Hello Everyone! Now you have understood the networks, their goals, topologies, and various network addresses. In this video, you will learn about different types of Computer networks.

Computer networks can be categorized based on either scale or transmission technology. Based on the scale, a network can be identified as LAN, MAN, WAN, or PAN.
Based on transmission technology, it can be a broadcast network or a point-to-point network.

Let's discuss the networks based on the scale first.
A local Area Network or LAN is a group of computers connected to each other in a small area such as a building or an office. You can find a LAN network in your college computer laboratory. Computers or devices in a LAN are connected through a communication medium such as twisted pair, coaxial cable, wireless link, etc. It is less costly, as it is built with inexpensive hardware such as hubs, network adapters, and Ethernet cables. The data is transferred at an extremely faster rate in the Local Area Network and it provides a higher level of security. The LAN networks may have any of the topologies, you have studied, and may follow a LAN standard such as IEEE 802.3(Ethernet), IEEE 802.11(Wi-Fi), etc. defined by standardization bodies.

A metropolitan area network is a network that covers a larger geographic area than a LAN, by interconnecting a set of LANs to form a larger network covering a city.

Government agencies use MAN to connect to the citizens and private industries. A cable TV network is a classic example of a MAN. DQDB is one of the popular MAN standard.

A Wide Area Network is a network that extends over a large geographical area such as states, countries, or continents. A Wide Area Network is bigger than a LAN or MAN. The Internet is the biggest WAN in the world. A WAN has applications in the field of Business, government, and education. Frame relay, X.25, ATM, IP Wans are various types of WAN technologies based on various technologies such as virtual circuits, cell relays, etc.

Personal Area Network or PAN is a network created within a personal range, typically within a range of 10 meters. A Bluetooth network can be seen as an example of a PAN.

Let's talk about the networks categorized based on transmission techniques. In a broadcast network, broadcast transmission technology is used. In these networks, all the data is broadcasted to all the machines in the network through a broadcast channel such as a wireless medium like a Wi-Fi network or a wired medium such as a bus cable. LANs using bus topology or star topology, are examples of broadcast networks.

In a point-to-point network, the machines are far from each other requiring the data to travel a long path. The data packets move from one point like a router to, another, to

reach the destination. In point-to-point networks, multiple paths exist between each pair of nodes. Therefore, different packets may travel through multiple paths, based on a routing algorithm. WAN is a classical example of a point-to-point network.

Thank You.