
Congestion Notification: Draft PAR

Title (4)

- Amendment to 802.1Q
 - Standard for Local and Metropolitan Area Networks: Virtual Bridged Local Area Networks – Amendment 9: Congestion Notification.
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PAR Scope (13)

- This standard specifies protocols, procedures and managed objects that support **congestion management of** long-lived data flows within network domains of limited bandwidth delay product.
 - This is achieved by enabling bridges to signal **congestion information** to end stations capable of transmission rate limiting to avoid frame loss. This mechanism enables support for higher layer protocols that are highly loss or latency sensitive.
 - VLAN tag encoded priority values are allocated to segregate frames subject to congestion control, allowing simultaneous support of both congestion controlled and other higher layer protocols.
 - This standard does not specify communication or reception of congestion notification information to or from stations outside the congestion controlled domain or encapsulation of frames from those stations across the domain.
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PAR Scope (13)

- Is the completion of this document contingent upon the completion of another document? No
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PAR Purpose (14)

- Data center networks and backplane fabrics employ applications that depend on the delivery of data packets with a lower latency and much lower probability of packet loss than is typical of IEEE 802 VLAN bridged networks. This amendment will support the use of a single bridged local area network for these applications as well as traditional LAN applications.
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PAR Reason (15)

- There is significant customer interest and market opportunity for Ethernet as a consolidated Layer 2 solution in high-speed short-range networks such as data centers, backplane fabrics, single and multi-chassis interconnects, computing clusters, and storage networks. These applications currently use Layer 2 networks that offer very low latency and controlled frame loss due to congestion. Use of a **consolidated** network will realize operational and equipment cost benefits.
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