L2TP Disconnect Cause Information

The L2TP Disconnect Cause Information feature adds support for additional Layer 2 Tunnel Protocol (L2TP) disconnect error codes using attribute-value (AV) pair 46 as specified by RFC 3145. Prior to the introduction of this feature, L2TP hosts could not exchange PPP disconnect error codes.

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.

Restrictions for L2TP Disconnect Cause Information

- This feature implements only error codes that are compliant with RFC 3145.
- If a router receives AV pair 46 with a nonsupported disconnect code it is mapped to code 0, indicating that no information is available.

Information About L2TP Disconnect Cause Information

How L2TP Disconnect Cause Information Works

L2TP disconnect cause codes allow the devices functioning as L2TP hosts to exchange PPP-related disconnect cause information. Normally L2TP operation is isolated from details of the PPP session that is being encapsulated. AV pair 46 PPP Disconnect Cause Code is used to exchange PPP-related disconnect cause information between L2TP hosts. The information can be translated to the appropriate authentication, authorization, and accounting (AAA) code and relayed to the remote RADIUS AAA server.

Benefits of L2TP Disconnect Cause Information

When L2TP service fails or session establishment is unsuccessful, PPP-specific disconnect information provides valuable information that can be used for troubleshooting or accounting purposes. The lack of this information is a problem particularly when the L2TP hosts are not owned or managed by the same entities. The L2TP Disconnect Cause Information feature enables service providers to determine the specific failure reason, facilitating analysis and error correction.

L2TP Disconnect Cause Information Codes

The table below lists the supported L2TP disconnect cause codes from RFC 3145 and a brief description of the codes.

Table 1: L2TP Disconnect Cause Codes

Code	Description
Global Errors	
0	No information available. **Note** If a router receives AV pair 46 with a nonsupported disconnect code, possibly from another vendor or a newer version of Cisco software, it is mapped to this code.
1	Administrative disconnect.
3	Normal disconnection, Link Control Protocol (LCP) Terminate-Request sent. Valid direction values are: • 1--LCP Terminate-Request sent by the peer device. • 2--LCP Terminate-Request sent by the local device.

Code	Description
LCP Errors	
5	Finite State Machine (FSM) timeout error.
6	No recognizable LCP packets were received.
8	LCP link failure: Echo Request timeout.
9	The peer has an unexpected endpoint-discriminator for an existing Multilink PPP (MLP) bundle.
12	Compulsory call-back required by a PPP peer was refused by the peer. Valid direction values are: • 1--Required by the local device; refused by the peer device. • 2--Required by the peer device; refused by the local device.
Authentication Errors	
13	FSM timeout error.
16	PPP authentication failed due to a bad hostname, password, or secret. Valid direction values are: • 1--Authentication of the peer's identity by the local system failed. • 2--Authentication of the local identity by the peer system failed.
Network Control Protocol (NCP) Errors	
17	FSM timeout error.
18	No NCPs available (all disabled or rejected) or no NCPs went to Opened state. The Control Protocol Number can be zero only if neither peer has enabled NCPs.

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
Information about configuring L2TP VPDN tunnels	VPDN Tunnel Management module
VPDN commands	*Cisco IOS VPDN Command Reference*

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 software releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
RFC 3145	L2TP Disconnect Cause Information

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for L2TP Disconnect Cause Information

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 2: Feature Information for the L2TP Disconnect Cause Information Feature

Feature Name	Releases	Feature Information
L2TP Disconnect Cause Information	Cisco IOS XE Release 2.1	This feature was introduced on the Cisco ASR 1000 Series Aggregation Services Routers. The L2TP Disconnect Cause Information feature adds support for additional Layer 2 Tunnel Protocol (L2TP) disconnect error codes using attribute-value (AV) pair 46 as specified by RFC 3145. Prior to the introduction of this feature, L2TP hosts could not exchange PPP disconnect error codes. No commands were introduced or modified by this feature.