

## **SERVERS**

### **When do you need a Server?**

Do you have more than 1 computer you need a Local area Network (LAN) to enable you to share resources and files.

### **What else can you use a Server for?**

- If you also have a server, then you can centralise essential things like backups (you do backup regularly, don't you?)
- If you have windows client then you may think that the only choice is to have a Microsoft based server. This can however be an expensive solution, since you need to pay for each client to access the server, on top of the server operating system. The more clients you have then the more you pay. Then you will be open to all the worms, slammers and Trojan that have always plagued the Windows platform. You could spend more time patching up your server against an increasing number of security advisories than actually using it for what you bought it for in the first place.
- Be re-assured you are not alone! Don't get us wrong, there are some situations when you must run a Windows server, especially if you need Active Directory, especially if you are running and if you don't know what that is then you probably do not need it!

### **Client/Server Computing Model**

- A server is simply a specialised computer that enables you to share resources and hardware efficiently across a network.
- Other added benefits are centralised file, software and security management, and the possibility to back up all data stored on the server onto removable media that can be stored off site so that in the even of a fire or theft, the data can be restored.
- Finally, the adoptions of a client/server model will benefit all business practices, especially those where laptops are used, irrespective of the number of clients involved.
- The current trend towards the client/server model is a return to the computing paradigm of the 1970s where mainframes ruled the back corridors, with users attaching to files stored on the powerful servers through what were called dumb terminals.
- Then the computing paradigm shifted towards the autonomy of the client machine, with the desktop becoming all-powerful.
- Many of today's desktops that are running office applications are several times more powerful than the mainframes of yesteryear.
- Inevitably, the client/server model has returned, fuelled by security concerns and the need to conserve resources.
- Dumb terminals are now called thin clients that are now powerful, contain no moving parts(disks) to wear out and offer ultimate reliability. In some cases, thin clients with some server operating system can be any computer that has a screen, network card and some memory.
- The processing power all comes from the server, so very old PCs can be put back into service, offering significant savings. Servers are also more powerful, and affordable, so the argument for a client/server computing model is more compelling today.
- Unless your business demands that each clients do computing heavy tasks, the average business could be better served by adopting the server/thin client model.

**We have compiled this document below to enable you to judge how a server can meet your needs, so whatever your budget, we can provide a server.**

Thinking about your business and computing practice, how will you classify your computing needs?

- Do you store all your data on each individual machine?
- Do you need to share files and folders to get your daily work done?
- Would you like to control access to folders, and networked resources?

**How many machines do you have?**

- Less than 5
- 5 to 50 machines
- 50 to 500 machines
- More than 500 but less than 1000
- More than 1000 machines.

Would you like to run other network services such as a mail server, that combined with a broadband connection and your own domain name, allows you to run as many email addresses as you want and receive emails with unlimited file size attachments (dependent on your broadband connection speed), and with virtually unlimited user mailbox storage size(dependant on server hard disk) ?

Do you already have a network and would like to share resources more efficiently?

**OK, what System should I choose?**

#### **Microsoft Solutions**

If you are running Microsoft products, you may think that the latest turn around and focus on security by Microsoft means that you can safely deploy an all Microsoft solution, but you should be aware of the following issues:

- As Microsoft products are more singled out for attacks than any others, you really must NOT expose your Windows Active Directory server directly to the internet.
- Remember that this same server is your domain controller, holding all your users mailboxes, is a DHCP and DNS as well as many other services. Any compromises on this server means that an attacker has full control of your network
- Yes we know it is possible to run the Microsoft Small Business Servers and Windows servers with two network cards as a firewall, but have Microsoft ever been good at firewalls?
- Many corporate clients have been running third party security solutions in tandem with Microsoft servers, and they are certainly not going to abandon these in a hurry!
- Worried? You should be, as the alarming increases in the number of Microsoft specific worms has shown. Do not despair; the way to do it is to have a host that is more adept at facing the internet configured to work in tandem with your Microsoft network.

