X.25 Annex G Session Status Change Reporting

This feature module describes the X.25 Annex G Session Status Change Reporting feature and includes the following sections:

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.

Feature Overview

The X.25 Annex G Session Status Change Reporting feature introduces the **logging event frame-relay x25** interface configuration command, which provides console or system log notification of X.25 Annex G session status changes when an X.25 Annex G session changes state. Before this feature was introduced, there was no notification.

This feature detects changes in X.25 Annex G session status using an X.25 Link Access Procedure, Balanced (LAPB) N2 counter. The LAPB N2 counter records the number of unsuccessful transmit attempts that are made before the link is declared down. If the N2 consecutive polled commands have not been answered, a notification is generated, indicating that the X.25 profile or context associated with the data-link connection

identifier (DLCI) that is running across the failed link has gone down. A message is generated to the console or system log when the link goes down. A message is also generated to the console or system log when the link comes back up. The notification response time is contingent on the values assigned to the LAPB N2 counter and the LAPB the retransmission timer in milliseconds (T1) timer.

Benefits

For X.25 Annex G sessions, if Local Management Interface (LMI) keepalives are disabled, Frame Relay (FR) DLCI status changes can be detected using the **logging event frame-relay x25** interface configuration command

Restrictions

The following restrictions apply to the X.25 Annex G Session Status Change Reporting feature:

- Notification is displayed for the UP or DOWN event only if traffic is initiated when an X.25 Annex G session is active.
- The notification response time is contingent on the values assigned to the LAPB N2 counter and the LAPB T1 timer.
- The PVCs continue to be reported as UP unless the serial link directly connected to the router goes down.

Related Documents

- Cisco IOS Wide-Area Networking Configuration Guide, Release 12.2
- Cisco IOS Wide-Area Networking Command Reference, Release 12.2

Supported Platforms

- Cisco 1600 series
- Cisco 2500
- Cisco 2600
- Cisco 3640
- Cisco 3660
- Cisco 4000
- Cisco 4500
- Cisco 7000 series
- Cisco 7200 series
- Cisco 7500 series

Supported Standards and MIBs and RFCs

Standards

No new or modified standards are supported by this feature.

MIBs

No new or modified MIBs are supported by this feature.

To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml .

RFCs

No new or modified RFCs are supported by this feature.

Prerequisites

The **logging event frame-relay x25** interface configuration command is available for all interfaces that have Frame Relay ecapsulation.

Configuration Tasks

Enabling X.25 Annex G Session Status Change Reporting

Command	Purpose
`Router(config-if)#` **logging event frame-relay x25**	Enables notification of X.25 Annex G session status changes to be displayed on a console or system log.

Verifying X.25 Annex G Session Status Change Reporting

Command	Purpose
`Router(config-if)#` **show run logging event frame-relay x25**	Shows whether the command is enabled.

Configuration Examples

X.25 Annex G Session Status Change Reporting Configuration Example

The following configuration example shows how to enable notification of X.25 Annex G session status changes to be displayed on a console or system log using the **logging event frame-relay x25** interface configuration command:

```
router(config-if)# logging event frame-relay x25
```
The following is an example of the Annex G session status change notifications:

```
%X25-5-UPDOWN: Interface <interface> - DLCI <dlci number> X.25 packet layer changed state
to DOWN
%X25-5-UPDOWN: Interface <interface> - DLCI <dlci number> X25 packet layer changed state
to UP
```