RADIUS Attribute 82 Tunnel Assignment ID

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The RADIUS Attribute 82: Tunnel Assignment ID feature allows the Layer 2 Transport Protocol access concentrator (LAC) to group users from different per-user or domain RADIUS profiles into the same active tunnel. Previously, Cisco IOS software assigned a separate virtual private dialup network (VPDN) tunnel for each per-user or domain RADIUS profile, even if tunnels with identical endpoints already existed.

This feature improves LAC and L2TP network server (LNS) performance by reducing memory usage, because fewer tunnel data structures must be maintained. This feature allows the LAC and LNS to handle a higher volume of users without negatively impacting router performance.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see 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 at the end of this document.

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 RADIUS Attribute 82 Tunnel Assignment ID

You must be using a Cisco platform that supports VPDN to use this feature.

Restrictions for RADIUS Attribute 82 Tunnel Assignment ID

This feature is designed only for VPDN dial-in applications. It does not support VPDN dial-out.

Information About RADIUS Attribute 82 Tunnel Assignment ID

The RADIUS Attribute 82: Tunnel Assignment ID feature defines a new avpair, Tunnel-Assignment-ID, which allows the LAC to group users from different RADIUS profiles into the same tunnel if the chosen endpoint, tunnel type, and Tunnel-Assignment-ID are identical.

How to Verify if RADIUS Attribute 82 is Being Used by the LAC

There are no configuration steps for the RADIUS Attribute 82: Tunnel Assignment ID feature. This task verifies the RADIUS attribute 82 used by the LAC during tunnel authorization.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. Router# **debug radius**

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	Router# **debug radius** **Example:** `Router# debug radius`	Displays information associated with RADIUS. The output of this command shows whether attribute 82 is being sent in access requests.

Configuration Examples for RADIUS Attribute 82 Tunnel Assignment ID

LAC Configuration Example

The following example configures VPDN on the LAC:

```
hostname lac
aaa new-model
aaa authentication ppp default group radius
aaa authorization network default group radius
vpdn enable
 vpdn authen-before-forward
interface Serial2/0:23
 no ip address
 encapsulation ppp
 dialer-group 1
 isdn switch-type primary-5ess
 no fair-queue
dialer-list 1 protocol ip permit
radius-server host lac-radiusd auth-port 1645 acct-port 1646
radius-server retransmit 3
radius-server key rad123
```

LNS Configuration Example

The following example configures VPDN on the LNS:

```
hostname lns
aaa new-model
aaa authentication ppp default group radius
aaa authorization network default group radius
vpdn enable
vpdn-group 1
 accept-dialin
  protocol any
  virtual-template 1
interface Loopback0
 ip address 10.1.1.3 255.255.255.0
interface Virtual-Template1
 ip unnumbered Loopback0
 no keepalive
 peer default ip address pool mypool
 ppp authentication chap
ip local pool mypool 10.1.1.10 10.1.1.50
radius-server host lns-radiusd  auth-port 1645 acct-port 1646
radius-server retransmit 3
radius-server key cisco
```

RADIUS Configuration Example

The following examples configure the RADIUS server to group sessions in a tunnel:

Per-User Configuration

```
user@router.com Password = "cisco" Service-Type = Outbound,
        Tunnel-Type = :1:L2TP,
        Tunnel-Server-Endpoint = :1:"10.14.10.54",
        Tunnel-Assignment-Id = :1:"router"
client@router.com Password = "cisco" Service-Type = Outbound,
        Tunnel-Type = :1:L2TP,
        Tunnel-Server-Endpoint = :1:"10.14.10.54",
        Tunnel-Assignment-Id = :1:"router"
```

Domain Configuration

```
eng.router.com Password = "cisco" Service-Type = Outbound,
        Tunnel-Type = :1:L2TP,
        Tunnel-Server-Endpoint = :1:"10.14.10.54",
        Tunnel-Assignment-Id = :1:"router"
sales.router.com Password = "cisco" Service-Type = Outbound,
        Tunnel-Type = :1:L2TP,
        Tunnel-Server-Endpoint = :1:"10.14.10.54",
        Tunnel-Assignment-Id = :1:"router"
```

Additional References

The following sections provide references related to the RADIUS Attribute 82: Tunnel Assignment ID feature.

Related Documents

Related Topic	Document Title
Dial Technologies	*Cisco IOS Dial Technologies Configuration Guide* , Release 12.4T
Wide Area Networks	*Cisco IOS Wide-Area Networking Configuration Guide* , Release 12.4T

Standards

Standard	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	--

MIBs

MIB	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	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

RFC	Title
No new or modified RFCs are supported by this feature.	--

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.	http://www.cisco.com/techsupport
To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.	
Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	

Feature Information for RADIUS Attribute 82 Tunnel Assignment ID

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 www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 1   ***Feature Information for RADIUS Attribute 82: Tunnel Assignment ID***

Feature Name	Releases	Feature Information
RADIUS Attribute 82: Tunnel Assignment ID	12.2(4)T 12.2(4)T3 12.2(11)T 12.2(27)SB	In 12.2(4)T, this feature was introduced.
		In 12.2(4)T3, support for the Cisco 7500 series routers was added.
		This feature was integrated into Cisco IOS Release 12.2(11)T and support was added for the Cisco 1760, Cisco AS5300, Cisco AS5350, Cisco AS5400, Cisco AS5800 and Cisco AS5850 platforms.
		This feature was integrated into Cisco IOS Release 12.2(27)SB.