

Instructions for installing Microsoft Windows Small Business Server 2003 R2 on HP ProLiant servers

integration note



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Abstract

This integration note provides instructions for installing the Standard and Premium Editions of the Microsoft Windows Small Business Server (SBS) 2003 R2 core operating system (OS) on specified HP ProLiant servers.



NOTE: Instructions for installing the SBS applications included in the supported editions are not covered in this paper. Refer to Microsoft documentation for assistance in this area:
<http://www.microsoft.com/WindowsServer2003/sbs/techinfo/productdoc>.



NOTE: HP tc servers are not supported with Windows SBS 2003 R2. Customers using tc servers should install Microsoft Windows Small Business Server with Service Pack 1 (SP1).



NOTE: Microsoft does not support upgrades from Microsoft Windows SBS 4.5 to Windows SBS 2003 or to Windows SBS 2003 R2.

The instructions provided in this paper should be used as guidelines to help identify and install HP drivers required for a successful installation of Windows SBS 2003 R2.

Installation requirements checklists

This section identifies the hardware and software requirements for installing Windows SBS 2003 R2 on ProLiant servers.



NOTE: For a current list of servers supported with Windows SBS 2003 R2, refer to the ProLiant Software Support Matrix at: <http://h10018.www1.hp.com/wwsolutions/windows/index-all.html>.

HP ProLiant server checklist

The following are hardware and software requirements for installation onto HP ProLiant series servers:

☐ One of the following servers:

- HP ProLiant ML100 series servers:
 - HP ProLiant ML110 G1/G2/G3/G4
 - HP ProLiant ML150 G1/G2/G3
- HP ProLiant ML300 series servers:
 - HP ProLiant ML310 G1/G2/G3
 - HP ProLiant ML330 G1/G2/G3
 - HP ProLiant ML350 G1/G2/G3/G4p/G5
 - HP ProLiant ML370 G1/G2/G3/G4/G5



NOTE: Servers must be configured with a 750-MHz processor (minimum) (1-GHz processor is recommended).

- ☐ 1.44-MB diskette drive
- ☐ At least 1 blank diskette
- ☐ Microsoft Windows SBS 2003 R2 Standard OS
- ☐ HP Server Support and Documentation CD (included with the server)
- ☐ 512 MB of RAM (minimum) (1GB to 4 GB of RAM recommended)
- ☐ Computer monitor, keyboard, and mouse (resolution of 800 x 600 or more recommended)
- ☐ One of the following network interface controller (NIC) configurations:
 - 2 NICs
 - 1 NIC and 1 modem
 - 1 NIC and an external hardware firewall
- ☐ Hard drive with 16 GB of free space (minimum) (formatted as NTFS)
- ☐ CD-ROM drive
- ☐ Microsoft Windows SBS 2003 R2 Standard OS
- ☐ HP ProLiant Support Pack (PSP) for Microsoft Windows Server 2003
- ☐ HP SmartStart CD Version 7.50 (or higher) (included with the server or downloadable from www.hp.com/servers/smartstart)



NOTE: SmartStart 7.50 does not provide the Assisted Path installation of Windows SBS 2003 R2. The Assisted Path installation will be available in a future release of SmartStart.

Windows SBS 2003 R2 installation checklist for supported ProLiant servers

- ☐ Name of licensee for Windows SBS 2003 R2
- ☐ Name of your organization
- ☐ Name of server
- ☐ Name of domain
- ☐ Product ID for the Windows SBS 2003 R2 (see software packaging)



NOTE: The product ID is automatically pre-populated and activated when using the HP version of Windows SBS 2003 R2.

Servers with modems checklist

Refer to Windows SBS 2003 R2 user documentation for the services that will be available with various modem types.

- ☐ Driver for modem (supplied by the modem manufacturer)
- ☐ Area code and phone number for telephone line(s) connected to modem(s)

Installation process for supported ProLiant ML300 series servers

Windows SBS 2003 R2 is installed onto a supported ProLiant ML300 series server using SmartStart. To install Windows SBS 2003 R2, complete the steps outlined in the following two sections:

- Part 1—Installing the Windows SBS 2003 R2 with the PSP
- Part 2—Installing and configuring a modem.

Part 1: Installing Windows SBS 2003 R2 with SmartStart

This section guides you through the SmartStart Assisted Install Path to install Windows SBS 2003 or Windows SBS 2003 R2 onto a supported ProLiant ML300 series server. The following instructions are applicable for both Windows SBS 2003 base media and for Windows SBS 2003 R2 media. The OS installed is dependent upon the OS media inserted into the CD-ROM drive in Step 11.

