Subscriber Profile Support

The Subscriber Profile Support feature introduces new functionality for the Subscriber Service Switch architecture, a Cisco IOS subsystem that connects subscribers to network access services at Layer 2. This new functionality affects how the Subscriber Service Switch Manager determines a service for each subscriber with a combination of a policy and a service lookup model.

- Finding Feature Information, page 1
- Prerequisites for Configuring Subscriber Profile Support, page 1
- Information About Subscriber Profile Support, page 2
- How to Configure Subscriber Profile Support, page 2
- Configuration Examples for Subscriber Profile Support, page 6
- Additional References, page 8
- Feature Information for Subscriber Profile Support, page 9

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Prerequisites for Configuring Subscriber Profile Support

Before configuring the Subscriber Profile Support feature, you need to be familiar with concepts introduced in the Cisco Release 12.2(13)T feature module *Subscriber Service Switch* , and with the authentication, authorization, and accounting (AAA) and PPP access processes.

Information About Subscriber Profile Support

New Call Management Support for Subscriber Service Switch Architecture

The Subscriber Service Switch architecture in Cisco IOS Release 12.3(4)T offers a significant improvement in scalability by providing the ability to bypass PPP when forwarding a call. Instead, call service selection is decided entirely by a Subscriber Service Switch Manager. Client call processes that terminate subscriber lines or receive subscriber calls send their requests for service direction to the Subscriber Service Switch Manager, which determines service based on service keys collected by the Subscriber Service Switch client and a preestablished call service policy. Examples of service keys are a NAS Port ID (network access server port identifier) and an unauthenticated PPP name. Refer to the *Subscriber Service Switch* feature module for more information about service keys.

The Subscriber Profile Support feature introduces the **subscriber profile** command and its **service** subcommands, which support the Subscriber Service Switch policy for searching a subscriber profile database for authorization data and determining the services that will be granted to the requesting customer.

How to Configure Subscriber Profile Support

The tasks described in this section assume that an operational network running the Subscriber Service Switch architecture has been configured.

Configuring VPDN Service for the Subscriber Service Switch Policy

In this task, you configure virtual private dial-up network (VPDN) service by directing the software to obtain the configuration from a predefined VPDN group.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **subscriber profile** *profile-name*
4. **service vpdn group** *vpdn-group-name*
5. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.

	Command or Action	Purpose
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**subscriber profile** *profile-name* **Example:** `Router(config)#` **subscriber profile Domain1**	Names a Subscriber Service Switch policy for local searches of a subscriber profile database for authorization data when a AAA network authorization method list is configured, and enters subscriber profile configuration mode. **Note** Make sure that the **aaa authorization network default local** global configuration command is included in the configuration. (Do not use the **aaa authorization network default** command without the **local**keyword.)
Step 4	**service vpdn group** *vpdn-group-name* **Example:** `Router(config-sss-profile)# service vpdn group 1`	Provides VPDN service by obtaining the configuration from a VPDN group defined by the **vpdn-group** VPDN profile configuration command.
Step 5	**exit** **Example:** `Router(config-sss-profile)# exit`	Exits subscriber profile configuration mode.

What to Do Next

See the RADIUS Subscriber Service Switch Services Configuration, on page 6 section for information about creating the script for the corresponding RADIUS AV pair Subscriber Service Switch attribute.

Configuring Local Termination Service for the Subscriber Service Switch Policy

In this task, you define local termination service for the Subscriber Service Switch policy.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **subscriber profile** *profile-name*
4. **service local**
5. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**subscriber profile** *profile-name* **Example:** `Router(config)# subscriber profile Domain1`	Names a Subscriber Service Switch policy for local searches of a subscriber profile database for authorization data when a AAA network authorization method list is configured, and enters subscriber profile configuration mode. **Note** Make sure that the **aaa authorization network default local** global configuration command is included in the configuration. (Do not use the **aaa authorization network default** command without the **local**keyword.)
Step 4	**service local** **Example:** `Router(config-sss-profile)# service local`	Configures local termination, and is the default Subscriber Service Switch policy.
Step 5	**exit** **Example:** `Router(config-sss-profile)# exit`	Exits subscriber profile configuration mode.

What to Do Next

See the RADIUS Subscriber Service Switch Services Configuration, on page 6 section for information about creating the script for the corresponding RADIUS AV pair Subscriber Service Switch attribute.

Configuring Denial of Service for the Subscriber Service Switch Policy

In this task, you configure a Subscriber Service Switch policy that denies service to a subscriber.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **subscriber profile** *profile-name*
4. **service deny**
5. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**subscriber profile** *profile-name* **Example:** `Router(config)# subscriber profile Domain1`	Names a Subscriber Service Switch policy for local searches of a subscriber profile database for authorization data when a AAA network authorization method list is configured, and enters subscriber profile configuration mode. **Note** Make sure that the **aaa authorization network default local** global configuration command is included in the configuration. (Do not use the **aaa authorization network default** command without the **local**keyword.)
Step 4	**service deny** **Example:** `Router(config-sss-profile)# service deny`	Denies service to the subscriber.

	Command or Action	Purpose
Step 5	**exit** **Example:** `Router(config-sss-profile)# exit`	Exits subscriber profile configuration mode.

