Link Efficiency Mechanisms Overview

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Cisco IOS XE Software offers a number of link-layer efficiency mechanisms or features (listed below) that are designed to reduce latency and jitter for network traffic. These mechanisms work with queueing and fragmentation to improve the efficiency and predictability of the application service levels.

This chapter gives a brief introduction to these link-layer efficiency mechanisms described in the following sections:

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see 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 at the end of this document.

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.

Multilink PPP

At the top level, Multilink PPP (also known as MLP or simply Multilink) provides packet interleaving, packet fragmentation, and packet resequencing across multiple logical data links. The packet interleaving, packet fragmentation, and packet resequencing are used to accommodate the fast transmission times required for sending real-time packets (for example, voice packets) across the network links. Multilink is especially useful over slow network links (that is, a network link with a link speed less than or equal to 768 kbps).

For more information about the functionality of Multilink when providing quality of service (QoS) on your network, see the "Reducing Latency and Jitter for Real-Time Traffic Using Multilink PPP" module.

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Header Compression

Header compression is a mechanism that compresses the header in a packet before the packet is transmitted. Header compression reduces network overhead and speeds up the transmission of packets. Header compression also reduces the amount of bandwidth consumed when the packets are transmitted.

For more information about header compression, see the "Header Compression" module.