1. Insert the SmartStart CD into the CD-ROM drive and power on the server.



NOTE: SmartStart 7.50 does not support Assisted Installation of Windows SBS 2003 R2. Customers may use the SmartStart 7.50 Assisted Installation of Windows SBS 2003 R2; however, the existing Windows SBS 2003 SP1 OS selection must be chosen. A future release of SmartStart will provide an Assisted Installation path option for Windows SBS 2003 R2.



NOTE: A SmartStart CD ships with ProLiant 300 series servers. A later version of the SmartStart CD image may be downloaded at: www.hp.com/servers/smartstart.

2. Select the language to use during the SmartStart process by clicking the appropriate radio button. Also, select the keyboard language to be used with this system by choosing the appropriate language from the drop-down menu. Then, click the **Continue** button.
3. Review the Licensing Agreement, and click the **Agree** button if you agree.
4. Click the **Deploy Server** button, and click the **Continue** button.
5. On the "Server Deployment — Hardware Configuration" screen, there are options available that allow for the configuration of additional hardware. For instance, if the server contains a logical drive, you may choose to launch the ACU to perform the configuration. To accept the default hardware configuration, click the **Continue** button.
6. Select the specific OS version by expanding the tree lists. Expand the **Microsoft Windows 2003** list, click the **Microsoft Windows 2003 Small Business Server** entry to select it, and click the **Continue** button.
7. Select the Boot Partition size, and click the **Continue** button.
8. Enter the OS Configuration Information in the window boxes, and click the **Continue** button.
9. Perform the SNMP configuration steps below to enable support for the HP Insight Management Agents:
 - Select the **Install SNMP** check box.
 - Enter the community strings and IP address information into the appropriate window boxes.
 - Click the **Continue** button.



NOTE: For the HP Insight Management Agents to function properly, SNMP installation and configuration is required before installing the PSP. The SNMP Service default security is set to no community string and no community rights. With these settings, the Insight Management Agents Version 6.1 (or earlier) will be unable to display the Version Control inventory on the Version Control Agents Home Page. SNMP is not installed by default.



CAUTION: A potential security risk exists due to SNMP messages being sent in clear text. These clear text messages are easily intercepted and decoded by network analyzers, such as Microsoft Network Monitor. Community names can be captured and used by unauthorized personnel to gain valuable information about network resources.

10. After receiving a warning that the drives will be erased, click the **Continue** button. At this point, the drivers and the PSP will be installed.
11. Upon the automatic ejection of the SmartStart CD and the prompting to insert the OS CD, insert the Windows SBS 2003 R2 Disk 1, and click the **Continue** button. Once the OS data files are copied, the OS CD will be ejected and the server will be rebooted automatically. This step marks the beginning of the OS installation.
12. Follow the on-screen instructions to complete the OS installation.

Part 2: Installing and configuring a modem

Windows SBS 2003 R2 may not contain the correct drivers for the server's modem. If a modem is installed after Windows SBS 2003 R2 installation completes, the Hardware Wizard runs automatically.

1. When the Welcome to the **Found New Hardware Wizard** window displays, click **Next**.
2. In the Install Hardware **Device Drivers** window, search for a suitable driver for the device, and click **Next**.
3. Select from the Optional search locations on the **Locate Driver Files** window. Provide the OEM driver if it is located on a diskette, and click **Next**. After the wizard completes the search, it displays the driver it found for the modem.
4. Click **Next** to install the found driver.
5. Click **Finish** to complete the Found New Hardware Wizard. The modem should now be functional with Windows SBS 2003 R2.



NOTE: If while running the Hardware Wizard you are unable to locate the appropriate driver for the modem, contact the modem manufacturer or visit their website to locate the driver.

Installation process for supported ProLiant ML100 series servers

To install Windows SBS 2003 R2 onto a supported ProLiant ML100 series server, complete the steps outlined in the following sections:

- Part 1—Creating storage media for use during the installation
- Part 2—Installing Microsoft Windows SBS 2003 R2
- Part 3—Installing and configuring modem(s) and NIC(s)

Part 1: Creating storage driver media for use during the Windows SBS 2003 R2 installation

There are two methods for gathering the required storage drivers for use during the installation process. Choose either method to create the storage driver media.

