

Samba

Providing printing for a network is quite different to providing it for a single machine. On a single machine you simply attach a printer to the 'USB port' or 'parallel port'. However, for a network you have a dedicated machine (called a 'print server') that collects print jobs from any machine on the network, holds that job until a specified printer is ready (known as 'spooling'), and then feeds it to that printer. A good print server may also do a number of other useful things - like keeping track of usage statistics for departmental charging purposes, etc.

Printing in this way has a number of advantages. A major one is that it is far, far easier to administer - one or several central print servers are simpler for the IT team to look after than tens, hundreds or even thousands of different printers connected to and controlled by individual PCs all scattered around the building. Another advantage is that it increases the print options available - any user can send their print job to any selected printer (on the network), get back to work, then pick up the printed output later. They are no longer limited to the single printer directly attached to their PC. What we're replacing:

Walk into any IT department in the country and ask them what their biggest user complaints are. I guarantee two of the TOP complaints will be "email's not working!" and "printing's slow/not working!".

Printing can be an IT support nightmare. Many businesses do it with one of the various flavours of Windows Server Edition, and very often this is at the root of the problem...

Firstly, there are all of the usual Windows issues. Instability, low uptimes, unexplainable crashes that need a reformat and reinstall to 'fix', virus susceptibility, poor security and, not least, the high cost of licences, CALs, support etc. But, more than this, using it to control printers brings loads more! Print jobs get lost or stuck, printers print out gibberish, scalability is dreadful forcing an unnaturally high ratio of servers to printers. And sometimes, perhaps just to keep us on our toes, it just stops printing and needs a reboot.

However, what I find even more worrying is that using Windows as a print server also drives you towards, or locks you further into, a Windows-only infrastructure. Try serving Macintosh or UNIX workstations from a Windows print server - it 'can' be done, but it's not easy, it's slow and it's even more unreliable! And if the business does require print services for Macs, there are no options, you have to purchase the even more expensive Windows Advanced Server (did you know, by the way, even though it's a Mac, once it's connected, you have to pay a Client Access Licence for the privilege! Money and trees spring to mind).

Here's how to change all that and get the fast, reliable, platform neutral print services your business needs plus save a great deal of money while you are at it. Open Source, simply better software:

Once again, GNU/Linux and Open Source is simply the better business solution. As a print server, an Open Source solution is perfect. Since it is modular software, you only need to use the bits you require. This means you aren't forced to swamp the hardware with all that general purpose Windows code, you install made-for-the-job, fast, reliable, efficient modules that do precisely what you want. The end result? A lean, mean printing system that runs very, very happily on low spec hardware yet that delivers twice the speed of its Windows equivalent and is four times as scalable. And there are no licensing costs whatsoever. Now, won't the business like that!

Samba is the key to all this. After GNU/Linux, Samba is the 'crown jewels' of the Open Source world. You can think of it as an Open Source Windows Advanced Server on steroids. A network full of Windows desktops expects (in practice, demands) to see a Windows Server as its back-end. The genius of Samba is that it shows them one! Samba presents printers to your Windows desktops in exactly the same way as a Windows Server - so, from the user's perspective, it looks and feels like a Windows server. It is so seamless that all they see is that it is faster, it doesn't crash, and there are no viruses taking it out every few weeks.

Configuring Samba is simplicity itself edit a simple text file if you're an 'expert', fire up an easy-to-use GUI if you're not.

To complete the system you also need to install CUPS (the Common Unix Printing System) which handles the physical mechanics of printing. CUPS is a state-of-the-art printing system. Its many developers include HP's finest engineers, and they know a thing or two about printing so it ought to be good! Samba hands over the print jobs it receives from the Windows desktops to CUPS, which then handles the rest. Despite (or maybe because of...) the U for UNIX in the name, CUPS is a superior printing solution whether you're printing from UNIX, Windows or Apple Macintoshes. It is fully cross-platform and uses open protocols (IPP). It can handle any type, shape or breed of printer from lowly Deskjets to big lasers to esoteric poster printers, you name it, it handles it so no more problems with identifying, searching out and downloading drivers that work with the various versions of Windows you have in use. And once again, just like with Samba, configuring CUPS is a doddle text based or through a simple GUI.

So there you have it. A couple of day's work and you have all the printing system you'll ever need. And it really is as easy as that. You've now got a far more reliable, simpler and faster solution. You've eliminated one of the major causes of user complaints. You've reduced your exposure to, and dependency on, Windows technologies and the constant hardware/software upgrade treadmill they force you on. Even more, you've saved the business a great deal of money on hardware, support staff time, software licences and CALs.

And it's not through some kind of magic, it's simply because it's better software.