

What A Network Can Do For Your Business

If your business comprises two or more people or has two or more computers, then it is highly likely that it would benefit from a network. This article explains what a network is, what it can do, what options are available and how to choose between them.

What Is A Network?

When two or more computers are connected together it is called a network. Even a person with just one computer is part of a network in one sense – the public network known as the Internet, which comprises hundreds of millions of computers across the World. However, it is more common to use the term network in a private context. In this usage, a number of computers belonging to an organisation (family, business, school etc) are connected to each other; the World at large cannot access them, although they can still connect to the Internet to access websites and such. Such a network is known as a Local Area Network or LAN as the computers are physically close to each other, for instance within a single building. When we talk about a network in this document, this is what we are talking about.

What Does A Network Do?

The basic purpose of a network is to share information and to share resources. For example, a business will usually have a contacts database (list of contacts). It is not very efficient for each person to maintain their own private copy as they would quickly get out of step with each other; imagine if there were 20 employees all trying to keep their own individual copies up to date as new prospects and customers are found. A far better solution is to have a single copy of the contacts database that each of them can access. Then, the data only has to be changed in one place...

..which begs the question, what is that place? The answer is: a server (also known as a file server). A server can be thought of as a sort of library or repository that holds information. It need not be a particularly powerful computer, but it will have plenty of storage space in the form of multiple hard disk drives. It is not used as a general purpose computer, in fact, it doesn't really need and may not have a keyboard and screen. It may just be a small box in the corner of the office, maybe even kept in a cupboard or cabinet.

On the server the data will be organised into different areas, much the same way as a filing cabinet will have different drawers and folders. For instance, one area may contain information that everyone in the company needs to see e.g. the contacts database, product catalogues, customer presentations and so on. Another area may contain information restricted to a particular group, for instance, financial data may only be accessible by the directors and accounts department. Finally, there may be 'private' areas for each individual where they can store backups of important data from their individual computers.

Besides information, a network can also share resources. The two main examples are printers and the internet connection. Rather than provide every computer with its own printer, the organisation can just have one or two higher capacity or faster ones which are plugged into the network and which everyone can access. Likewise with the internet connection; most people with broadband at

home will have a wireless router which anyone in the household can use and it is the same principle as this.

Benefits of a Network

The benefits of networking follow on directly from the capabilities just described. People in an organisation work best together when they work as a team and a network extends that team working into the electronic domain by allowing them to share information. Imagine a situation where a customer telephones to ask the status of his or her order; which of the following two scenarios is likely to lead to greater customer satisfaction and retention?

Scenario 1

“OK, just let me bring up the details on my computer and I can tell you. I can see that it’s recently been updated.”

Scenario 2

“Er, that’s not on my computer, hold on a sec whilst I go and check Mike’s computer. Oh, he’s out of the office today and it’s not switched on. Can you hold on a couple of minutes whilst I start it up? Or I could ask Mary if it’s on her computer, though it might not be totally up to date.”

Providing access to shared, managed data in an organisation increases efficiency, responsiveness, customer perception and satisfaction, plus reduces the errors that arise when there is duplicate and inconsistent data.

A network can also reduce costs, for instance through the sharing of printers or specialist devices. Given that the server provides a large amount of centralised storage, it may be possible to save money by buying computers with smaller hard disks as little or no local storage is needed. However, the decision to network is best taken on the basis that it improves efficiency and methods of working.

The network also provides a platform for backups. The importance of regular, reliable backups cannot be overstated: around half of companies that have a serious computer failure and data loss cease trading within 12 months. The server enables centralised data to be easily and automatically backed up. It can also backup the data stored on the computers; ideally all data should be stored on the server but in practice that is not always possible. For instance, some employees may have laptops that leave the building; when they return and plug in their laptops they can backup their data to the server.

Finally, remote working – the ability to connect to the office when out and about – is needed by many organisations and a network can provide this facility.

Networking Options

Businesses vary in their size and requirements and there is no such thing as a ‘one size fits all’ network. Rather, a number of options varying in cost and sophistication are available.

Some companies, when they start out and only have a few computers and employees, make use of the limited built-in networking capabilities that all modern computers have. These are referred to as ‘peer-to-peer’ or ‘homegroup’ networking. This works for a handful of computers, but beyond this

simply becomes unmanageable, leading to the sorts of problems described in scenario 2 earlier. It is only when there is a dedicated centralised box – a server – that networking becomes properly viable in a business.

There are several possible routes. The simplest is called NAS or Networked Attached Storage. You may be familiar with the idea of a plug-in external hard disk; a NAS box is similar to that, but plugs into the network rather than into a USB socket on the computer. NAS boxes work very well for companies with up to around ½ dozen or so computers and only cost a couple of hundred pounds. A leading manufacturer is Buffalo; in a Macintosh environment, Apple's Time Capsule does a similar job.

For organisations with up to 10 computers, Windows Home Server 2011 is a great option. Despite the name, Windows Home Server is equally well suited to small business use as it is a real server product based upon Microsoft's mainstream business products, but somewhat simplified. Besides the shared folders and drives that a NAS provides, it also features remote access plus it backs up any computers connected to it. Windows Home Server is a piece of software costing about £100; it has to be installed on a server and a suitable one is the HP ProLiant Microserver, which costs a few hundred pounds.

Both NAS boxes and Windows Home Server will work with any modern Windows PC or Apple Macintosh. This is an important consideration for very small businesses as it means that consumer-type computers – the sort you buy in PC World, Comet, John Lewis and so on – can connect and make use of the features. However, so-called 'proper' servers require that your computers are running Professional versions of Windows, which cost more and tend not to be sold in High Street stores (they can be obtained from computer dealers or online sellers such as Dell).

For a small and growing business, the best solution is Windows Small Business Server 2011 Essentials. This can handle up to 25 computers and provides all of the capabilities described previously: shared areas, backups, remote access plus more. It builds on the pedigree of Small Business Server going back more than a decade, but has been streamlined to reflect modern methods of working. For instance, most small organisations will tend to use a hosted or internet-based email system and may also use hosted applications (e.g. Salesforce), but they still need in-house storage for their documents and other work. SBS 2011 Essentials has been specifically designed for this 'local plus Cloud' method of working which is only going to become more popular with time.

Setting up a network based on SBS 2011 Essentials is probably still too complicated for most small organisations, who will in any case want to concentrate their efforts on running their businesses rather than learning IT. The good news is that deployment is usually quick and simple for an IT consultancy, translating into lower setup and operating costs for the customer. Additionally, SBS 2011 does not have any ongoing licensing costs (anyone who has been involved with networks will be aware that such costs can be considerable). Servers from the likes of HP and Dell loaded with SBS 2011 are available for well under £1000.

Conclusion

Any business with more than two employees or computers should consider having a network installed. A properly installed network can make a business more effective, efficient, capable and allow more flexible methods of working. For very small businesses, a low-cost NAS solution is often appropriate. For businesses of up to 10 computers, Windows Home Server 2011 is a good option. For businesses with up to 25 people, or those that may expand to this size, Windows SBS 2011 Essentials is a preferred option. Networks that are simple to use but offer high levels of functionality cost a fraction of what they did just a few years ago, but professional installation is recommended and should also be budgeted for.