Method 1: Downloading drivers from the HP website

Follow the procedures below to create the necessary storage component. Additionally, you may choose to extract the driver for the NIC(s), if Microsoft Windows SBS 2003 R2 does not contain the drivers for it. NIC drivers are accessible through the Driver - Network category link presented in Step 2.

1. Go to the software and drivers website by accessing this URL:
<http://h18023.www1.hp.com/support/files/server/us/index.html>.
2. Select your server(s) from the Family drop-down list box, select **Microsoft Windows Server 2003** from the Operating System drop-down list box, and click the **locate software >>** button. This procedure takes you to the Locate page, which lists the available software by categories.
3. Click the **Driver – Storage Controller** category link.
4. Select the Smart Component (driver) for the primary storage controller used in the server by clicking the software version link listed in the Current Version column next to the desired Smart Component. This procedure takes you to the Download page, which lists the enhancements, fixes, and installation information.
5. Click the **download >>** button to download the file to a diskette or a USB disk. The website contains information that explains how to handle the downloaded package.

Method 2: Downloading drivers from the Server Support and Documentation CD

If the Microsoft Windows SBS 2003 R2 media does not contain the base driver for the primary storage controller and the NIC, create a diskette or a USB disk containing the driver for use later in the installation process.

1. Insert the Server Support and Documentation CD into the CD-ROM drive on a system currently running Microsoft Windows.
2. Review the Licensing Agreement, and click the **Agree** button if you agree.

3. Select the **Microsoft Windows Standard Server 2003 SBS** link from the left navigational menu on the CD Home page. Then, follow the online instructions to create the driver media.
4. Set aside the storage driver media for use during the installation of Microsoft Windows SBS 2003 R2.

Part 2: Installing Windows SBS 2003 R2

This section defines the tasks necessary for the Windows SBS 2003 R2 installation.



NOTE: The installation steps in this section are for a default OS installation to the C: hard drive partition. Additional logical volumes or disk partitions can be created; however, different steps or choices may be necessary during the OS installation. Refer to the Microsoft Windows SBS 2003 R2 documentation for help in planning customized installations.

Task 1: Starting the installation

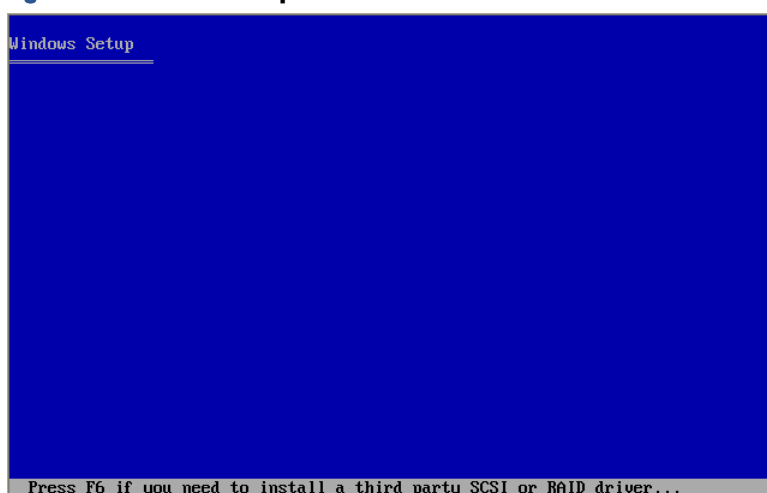
On the ProLiant server receiving the Windows SBS 2003 R2 installation, complete these steps:



NOTE: A Server Support and Documentation CD ships with ProLiant ML100 series servers. A later version of the drivers may be obtained from: www.hp.com/servers.

