Share the Wealth

Benefits of a Network.

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For the last couple of months I have covered several different IT topics with references to "computer networks". Since publication a number of people have asked me to explain the benefits of a computer network and the different options available to the small to medium size business community. In the next couple of issues I will endeavor to explain the benefits of a network, whether to chose wireless or cabled and how they can provide remote access to your data.

INTRODUCTION

As computer usage grows, even the smallest of businesses can take advantage of networking to share the cost of resources, such as printers, scanners, broadband Internet and access to shared data. As your business grows, good communication between employees is needed. You can improve efficiency by sharing information such as common files, databases and business application software over a computer network.

With improvements in network capacity and the ability to work wirelessly or remotely, successful businesses should regularly re-evaluate their needs and their IT infrastructure. Properly planned, an efficient network brings a wide range of benefits to a company. You can improve communication by connecting your computers and working on standardised systems, so that:

- Staff, suppliers and customers are able to share information and get in touch more easily using both internal and external mail, shared calendars and address books.
- More information sharing can make your business more efficient - e.g. networked access to a common database can avoid the same data being keyed multiple times, which wastes time and can result in errors
- Staff are better equipped to deal with queries and deliver a better standard of service as they can share the most recent information about customers.

You can reduce costs and improve efficiency - by storing information in one centralised database and streamlining working practices, so that:

- Staff can deal with more customers at the same time by accessing customer and product databases
- Administration of data can be centralised, less IT support is required
- costs are cut through sharing of peripherals such as printers, scanners, external discs, tape drives and Internet access

You can reduce errors and improve consistency - by having all staff work from a single source of information, so that standard versions of manuals and contact address books can be made available, and data can be backed up from a single point on a scheduled basis, ensuring consistency.

OFFICE NETWORKS

For most businesses, the computer network they require will be in a single building. This is done using a local area network (LAN). There are two common kinds of LAN - peer-to-peer and client/server.

Peer-to-peer networks connect two or more computers directly, allowing them to share files or programs. They are particularly suitable for collaborative work and relatively cheap to create. However, they can be much slower than server-based networks and are unsuitable for complex networks or networks with 5 computers or more.

Client/server networks use one computer as a server - where shared files and programs are kept - which other PCs connect to. This central server machine usually runs a network operating system such as Microsoft Small Business Server 2003, has a higher specification than the client PCs with greater RAM and disk space capacity and normally contains a backup device capable of backing up all the company data.

Client/server networks have a number of advantages. As files are stored centrally, these systems are more efficient in backing up and handling data. For example, users cannot modify files simultaneously. You can also link to different types of computer, and support more users more reliably than you can using a peer-to-peer network. A server also has benefit of being able to control the access rights of every user individually. This means that some users can be configured so that they can only read certain files but not change them in any way, where other users can be configured to have full rights to the same files allowing them to change there content. This is an excellent feature to control change management and to protect confidential documents.

That's it for this month. In the next issue I will be covering the pro's and cons of wired and wireless networks and what factors should determine which one you choose for your business.

Should you require any further information or advice on any of the topics covered please do not hesitate to contact me at jgleeson@ithink.ie