejected.

Examples

The following example adds the DNIS prefix “1122334455” to the DNIS exclusion list:

```
exclude dnis-prefix 1122334455
```

Related Commands

Command	Description
dnis-prefix all service	Configures the dial-out global service.
download exclude-profile (SSG dial-out)	Downloads the DNIS exclusion list locally or from a AAA server.

Command	Description
show ssg dial-out exclude-list	Displays information about the DNIS prefix profile and the DNIS exclusion list.
ssg dial-out	Enters SSG dial-out configuration mode.

forward accounting-on-off



Note

Effective with Cisco IOS Release 15.0(1)M, the **forward accounting-on-off** command is not available in Cisco IOS software.

To allow forwarding of accounting-on-off packets generated by any RADIUS clients to the authentication, authorization, and accounting (AAA) server, use the **forward accounting-on-off** command in SSG radius-proxy mode. To suppress forwarding of accounting-on-off packets, use the **no** form of this command.

forward accounting-on-off

no forward accounting-on-off

Syntax Description

This command has no arguments or keywords.

Command Default

Accounting-on-off packets generated by RADIUS clients are not sent to the AAA server.

Command Modes

SSG radius-proxy configuration (config-radius-proxy)

Command History

Release	Modification
12.4(15)T	This command was introduced.
15.0(1)M	This command was removed.

Examples

The following example shows how to allow packet forwarding from the RADIUS client to the AAA server:

```
Router(config)# ssg enable
Router(config)# ssg radius-proxy
Router(config-radius-proxy)# forward accounting-on-off
```

Related Commands

Command	Description
forward accounting-start-stop	Allows accounting start, stop, and update packets generated by any RADIUS clients to the AAA server.

forward accounting-start-stop

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **forward accounting-start-stop** command is not available in Cisco IOS software.

To proxy accounting start, stop, and update packets generated by any RADIUS clients to the authentication, authorization, and accounting (AAA) server, use the **forward accounting-start-stop** command in SSG-radius-proxy configuration mode. To stop forwarding accounting start, stop, and update packets, use the **no** form of this command.

forward accounting-start-stop

no forward accounting-start-stop

Syntax Description

This command has no arguments or keywords.

Defaults

Forward accounting-start-stop is disabled by default.

Command Modes

SSG-radius-proxy configuration

Command History

Release	Modification
12.2(4)B	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to proxy accounting start, stop, and update packets generated by all RADIUS clients to the AAA server. Disabling this command reduces RADIUS packet traffic and processing for deployments where the billing server is not using these packets for billing purposes.

**Note**

The **forward accounting-start-stop** command does not affect accounting on and off packets, which are forwarded regardless of this command.

Examples

The following example shows how to proxy accounting packets generated by all RADIUS clients to the AAA server:

```
ssg radius-proxy
server-port auth 1645 acct 1646
client-address 10.1.2.2 key secret1
client-address 10.2.25.90 key secret2
client-address 10.0.0.1 key secret3
```

■ forward accounting-start-stop

```
client-address 10.23.3.2 key secret4
idle-timeout 30
forward accounting-start-stop
address-pool 10.1.1.1 10.1.40.250
address-pool 10.1.5.1 10.1.5.30 domain ssg.com
```

Related Commands

Command	Description
address-pool	Defines local IP pools to be used by SSG to assign IP addresses to users for which SSG is acting as a RADIUS client.
clear ssg radius-proxy client-address	Clears all hosts connected to a specific RADIUS client.
clear ssg radius-proxy nas-address	Clears all hosts connected to a specific NAS.
idle-timeout (SSG)	Configures a host object timeout value.
server-port	Defines the ports for the SSG RADIUS proxy.
show ssg tcp-redirect group	Displays the pool of IP addresses configured for a router or for a specific domain.
ssg enable	Enables SSG.
ssg radius-proxy	Enables SSG RADIUS Proxy.

hand-off

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **hand-off** command is not available in Cisco IOS software.

To configure a Service Selection Gateway (SSG) RADIUS proxy handoff timeout, use the **hand-off** command in SSG-radius-proxy-timers configuration mode. To disable the handoff timeout, use the **no** form of this command.

hand-off *timeout*

no hand-off *timeout*

Syntax Description

<i>timeout</i>	Timeout value, in seconds. Valid range is 1 to 30 seconds. The default is 5 seconds.
----------------	--

Defaults

The handoff timeout is set to 5 seconds.

Command Modes

SSG-radius-proxy-timers

Command History

Release	Modification
12.2(15)B	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use this command to configure an SSG RADIUS proxy handoff timeout. You can use this command when a PPP session is not disabled and the host object remains active after a base station controller (BSC) handoff.

