



Connect-Info RADIUS Attribute 77

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The Connect-Info RADIUS Attribute 77 feature enables the Network Access Server (NAS) to report Connect-Info (attribute 77) in RADIUS accounting “start” and “stop” records that are sent to the RADIUS client (dial-in modem). These records allow the transmit and receive connection speeds, modulation, and compression to be compared in order to analyze a user session over a dial-in modem where speeds are often different at the end of the connection (after negotiation).

When the network access server (NAS) sends attribute 77 in accounting “start” and “stop” records, the connect rates can be measured across the platform. The “transmit” speed (the speed at which the NAS modem sends information) and “receive” speed (the speed at which the NAS receives information) can be recorded to determine whether user modem connections renegotiate to lower speeds shortly into a session. If the transmit and receive speeds are different from each other, attribute 77 reports both speeds, which allows the modem connection speeds that each customer gets from their session.

Attribute 77 is also used to send the Class string for broadband connections such as PPPoX, physical connection speeds for dial access, and the VRF string for any sessions on router interfaces defined with **ip vrf forwarding** command.



Note

This feature requires no configuration.

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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.



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Prerequisites for Connect-Info RADIUS Attribute 77

Before the NAS can send attribute 77 in accounting “start” and “stop” records, you must perform the following tasks:

- Configure your NAS for authentication, authorization, and accounting (AAA) and to accept incoming modem calls.
- Enable AAA accounting by using the **aaa accounting network default start-stop group radius** command in global configuration mode.
- Change the modem poll timer by using the **modem link-info poll time** command in global configuration mode. (Changing the modem poll timer is required on all supported platforms except the Cisco AS5400).

How to Verify the Connect-Info RADIUS Attribute 77

To verify attribute 77 in your accounting “start” and “stop” records, use the **debug radius** privileged EXEC command. The following example shows that Connect-Info appears in the first and last accounting attributes:

```
Router# debug radius
RADIUS: code=Acct-Request id=04 len=0134
      authenticator=BE A2 F3 BD EE CE 89 C7 - 48 19 32 F5 79 84 94 D5
      T=Connect-Info[77]                      L=17 V="31200/33600 V34+/LAPM"
      T=Acct-Status-Type[40]                  L=06 V=Start [1]
      ...
RADIUS: code=Acct-Request id=07 len=0226
      authenticator=06 AC 03 10 4A 84 44 A4 - 6F D9 68 AA B3 90 44 CB
      ...
      T=Connect-Info[77]                      L=1F V="33600 V34+/LAPM (31200/336"
      T=Acct-Status-Type[40]                  L=06 V=Stop [2]
      ...
```



Note

If the modem negotiation speeds are different, the speeds are shown in a bracket format at the end of the call.

Configuration Example for Connect-Info RADIUS Attribute 77

- [Configure NAS for AAA and Incoming Modem Calls Example, page 2](#)

Configure NAS for AAA and Incoming Modem Calls Example

The following example is a sample NAS configuration for AAA and incoming modem calls:

```
interface Serial0:15
  no ip address
  isdn switch-type primary-net5
```

```

    isdn incoming-voice modem
!
interface Async1
    ip address 10.0.0.10 255.0.0.0
    encapsulation ppp
    async default routing
    async mode interactive
    no peer default ip address
    ppp authentication chap
!
line 1
    modem InOu
    transport preferred none
    transport input all
    autoselect ppp
!
```

Additional References

The following sections provide references related to the Connect-Info RADIUS Attribute 77 feature.

Related Documents

Related Topic	Document Title
IOS dial technologies	<p>“Configuring and Managing Cisco Access Servers and Dial Shelves” chapter of the <i>Cisco IOS Dial Technologies Configuration Guide</i></p> <p><i>Cisco IOS Dial Technologies Command Reference</i></p>
RADIUS and security related information	<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.	<p>To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:</p> <p>http://www.cisco.com/go/mibs</p>

RFCs

RFC	Title
RFC 2869	RADIUS Extensions

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>	http://www.cisco.com/techsupport

Feature Information for Connect-Info RADIUS Attribute 77

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.

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Table 1 **Feature Information for Connect-Info RADIUS Attribute 77**

Feature Name	Releases	Feature Information
Connect-Info RADIUS Attribute 77	12.2(11)T 12.2(33)SRC	<p>The Connect-Info RADIUS Attribute 77 feature enables the network access server (NAS) to report Connect-Info (attribute 77) in RADIUS accounting “start” and “stop” records that are sent to the RADIUS client (dial-in modem). These “start” and “stop” records allow the transmit and receive connection speeds, modulation, and compression to be compared in order to analyze a user session over a dial-in modem where speeds are often different at the end of the connection (after negotiation).</p> <p>This feature was introduced on Cisco IOS Release 12.2(11)T.</p> <p>This feature was integrated into Cisco IOS Release 12.2(33)SRC.</p> <p>This feature supports the following platforms:</p> <ul style="list-style-type: none"> • Cisco AS5300 series • Cisco AS5400 series • Cisco AS5800 series • Cisco AS5850 series

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