Prescriptive Checklist: Migrating from SBS 2003 to SBS 2008

Windows Small Business Server is designed to run on a single server and is capable of providing all the services and applications that are needed by a small business. Migration involves moving a customer’s entire IT infrastructure from one set of hardware to another, and this can include line-of-business applications, intranet sites, and user data. Seen from the outside, migration appears to be a complex, daunting task. A successful migration requires an understanding of your customer’s environment, plus knowledge of the steps needed and things to watch for while performing the migration.

This migration checklist helps you migrate from SBS 2003 to SBS 2008. It is meant to be used as a quick guide to other tools and in-depth documents. Using this checklist and the other tools, you will be able to complete your migrations successfully for your customers.

# Plan

Migration is a process that requires knowledge, foresight, and skill. But once you know what lies ahead, you will be better equipped to perform migrations efficiently and smoothly.

* **Watch the migration demos and training courses available on the Microsoft Web site.**
	+ [SBS 2008 Migration Demo and Interview](http://blogs.technet.com/sbs/archive/2008/07/10/sbs-2008-migration-demo-and-interview.aspx) (http://blogs.technet.com/sbs/archive/2008/07/10/sbs-2008-migration-demo-and-interview.aspx).
	+ [Windows Small Business Server 2008 Click thru Demo - Migration from SBS 2003](http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=31d3f757-9118-4f12-9db2-296c4729cd5e) (http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=31d3f757-9118-4f12-9db2-296c4729cd5e).
	+ [WES04PAL: Windows SBS 2008 Core Technical Training, Part 3 of 8: Migration](https://training.partner.microsoft.com/plc/details.aspx?systemid=1822160&page=/plc/search.aspx) (https://training.partner.microsoft.com/plc/details.aspx?systemid=1822160&page=/plc/search.aspx). These materials are available to registered partners and registration is free.
* **Read and study these two documents before starting.** This checklist is directly linked to the two documents listed below. These two resources are referred to throughout this checklist, so you should read and study them in advance of performing a customer migration.
	+ **Microsoft Migration document.** Migrating to Windows Small Business Server 2008 from Windows Small Business Server 2003 (<http://go.microsoft.com/fwlink/?LinkID=117499>)
	+ **Keys to Success.** Official SBS Blog post, SBS 2008 Migrations from SBS 2003 – Keys to Success (<http://blogs.technet.com/sbs/archive/2009/02/19/sbs-2008-migrations-from-sbs-2003-keys-to-success.aspx> )
* **Practice a migration yourself in a test environment.** This way you know what to expect. This also allows you to test the hardware and verify you have the necessary software updates and drivers available.
* **Plan the migration of a customer’s line-of-business applications.** Check with application manufacturers for hardware requirements, operating system or component dependencies, or application upgrades. Check the manufacturer’s Web site for information on how to migrate applications data migration tools to help move to new hardware. This may include providing 32-bit printer drivers for 32-bit clients on the network. See the blog post “How to Add 32-bit Print Drivers to SBS 2008” (<http://blogs.technet.com/sbs/archive/2009/02/13/how-to-add-32-bit-print-drivers-to-sbs-2008.aspx>) for more information.
* **Determine the amount of time needed for each phase of migration.** Each customer migration will require different amounts of time, depending on customer scheduling, number of applications, and quantity of data. After you practice a migration in your own environment you should create a plan that estimates how much time will be needed to complete the migration. Allow plenty of time for the Preparation phase so that you can address any issues found by the Best Practice Analyzers and EBS Planning and Preparation Tool. As a starting point you can use a planning chart developed for the Essential Business Server 2008 product. You can find the chart on the [Microsoft EBS Team Blog](http://go.microsoft.com/fwlink/?LinkID=9697977) (<http://go.microsoft.com/fwlink/?LinkID=9697977>).

# Prepare

Windows SBS has been designed so that you can perform a migration with as little business disruption as possible. You can take as much time as you want on the steps in this section, fitting them to the customer’s business hours and giving you the ability to keep the customer working while you prepare for the next steps.

