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IEEE 802.X LAN Protocols: Brief Descriptions (9/94)

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Security: Everyone

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TOPIC ----------

I have a question on IEEE 802.X. That is, what should I expect to see for 802.1, 802.2, 802.4, and 802.5?

DISCUSSION ----------

The Institute of Electrical and Electronic Engineers (IEEE) was created to establish standards. These standards include Project 802 for specifying interface and protocol specifications for various LAN topologies. The resulting 802 standards correspond with the Physical and Data Link layers of the ISO-OSI Model Layers 1 and 2, the Physical and Data Link layers.

802.1 Overview, Interworking and Systems Management
802.2 Logical Link Control
802.3 CSMA/CD Access Method and Physical Layer Specifications
802.4 Token-Passing Bus Access Method and Physical Layer Specifications
802.5 Token-Passing Ring Access Method and Physical Layer Specifications
802.6 Metropolitan and Network Access Method and Physical Layer Specifications

IEEE 802.1 and 802.2 are still being defined. Furthermore, any associated "packets" aren't going to be seen on the LAN,, because they define the common interface for higher software levels over networks with different topologies, protocols, and media.

IEEE 802.3, 802.4, and 802.5 define different network topologies and media access methods, or the ability of a node to physically send and receive data on a LAN.

Ethernet Data Link Frame Format

Destination (48 bits), Source (48 bits), Type (16 bits), Data (8n: 46 bytes<= n

<=1500 bytes), CRC (32)

802.3 CSMA/CD Access Method

Destination (16 or 48 bits), Source (16 or 48 bits), Length (16 bits), Data (8n: 46 bytes<= n <=1500 bytes), CRC (32)

802.4 Token-Passing Bus

Destination (16 or 48 bits), Source (16 or 48 bits), Data (8n: our materials didn't list the max), CRC (32)

802.5 Token-Passing Ring

Destination (48 bits), Source (48 bits), Data (8n: max of 4K), CRC (32)

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