What to Do Next

See the RADIUS Subscriber Service Switch Services Configuration, on page 6 section for information about creating the script for the corresponding RADIUS AV pair Subscriber Service Switch attribute.

RADIUS Subscriber Service Switch Services Configuration

The Cisco AV pairs have been extended to include Subscriber Service Switch service configuration. Subscriber Service Switch values are prefixed with "sss:", as follows:

cisco-avpair = "sss:sss-service=vpdn" cisco-avpair = "sss:sss-service=local" cisco-avpair = "sss:sss-service=deny"

Configuration Examples for Subscriber Profile Support

VPDN Service for the Subscriber Service Switch Policy Examples

The following example provides VPDN service to users in the domain cisco.com, and uses VPDN group 1 to obtain VPDN configuration information:

```
!
subscriber profile cisco.com
 service vpdn group 1
```

The following example provides VPDN service to DNIS 1234567, and uses VPDN group 1 to obtain VPDN configuration information:

```
!
subscriber profile dnis:1234567
 service vpdn group 1
```

The following example provides VPDN service using a remote tunnel (used on the multihop node), and uses VPDN group 1 to obtain VPDN configuration information:

```
!
subscriber profile host:lac
 service vpdn group 1
```

Local Termination for the Subscriber Service Switch Policy Example

The following example provides local termination service to users in the domain cisco.com:

```
!
subscriber profile cisco.com
 service local
```

Denial of Service for the Subscriber Service Switch Policy Example

The following example denies service to users in the domain cisco.com:

```
!
subscriber profile cisco.com
 service deny
```

RADIUS Subscriber Service Support Profiles Examples

The following examples show typical RADIUS AV pair scripts to enable VPDN service and to define the service keys that are collected:

```
#
# Domain "cisco.com" users get VPDN service with the enclosed configuration.
#
cisco.com Password = "cisco"
User-Service-Type = Outbound-User,
cisco-avpair = "sss:sss-service=vpdn",
cisco-avpair = "vpdn:tunnel-id=nas-provider",
cisco-avpair = "vpdn:ip-addresses=10.0.3.96",
cisco-avpair = "vpdn:nas-password=secret1",
cisco-avpair = "vpdn:gw-password=secret2"
#
# Users with DNIS 1234567 get VPDN service with the enclosed configuration.
#
dnis:1234567 Password = "cisco"
User-Service-Type = Outbound-User,
cisco-avpair = "sss:sss-service=vpdn",
cisco-avpair = "vpdn:tunnel-id=nas-provider",
cisco-avpair = "vpdn:ip-addresses=10.0.3.96",
cisco-avpair = "vpdn:nas-password=secret1",
cisco-avpair = "vpdn:gw-password=secret2"
#
# Users on the remote tunnel (LAC) get VPDN service with the enclosed configuration.
#
host:lac Password = "cisco"
User-Service-Type = Outbound-User,
cisco-avpair = "sss:sss-service=vpdn",
cisco-avpair = "vpdn:tunnel-id=nas-provider",
cisco-avpair = "vpdn:ip-addresses=10.0.3.96",
cisco-avpair = "vpdn:nas-password=secret1",
cisco-avpair = "vpdn:gw-password=secret2"
```

Additional References

Related Documents

Related Topic	Document Title
AAA	*Cisco IOS Security Configuration Guide*; refer to " Part 1: Authentication, Authorization, and Accounting (AAA) "
AAA commands: complete command syntax, command mode, defaults, usage guidelines, and examples	*Cisco IOS Security Command Reference*
Broadband access, PPPoE	*Cisco IOS Wide-Area Networking Configuration Guide*; refer to " Part 2: Broadband Access"
Broadband access, PPPoE, commands: complete command syntax, command mode, defaults, usage guidelines, and examples	*Cisco IOS Wide-Area Networking Command Reference*
PPP	*Cisco IOS Dial Technologies Configuration Guide*; refer to "Part 9: PPP Configuration "
VPDN	*Cisco IOS Dial Technologies Configuration Guide*; refer to "Part 8: Virtual Templates, Profiles, and Networks "
PPP and VPDN commands: complete command syntax, command mode, defaults, usage guidelines, and examples	*Cisco IOS Dial Technologies Command Reference*
Subscriber Service Switch	Subscriber Service Switch feature module

Standards

Standards	Title
None	--

MIBs

MIBs	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: http://www.cisco.com/go/mibs

RFCs

RFCs	Title
None	--

Technical Assistance

Description	Link
Technical Assistance Center (TAC) home page, containing 30,000 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.	http://www.cisco.com/public/support/tac/home.shtml

Feature Information for Subscriber Profile Support

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to . An account on Cisco.com is not required.

Table 1: Feature Information for Phrase Based on Module Title

Feature Name	Releases	Feature Information
Subscriber Profile Support	12.3(4)T	The Subscriber Profile Support feature introduces new functionality for the Subscriber Service Switch architecture, a Cisco IOS subsystem that connects subscribers to network access services at Layer 2. This new functionality affects how the Subscriber Service Switch Manager determines a service for each subscriber with a combination of a policy and a service lookup model. The following commands were introduced or modified: **service deny**, **service local**, **service vpdn group**, **subscriber profile**.