

Windows Server Migration Tools installation and preparation can be divided into the following stages.

1. Installing Windows Server Migration Tools on destination servers that run Windows Server 2012 R2 Preview or Windows Server 2012.
2. Creating deployment folders on migration destination servers, for copying to source servers.
3. Copying deployment folders from destination servers to source servers.
4. Registering Windows Server Migration Tools on source servers.

[Supported operating systems](#)

The following table indicates the Windows Server operating systems that Windows Server Migration Tools supports.

Source server processor	Source server operating system	Destination server operating system	Destination server processor
x86- or x64-based	Windows Server 2003 with Service Pack 2	Windows Server 2012 R2 Preview or Windows Server 2012, both full and Server Core installation options	x64-based
x86- or x64-based	Windows Server 2003 R2	Windows Server 2012 R2 Preview or Windows Server 2012, both full and Server Core installation options	x64-based
x86- or x64-based	Windows Server 2008, full installation option	Windows Server 2012 R2 Preview or Windows Server 2012, both full and Server Core installation options	x64-based
x64-based	Windows Server 2008 R2	Windows Server 2012 R2 Preview or Windows Server 2012, both full and Server Core installation options	x64-based
x64-based	Server Core installation option of Windows Server 2008 R2	Windows Server 2012 R2 Preview or Windows Server 2012, both full and Server Core installation options	x64-based
x64-based	Windows Server 2012	Windows Server 2012 R2 Preview	x64-based

		or Windows Server 2012, both full and Server Core installation options	
x64-based	Server Core installation option of Windows Server 2012	Windows Server 2012 R2 Preview or Windows Server 2012, both full and Server Core installation options	x64-based
x64-based	Windows Server 2012 R2 Preview	Windows Server 2012 R2 Preview, both full and Server Core installation options	x64-based
x64-based	Server Core installation option of Windows Server 2012 R2 Preview	Windows Server 2012 R2 Preview, both full and Server Core installation options	x64-based

The versions of operating systems shown in the previous table are the oldest combinations of operating systems and service packs that are supported. If available, newer service packs are supported.

Migrations between physical operating systems and virtual operating systems are supported. Migrations that use Windows Server Migration Tools to migrate to Windows Server 2012 or Windows Server 2012 R2 Preview support cross-subnet migrations.

Migration from a source server to a destination server that is running an operating system in a different system UI language (that is, the installed language) than the source server is not supported. For example, you cannot use Windows Server Migration Tools to migrate roles, operating system settings, data, or shares from a computer that is running Windows Server 2008 in the French system UI language to a computer that is running Windows Server 2012 in the German system UI language.

Note

The system UI language is the language of the localized installation package that was used to set up the Windows operating system.

Both x86- and x64-based migrations are supported for Windows Server 2003 and Windows Server 2008. All editions of Windows Server 2012 R2 Preview, Windows Server 2012, and Windows Server 2008 R2 are x64-based.

Roles that are running on the Server Core installation option of Windows Server 2008 cannot be migrated, because the Microsoft .NET Framework is not available in the Server Core installation option of Windows Server 2008.

[Permission requirements](#)

At minimum, you must be a member of the **Administrators** group on both source and destination servers to install, remove, or set up Windows Server Migration Tools.

[Prepare for installation](#)

Follow the steps in this section if you are registering Windows Server Migration Tools on migration source servers that are running Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, or Windows Server 2012, and if the source server is running an older release of Windows Server than the migration destination server. For example, if the source server is running Windows Server 2012, but the destination server is running Windows Server 2012 R2 Preview. Otherwise, see [Install Windows Server Migration Tools](#).

Note

All commands in this guide are case-insensitive unless specifically noted.

[Windows Server 2012 source server](#)

Complete the following tasks to prepare a source server that is running Windows Server 2012 for migration in which the destination server is running Windows Server 2012 R2 Preview.

- Verify that the source server has sufficient disk space (at least 23 MB) to store the Windows Server Migration Tools deployment folder.

[Windows Server 2008 R2 source server](#)

Complete the following tasks to prepare a source server that is running Windows Server 2008 R2 for Windows Server Migration Tools.

- Verify that the source server has sufficient disk space (at least 23 MB) to store the Windows Server Migration Tools deployment folder.

[Windows Server 2008 source server](#)

Complete the following tasks to prepare a source server that is running Windows Server 2008 for Windows Server Migration Tools.

