



Xconnect as a Client of BFD

The Xconnect as a Client of Bidirectional Forwarding Detection (BFD) feature provides a trigger for redundant pseudowire switchover based on BFD's fast failure detection capabilities.

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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 <https://cfng.cisco.com/>. An account on Cisco.com is not required.

Information About Xconnect as a Client of BFD

Xconnect as a Client of BFD

Redundant pseudowires are deployed to provide fault tolerance and resiliency to L2VPN-backhauled connections. The speed at which a system recovers from failures, especially when scaled to large numbers of pseudowires, is critical to many service providers and service level agreements (SLAs). The configuration of a trigger for redundant pseudowire switchover reduces the time that it takes a large number of pseudowires to failover. A fundamental component of bidirectional forwarding detection (BFD) capability is enabled by fast-failure detection (FFD).

The configuration of this feature refers to a BFD configuration, such as the following (the second URL in the **bfd map** command is the loopback URL in the **monitor peer bfd** command):

```
bfd-template multi-hop mh
interval min-tx 200 min-rx 200 multiplier 3 !
bfd map ipv4 10.1.1.0/24 10.1.1.1/32 mh
```

How to Configure Xconnect as a Client of BFD

Configuring Xconnect as a Client of BFD

Perform this task to configure a trigger for redundant pseudowire switchover.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **pseudowire-class mpls-ffd**
 - Enters pseudowire class configuration mode.
4. **encapsulation mpls**
5. **monitor peer bfd** [local interface *interface-type interface-number*]

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|---|--|
| Step 1 | enable Example: Device> enable | Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted. |
| Step 2 | configure terminal Example: Device# configure terminal | Enters global configuration mode. |
| Step 3 | pseudowire-class mpls-ffd <ul style="list-style-type: none"> • Enters pseudowire class configuration mode. Example: Device(config)# pseudowire-class mpls-ffd | Establishes a pseudowire class for MPLS fast-failure detection. |
| Step 4 | encapsulation mpls Example: Device(config-pw-class)# encapsulation mpls | Specifies the tunneling encapsulation to be MPLS. |
| Step 5 | monitor peer bfd [local interface <i>interface-type interface-number</i>] | Enables the pseudowire fast-failure detection capability. |

| | Command or Action | Purpose |
|--|--|---------|
| | Example: <pre>Device(config-pw-class)# monitor peer bfd local interface loopback 0</pre> | |

Configuration Examples for Xconnect as a Client of BFD

Example: Xconnect as a Client of BFD

Pseudowire Class Configuration

The following example shows pseudowire fast-failure detection enabled for a pseudowire class:

```
pseudowire-class mpls-ffd
encapsulation mpls
monitor peer bfd local interface Loopback0
```

Template Configuration

The following example shows pseudowire fast-failure detection enabled in a template:

```
template type pseudowire 1
encapsulation mpls
monitor peer bfd local interface Ethernet0/1
```

Interface Configuration

The following example shows pseudowire fast-failure detection enabled for an interface:

```
interface pseudowire100
encapsulation mpls
neighbor 10.10.1.1 21190
monitor peer bfd local interface Ethernet0/1
```

Additional References

Related Documents

| Related Topic | Document Title |
|----------------------------|-------------------------|
| Any Transport over MPLS | Any Transport over MPLS |
| High Availability for AToM | AToM Graceful Restart |
| L2VPN Interworking | L2VPN Interworking |

| Related Topic | Document Title |
|-------------------------|--|
| Layer 2 local switching | Layer 2 Local Switching |
| PWE3 MIB | Pseudowire Emulation Edge-to-Edge MIBs for Ethernet and Frame Relay Services |
| Packet sequencing | Any Transport over MPLS (AToM) Sequencing Support |
| BFD configuration | IP Routing BFD Configuration Guide |

Standards

| Standards | Title |
|-----------|-------|
| None | -- |

MIBs

| MIBs | 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: http://www.cisco.com/go/mibs |

RFCs

| RFCs | Title |
|------|-------|
| None | -- |

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 Xconnect as a Client of BFD

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 Xconnect as a Client of BFD

| Feature Name | Releases | Feature Information |
|-----------------------------|---------------------------|--|
| Xconnect as a Client of BFD | Cisco IOS XE Release 3.8S | This feature provides fast-failure detection for L2VPN pseudowire redundancy. The following command was introduced: monitor peer bfd . |

