

4(a) what is Fast Ethernet? Describe it 3

(b) what is Giga Ethernet 3

(c) How does virtual Local Area Network work 8

Answer:

4(a):

For fast emerging software and hardware technologies Ethernet extends itself as Fast-Ethernet. It used in Optical fiber, UTP, etc. Its maximum speed can be upto 100 MBPS. It is named as 100BASE-T in IEEE 802.3 using Cat-5 twisted pair cable. The fiber can be extended upto 100 meters in half-duplex mode and can reach maximum of 2000 meters in full-duplex over multimode fibers.



q(b):

Giga Ethernet was invented in 1995. It is faster than Ethernet. Its speed can be upto 1000 mbits/second. It is used mostly on UTP, Optical Fiber and wireless networks all over the world.

q(e):

Ethernet is used in Local Area Network on accessing shared media. It creates a single Broadcast domain and a single collision domain. Introduction of switches to Ethernet has removed single collision domain issue and each device connected to switch works in its separate collision domain. Switches cannot divide a network into separate Broadcast domain, To divide a single Broadcast domain into multiple broadcast domain virtual LAN can be a solution. Because in one virtual Local area network cannot speak to host in another. Also all hosts are remain into the same virtual Local Area Network.