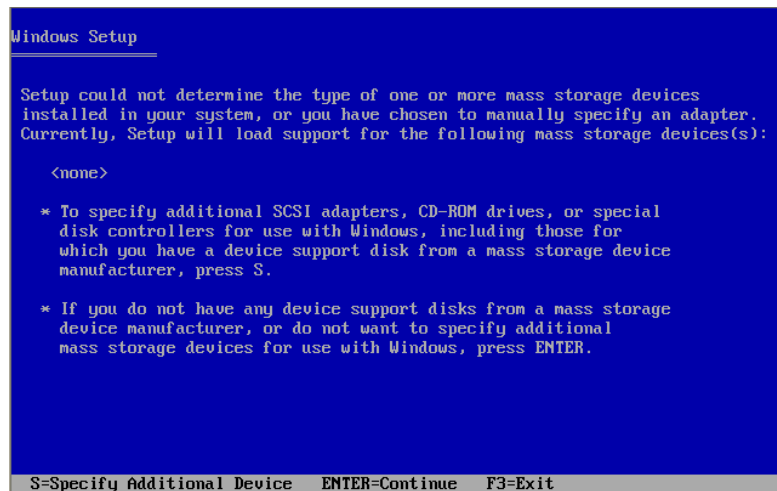
1. Power On the server.
2. Insert the Microsoft Windows SBS 2003 R2 CD-ROM #1 into the CD-ROM drive.
3. If a previous OS exists on the server, press any key to boot from the CD. If an OS does not exist on the server, the Windows Setup screen automatically displays.
4. When the Windows Setup screen displays, press the **F6** key within approximately three seconds to install a third-party storage driver (Figure 1).

Figure 1 Windows Setup screen



No immediate confirmation that the **F6** key was pressed displays, however, the following Windows Setup screen displays after the standard drivers are loaded (Figure 2).

Figure 2 Windows Setup screen to specify an additional device



5. Press the **S** key to specify the additional a third-party storage driver.
6. When prompted for the manufacturer-supplied hardware support disk, insert the appropriate storage driver diskette created from the Windows Server 2003 Server Support and Documentation CD for your primary storage controller.
7. Press **Enter**.
8. Highlight the controller that is your primary boot controller, and then press **Enter**.
9. Press **Enter** to continue. (It is not necessary to install additional devices.)
10. Press **Enter** to load the Microsoft device drivers.
11. Press **Enter** to set up Windows Server 2003.
12. Press the **C** key.
13. Review the Windows SBS 2003 R2 Licensing Agreement, and press the **F8** key if you agree.

Task 2: Choosing disk carving options

1. When the partition screen displays, highlight the unpartitioned space and press the **C** key to create a partition.
2. Press the backspace key to delete the currently displayed number. Type at least **6000** (or greater).
3. Press the **Enter** key to create the partition.
4. Highlight the New (Unformatted) partition and press the **Enter** key to set up Windows Server 2003.
5. Select **Format the partition using NTFS file system**.
6. Press the **Enter** key to continue.
7. The setup process formats the partition. The setup program copies files to the hard drive.
8. Press the **Enter** key to restart your server after the copying process completes.

Task 3: Installing the Windows SBS 2003 R2 OS

After the system restarts, Windows SBS 2003 R2 installation automatically starts.

1. Verify the settings on the **Regional Settings** window, and click **Next**.
2. In the **Personalize Your Software** window, type in the licensee name and organization and click **Next**.



NOTE: At this point, you can change the default computer (server) name and the default domain.

3. If desired, change the default computer (server) name and enter the administrator password.
4. Click **Next**.
5. Review the components pre-selected on the **Windows Server 2003 Components** window and click **Next**.
6. If your server contains a modem, enter your area code and telephone number, and click **Next**.



NOTE: If your server configuration does not include a modem or your modem driver does not reside on the Windows SBS 2003 R2 CD, you will not receive a prompt for modem information. You can install the modem after the installation of Windows SBS 2003 R2 by referring to Part 2: Task 1: "Installing and configuring modem(s) and the appropriate driver(s)" section of this integration note.

7. In the **Date and Time Settings** window, enter the Date, Time, and Time Zone, and then click **Next**.
8. When prompted with the **Networking Settings** windows, select Typical Settings or Custom Settings and click **Next**. If you select Custom Settings, refer to the Windows SBS 2003 R2 documentation to complete the Custom Settings interview options.



NOTE: If you plan to add the NIC after Windows SBS 2003 R2 installation, refer to Task 2 of the "Installing and configuring modem(s) and NIC(s)" section.

The installation of Windows SBS 2003 R2 continues until you are prompted with the Completing the Windows SBS 2003 R2 Setup Wizard.

9. Remove the Windows SBS 2003 R2 CD-ROM #1, and click **Finish** to restart the server.
10. Login to the OS and insert the Windows SBS 2003 R2 CD-ROM #1. The **Microsoft Small Business Sever 2003 Setup Window** prompt displays.
11. After developing a plan for the installation, highlight and click **Set Up Small Business Server** to begin the Post Operating System portion of the installation.



NOTE: Refer to the Windows SBS 2003 R2 documentation for help on planning the installation.

