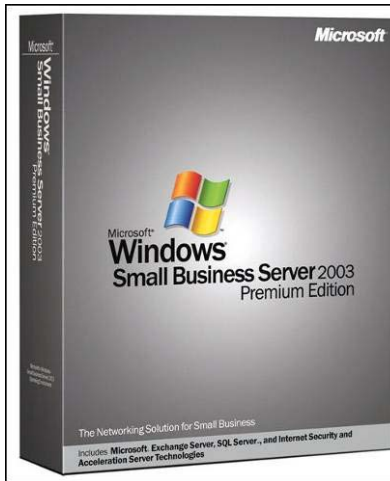


Summary

The aim of this article is to present some basic information about Small Business Server 2003 and how it can fit in with your business.



Topics

- What is Small Business Server? (also known as SBS)
- What is a server?
- The different versions of Small Business Server
- Some of the misconception and limitations of SBS
- Finally some basic recommendations about server hardware.

What is Small Business Server?

Let's start with what Small Business Server actually is.

Small Business Server, or SBS, is a Windows server software product from Microsoft. It combines a number of Microsoft technologies such as Windows and Exchange and then bundles them together to be installed on a single server.

What is a server?



Hewlett Packard ML350 Server

Probably the first thing that people want to know is what exactly is a server? Basically a server is something that provides resources for client computers. If you have a computer that stores information in files and another computer accesses this information, normally across a network, the computer with the information could be called a server.

Servers come in all shapes and sizes. Even Windows XP can act as a server which it does in many small networks. You can connect Windows XP machines together in what is known as a 'peer to peer' network to share files, printers and so on. This works great until you get about 5 machines connected together. At about this level, issues start to develop, such as managing different file versions, backing up information and keeping the information secure.

It is exactly at this point that Microsoft Small Business Server is aimed. For businesses that have grown beyond peer to peer networks and are still looking to expand, Small Business Server can help you solve many problems and yet still allow your business to grow.

How can you get Small Business Server?

How can you buy Small Business Server you may ask? Well, it is available in a number of forms but probably the most cost effective way to obtain Small Business Server is by purchasing it bundled in with new server hardware. Plenty of the big suppliers such as Hewlett Packard, Dell and IBM have deals that allow you to purchase a new server and have Small Business Server bundled and pre-installed. Otherwise you can purchase Small Business Server from where you normally purchase software.

So why do you need a server?

So why do you need a server? Probably the most likely reason that you want a server is to centralise your information and management

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of your network. With a server you'll also get improved security as well as being able to backup all your critical business information in one location. With a product like Small Business Server you'll get all this, remote access to all your Windows XP desktops via the Internet, a fax server so you can send and receive faxes directly from your desktop, Outlook 2003 for each workstation as well as a whole lot more. When you look at the value that's included with Small Business Server it's hard to beat.

Different versions

Benefit	Component	Standard	Premium
<ul style="list-style-type: none">• Protected, reliable operation system• File, print, and application sharing	Windows Server™ 2003	√	√
<ul style="list-style-type: none">• Internal company Web site (Intranet) for document and information sharing	Windows® SharePoint™ Services v2	√	√
<ul style="list-style-type: none">• E-mail and messaging solution• Shared calendaring• E-mail access via the Web	Microsoft® Exchange Server 2003 Microsoft® Office Outlook® 2003	√	√
<ul style="list-style-type: none">• Fax with fewer phone lines from desktops• Receive faxes via e-mail or printer	Microsoft® Shared Fax Service	√	√
<ul style="list-style-type: none">• Powerful database to run business applications	Microsoft® SQL Server™ 2000 / 2005		√

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<ul style="list-style-type: none">• Firewall for security; tools to manage and monitor internal Internet access	Microsoft® Internet and Security Acceleration (ISA) Server 2004	✓
<ul style="list-style-type: none">• Tools to develop Web sites	Microsoft® Office FrontPage® 2003	✓
Estimated Retail Pricing begins at	\$980*	\$2510*

Microsoft Small Business Server comes in two editions, Standard and Premium. The Premium edition has everything that comes with the Standard edition but also includes ISA server as well as SQL server. The Standard edition of Small Business Server is specifically targeted at those looking at their first server and is about half the price of the Premium edition. Don't worry, if you need to, you can always upgrade from the Standard to Premium at any time.