- Verify that the source server has sufficient disk space (at least 23 MB) to store the Windows Server Migration Tools deployment folder.
- Install Windows PowerShell by using Server Manager or by running the Server Manager command prompt tool, **ServerManagerCmd.exe**. For more information about how to add features to the server by using **ServerManagerCmd.exe**, see [Overview of Server Manager Commands](#) in the Windows Server 2008 Server Manager Help.

[Windows Server 2003 or Windows Server 2003 R2 source server](#)

Complete the following tasks to prepare a source server that is running Windows Server 2003 or Windows Server 2003 R2 for Windows Server Migration Tools.

- Verify that the source server has sufficient disk space (at least 25 MB) to store the Windows Server Migration Tools deployment folder.
- Download and install Microsoft .NET Framework 2.0. Microsoft .NET Framework 2.0 is available for download from the [Microsoft Web site](#).
- Download and install Windows PowerShell 1.0, or a later version. Windows PowerShell 1.0 is available for download from the [Microsoft Web site](#).

Note

Windows PowerShell 2.0 and 3.0 are available in a graphically-oriented version, Windows PowerShell ISE. For more information about Windows PowerShell ISE, see [Windows PowerShell 3.0 Integrated Scripting Environment \(ISE\)](#).

[Other computers in your enterprise](#)

Because you might have to restart the server after you install Windows Server Migration Tools, notify users in advance that they might experience downtime while the server operating system loads. To minimize downtime, and reduce its effect on users in your enterprise, install Windows Server Migration Tools during off-peak hours.

[Install Windows Server Migration Tools](#)

This section describes how to install Windows Server Migration Tools on both source and destination servers. If both source and destination computers are running the same operating system on which Windows Server Migration Tools is available for installation (if both servers are running Windows Server 2012 R2 Preview, or both servers are running Windows Server 2012), install Windows Server Migration Tools on both computers by following installation steps in either [Full installation option of Windows Server 2012 R2 Preview or Windows Server 2012](#) or [Server Core installation option of Windows Server 2012 R2 Preview or Windows Server 2012](#).

If you plan to migrate roles, features, or other data from computers that are running older releases of Windows Server than your destination server—that is, Windows Server 2012, Windows Server 2008 R2, Windows Server 2008, or Windows Server 2003—you must complete the following additional tasks after you install Windows Server Migration Tools on destination servers.

1. Create a Windows Server Migration Tools deployment folder on destination servers. For more information, see [Creating a deployment folder on destination computers](#).

[Creating a deployment folder on destination computers](#)

This procedure describes how to create the deployment folder on your destination server that is running Windows Server Migration Tools. After you create the deployment folder, copy it to the local drive of a migration source server that is running an older release of Windows Server; that is, Windows Server 2012, Windows Server 2008 R2, Windows Server 2008, or Windows Server 2003.

[To create a deployment folder on destination computers](#)

1. If you have not already installed Windows Server Migration Tools on the destination server, see [Install Windows Server Migration Tools](#) in this topic.
2. Open a Command Prompt window with elevated user rights. On the Server Core installation option of Windows Server 2012 R2 Preview or Windows Server 2012, an elevated command prompt is already opened by default. On the full installation option, type **cmd** on the **Start** screen, right-click the **Command Prompt** tile, and then click **Run as administrator**.
3. At the command prompt, change to the directory in which the **smigdeploy.exe** tool is stored. Type the following, and then press **Enter**.
4. `cd %Windir%\System32\ServerMigrationTools\`
5. Do one of the following to create a Windows Server Migration Tools deployment folder.
 - o To create a folder to copy to an x64-based computer that is running Windows Server 2012, where Windows Server 2012 R2 Preview is running on the destination server, type the following, in which *deployment folder path* represents the path of the deployment folder on the source computer, and then press **Enter**.

```
SmigDeploy.exe /package /architecture amd64 /os WS12 /path  
<deployment folder path>
```
 - o To create a folder to copy to an x64-based computer that is running Windows Server 2008 R2, type the following, in which *deployment folder path* represents the path of the deployment folder on the source computer, and then press **Enter**.

```
SmigDeploy.exe /package /architecture amd64 /os WS08R2 /path  
<deployment folder path>
```
 - o To create a folder to copy to an x64-based source computer that is running Windows Server 2008, type the following, in which *deployment folder path* represents the path of the deployment folder on the source computer, and then press **Enter**.

```
SmigDeploy.exe /package /architecture amd64 /os WS08 /path  
<deployment folder path>
```
 - o To create a folder to copy to an x64-based source computer that is running Windows Server 2003, type the following, in which *deployment folder path*

represents the path of the deployment folder on the source computer, and then press **Enter**.

