

# Chapter 3 – Installing SharePoint Server onto Windows Server 2008

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## Terms

This Windows SharePoint Services Operations Guide (WSSOPS) from the Computer Information Agency is provided as is. Every effort has been made by the author to ensure that information provided is correct however this cannot be guaranteed.

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# Chapter 3 – Installing SharePoint Server onto Windows Server 2008

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## 3.1 Scope

This chapter will examine the process of installing Microsoft SharePoint Server 2010 onto a new domain connected stand alone Windows 2008 R2 server.

## 3.2 Prerequisites

There are a number of requirements on any system onto which you plan to install Windows SharePoint Server 2010. These minimum requirements are:

- Windows Server 2008 (64 bit) Service Pack 2
- Dot Net Framework Version 3.5
- Internet Information Services (IIS) configured with ASP .NET
  
- You must download an update for Windows Server 2008 before you run Setup, or Setup will not run.
  - For Windows Server 2008 with SP2, see <http://go.microsoft.com/fwlink/?LinkID=160770>.
  - For Windows Server 2008 R2, <http://go.microsoft.com/fwlink/?LinkID=166231>.

It is also recommended that you install the following manually:

- Microsoft Windows PowerShell (TM) V2 (CTP3), <http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=c913aeab-d7b4-4bb1-a958-ee6d7fe307bc> (Note that you will need to uninstall Powershell V1 if it is already installed on your server).

The following requirements are necessary if you wish to implement additional features in SharePoint Server 2010:

- SMTP service

### *Data storage location*

SharePoint Server has the ability to store data in a number of locations, including Microsoft SQL Server 2008 Express Edition that comes with SharePoint Server. The planned location of your SharePoint Server data will have an impact on the installation method you are able to choose. For further information about these options and impacts please see – **Chapter 8 - Database Operations**.

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If SharePoint Server installs Microsoft SQL Server 2008 Express Edition the default location for the SharePoint content databases will be *c:\program files\common files\Microsoft Shared\Web Server Extensions\14\data\MSSQL.10.SharePoint\MSSQL\Data*.

Once these requirements have been met it is also advisable to ensure that the machine on which you wish to install SharePoint Server is updated with all the latest patches and service packs. It is also advisable to do a reboot of the system prior to a SharePoint Server installation to ensure a clean run up environment.

### 3.3 Installation

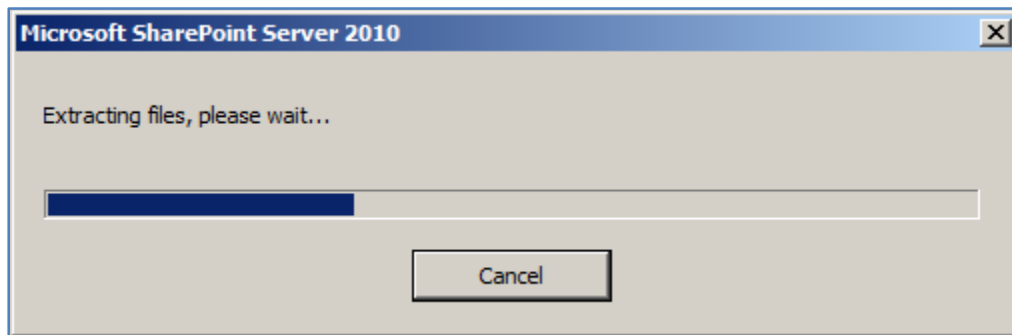
We'll cover the following installations:

- Standalone
- Server Farm

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After meeting all the server prerequisites and downloading the SharePoint Server software from the Microsoft web site and logging into the Windows Server 2008 as an administrator, commence the installation by **double clicking** on the *sharepoint.exe* file.