Client licenses

When you buy any version of Small Business Server you'll receive 5 client licenses. This allows you to connect up to 5 workstations to the server. If you have more workstations you need connected, then you can buy additional client licenses. These come in 5 and 20 user packs. So if you need to have a total of 10 workstations connected to your server you would purchase Small Business Server with the inbuilt 5 client licenses and then an additional 5 client license pack, giving you a total of 10 users.

As your business grows you can always add additional client packs as required.

You can connect most versions of Windows to Small Business Server but it is designed to work best with Windows XP Professional and Windows 2000 workstation. You can't connect Windows XP Home edition to a server, so be aware of that. You can also get Windows 98 machines to connect to SBS but they will have significant limitations on what they can and can't do. Our advice is, you should upgrade your machines so they are at least Windows 2000 Professional or better.



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Limitations

Small Business Server does have a few limitations. This is because it is aimed at small businesses in an effort to keep the costs down.

Firstly, Small Business Server only allows you to connect up to 75 clients in total to your network. If you need to grow beyond that then you'll have to purchase something called a transition pack. The important thing to take away is the fact that even beyond 75 clients Small Business Server is able to grow to meet your needs.

Secondly, all server software must reside on the same machine. Basically, this means that you can't install each component of Small Business Server on a separate machine. This usually isn't an issue for most small businesses.

The other major limitation is that Small Business Server must be the first server in your network. It is important to note that Small Business Server is not the only server you can have on your network, it just needs to be the first.

Misconceptions

It is important to note this fact, that you can have more than one server in a Small Business Server network; many people believe that is not the case. Why would you ever need a second server you may ask? Well, maybe you want to run a separate server as a web server or to run some specialized software that requires a dedicated machine. Again, whatever your business needs Small Business Server can accommodate you.

Another myth that needs to be dispelled is the fact that the products that come as part of Windows Small Business Server, such as Exchange and SQL, are not exactly the same as those used by large businesses. The SBS versions aren't cut down, or hobbled in some way, they are exactly the same, feature for feature. The limitation on the software is that imposed by Small Business Server which we spoke about a moment ago. For example, having to have all the software installed on a single server.

For those of you out there who already have Small Business Server let me say that using the inbuilt wizards makes things work much better. Some people will tell you that wizards don't work well I can assure that in Small Business Server they do and they not only make things far easier when you are setting it up but they also ensure that every time

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you run the wizard you get same consistent result. Why trust configuring your server to someone's memory? Use the wizards, I do!

Server recommendations

Server software only

It is important to remember with Small Business Server that you'll need a dedicated machine to function as a server. Although you could use the server as a workstation you never should. Programs that are designed for workstations will cause issues with server based software. So only install server software onto your Small Business Server.

Name brand bundles



We generally find that name brand bundles from people like HP and Dell offer the best value for money. Brand bundles also generally provide you with a good on site warranty but it is important to check the life of your warranty and whether it is "on site". An "on-site" warranty means someone from the supplier will attend your business and rectify any problems you have with the hardware. A "return to base" warranty, conversely means you will have to take the server back to the place from which you purchased it to have it repaired.

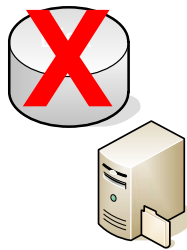
Because the server is now so important to your business we would generally recommend you aim for at least a 3 years "on site" warranty if at all possible.

RAID

When you purchase your server you should spend a little extra and get a system that stores data across multiple hard disks. Such a system is known as RAID. This means that if a single disk in the server fails your system won't stop.

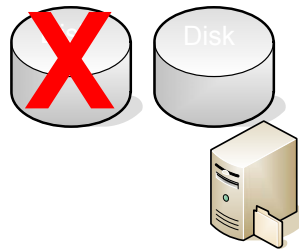
■ Redundant Array of Inexpensive Disks

Non - RAID



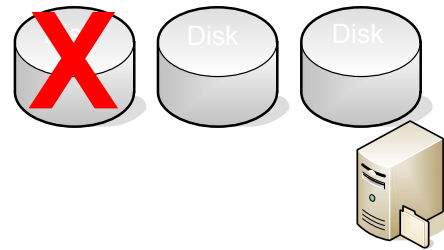
Data loss

RAID 1



No Data loss

RAID 5



No Data loss

In the above diagram you can see the effects of a failed hard disk on a number of server configurations. On the left, in a server with only a single hard disk, the failure results in data loss as well as downtime. However, the two systems to the right, which are configured with RAID, continue to operate without data loss since their information is spread across more than one disk.