- `SmigDeploy.exe /package /architecture amd64 /os WS03 /path <deployment folder path>`
- To create a folder to copy to an x86-based source computer that is running Windows Server 2008, type the following, in which *deployment folder path* represents the path of the deployment folder on the source computer, and then press **Enter**.
- `SmigDeploy.exe /package /architecture X86 /os WS08 /path <deployment folder path>`
- To create a folder to copy to an x86-based source computer that is running Windows Server 2003, type the following, in which *deployment folder path* represents the path of the deployment folder on the source computer, and then press **Enter**.
- `SmigDeploy.exe /package /architecture X86 /os WS03 /path <deployment folder path>`

Note

Each of these commands creates a deployment folder named in the format `SMT_<Operating System>_<Architecture>` and stores it in the specified deployment folder path.

You can also specify a network path as the path for the deployment folder. Verify that you have access to the network path before you create the deployment folder.

For more information about **SmigDeploy.exe**, at a command prompt, type **SmigDeploy.exe /?**, and then press **Enter**.

[Registering Windows Server Migration Tools on source computers](#)

Before you can run the Windows Server Migration Tools snap-in for the first time on a source server that is running an older release of Windows Server than your destination server, it must be registered with Windows PowerShell. Use **SmigDeploy.exe** to register the Windows Server Migration Tools snap-in on a migration source server that is running an older release of Windows Server than your destination server (that is, Windows Server 2012, Windows Server 2008 R2, Windows Server 2008 or Windows Server 2003).

Before you start the procedure in this section, verify the following.

- Microsoft .NET Framework 2.0 is installed on computers that are running Windows Server 2003.
- Windows PowerShell 1.0 or a later version is installed on source computers that are running either Windows Server 2008 or Windows Server 2003. (Windows PowerShell is

already installed on computers that are running Windows Server 2008 R2 and Windows Server 2012.)

[To register Windows Server Migration Tools](#)

1. Copy the Windows Server Migration Tools deployment folder that was created by using the procedure in [Creating a deployment folder on destination computers](#) to a local drive on the source computer that is running an older release of Windows Server than your destination server. Be sure that the operating system architecture of the deployment folder matches that of the source computer to which you are copying the folder.

For example, the **SMT_WS08_amd64** folder should only be copied to the local drive of an AMD64 source computer that is running Windows Server 2008.

2. On the source computer, open a Command Prompt window.
 - On computers that are running Windows Server 2003 or the Server Core installation option of Windows Server 2008 R2, you do not have to run a Command Prompt window with elevated user rights. Click **Start**, click **Run**, type **cmd**, and then click **OK**.
 - On computers that are running the full installation options of Windows Server 2012, Windows Server 2008 R2 or Windows Server 2008, you must open a Command Prompt window with elevated user rights. To do this, right-click the shortcut for Command Prompt, and then click **Run as Administrator**.
3. At the command prompt, change to the directory to which you copied the Windows Server Migration Tools deployment folder in step 1.

Note

You can register and run Windows Server Migration Tools cmdlets from a removable drive, CD-ROM, or DVD-ROM. However, to increase the reliability of registering the cmdlets, we recommend that you copy the deployment folder to a local drive of the source computer. You cannot register or run Windows Server Migration Tools cmdlets from a network location.

4. In the deployment folder directory, type the following command to register Windows Server Migration Tools cmdlets, and then press **Enter**.
5. `.\Smigdeploy.exe`

Note

When registration is finished, a status message is displayed that indicates that the registration finished successfully, and a Windows PowerShell session opens. You can run Windows Server Migration Tools cmdlets in this Windows PowerShell session. If you close the Windows PowerShell session, see [Windows Server 2003 or Windows Server 2008 source computers](#) for information about how to access and use Windows Server Migration Tools cmdlets.

2. Register Windows Server Migration Tools on source computers that are running older releases of Windows Server than your destination server; that is, Windows Server 2012, Windows Server 2008 R2, Windows Server 2008, or Windows Server 2003. For more information, see [Registering Windows Server Migration Tools on source computers](#).

For more detailed information, see [Windows Server 2012, Windows Server 2008 R2, Windows Server 2008, or Windows Server 2003 source computers](#).