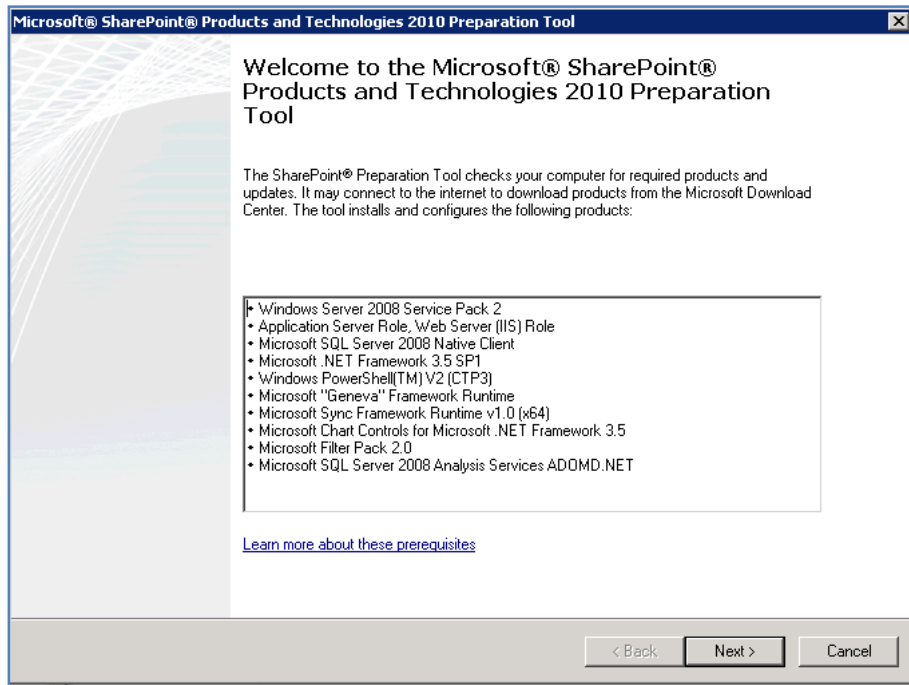


The files will automatically be extracted the installation will commence.

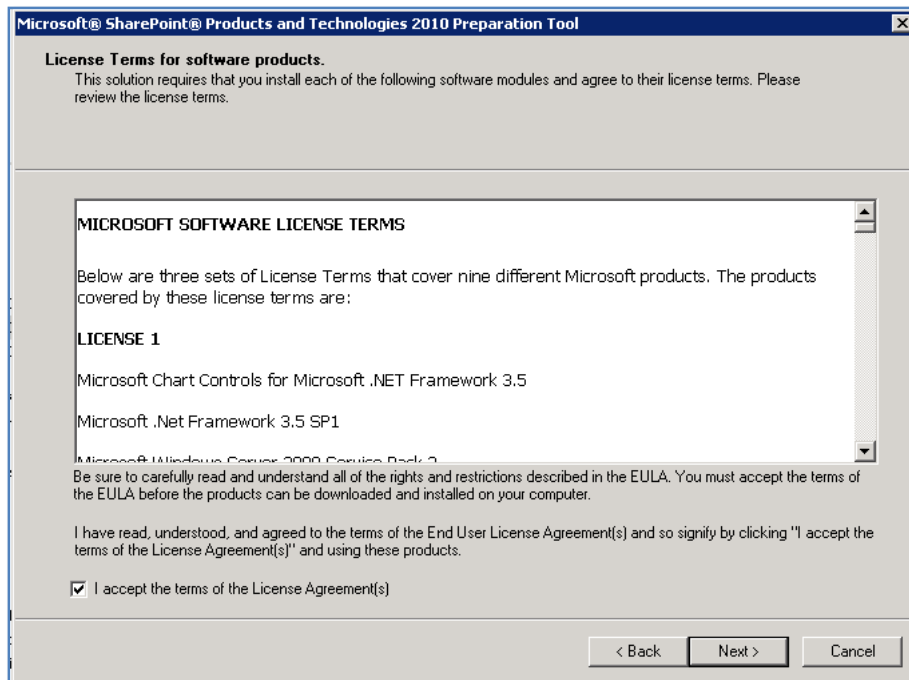


Click on the option **Install software prerequisites** under the *Install* heading.

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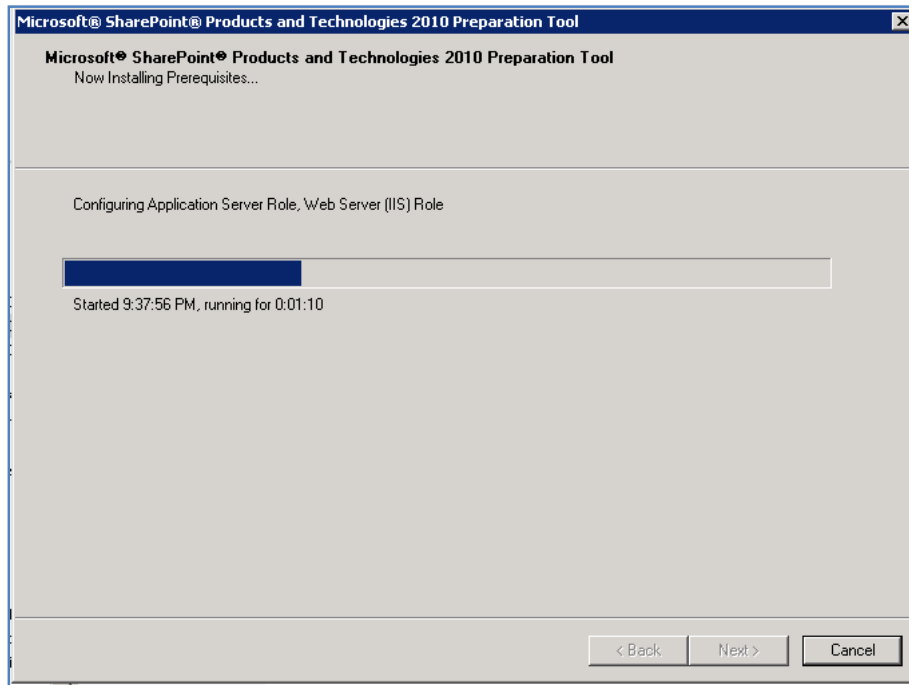
Click **Next** to continue.