12. Click **Next** on the **Welcome to the Microsoft Windows SBS 2003 R2 Setup Wizard** window. The **Suite Requirements** window displays if your system meets all the requirements to install Windows SBS 2003 R2.
13. If the system meets all the requirements to install Windows SBS 2003 R2, the **Suite Requirements** window displays. Click **Next**, and the License Agreement displays.

However, if the system does not meet all the requirements, click **Cancel** to exit this portion of setup. Take corrective action by adding required hardware and/or reconfigure your base OS. To take corrective action, connect necessary components or make modifications, select **Back**, and select **Next** to re-evaluate system.

14. Review the License Agreement. If you agree, select the **I agree** radio button and click **Next**.

15. Verify the Name, Organization, and Computer Name on the **Product Identification** window. Then enter the 25-digit key for your Microsoft Windows Small Business Server R2 CD-ROM and your Microsoft Outlook CD-ROM. Click **Next**.

The **Automatic Logon Information** window prompts you for your password if you would like Setup to log you on automatically after the system restarts.

16. Select your preference and click **Next**.
17. Fill out your address information on the **Company Information** window and click **Next**.
18. Fill out your telephone information on the **Telephony Information** window and click **Next**.



NOTE: Enter this information even if you do not have a modem installed.

19. On the **Server Network Card Configuration** window, verify/enter your IP Address, Subnet Mask, and Default Gateway; and click **Next**.
20. In the **New Domain Information** window, enter your Full DNS name for new domain and Domain NetBIOS name; and click **Next**.
21. On the **Data Folders** windows, select folders in which to store data for each component, and click **Next**. The Windows Server 2003 configuration folder choices include:
 - Networking configuration
 - Domain configuration
 - Terminal services
 - Network identification

Setup starts to copy files, automatically configures your Active Directory, and restarts the server.

22. On the **Component Selection** window, select and modify components to fit your custom solution, and click **Next**.
23. If installing Windows SBS 2003 R2 Premium Edition, choose whether you want to enable caching on the **ISA Server Cache Drives** window and click **Next**.
24. Select IP address ranges to load into the Local Address Table on the **ISA Server Construct Local Address Table** window and click **Next**.
25. On the **ISA Server Local Address Table Configuration** window, enter the IP address ranges, and click **Next**.

After a file copy, you will be prompted for Microsoft Windows SBS 2003 R2 CD-ROM #2.

26. Insert Microsoft Windows SBS 2003 R2 CD-ROM #2, and click **OK**. File copy continues. You will be prompted for Microsoft Windows SBS 2003 R2 CD-ROM #3.
27. Insert Microsoft Windows SBS 2003 R2 CD-ROM #3, and click **OK**. File copy continues. You will be prompted for the Microsoft Outlook Disc.
28. Insert CD-ROM #4, and click **OK**. File copy continues.
29. Review the messages on the **Component Messages** window, which displays if you received any errors during the installation process, and click **Next**.

The Completing the Microsoft Windows Small Business Server 2003 R2 Wizard window displays.

30. Click **Finish** and then you will be prompted to restart your OS to complete the installation. The "To do" list displays.
31. Select the tasks you wish to complete at this time.

Task 4: Updating the system drivers

1. Once Windows SBS 2003 R2 installation completes, identify devices with missing drivers. If any devices are missing drivers, insert the appropriate media into the CD-ROM drive as follows:
 - ProLiant 100 series servers, insert the Server Support and Documentation CD
 - ProLiant 300 series servers, insert the PSP
2. Review the Licensing Agreement and press the **Agree** button if you agree.
3. Select the device drivers needed and save them either to a diskette or to the hard drive.
4. For any device that requires a driver update, right click on the device and select **update or install driver**.
5. Supply the location of the driver and follow the installation steps.
6. Repeat this process for any device requiring a driver.

Part 3: Installing and configuring modem(s) and NIC(s)

Windows SBS 2003 R2 may not contain the correct drivers for your modem(s) and your NIC. To install and configure the modem(s) that are identified by Windows SBS 2003 R2, perform the steps in Task 1. To install and configure the NIC(s) not identified by Windows SBS 2003 R2, perform the steps in Task 2.

Task 1: Installing and configuring modem(s) and the appropriate driver(s)

If a modem is installed after Windows SBS 2003 R2 installation completes, the Hardware Wizard runs automatically.

