01:27

ETHERNET – PROS

★ Ethernet is the most widely used wired LAN technology.

★ Ethernet is relatively inexpensive.

★ In Ethernet, all the node have the same privileges. It does not follow client–server architecture.

★ Maintenance and administration are simple.

★ The cable used to connect systems in ethernet is robust to noise.

★ As it is robust to the noise, the quality of the data transfer does not degrade. The data transfer quality is good.

★ With latest versions such as gigabit ethernet, the transfer speeds in Gbps have become possible.

NESO ACADEMY

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ETHERNET – CONS

★ Under heavy loads, too much of the network's capacity is wasted by collisions.

★ It does not hold good for real–time applications and interactive applications.

★ As the network cannot set priority for the packets, it is not suitable for a client–server architecture.

★ For interactive applications, dummy data have to be fed to make the frame size 46B which is mandatory.

★ After receiving a packet, the receiver doesn't send any

✗ After receiving a packet, the receiver doesn't send any acknowledgement.

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ETHERNET CATS

CATEGORY	SHIELDING	MAX TRANSMISSION SPEED (AT 100 METERS)
Cat 3	Unshielded	10 Mbps
Cat 5	Unshielded	10/100 Mbps
Cat 5e	Unshielded	1000 Mbps / 1 Gbps
Cat 6	Shielded or Unshielded	1000 Mbps / 1 Gbps
Cat 6a	Shielded	10000 Mbps / 10 Gbps
Cat 7	Shielded	10000 Mbps / 10 Gbps
Cat 8	Shielded	Up to 40 Gbps