

TYPES OF NETWORK MODELS

CLIENT/SERVER-BASED NETWORKING

A client/server network consists of a group of user-oriented PCs (called clients) that issue requests to a server. The client PC is responsible for issuing requests for services to be rendered. The server's function on the network is to service these requests. Some common server types include file servers, mail servers, print servers, fax servers, and application servers.

PEER-TO-PEER NETWORKING

A peer-to-peer network consists of a group of PCs that operate as equals. Each PC is called a peer. The peers share resources (such as files and printers) just like in a server-based network, although no specialized or dedicated server machines exist.

TYPES OF NETWORKS

LOCAL AREA NETWORKS (LANS)

Network architecture is the design specification of the physical layout of connected devices. This includes the cable being used (or wireless media being deployed), the types of network cards being deployed, and the mechanism through which data is sent on to the network and passed to each device.

NETWORK SERVICES

Network services are the basic reason we connect computers. Services are what a company wants to have performed or provided. Based on the services a company wants to utilize, the company purchases a specific program and operating system. Common services available on computer networks are:

Basic Connectivity Services – The PCs in a network must have special system software that enables them to function in a networking environment.

Redirector Service – A network client must have a software component called a redirector. In a typical standalone PC, I/O requests pass along the local bus to the local CPU. The redirector intercepts I/O requests within the client machine and checks whether the request is directed toward a service on another computer. If it is, the redirector directs the request toward the appropriate network entity. The redirector enables the client machine to send information out of the computer, provided that a transmission pathway exists.

Server Service – A network server machine must have a component that accepts I/O requests from clients on the network and that fulfills those requests by routing the requested data back across the network to the client machine. In Windows NT, the server service performs the role of fulfilling client requests.

File Services – File services enable networked computers to share files with each other.