* **Back up the server running SBS 2003.** Before you take the next steps in the migration, ensure you can return to a known good state for your customer. This will give you leeway in case you need to do more research or troubleshoot issues that you may encounter during the migration.
* **Test your backup.** Restore the SBS 2003 Server from the backup. You should test a full restore to ensure the whole backup is available in case it is needed. Test the restore on the server running SBS 2003.
* **Make a system state backup.** Make a system state backup so you can return the server running SBS 2003 to a known-good state. Keep the system state backup until the migration process is complete.
* **Uninstall ISA Server 2004.** If ISA Server 2004 is installed on the server running SBS 2003, you must uninstall it before you can begin the migration.
	+ **Uninstall the ISA Server 2004 desktop client.** To uninstall the ISA Server 2004 desktop client, follow the instructions in [this blog post](http://msmvps.com/blogs/kwsupport/archive/2008/09/07/uninstalling-isa-2004.aspx) (http://msmvps.com/blogs/kwsupport/archive/2008/09/07/uninstalling-isa-2004.aspx).
	+ **Export your third-party SSL certificates.** If you have any third-party SSL certificates installed on the server running ISA Server 2004, you should export the certificate for reinstallation on SBS 2003.
	+ **Uninstall ISA Server 2004.** Uninstall ISA Server 2004 from Control Panel using Add or Remove Programs.
	+ **Import your third-party SSL certificates.** Once you have uninstalled ISA Server 2004 you will need to import your third-party SSL certificates onto the server running SBS 2003. To import your certificates, follow the instructions starting with the section “Installing the SSL Certificate into IIS” in [this blog post](http://blogs.technet.com/sbs/archive/2007/08/21/how-to-install-a-public-3rd-party-ssl-certificate-on-iis-on-sbs-2003.aspx) (http://blogs.technet.com/sbs/archive/2007/08/21/how-to-install-a-public-3rd-party-ssl-certificate-on-iis-on-sbs-2003.aspx).
* **Verify the server is configured for a single NIC.** SBS 2008 can only be configured as a single-NIC server. SBS 2008 does not support a dual-NIC configuration and so it does not support running ISA on SBS 2008. If the server running SBS 2003 is using a dual-NIC configuration, it must be reconfigured to use a single NIC before you can proceed with the migration. Follow the instructions on pages 10 through 12 in the Microsoft migration document.
* **Install the most recent service packs and software updates.** The migration process requires that SBS 2003 be on SBS 2003 SP1, Windows Server 2003 SP2, Exchange Server 2003 SP2, SharePoint Services 2.0 SP3, and core software components be installed.
	+ **SBS 2003 SP1.** Browse to registry key HKLM\SOFTWARE\Microsoft\SmallBusinesServer\ServicePackNumber. If the value is 0x00000001, then SP1 is installed.
	+ **Windows Server 2003 SP2.** Right-click Computer and then click Properties. The service pack level is listed on the properties page.
	+ **Exchange Server 2003 SP2.** Click Exchange System manager | Exchange Administrative Group | First administrative group |Servers, right-click the server name, click Properties, and then click the General tab. The service pack version is listed on the tab.
	+ **Windows SharePoint Services 2.0 SP3.** Go to Control Panel | Add or Remove Programs. Select Microsoft Windows SharePoint Services 2.0, and then click “Click here for support information”. If the version number is 11.0.8173.0, SP3 is installed. If you install the SharePoint Services service pack, verify that the CompanyWeb site is updated correctly:
		- Click Administrative Tools | SharePoint Central Administration |Central Administration |Configure virtual server settings |Virtual Server Configuration section. On the Virtual Server List page, verify that the version for the CompanyWeb site is 6.0.2.8165
		- If not, open a command prompt, browse to c:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\60\Bin and then run the command:
		stsadm -o upgrade -forceupgrade –url http://companyweb
	+ **MSXML 6.0 SP1.** Browse to c:\Windows\System32\MSXML6.dll. If the version number 6.10.1129.0 or higher, then the service pack is installed.
	+ **.NET Framework 2.0.** Go to Control Panel |Add or Remove Programs to verify whether it is installed.
	+ **Microsoft SQL Server Management Studio Express Service Pack 2.** If you will be migrating your Companyweb SharePoint site, you will need this service pack. Go to Control Panel | Add or Remove Programs to verify whether it is installed.
* **Raise the functional level of the Active Directory domain and forest.** Follow the instructions on pages 12 through 14 in the Microsoft migration document.
* **Evaluate the health of SBS 2003.** Follow the instructions on pages 14 through 16 in the Microsoft migration document. Run the following tools on the server running SBS 2003:
	+ [SBS 2003 Best Practices Analyzer](http://go.microsoft.com/fwlink/?LinkID=130639) (http://go.microsoft.com/fwlink/?LinkID=130639). When you download the SBS 2003 BPA, it automatically checks for and downloads the latest configuration file to determine the latest best practice compliance rules. You can manually check to ensure that you have the latest version by clicking About the Best Practices Analyzer. As of March 31, 2009, the latest configuration file version is 2.1.26.0.
	+ [Exchange BPA](http://go.microsoft.com/fwlink/?LinkID=107393) (http://go.microsoft.com/fwlink/?LinkID=107393)
	+ [Essential Business Server 2008 Planning and Preparation Tool](http://go.microsoft.com/fwlink/?LinkID=9670124) (http://go.microsoft.com/fwlink/?LinkID=9670124)

