

## ISSUES TO CONSIDER WHEN DEPLOYING A SERVER IN YOUR ORGANISATION

### **1. Server Hardware requirements**

- As of 2006, SBS 2003 is probably the best value server package available from Microsoft for small organisations, especially for charities who can get it at almost no cost. But you will likely need a new server if yours is more than a few years old. See Microsoft's hardware requirements for SBS 2003. (**1ghz processor, 1ghz RAM**)  
(REF:<http://www.microsoft.com/Windowsserver2003/sbs/evaluation/sysreqs/default.mspix>)  
Bear in mind though when reading the above that their minimum requirements for XP are 64MB of RAM and a 233Mhz processor. Imagine that! (REF: <http://www.microsoft.com/windowsxp/pro/evaluation/sysreqs.mspix>) We find a **P4 2400ghz with a RAID card and 1GB of RAM** runs SBS acceptably well for about 10 workstations. Dual processor Xeons with SATA drives do rather more gracefully.
- Although a modern Linux server (Centos 4) deployment would work well on a P3 1Ghz, 512MB RAM, performance would be greatly improved on a **P4, 1.7Ghz, 512MB**.

### **2. Ongoing costs**

- **ANTIVIRUS:** A server anti-virus will be required to protect a windows server, currently costing between 450 and 950 per year for a 15-20 workstation network. Since Linux is not vulnerable to virus infections, this protection cost is reduced only to Windows workstations when using a Linux server.
- **FIREWALL and SECURITY:** Windows server operating system has an extraordinary history of vulnerabilities. MS regularly release updates and patches to vulnerabilities, but often long after they come into common use by hackers exploiting systems exposed on the internet. Critical Linux vulnerabilities on the other hand are less common and patches are usually released within hours of discovery. A windows server will need a hardware firewall or third party software at cost. Linux has iptables built-in, no cost.
- **MAINTENANCE:** Windows Servers are easier for a non-expert to maintain, until something goes wrong. Then they will need to get their heads around the quirks of Active Directory OU's and DOM structures, or pay someone to come and click a lot to fix things. The GUI has yet to become so feature-full with Linux, so if you want to use Linux on a mission-critical server, make sure you have Linux expertise in-house or that you are on an IT support contract with a Company who are expert. On a Linux server, an expert can achieve a level of automation that greatly reduces the ongoing maintenance costs.
- **SOFTWARE UPGRADES:** As your organisation grows and develops, the expectations your users have for their software will increase. To satisfy this you

will probably need to keep upgrading through the Windows product range long term license cost will build up. Open source software will also require upgrades but licenses cost will not be a factor. Note that upgrade deployment costs may be a little higher for OSS software since the applications tend not to be as smartly packaged as paid-for software. Also bear in mind the long term costs of using proprietary Office productivity software on your workstations, this is where you will really pay for upgrades. Once one user or colleague upgrades, others will not be able to read/collaborate with them until they upgrade too. Licenses may be cheap for charities today, but who knows what they will cost when Office 2009 comes out?

- **HARDWARE UPGRADES:** Linux tends to be a lot more forgiving than windows when upgrading hardware. Usually you can simply switch hard disk into a better computer, make a few small adjustments your server is on-line once more. Windows Servers are not so lucky, they will usually blue-screen and a re-installation will often be required, along with re-activation and other licensing issues.

### 3. Features

- This is where SBS2003 gets off to a flying start. With intuitive integrated groupware and calendaring software, which often just works out the box, Linux servers have some way to catch up on easy-installation. You do have to be careful of Vendor lock-in however, an organisation we know was left with no choice but to buy a 1000 pound piece of software in order to recover their email and calendar data locked up inside an exchange server that stopped working!

### 2. Ethical matters

- Many people object to the way in which Microsoft have dominated the software market and attempted to stifle competition, to the detriment of general progress.
- Some countries have chosen open source since it does not lock them into a future of managing their citizens data using solely closed-source MS products which they are not licensed to fix when they find bugs.
- As a charity with some ethical influence on your ICT investment, you may choose to use and support Open Source and Linux simply because it's development is based on sharing, collaboration and transparency as opposed to pure profit, and as a charity you might identify with this ideal.
- Perpetuating the problem.. this applies to the software you use on the workstations, the software your users train on and become familiar with. Although your organisation can afford the £12 charity license for MSOffice200x, can your volunteers afford the £384.98 (from amazon.com) license charged to individuals, so they can work from home, or write their CVs? Often they may get a "pirate" copy "from a friend", but this effectively criminalises them.

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