Click the option **I accept the terms of the License Agreement(s)** and press the **Next** button to continue.

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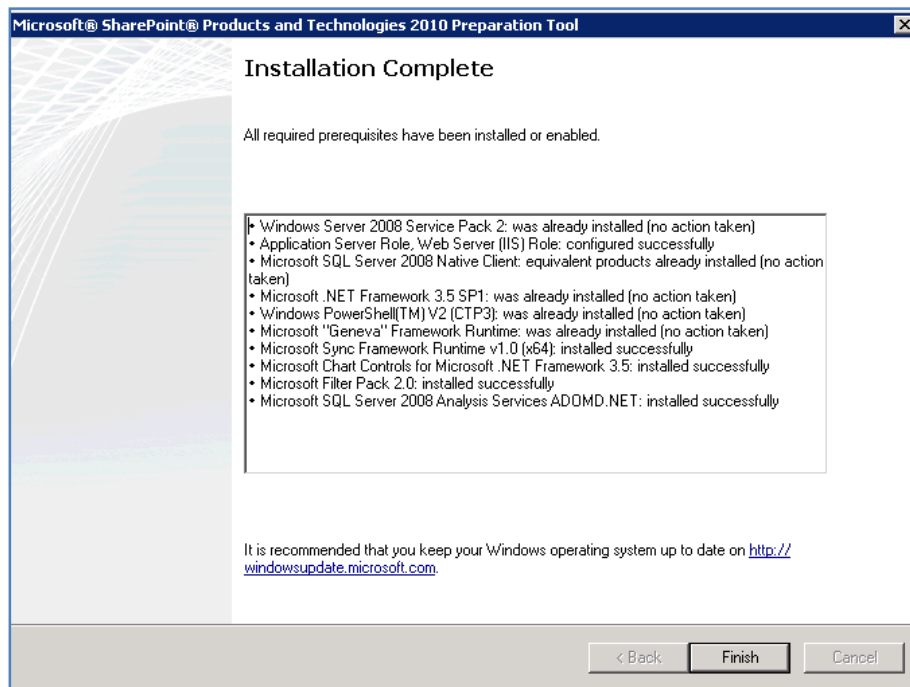
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If the software is not installed on the server it will automatically be downloaded and installed. It is important to note during the installation of these prerequisites a number of reboots maybe required. This will generally happen automatically and the number will depend on what software is already installed on your machine.

When the process is complete the server may need to be rebooted before proceeding. When the reboot is complete the installation process will continue until you see a screen like:

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Even if the server does not need rebooting it is recommended you do so just to ensure a clean environment for the installation of SharePoint Server.

At the completion of the checking process you will see a summary screen like that displayed above. Note any items that have been skipped or errors that have occurred as these may prevent SharePoint Server installing.

Click the **Finish** button to proceed.

