

Wan technologies course work

[Technology](#), [Internet](#)



Ethernet and token ring protocols are the common wan technologies in use today. Ethernet employs Bus technology where all machines are connected on a backbone. Any data sent from any machine can be transmitted through the network with the condition that the network is free of any other traffic. If the destination of the send packet is not found it is eliminated otherwise it is received at the destined node (Stallings, 2007). Token Ring protocol though has a different approach. Computer systems are interconnected in a loop. There is a monitoring node that controls the movement of data in the loop. Data can only enter in to the transmission network when allowed to (Stallings, 2007).

Appropriate technology

Ethernet is the preferred appropriate technology. The control that this technology introduces in the transfer of packets beats that of token ring topology. Data can only be transferred through the network by if no other data is using the resource. A mechanism to ensure that there is no collision is employed by this kind of protocol. Each node before sending data has to listen to the network in order to determine its availability. Collision occurs when two nodes send data at the same time. When this happens, the packet is discarded and a new packet is send after a random time. Collision is detected by use of carrier sense multiple access/ collision detection (CSMA/CD). The frame structure that carries data contains data that identifies the destination address of the data. A field identifying the data type is also contained in the frame not forgetting the actual data part and finally the cyclic redundancy check part (Ouellet et al., 2002).

The biggest advantage of this protocol is its ability to error control. CRC allows the receiving node to check for any error changes that could have happened during the transmission of data.

References

Ouellet, E., Padjen, R., Fuller, R., & Pfund, A. (2002). Building a Cisco wireless LAN. London: Elsevier.

Stallings, W. (2007). Data and computer communications. New York: Prentice hall.