

Computer Bits by Mark Eggert of Raad One Network Solutions, Inc.

Welcome to Computer Bits, a series of articles on computers and network information. This article will cover networking.

The basic purpose of networks is to allow sharing of resources between two or more computers. Some sharable resources are printers, scanners, modems, or a common file space or application. There are two basic types of networks: Peer-to-Peer and Client-Server.

Peer-to-Peer networks are easy to setup. The computers are connected to each other and they all have the same importance in the network (they are all peers to each other). Any resource on any of the computers can be shared with the computer that has the resource controlling the sharing through an Access Control List (ACL). This type of networking is good for small networks as it is easy to change the ACLs when a resource or computer is added or removed. As the network grows it becomes a harder task to keep all of the ACLs up to date. Also, if a computer that has resources shared on it is turned off or crashes the resources are lost to the rest of the network. To backup the network, each computer needs to be backed up.

Client-Server networks are harder to setup and cost more initially because one computer is dedicated as the server. The server computer will run special server software such as Windows NT Server or Novell Netware and as such will not be usable as a client computer. The network resources are connected to the server and it controls the ACLs. It is easier to administer the network as all changes are done from the server. Also, the state of the client computers doesn't matter, as they don't have resources on them. Some business applications require that they be run from a server if they are to be used over a network. This is because the sharing of the application is better controlled in a Client-Server network. Backing up the network is much simpler as only the server needs to be backed up.