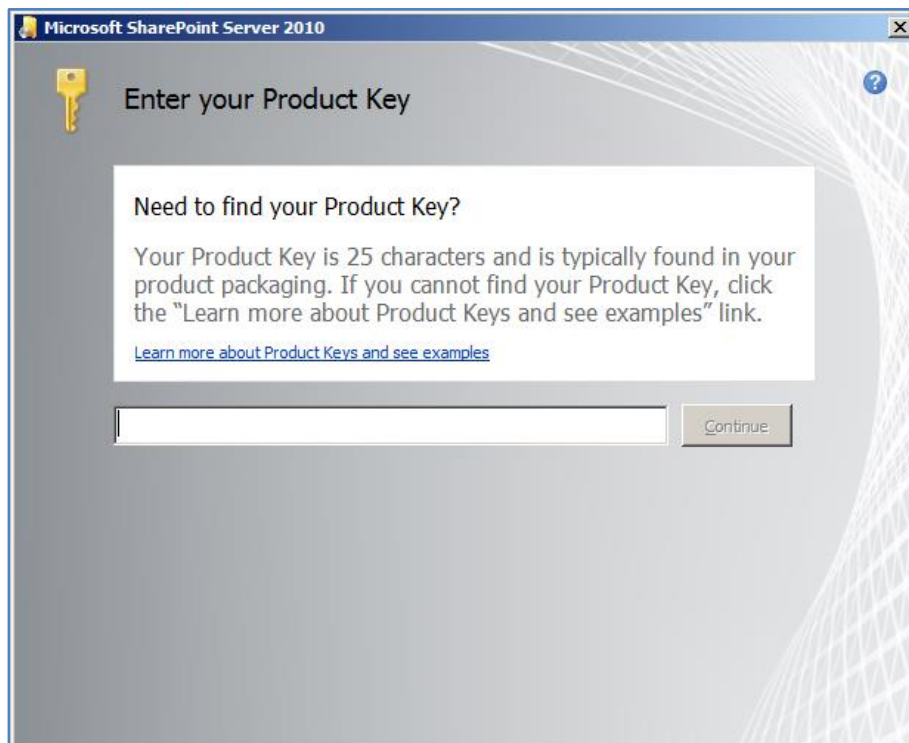


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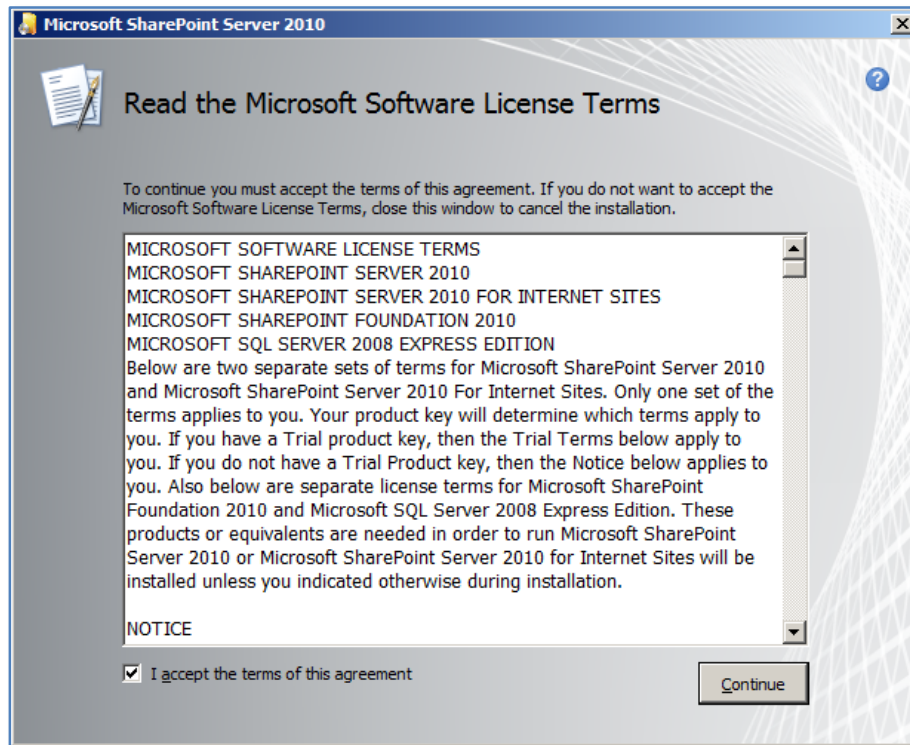


You will be returned to the initial menu. Click the option **Install SharePoint Server** to install the software.



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You will then need to enter the license key for the SharePoint Server product and press the **Continue** button once the key has been verified.



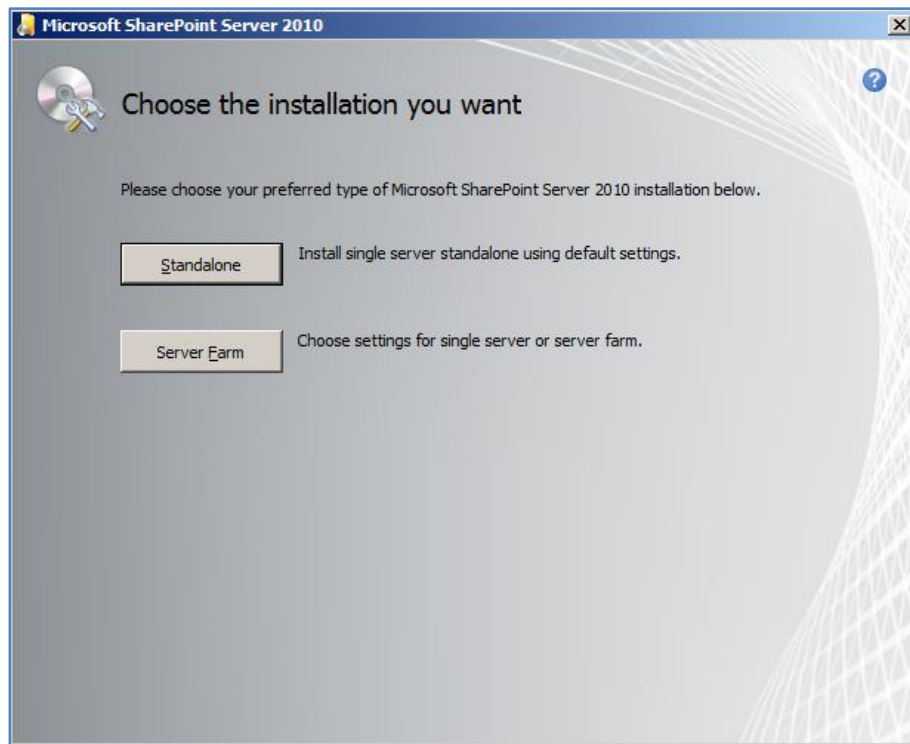
The first window to be displayed will be the *Microsoft Software License Terms*. After reviewing this, check the - **I accept the terms of this agreement** in the lower left of the window and press the **Continue** button.

If the installation detects a compatible database already installed on the server it will not prompt you to do a Standalone or Server Farm installation, it will default to a complete Server Farm installation. If this is the case you can skip ahead to the *Installation* section.

