

SERVER SOFTWARE: WINDOWS SERVER 2003 AND SMALL BUSINESS SERVER 2003

Introduction

Microsoft's '2003' series of Windows Server software is a broad family of products. Here we focus on just two of the family members: Windows Server 2003 and Windows Small Business Server 2003 - the main Operating Systems on offer. For ease of reference, we will call the former 'Straight Server' and the latter 'SBS'. There are of course of non-Microsoft operating systems available for servers too such as Linux, Mac and Novell.

Server Roles Explained

It is extremely important to know what duties you expect from a server before buying one. If you don't already have an idea, you will find some useful guidance in the article "So you think you want a server?"

Historically speaking, server software was designed to perform a single function on a *network*. We thus talk about server 'roles' - functions that the server is responsible for dealing with rather than the individual PC's. Some common server roles are contained in the table below:

Common server roles

Role	Description
File Server	System for providing password protected document storage
Print Server	A central point for administering printers
<i>BackupServer</i>	Manages and monitors network backups
Web Server	A <i>hosting</i> platform for websites

Mail Server	Centralised system for downloading and distributing email
Proxy Server	Regulates/provides access to the web for multiple PC's/users

From around the mid 80's to early 90's, it was standard practise to have a separate machine for each role. However, as *hardware* has become more powerful, so server *software* has become more advanced. SBS and 'Straight Server' now represent a 'bundle' of different server software, permitting a single hardware system to perform multiple roles. These roles are discussed in more detail below.

Windows Server 2003: Advantages and Disadvantages

At the core of Windows Server 2003 is a *database* that stores details of all of the users and the permissions they are entitled to. This is known as Active Directory (AD). As well as using AD to govern access to files, 'Straight Server' performs print server and web server roles with little additional configuration. It is, in this sense, quite a basic server product. Contained within 'Straight Server' however is a suite of tools and functions that allow it to become the building block of a much more complex network environment.

The strength then of Windows Server 2003 lies in this dual role:

- As a relatively 'light' product, it can be up and running quickly and will handle file, print and backup roles with consummate ease.
- It can run on low-tech hardware and is easy to install. Unlike SBS, 'Straight Server' is very flexible and scalable: you can add additional server software from the 2003 family (at additional cost of course) when needed and can distribute and move roles between different hardware systems.
- Tools that form part of 'Straight Server' such as DFS (Distributed File System), allow for replication of files across multiple servers/sites such that users can logon anywhere on a network and access their files quickly.

However there are also some drawbacks to using Windows Server 2003, including:

- A major complaint about Microsoft Server products is that they are licensed 'per user' (Client Access Licences or CAL's). In other words, we are forced to pay more for each additional user (For not-for-profits, there are large discounts available on most MS products, especially Server CAL's).

- Another key drawback is that the control and administration of users and permissions is not very intuitive. 'Straight Server' requires some degree of ICT knowledge to administer even for predictable and routine tasks such as assigning permissions to users and folders.
- Windows 2003 servers (both 'Straight Server' and SBS) need all PC's on your network to be running either Windows 2000 or XP Professional Edition in order to work effectively.
- 'Straight Server' does not itself handle email. In order to do so one would require additional software.

Small Business Server 2003 Advantages and Drawbacks

SBS is designed for small organisations that will never have more than 50 users. It is a 'bundle' of server roles intended for a network with a single server machine. Advantages include:

- Exchange, SQL Server and SharePoint Services are part of SBS. It thus represents excellent value for money compared to buying these products separately (more so for businesses than Not-for-profits).
- With a simple system of licensing (packs of 5 CAL's, covering all of the software) it allows an organisation to easily acquire and keep track of the legal aspects of running Microsoft server software.
- The greatest advantage in running SBS is that one is buying into a fully featured system – as well as Active Directory, web and print services one has access to a shared email, calendar and contacts system; shared faxes; a richly featured intranet; and remote and mobile worker options.

In terms of drawbacks:

- SBS requires more powerful hardware and involves a more complex installation. It also pushes the limits of the NTBackup utility which comes as part of both SBS and 'Straight Server' and is likely to require a more powerful backup system.
- Crucially though, having a single SBS machine means that there is a single point of failure in your network and should it go down it could leave you with little or no functionality on your PC's.
- SBS is also less flexible than 'Straight Server' and the more advanced multi-server/multi-site configurations may not be possible. Nevertheless, SBS is a very well respected and popular Operating System and provides many organisations with all the features they will ever need in a convenient and highly cost effective package.

Licensing and Cost Comparisons

Microsoft's pricing varies due to the myriad of different licensing arrangements on offer. The table below summarises typical costs and eligibility criteria for server licensing. At the time of writing a huge discount on SBS was available to charities and has thus been listed below even though it is not an official Microsoft licensing stream.

When purchasing server products it is important to differentiate between the server product itself and the CAL. You will need one of the latter per user (or per PC). Under certain schemes you may also need a CD (known as a media kit) to install the product.

Software and approximate pricing Dec 2006

Licence Program	Eligibility	Windows Server 2003 Pricing	Server 2003 CAL Pricing	SBS 2003 Pricing	SBS CAL Pricing
Retail / fully packaged product	Anyone, anytime	£800	£170	£470	£370
OEM	Can only be supplied and installed on a new hard drive	£500	£85	£300	£200 for 5
Volume Licensing (corporate)	Open Agreement: Min qualification is 1 server product	£600	£30 per user	N/A	N/A
Volume Licencing (Academic)	Open Agreement: Min qualification is 1 server product plus end user organisation must have educational or charitable aims	£90	£5 per user	N/A	N/A
Special Select Agreements (e.g. CTX; and various Charity Software Suppliers)	Charities only: these are specially negotiated prices	N/A	N/A	£30	£30

Maintenance & Technical Support Considerations

Technical Support from Microsoft IS available for every Server product that is registered. Registered Members have access to a telephone number for 'Mission Critical' breakdowns and to newsgroups for everything else. However, this support is of a highly technical nature and most small organisations with a Windows Server will look to outsource technical support on a contractual basis (see the knowledgebase articles "Working with an IT support company" and "What to expect from an IT support contract" for more information)

Although it may be convenient to outsource server support for more complex matters, it is always advisable to glean certain information about your server software from your chosen installers. As an absolute minimum, you *must* have access to the Administrator account on the server (username and password) as without this you are effectively 'locked out'. You are also legally obliged to be able to produce evidence if you have bought Microsoft licenses. Upkeep matters such as adding & renaming users; checking for critical updates; monitoring *Antivirus* & backup systems (if controlled through the server) and checking the event log, should be learned and documented by someone 'on the inside' who will be responsible for IT matters.

Due largely to the presence of Exchange 2003, SBS is more troublesome and therefore more costly to maintain than 'Straight Server' itself. Administration of SBS however is wizard driven and is intended to simplify end-user tasks. In addition, there are a number of smaller IT support companies/consultancies with expertise built largely around the installation and support of SBS and pricing may reflect this.

Source: <http://www.ictknowledgebase.org.uk/windowsserversoftware>