A Session-Continue vendor-specific attribute (VSA) with a value of 1 in an Accounting-Stop packet indicates that a BSC/packet control function (PCF) handoff is in progress. When SSG detects the BSC/PCF handoff, it keeps the host object and begins the configured handoff timeout. If SSG does not receive an Accounting-Start for this host object before the handoff timeout expires, it deletes the host object.

Examples

The following example shows how to configure a handoff timeout value of 25 seconds:

```
ssg radius-proxy
ssg timeouts
hand-off 25
```

Related Commands

Command	Description
idle (SSG-radius-proxy-timers)	Configures a host object timeout value.
ip-address (SSG-radius-proxy-timers)	Configures an SSG RADIUS proxy IP address timeout.
key (SSG-radius-proxy-client)	Configures a shared secret between SSG and a RADIUS client.
ssg radius-proxy	Enables SSG RADIUS Proxy and enters SSG-radius-proxy mode.
timeouts (SSG-radius-proxy)	Enters SSG-radius-proxy-timeouts mode.

home-agent (SSG-radius-proxy)

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **home-agent** (SSG-radius-proxy) command is not available in Cisco IOS software.

To configure an IP address or domain for a Home Agent (HA) in a CDMA2000 network, use the **home-agent** command in SSG-radius-proxy configuration mode. To remove an HA address or domain, use the **no** form of this command.

home-agent {**address** *HA-ip-address* | **domain** *domain-name* [**address** *domain-ip-address*]}

no home-agent {**address** *HA-ip-address* | **domain** *domain-name* [**address** *domain-ip-address*]}

Syntax Description

address <i>ip-address</i>	IP address of the local Home Agent.
domain <i>domain-name</i>	Domain of the local Home Agent.
address <i>ip-address</i>	(Optional) IP address of the domain of the Home Agent.

Defaults

No default behavior or values.

Command Modes

SSG-radius-proxy configuration

Command History

Release	Modification
12.2(15)B	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

Use the **home-agent** command to configure a list of domain names for which dynamic Home Agent (HA) IP address assignment is applicable. You can configure each domain name with an HA address. You should also configure the IP address of a default local HA.

Use the **no home-agent address** command to remove any configured domain names. Use the **no home-agent domain** command to remove an entry for a specified domain.

Service Selection Gateway (SSG) determines that an Access-Request packet is for a new Mobile IP session when it receives a 3GPP2-Home-Agent-Attribute vendor-specific (VSA) with a value of 0.0.0.0. For authenticated users with a domain recognized by SSG that has a preconfigured HA address, the 3GPP2-Home-Agent-Attribute is changed to the per-domain HA address. For authenticated users with a domain recognized by SSG that does not have a preconfigured HA address, the 3GPP2-Home-Agent-Attribute is changed to the IP address of the default local HA.

For authenticated users with a domain that is not recognized by SSG, the 3GPP2-Home-Agent-Attribute is not changed.

Examples

The following example shows how to set the IP address of the default local HA to 172.16.0.0:

```
ssg radius-proxy
home-agent address 172.16.0.0
```

The following example shows how to set the IP address of the HA to 172.16.0.0, for users in domain “home1.com”:

```
ssg radius-proxy
home-agent domain home1.com address 172.16.0.0
```

Related Commands

Command	Description
ssg radius-proxy	Enables SSG RADIUS Proxy and enters SSG-radius-proxy mode.

host overlap

**Note**

Effective with Cisco IOS Release 15.0(1)M, the **host overlap** command is not available in Cisco IOS software.

To enable Service Selection Gateway (SSG) to support overlapping host IP addresses, use the **host overlap** command in SSG port-map configuration mode. To disable support for overlapping host IP addresses, use the **no** form of this command.

host overlap

no host overlap

Syntax Description

This command has no arguments or keywords.

Defaults

Overlapping host IP addresses are supported by default when SSG port-bundle host key functionality is configured.

Command Modes

SSG port-map configuration

Command History

Release	Modification
12.3(8)T	This command was introduced.
12.4	This command was integrated into Cisco IOS Release 12.4.
15.0(1)M	This command was removed.

Usage Guidelines

The SSG Port-Bundle Host Key feature enables subscribers to have overlapping IP addresses. To enable subscriber-side interface redundancy when SSG port-bundle host key functionality is configured, overlapping IP address support must be disabled so that interface binding is not needed. Use the **no host overlap** command to disable overlapping IP address support.

Examples

The following example shows how to disable support for overlapping hosts when the SSG Port-Bundle Host Key feature is configured:

```
Router(config)# ssg enable
Router(config)# ssg port-map
Router(ssg-port-map)# no host overlap
```

Related Commands

Command	Description
ssg port-map	Enables the SSG Port-Bundle Host Key feature and enters SSG port-map configuration mode.