*Local database not detected*

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The next window to be displayed will ask you for the type of installation you wish. It is important to pause here and consider the options that are presented and the ramifications they may have for your installation.

### *Installation type*

- a. **Standalone** – Selecting this option will install SharePoint Server onto your server using the standard defaults. You will NOT be prompted about things like file locations, database locations or whether you wish to only create a web front end. Selecting this option will automatically complete the following tasks:
  - a. Install SharePoint Server programs to *c:\program files\Microsoft Office Servers*
  - b. Install Microsoft SQL Server 2008 Express Edition as the SharePoint Server storage option and install this automatically to *c:\program files\Microsoft SQL Server\*. You will be unable to upgrade from this version at a later stage if required.

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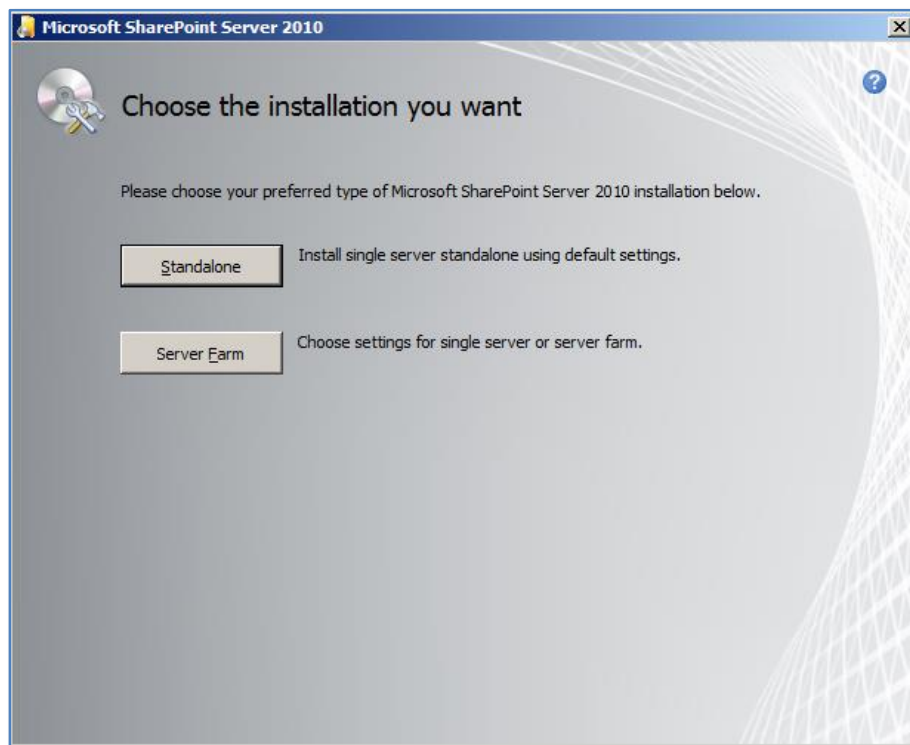
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- c. Locate the SharePoint content database in *c:\program files\Microsoft Office Servers\14.0\data\MSSQL.10.SharePoint\MSSQL\Data*.
- d. Configure a SharePoint Server web site on port 80.
- e. Configure a SharePoint Server team site collection.
- f. SharePoint Server will be configured for a single stand alone server. You will be unable to create a SharePoint farm later if required.

Note that using the Standalone option you are unable to change any of the selections mentioned above.

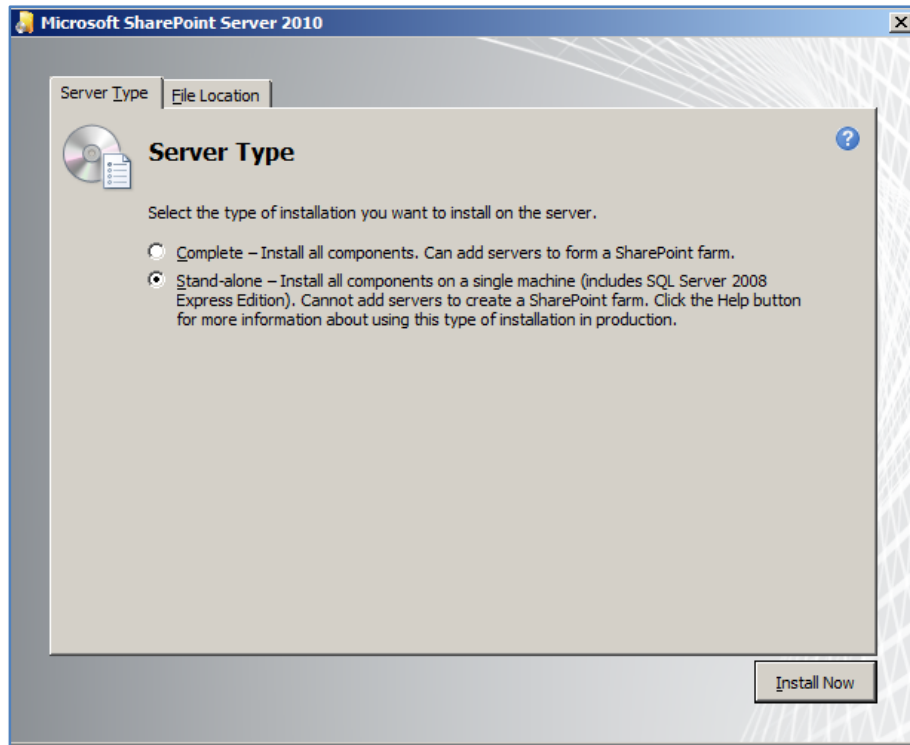
- b. **Server Farm** – Selecting this option will provide you will the full range of options with your SharePoint Server installation. However, it is important to note that you will have to complete ALL of the configuration steps and selections (including the creation of a SharePoint Server site collection) manually.