To us it makes good sense to spend a few extra dollars and have a RAID hard disk system.

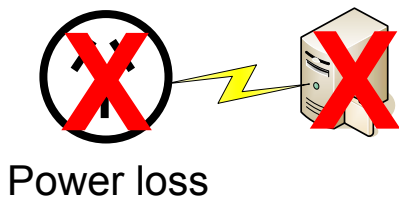
Memory

The maximum amount of memory that you can install on your Small Business Server is 4 GB. If possible it is always better to have the maximum amount of RAM added prior to implementation, but if this is not cost effective then we generally recommend you have at least 2GB of RAM. Small Business Server will run with as little as 384MB but generally we find that once you get your server up and running that 2GB of memory will allow the system to run most efficiently, otherwise performance will be affected.

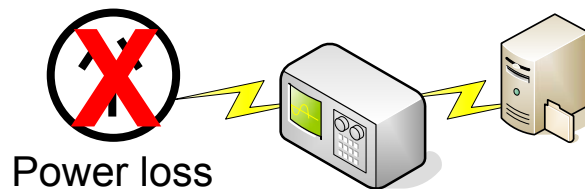
Uninterruptible Power Supply

■ Uninterruptible Power Supply

Non - UPS



Non - UPS



Data loss

No Data loss

Downtime

No Downtime

Another piece of insurance that is well worth the investment is an uninterruptible power supply, known as a UPS. This will provide your server with conditioned power ensuring it remains at constant levels unaffected by fluctuations. Another benefit of a UPS is that if for some reason the power to the UPS goes off, the server will continue to run from the batteries in the UPS. This will continue to happen to the limit of the UPS, which when low on battery power, will automatically communicate with the server and shut it down gracefully. The most likely cause of data corruption and problems on a server is when the power is switched off unexpectedly. A UPS prevents this.

Backup device

Another important issue to consider when purchasing hardware is a backup device. External hard disks are one option but are generally unable to be taken off site. If there is a fire or disaster at your office there is a very good chance that you'll lose not only the server but the backup hard disk, making recovery almost impossible. Using tapes and rotating the tapes off site is still probably the most cost effective method of disaster recovery. When you are considering a tape drive we generally also recommend you consider an external tape drive.



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Why? Well, imagine what would happen if a tape got caught in the drive unit. If you had an internal tape drive you would have to kick everyone off the server while you removed the tape drive and cleared the problem. With an external tape drive you can usually simply disconnect the tape drive from the server, without taking it down, and fix the jam. Also, if you upgrade your server at some stage in the future you could simply plug the external tape drive into the new server and start using it. Simple and easy. Sure an external tape drive may cost you a few dollars more but we think that being external makes greater sense and is worth the small incremental cost.

Recommended reading

If you are looking for some good books on Small Business Server we would recommend the following three:

- *SBS2003 Administrator's companion* by Charlie Russel, Sharon Crawford
- *Windows Small Business Server Best Practices* by Harry Brelsford.
- *Microsoft Small Business Server 2003 unleashed* by Eric Neale.

There are also plenty of good web sites on the internet dealing with SBS. Rather than go through them here I'd be happy to email the list through to you. Simply send me an email. My email address is: robert@saturnalliance.com.au.

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Conclusion

Unfortunately, we have reached the end of this brief introduction to Microsoft Small Business Server. There is just so much more that we could talk to you about. Things like creating users and workstations, configuring backups and monitoring as well as connecting to the Internet. Not to mention things like setting up anti virus and keeping you server up to date. If you are interested in further material about Small Business Server please let me know, again via robert@saturnalliance.com.au.

We hope that you've gained some insight into exactly what SBS can and can't do. We also hope that we've given you some information that will assist you if you are looking to install an SBS system.

Remember, if you need assistance, support or training on SBS please don't hesitate to contact us here at Saturn Alliance on 1300 85 77 15 or email info@saturnalliance.com.au. As a special offer to you for downloading this article, we'll provide you with a free two hour technology assessment, including a written report. This is normally valued at over \$240.

So please contact us at 1300 85 77 15 or info@saturnalliance.com.au to arrange your free assessment.

We thank you for taking the time to read our presentation and wish you every success in your business.