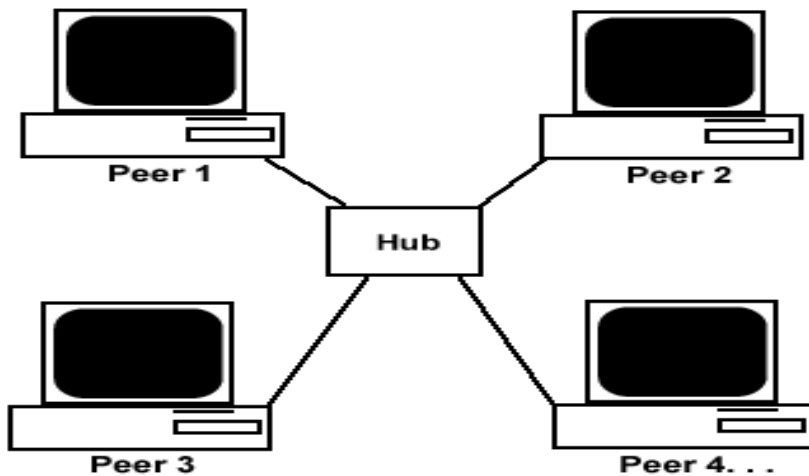


# PEER TO PEER NETWORKS

If you only need to share a printer or an Internet connection, a client-server network may be overkill. Sometimes, a simpler peer-to-peer *network* may be all you need to fulfil your needs.

The diagram below shows a simple peer-to-peer network:



As you can see from the diagram, in a peer-to-peer network there are no dedicated servers (central computers that control the network) or hierarchy among the computers. All of the computers on the network handle security and administration for themselves. The users must make the decisions about who gets access to what. Beyond that there are more similarities than differences. All of the computers must have network cards. You also use the same cables, the same hubs, and the same protocols as you would with a client-server model. The only difference is that there isn't a server. Since there isn't a server, there are some things to think about before you go down the peer-to-peer path...

## **Before Taking the Peer-to-Plunge**

Peer-to-peer networks work remarkably well in certain circumstances; however there are a few things to consider before setting one up.

### **Size**

Peer-to-peer networks are designed for connecting small numbers of computers. They tend to run into problems at around 5-10 computers or more.

### **Security**

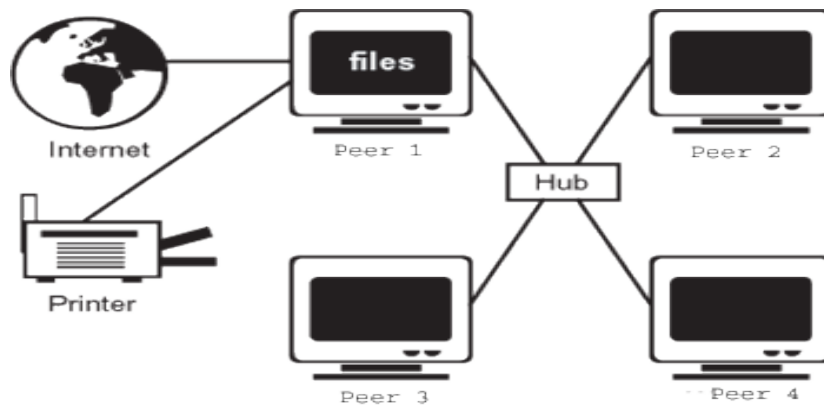
Security on a peer-to-peer network is not very powerful. So if you have security concerns go for something you can control (read server!) Since on a *peer to peer network* the users give access to folders, they can choose not to require passwords. This lack of consistency has a tremendous impact on the security of your network and you will need adequate training for your users to prevent problems.

### **Growth**

If your organisation is growing rapidly, it will usually out grow a peer-to-peer network very quickly. While a peer-to-peer network may work fine for up to around ten computers, it almost certainly won't for twenty.

## Centralise your peer to peer network as much as possible

A peer-to-peer network can simply connect up the computers you already have, or better still be organised centrally as shown in the diagram below:



The printer and Internet connection are both connected to peer 1, and all the files are stored on its hard drive. Peer 1 was chosen because it is the fastest, with the largest *hard disk*. Now the first person to arrive turns on Peer 1 and the last person to leave turns it off, and everyone can be sure they can print and access the *Internet*. All the files are stored using the same structure of folders, so they can be backed up easily from one location.

Source: <http://www.ictknowledgebase.org.uk/peertopeernetworks>