### *Server Farm installation*



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At the installation choice screen press the **Server Farm** button to continue



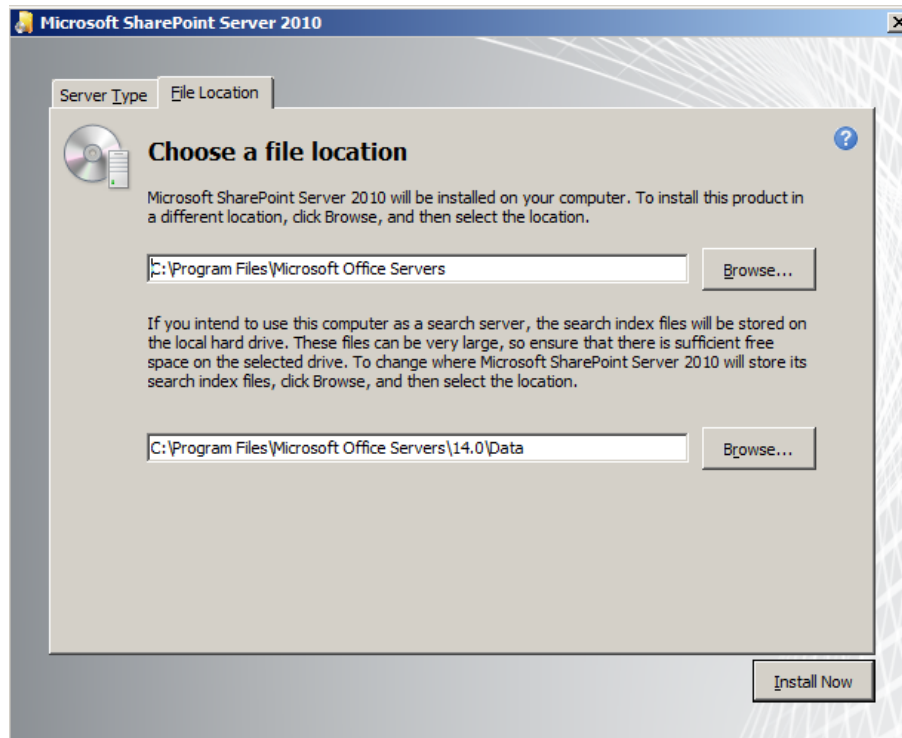
The next window that is displayed after pressing the **Server Farm** button is shown above. On the first tab you can select what type of installation you desire. Here again, the choices that you make can have a major impact on your installation going forward.

1. **Complete** – This option is the most flexible because it allows you to select your own data storage location (using SQL Server) as well as allowing you to add additional SharePoint Server servers into the same 'SharePoint farm' at a later stage. If you wish to store your SharePoint Server data in an SQL server or plan to expand the number of servers in your SharePoint Server installation then you should select this option but you need to have the SQL server in place prior to this.
2. **Stand-alone** – This option will not allow you to choose your own data storage location. It will also install the Microsoft SQL Server 2008 Express Edition into *c:\program files\microsoft sql server\* and locate the SharePoint content databases in *c:\program files\Microsoft Office Servers\14.0\data\MSSQL.10.SharePoint\MSSQL\Data*. Another limitation of this installation option is that you are unable to add additional servers into this configuration to create a 'SharePoint farm' for improved reliability and load balancing. If do not plan to use a data storage program like SQL Server

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(non embedded) for your SharePoint Server data and do not plan the need of additional WSF servers for a 'SharePoint farm' then select this option.