1. When the **Welcome to the Found New Hardware Wizard** window displays, click **Next**.
2. In the **Install Hardware Device Drivers** window, search for a suitable driver for your device, and click **Next**.
3. Select from the Optional search locations on the **Locate Driver Files** window. Provide the OEM driver if it is located on a diskette, and click **Next**. After the wizard completes the search, it displays the driver it found for your modem.
4. Click **Next** to install the found driver.
5. Click **Finish** to complete the Found New Hardware Wizard. You should now be able to use your modem with Windows SBS 2003 R2.



NOTE: If while running the Hardware Wizard you are unable to locate the appropriate driver for your modem, contact your modem manufacturer or visit their website to locate the driver.

Task 2: Installing and configuring NIC(s) and the appropriate driver(s)

If a NIC is installed after Windows SBS 2003 R2 installation completes, the Hardware Wizard runs automatically.

1. When the **Welcome to the Found New Hardware Wizard** window displays, click **Next**.
2. In the **Install Hardware Device Drivers** window, search for a suitable driver for your device, and click **Next**.

3. Select from the Optional search locations on the **Locate Driver Files** window. Provide the OEM driver if it is located on a diskette, and click **Next**. After the wizard completes the search, it displays the driver it found for your NIC.
4. Click **Next** to install the found driver.
5. Click **Finish** to complete the Found New Hardware Wizard. You should now be able to use your NIC with Windows SBS 2003 R2.



NOTE: If you are unable to locate the appropriate driver for your NIC, contact your NIC manufacturer or visit their website.

Troubleshooting

This section details the known issues with running Windows SBS 2003 R2 on ProLiant servers and provides information about resolving them.

Table 1 Known issues

Issue 1	System Will Not Hibernate	
	Description	The system appears to not go into hibernation, if user waits long enough the system will go into hibernation, but the system will not return from a hibernated state.
	Workaround	Do not use system hibernation. The system does hibernate but will not return from a hibernated state.
	Solution	HP engineers are working with Microsoft to resolve this issue.
Issue 2	Network Interface Card Configuration Utility Invokes Microsoft SQL Server Desktop Engine	
	Description	The NIC Config utility causes the installer for Microsoft SQL Server Desktop Engine to come up.
	Workaround	Close the Microsoft SQL Server Desktop Engine
	Solution	HP engineers are working to resolve this issue.

Issue 3	Must Force Re-Installation Of NIC Teaming Component
Description	After upgrading from Windows SBS 2000 to Windows SBS 2003 R2, it is necessary to force re-installation of NIC Teaming Component.
Workaround	<p>To re-install the NIC Teaming Component after upgrading from Small Business Server 2000 (or Windows 2000 Standard Server) to Windows SBS 2003 R2:</p> <ol style="list-style-type: none"> 1 Download the latest PSP (available from the HP website) for Windows 2003 to a temporary directory on the server. 2 Once the PSP download has completed, navigate to the directory containing the files and click to run SETUP.EXE. This will start the HP Remote Deployment Utility. By default the HP Remote Deployment Utility will not auto populate the software to be installed; the selected components to be installed must be manually selected. If the proper software bundle was downloaded, the OS listed under the Available Software tree will be in Boldface type. 3 Expand the Windows Server 2003 tree. While pressing the left mouse button, click to select the driver - network folder and drag the driver - network folder to the right side of the HP remote deployment utility dialog box. If done properly, the components for the NIC drivers should populate and the Installed Version and New Version numbers should be listed. 4 To install the component, click the Install button on the menu bar. The Software Installation dialog box will appear and will prompt to confirm if you want to proceed with the installation. By default the Allow components to overwrite newer or up-to-date versions check box will be unchecked. 5 Check the Allow components to overwrite newer or up-to-date versions check box. Once checked, click Next to continue the installation. Once the installation is complete, click the Reboot button on the menu bar to reboot the server.
Solution	HP engineers are working to resolve this issue.

For more information

For additional information, refer to the resources listed below.

Table 2 Web resources

Resource	Web address
HP software and drivers website	http://h18023.www1.hp.com/support/files/server/us/index.html
Windows SBS 2003 from HP	www.hp.com/go/windowssbs
HP and Microsoft Frontline Partnership site	www.hp.com/partners/microsoft
Windows SBS 2003 R2 website	www.microsoft.com/windowsserver2003/sbs/default.mspx
ProLiant Software Support Matrix	http://h10018.www1.hp.com/wwsolutions/windows/index-all.html

Call to action

To help us better understand and meet your needs for ISS technology information, please send comments about this paper to: <mailto:TechComm@hp.com>.