Fix all issues reported by these tools before proceeding with migration. Once you have fixed these issues, if there are other domain controllers on the network, force Active Directory replication by opening a command window and then typing gpupdate /force at the prompt.

* **Rename the Postmaster account.** SBS 2008 setup tries to create a Distribution List with the SAM account name of Postmaster. If the account already exists, setup generates errors that will prevent you from completing the migration. The SBS 2003 BPA with the latest updates checks for this condition. Rename the Postmaster account to avoid these errors. For more information on how to do this, see the Keys to Success blog post.
* **Remove Mailbox Management policies.** Exchange 2000 and Exchange 2003 used Mailbox Management policies for some types of e-mail. If these policies exist on the server running SBS 2003, setup will generate errors that will prevent you from completing the migration. Exchange BPA 2.8 checks for this condition. Remove Mailbox Management policies from the server running SBS 2003. For more information on how to do this, see the Keys to Success blog post.
* **Remove duplicate or incorrect SMTP addresses.** Exchange 2000 and Exchange 2003 may have duplicate or incorrect SMTP addresses in recipient policies. If these addresses exist on the server running SBS 2003, setup will generate errors that will prevent you from completing the migration. The SBS 2003 BPA with the latest updates checks for this condition. Remove the duplicate or incorrect SMTP addresses from Exchange. For more information on how to do this, see the Keys to Success blog post.
* **Optimize Exchange Server and mailboxes.** Follow the instructions on pages 16 through 17 in the Microsoft migration document.
	+ Empty the Deleted Items folder.
	+ Archive older mail
* **Change the installation account’s group membership.** The account you use to install SBS 2008 into the domain must have administrator privileges. However, the installation account cannot be a member of Domain Admins, Enterprise Admins, or Schema Admins, otherwise setup will generate errors. You must change the installation account’s group membership to something other than these three groups.
	+ In the user account’s properties, click Member Of.
	+ If the Primary group is Domain Admins, Enterprise Admins or Schema Admins, select Domain Users and then click Set Primary Group.
* **Synchronize the server running SBS 2003 with an external time source.** Follow the instructions on page 17 in the Microsoft migration document.
	+ Click Start, click Run, type cmd in the text box, and then press ENTER.
	+ At the command prompt, type w32tm /config /syncfromflags:domhier /reliable:no /update, and then press ENTER.
	+ At the command prompt, type net stop w32time, and then press ENTER.
	+ At the command prompt, type net start w32time, and then press ENTER.
* **Perform any pre-migration steps needed for your line-of-business applications.** Follow manufacturer instructions for your specific applications so you can move the application and data to new hardware.

# Migrate

Once you run the Migration Preparation tool, you have 21 days to complete the migration process and shut down the server running SBS 2003. Most of the steps in this section are detailed in the Microsoft migration document.