### Installation

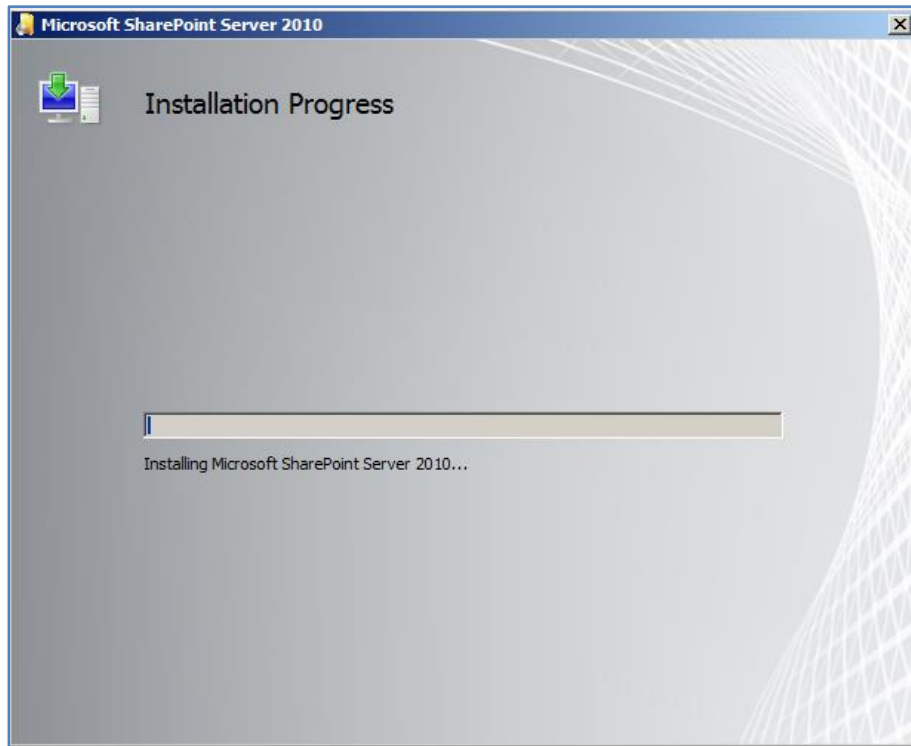


The *Data Location* tab allows you to specify where the SharePoint Server installation and index files will be stored. By default these will be installed in *c:\program files\Microsoft Office Servers* and *c:\program files\Microsoft Office Servers\14.0\data*. You can specify any location by changing the entry displayed. It is recommended that you only change the drive letter if necessary to ensure compatibility and ease of future support.

Once you have made your selections click the **Install Now** button in the lower right of the window to continue.

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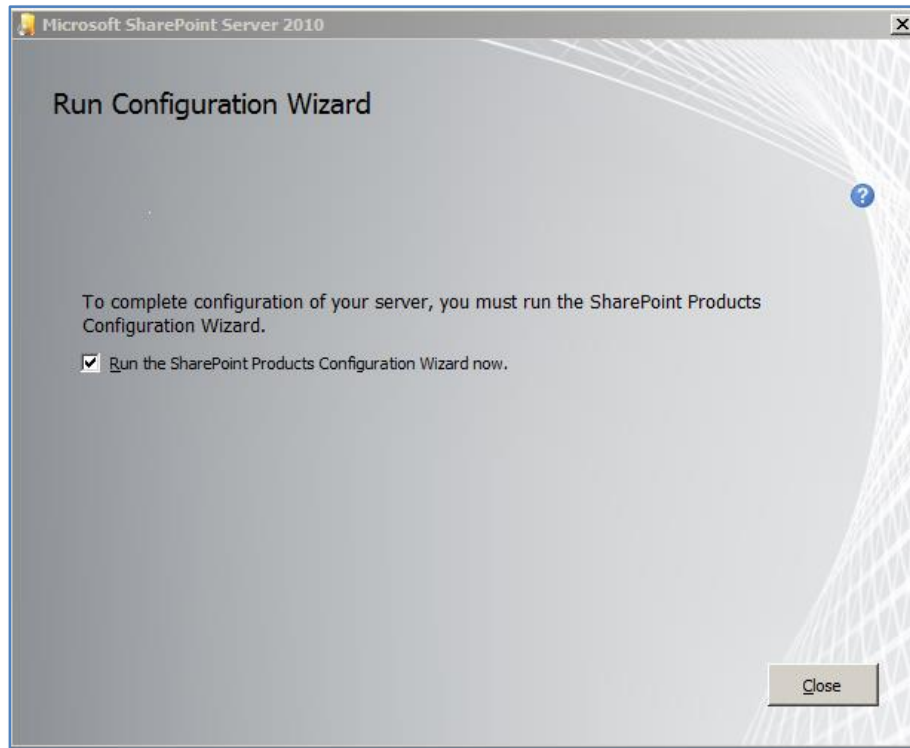
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The installation will now copy the required files onto the server. There is no option to cancel or abort the installation until the process is complete. You will not be prompted for further input until the installation progress bar has reached the far right hand side.

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Once the file installation process is complete you will be prompted to run the *Configuration Wizard* as shown above.

