RADIUS Timeout Set During Pre-Authentication

Some call sessions for Internet Service Provider (ISP) subscribers are billed through authentication, authorization, and accounting (AAA) messages in a prepaid time model. When these subscribers are preauthenticated, a RADIUS server checks for any remaining credit in the prepaid time model and sets a session timeout based on the credit available. The RADIUS Timeout Set During Pre-Authentication feature is useful in situations where the PPP authentication that follows the preauthentication phase of these call sessions does not return the Session-Timeout value (RADIUS attribute 27), and therefore allows the ISP to add call setup time to the subscriber's bill.

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 the RADIUS Timeout Set During Pre-Authentication Feature

- This feature is specific to RADIUS. Basic AAA authentication and preauthentication must be configured.

- Preauthentication and normal PPP authentication are required for legacy functionality.

Information About the RADIUS Timeout Set During Pre-Authentication Feature

RADIUS Attribute 27 and the PPP Authentication Phase

The RADIUS Timeout Set During Pre-Authentication feature was developed for ISPs that want to bill dial-in subscribers for call setup time and the entire duration of the call session. These subscribers are billed through AAA messages in a prepaid time model. When the subscribers are preauthenticated, a RADIUS server checks for any remaining credit in the prepaid time model and sets a session timeout (in minutes or seconds) based on the credit available. This time can range from a few seconds for ISDN users, to much longer for asynchronous dial-up subscribers.

Until the RADIUS Timeout Set During Pre-Authentication feature was developed, the value of RADIUS attribute 27, which is returned during the preauthentication phase of a call, was either ignored or overwritten during the PPP authentication phase. Even when the PPP authentication phase did not return a value for attribute 27, the old value obtained during the preauthentication phase was being ignored.

With the RADIUS Timeout Set During Pre-Authentication feature introduced for Cisco IOS Release 12.2(15)T, if the PPP authentication phase does not return a value for attribute 27, the old value that was returned during the preauthentication phase is saved and used to time out the session; attribute 27 is saved in a preauthentication database for future use. However, if the PPP authentication user profile has a session timeout configured and PPP authentication succeeds, the new value downloaded during PPP authentication overwrites the old attribute 27 value. By setting the session timeout value in the preauthentication phase itself, the service provider can bill the subscriber for the call setup time and the call duration.

How to Configure the RADIUS Timeout Set During Pre-Authentication Feature

No new configuration is required. The RADIUS Timeout Set During Pre-Authentication feature is included in all Cisco platforms that support preauthentication, and that have RADIUS attribute 27, Session-Timeout, specified in a preauthentication user profile.

Additional References

The following sections provide references related to the ACL Default Direction feature.

Related Documents

Related Topic	Document Title
Cisco IOS Dial Technologies configuration	*Cisco IOS Dial Technologies Configuration Guide,* Release 12.4T
Cisco IOS security configuration	*Cisco IOS Security Configuration Guide: Securing User Services,* Release 12.4T

Related Topic	Document Title
Cisco IOS security commands	*Cisco IOS Security Command Reference*
Configuring IP services	*Cisco IOS IP Addressing Services 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
RFC 2865	*Remote Authentication Dial-In User Service (RADIUS)*

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

Feature Information for RADIUS Timeout Set During Pre-Authentication

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 Timeout Set During Pre-Authentication

Feature Name	Releases	Feature Information
RADIUS Timeout Set During Pre-Authentication	Cisco IOS XE Release 3.9S	The RADIUS Timeout Set During Pre-Authentication feature is useful in situations where the PPP authentication that follows the preauthentication phase of these call sessions does not return the Session-Timeout value (RADIUS attribute 27), and therefore allows the ISP to add call setup time to the subscriber's bill.