



## RADIUS Support of 56-Bit Acct Session-Id

The RADIUS Support of 56-Bit Acct Session-Id feature introduces a new 32-bit authentication, authorization, and accounting (AAA) variable, `acct-session-id-count`. The first eight bits of the `acct-session-id-count` variable are reserved for the unique identifier variable, a unique number assigned to the accounting session which is preserved between reloads. The `acct-session-id-count` variable is used in addition to the existing 32-bit `acct-session-id` variable, RADIUS attribute 44, providing a total of 56 bits of to represent the actual Accounting Session Identifier (ID). Benefits of this feature include the following:

- The 8-bit unique identifier variable allows accounting session IDs to be identified if a reload occurs.
- The additional space provided by the `acct-session-id-count` variable can keep track of `acct-session-id` wrapping when there is a high volume of traffic, such as voice calls. By incrementing each time the `acct-session-id` variable wraps, the `acct-session-id-count` variable preserves accounting information.
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## 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](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Prerequisites for RADIUS Support of 56-Bit Acct Session-Id

AAA accounting must be configured. For more information about configuring AAA accounting, refer to the “Configuring Accounting” chapter in the *Cisco IOS Security Configuration Guide*.

# Information About RADIUS Support of 56-Bit Acct Session-Id

## Acct-Session-Id Attribute

RADIUS attribute 44, Accounting Session ID, is a unique accounting identifier that makes it easy to match start and stop records in a log file. Accounting session ID numbers restart at 1 each time the router is power-cycled or the software is reloaded. RADIUS attribute 44 is automatically enabled when AAA accounting is configured.

The acct-session-id variable is a 32-bit variable that can take on values from 00000000-FFFFFFFF.

## Acct-Session-Id-Count Attribute

The new acct-session-id-count variable is a 32-bit variable. The first eight bits of the variable are reserved for the unique identifier variable, an identifier that allows the RADIUS server to identify an accounting session if a reload occurs. The remaining 24 bits of the acct-session-id-count variable acts as a counter variable. When the first acct-session-id variable is assigned, this counter variable is set to 1. The variable increments by 1 every time the acct-session-id variable wraps, preventing the loss of accounting information.

The acct-session-id-count variable can take on values from ##000000- ##FFFFFF, where ## represents the eight bits that are reserved for the unique identifier variable.

The acct-session-id-count and acct-session-id variables are concatenated before being sent to the RADIUS server, resulting in the acct-session variable being represented as the following:

```
##000000 00000000- ##FFFFFF FFFFFFFF
```

This allows a total of 56 bits to be used for acct-session-id space.

# How to Configure RADIUS Support of 56-Bit Acct Session-Id

## Configuring RADIUS Support of 56-Bit Acct Session-Id

This task enables the acct-session-id-count variable containing the unique identifier variable.

### SUMMARY STEPS

1. `enable`
2. `radius-server unique-ident id`

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<p><code>enable</code></p> <p><b>Example:</b></p> <pre>Router&gt; enable</pre>	<p>Enables privileged EXEC mode.</p> <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>

	Command or Action	Purpose
Step 2	<b>radius-server unique-ident</b> <i>id</i> <b>Example:</b> <pre>Router(config)# radius-server unique-ident 5</pre>	Enables the acct-session-id-count variable containing the unique identifier variable. <ul style="list-style-type: none"> <li>The <i>id</i> argument specifies the unique identifier represented by the first eight bits of the acct-session-id-count variable. Valid values range from 0 to 255.</li> </ul>

## Configuration Examples for RADIUS Support of 56-Bit Acct Session-Id

### Configuring RADIUS Support of 56-Bit Acct Session-Id Example

The following example configures AAA authentication, enables RADIUS attribute 44 in access request packets, and enables the acct-session-id-count variable and sets the unique identifier variable to 5:

```
aaa new-model
aaa authentication ppp default group radius
radius-server host 10.100.1.34
radius-server unique-ident 5
```

## Additional References

The following sections provide references related to the RADIUS Support of 56-Bit Acct Session-ID feature.

#### Related Documents

Related Topic	Document Title
Configuring RADIUS	See the “Configuring RADIUS” feature module.
Configuring accounting	See the “Configuring Accounting” feature module.
AAA RADIUS attributes	See the “RADIUS Attributes Overview and RADIUS IETF Attributes” feature module.
RADIUS commands	<i>Cisco IOS Security Command Reference</i>

#### Standards

Standard	Title
None	--

**MIBs**

MIB	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: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**RFCs**

RFC	Title
RFC 2139	RADIUS Accounting

**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 Support of 56-Bit Acct Session-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.

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*Table 1: Feature Information for RADIUS Support of 56-Bit Acct Session-Id*

Feature Name	Releases	Feature Information
RADIUS Support of 56-Bit Acct Session-ID	12.3(2)T	<p>The RADIUS Support of 56-Bit Acct Session-Id feature introduces a new 32-bit authentication, authorization, and accounting (AAA) variable, acct-session-id-count.</p> <p>This feature was introduced in Cisco IOS Release 12.3(2)T.</p> <p>The following commands were introduced or modified: <b>radius-server unique-iden.</b></p>