* **Run the Migration Preparation Tool.** Follow the steps on pages 17 through 19 in the Microsoft migration document. The Migration Preparation tool performs the following tasks:
	+ Installs update KB943494 on the SBS 2003 server to extend the migration grace period from 7 to 21 days.
	+ Runs ADPREP to update the forest, domain, and group policy object access control entries.
	+ Changes Exchange 2003 from mixed mode to native mode.
	+ Adds the Authenticated Users group to the Pre-Windows 2000 security group.

These tasks are required so that existing accounts and permissions can be migrated to the new server. If you do any of these tasks manually and you generate warnings during the process, you must restart the migration process from a backup. NOTE: the version of SBS 2008 that includes Windows Server 2008 Service Pack 2 requires that you run this tool before you are allowed to perform a migration.

* **Create a migration answer file.** Follow the steps on pages 19 through 23 in the Microsoft migration document.
	+ Collect the information for the migration answer file.
	+ Run the Answer File Tool. When you create a migration answer file, leave the Certificate authority name blank. For more information, see [this blog post](http://sbs.seandaniel.com/2008/08/gotcha-using-sbs-2008-answer-file.html) (http://sbs.seandaniel.com/2008/08/gotcha-using-sbs-2008-answer-file.html).
	+ Copy the answer file to removable media such as a USB memory card.
	+ On the destination server, change the BIOS settings so the server will not boot from the type of removable media used to store the migration answer file.
* **Make a system state backup.** Before insert the SBS 2008 setup disk, make a system state backup. Keep the system state backup until the migration process is complete.
* **Install Windows Small Business Server 2008 in Migration Mode.** Follow the instructions on pages 23 through 28 in the Microsoft migration document.
	+ Configure folder redirection
	+ Start the Migration Wizard
* **Migrate settings and data to the new server.** Follow the instructions on pages 28 through 70 in the Microsoft migration document.
	+ Change where to store data on the Destination Server
	+ Configure the network
	+ Configure the Internet address and leave IPv6 enabled. If you disable it improperly or incorrectly, you will see numerous network issues, including Exchange failing to start. For more information see [this blog post](http://blogs.technet.com/sbs/archive/2008/10/24/issues-after-disabling-ipv6-on-your-nic-on-sbs-2008.aspx) on the Microsoft Web site (http://blogs.technet.com/sbs/archive/2008/10/24/issues-after-disabling-ipv6-on-your-nic-on-sbs-2008.aspx).
	+ Migrate network settings
	+ Migrate certificates
	+ Migrate Exchange mailboxes and settings
	+ Remove Internet connectors
	+ Migrate POP3 connectors
	+ Move Exchange Server public folders
	+ Move the Offline Address Book
	+ Move mailboxes
	+ Enable circular logging on storage groups
	+ Remove legacy Group Policy objects and logon settings
	+ Remove old logon scripts
	+ Remove old Group Policy objects
	+ Migrate users' shared data
	+ Configure a new shared volume on the Destination Server
	+ Copy users' shared folders to the Destination Server
	+ Copy additional shared folders to the Destination Server
	+ Migrate the internal Web site
	+ Steps performed on the Source Server
	+ Steps performed on the Destination Server
	+ Migrate fax data
	+ Migrate user accounts and groups
	+ Enable folder redirection on the Destination Server
	+ Migrate SQL Server data
	+ Install a new instance of SQL Server 2008
	+ Migrate a SharePoint instance of SQL Server 2000 Standard
	+ Migrate a SharePoint instance of SQL Server 2005 Workgroup
	+ Migrate a SQL Server 2000 instance or SQL Server 2005 instance to SQL Server 2008
	+ Specify SQL Server collation settings
	+ Migrate Terminal Service licensing server
* **Remove the Last Legacy Exchange Server from an Organization.** Before you can uninstall Exchange 2003 from the SBS 2003 server, follow the steps to remove the last legacy Exchange Server from an organization. Exchange 2000 and Exchange 2003 use legacy services that are no longer supported by Exchange 2007. For a list of the legacy services and the steps necessary to remove the legacy server, see the [Microsoft Web site](http://go.microsoft.com/fwlink/?LinkId=141927) (http://go.microsoft.com/fwlink/?LinkId=141927).
* **Uninstall Exchange 2003 from the server running SBS 2003.** Follow the instructions on pages 70 through 71 in the Microsoft migration document. You will need the SBS 2003 installation media to remove Exchange from the server running SBS 2003.
* **Demote and remove the SBS 2003 server from the network.** Follow the instructions on pages 72 through 73 in the Microsoft migration document. Keep the server for at least one week before you repurpose it.
* **Delete the old Folder Redirection Group Policy object.** Follow the instructions on pages 73 through 74 in the Microsoft migration document.
* **Give the built-in Administrator group the right to log on as a batch job.** Follow the instructions on pages 74 through 75 in the Microsoft migration document.

