

BASICS OF A SMALL BUSINESS NETWORK ENVIRONMENT

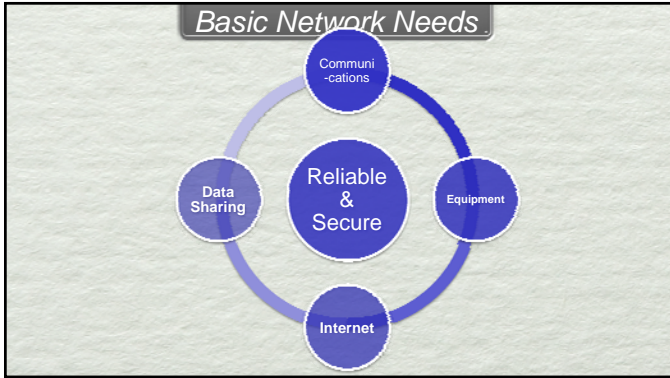
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Basic Network Needs

- Data sharing (work documents, databases, etc.)
- Equipment sharing (printers, scanners, fax, etc.)
- Internet connectivity
- Communications (Email, VOIP, chat programs)



Basic Network Needs

Internet Connectivity for Small Business

Requires an ISP (Internet Service Provider) that can provide reliable services and the bandwidth required to support the small business.

Uptime should be +99.9% with adequate support services to assist when the service fails.

Bandwidth must meet the needs of the business and is defined by incoming and outgoing increments (e.g., 10Mb in, 1.5Mb out)

Basic Network Needs

Other Network Considerations

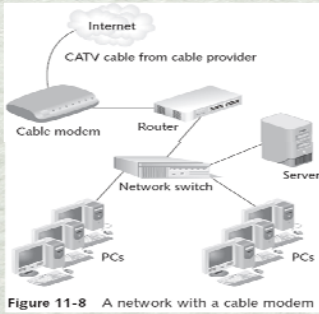
Virtual Private Network (VPN)

Backups

Equipment storage

Wiring

Equipment: Network Hardware



Equipment: Network Hardware

- Modem** – Provides Internet connectivity
- Firewall** – Manages incoming and outgoing Internet traffic
- Router** – Manages and distributes the Internet connection
- Switches** – Used to connect devices on the network
- Wireless Access Point** – Allows devices to wirelessly connect to the Internet

Equipment: Servers

Server Computers

A server is a specialized computer assigned to *serve* the needs of other computers on a network.

A server running the Windows Server operating system can provide a large, robust **File Server** environment for sharing resources and equipment.

A Windows Server may be configured with the following additional services:

Equipment: Servers

Windows Server

Domain Controller – Authenticates and grants access to client computers to a network domain using the **Active Directory** service.

DNS (Domain Name Service) and **DHCP** (Dynamic Host Configuration Protocol) – Provide services for connecting to the network and accessing the Internet

Exchange Mail Server – Email management

Equipment: Servers

Windows Server

Remote access such as VPN, dial-up, Telnet, and Windows Remote Assistance

Equipment: Clients

Client Computers (Workstations)

A client is a computer or device that receives services from the network. The computer a staff member uses to perform their job is a client.

To effectively run back office and communications software, workstations are typically outfitted with higher spec components than common home computers.

Equipment: Clients

Client Computers (Workstations)



More Information

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