#### **Alternative Platforms**

Enter our Linux SME Server!

Advantages of the Linux SME broadband server

Linux based small business server with integrated firewall and broadband router, making it the most cost effective solution available. So it can be:

- A "bastion host" or defender for the Microsoft SBS 2003 for the ultimate in Active Directory Integration
- A standalone gateway/router/firewall/small business server offering Windows Primary Domain Controller facilities as well as limited Active Directory emulation
- A very capable Web(Apache), Mail(POSTFIX/SENDMAIL/EXIM etc), or Proxy(SQUID,PRIVOLY) servers, running over a DHCP assigned IP address, through the use of Dynamic DNS.

- Runs on modest, office grade hardware equipment, or best on a proper rack server, as used by ISPs.
- Immune to all the Microsoft slammer worms and viruses.
- Stable, time tested production grade server software at a small
- business price
- No additional client access fees to the server
- Integrates even better with other Open Source solutions like BSD Servers and Macintosh environments, especially OS X
- Run VPN services to connect hosts or networks together securely
- Specifically the SAMBA software enables you to replace windows NT/2000 Servers, with the latest version even emulating some Windows 2003 features:
- Save money while improving reliability and performance!
- Deploy Samba file and print services—step by step!
- Save money and improve network reliability!
- No Linux/UNIX knowledge required!
- Using Samba for file and print sharing can save you a fortune—and it can dramatically improve your network's reliability and performance!

#### **Advantages of the BSD UNIX Server**

BSD UNIX made the Internet what it is today, so is an excellent choice for:

- Extremely high volume websites and database servers, Hotmail, Yahoo, Sony etc.
- Classic UNIX Mission-critical environments
- Where a high level of UNIX in-house expertise exists
- Can run VPN services, but more involved to set up and maintain
- Very cost effective and runs on modest hardware

#### **Advantages of the Macintosh OS X:**

With the introduction of the OS X operating system, Apple have taken the BSD UNIX core and combined it with their hardware expertise to join the server systems big time! We recommend the OS X systems when:

- You must have an all Macintosh solution
- You need the ultimate multimedia Open Source platform
- You need to have those sleek X-serve boxes to drool over, and money is really no object

#### **So what is all this in plain English, I'm confused!**

With the Linux SME server box, if you have a standard ADSL or Cable

Broadband connection, you can easily:

- Share the ADSL connection with many computers(number depends on type of connection)
- Run a firewall and proxy server, this protects your entire network against hackers and is immune to all the nasty worms that plague Windows servers and clients. This makes the server the ideal protector for Windows servers(yes if you must Exchange servers) and windows 98-XP Desktop clients
- Run a mail server, on a BT OpenWorld, or Telewest/NTL Broadband connection even though you are probably on a dynamic IP addressing system, so no need for shelling out for static IP address.
- Register your own domain name through us, and you can have unlimited e-mail aliases like info@your-domain, anyone@your-domain and so on.
- If you go for a more advanced configuration, you can even get the up to 50 e-mail boxes or addresses and the mail sent to them scanned for the latest SPAM and Virus , BEFORE being delivered to your inbox and users. This leads to lots of productivity increases

- For network managers, bosses, teachers and the like, this box can act as a effective LAN Proxy server.
- This means that you can restrict access to adult sites, file-sharing and MP3 download sites.
- You can monitor, if you wish the entire LAN activity, and generate daily, weekly, monthly and yearly reports for whatever purpose you desire.
- The box enables file sharing between any combination of UNIX, Linux, Windows or Macintosh clients and servers.
- This box has excellent VPN capabilities for LAN-to-LAN (IPSEC) not host to LAN (LT2P) configurations. With a fast enough SDSL service, you can support a large number of Teleworkers.
- Even better do you have many branches located all over the globe? Connect them all with this box securely.