# Post-Migration

These post-migration tasks help you finish setting up SBS 2008 with some of the same settings that were on SBS 2003. You may have disabled some of these settings on SBS 2003 during the migration process, so they were not migrated to SBS 2008, or they are optional configuration steps that you may want to perform for your customers.

* **Complete your post-migration tasks.** Follow the instructions on pages 75 through 78 in the Microsoft migration document.
	+ Manage natively joined computer objects in Windows SBS Console
	+ Remove Source Server entries from DNS
	+ Configure POP3 Connectors
	+ Update mailbox quotas
	+ Share line-of-business and other application data folders
	+ Install 32-bit printer drivers on the server running SBS 2008. See the blog post <http://blogs.technet.com/sbs/archive/2009/02/13/how-to-add-32-bit-print-drivers-to-sbs-2008.aspx> for more information
	+ Fix client computer issues after migrating from SBS 2003
* **Update the server running SBS 2008.** The Windows Software Update Service automatically downloads the product updates for your server. You can run the update process and then review the product updates for your server in the management console. Ensure that you apply the latest version of the Exchange 2007 rollup update.
* **Run the SBS 2008 BPA.** Once Setup is complete, run the [Windows Small Business Server 2008 Best Practices Analyzer](http://go.microsoft.com/fwlink/?LinkId=130639) (http://go.microsoft.com/fwlink/?LinkId=130639). The SBS 2008 BPA will identify issues relating to Active Directory, the registry, and the metabase. You can find out more about the SBS 2008 BPA on the [Microsoft Web site](http://go.microsoft.com/fwlink/?LinkID=129232) (http://go.microsoft.com/fwlink/?LinkID=129232).
* **Migrate your line-of-business applications.** Follow the manufacturer instructions for moving your applications and data to new hardware.

# Resources

Migrate to Windows Small Business Server 2008 from Windows Small Business Server 2003 [http://technet.microsoft.com/en-us/library/cc546034(WS.10).aspx](http://technet.microsoft.com/en-us/library/cc546034%28WS.10%29.aspx)

Migrating to Windows Small Business Server 2008 from Windows Small Business Server 2003 <http://go.microsoft.com/fwlink/?LinkID=117499>

Official Windows Small Business Server 2008 Public Newsgroup
<https://connect.microsoft.com/sbs08/community/discussion/richui/default.aspx>

SBS 2008 Migrations from SBS 2003 – Keys to Success <http://blogs.technet.com/sbs/archive/2009/02/19/sbs-2008-migrations-from-sbs-2003-keys-to-success.aspx>

Windows Small Business Server 2003 Best Practices Analyzer <http://go.microsoft.com/fwlink/?LinkID=113752>

Windows Small Business Server 2008 Best Practices Analyzer
<http://go.microsoft.com/fwlink/?LinkID=130639>

Windows Essential Business Server Preparation and Planning Wizards <http://go.microsoft.com/fwlink/?LinkID=9670124>

Exchange Best Practices Analyzer 2.8
<http://go.microsoft.com/fwlink/?LinkID=107393>

Uninstalling ISA 2004 from SBS 2003 <http://msmvps.com/blogs/kwsupport/archive/2008/09/07/uninstalling-isa-2004.aspx>

How to Add 32-bit Print Drivers to SBS 2008
<http://blogs.technet.com/sbs/archive/2009/02/13/how-to-add-32-bit-print-drivers-to-sbs-2008.aspx>

How to Install a Public 3rd Party SSL Certificate on IIS on SBS 2003 <http://blogs.technet.com/sbs/archive/2007/08/21/how-to-install-a-public-3rd-party-ssl-certificate-on-iis-on-sbs-2003.aspx>