



# RADIUS Attribute 82 Tunnel Assignment ID

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## 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](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## 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 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. 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. This feature introduces new software functionality. No new commands are introduced with this feature.



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## Benefits

The RADIUS Attribute 82: Tunnel Assignment ID 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.

## How to Configure RADIUS Attribute 82 Tunnel Assignment ID

There are not any specific configuration tasks associated with support of this feature.

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## Verifying RADIUS Attribute 82

To verify that RADIUS attribute 82 is being used by the LAC during tunnel authorization, use the following privileged EXEC command:

Command	Purpose
Router# <b>debug radius</b>	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, page 2](#)
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- [RADIUS Configuration Example, page 4](#)

## LAC Configuration Example

The following example shows a sample LAC configuration when the VPDN group is defined on the router:

```
aaa new-model
aaa authentication ppp default local
aaa authorization network default local
!
bba-group pppoe bba_group1
virtual-template 1
!
interface Loopback1
no ip address
vpdn-group VPDN_LAC1
request-dialin
protocol l2tp
```

```

local name tb162_LAC1
domain ispl.com
initiate-to ip 10.0.0.2
source-ip 10.0.0.1
l2tp tunnel receive-window 100
l2tp tunnel nosession-timeout 30
l2tp tunnel retransmit retries 5
l2tp tunnel retransmit timeout min 2
l2tp tunnel retransmit timeout max 8
l2tp tunnel hello 60
l2tp tunnel password tunnell
!
!
interface virtual-template 1
no snmp trap link-status
no keepalive
ip unnumbered loopback1
ppp mtu adaptive
ppp authentication pap
no logging event link-status
!

```

The following example shows a sample LAC configuration when the VPDN group is defined in RADIUS:

```

aaa authentication ppp default group radius
aaa authorization network default radius
!
bba-group pppoe bba_group1
virtual-template 1
!
interface Loopback1
no ip address
interface virtual-template 1
no snmp trap link-status
no keepalive
ip unnumbered loopback1
ppp mtu adaptive
ppp authentication pap
no logging event link-status

```

## 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 VPDN_LNS1
  accept-dialin
  protocol l2tp
  virtual-template 1
  terminate-from hostname tb162_LAC1
  local name LNS1
  l2tp tunnel hello 90
  l2tp tunnel password 0 hello1
interface Loopback0
  ip address 10.1.1.3 255.255.255.0
interface Virtual-Templatel
  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 Configuring RADIUS Attribute 82: Tunnel Assignment ID.

### Related Documents

Related Topic	Document Title
Virtual template interfaces and dial features	<i>Cisco IOS XE Dial Technologies Configuration Guide</i> , Release 2
Virtual private dialup networks (VPDNs)	<i>Cisco IOS XE VPDN Configuration Guide</i> , Release 2
RADIUS	“Configuring RADIUS” in the <i>Cisco IOS XE Security Configuration Guide: Configuring User Services</i> , Release 2.
Security commands	<i>Cisco IOS Security Command Reference</i>

**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 XE software releases, and feature sets, use Cisco MIB Locator found at the following URL:  <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**RFCs**

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

**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>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.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a>

## 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](http://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	Cisco IOS XE Release 2.1	<p>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.</p> <p>In Cisco IOS XE Release 2.1, support was added for the Cisco ASR 1000 Series Aggregation Services Routers.</p>

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