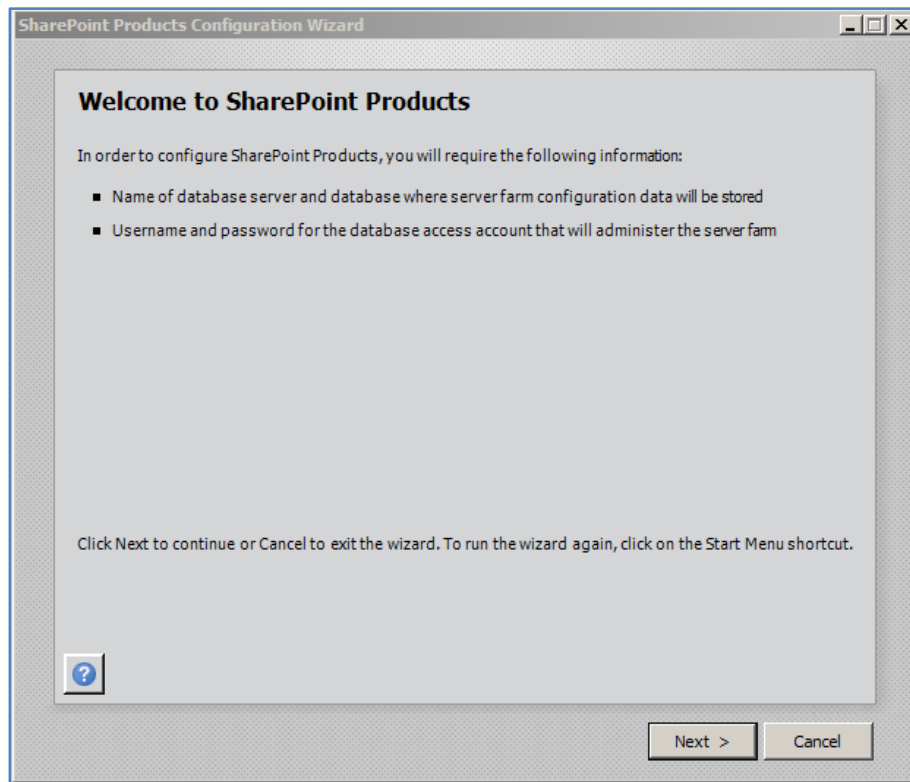
If you leave the *Run the SharePoint Products and Technologies Configuration Wizard now* option checked and press the **Close** button the wizard will commence. If you uncheck this option and press the **Close** button the wizard will not run and you need to run it at a later stage to configure WSF.

It is generally recommended that you leave the option checked and press the **Close** button to run the *SharePoint Products and Technologies Configuration Wizard*.



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If you left the option check the *SharePoint Products and Technologies Configuration Wizard* will commence.

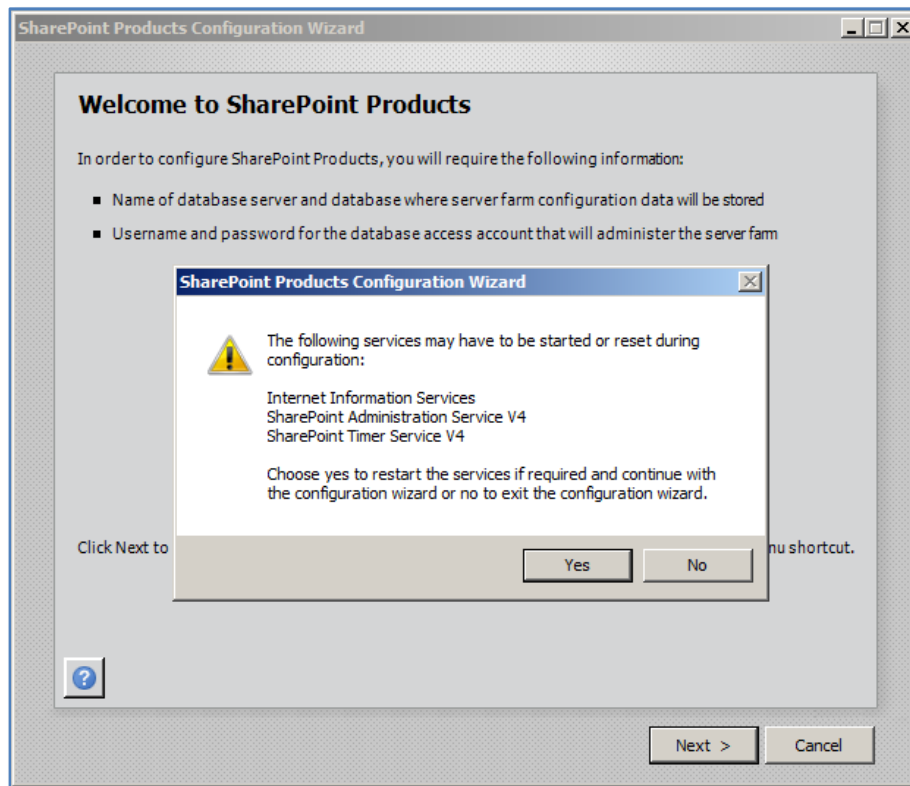
If you are not doing a Standalone installation then the window warns you that to complete the wizard you require:

- Name of database server and database where server farm configuration will be stored. You must have this database in place prior to proceeding.
- Username and password for the database access account that will administer the server farm.

Press the **Next** button to continue.

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You will now be warned that a number of services on the server will be started or reset. These services are:

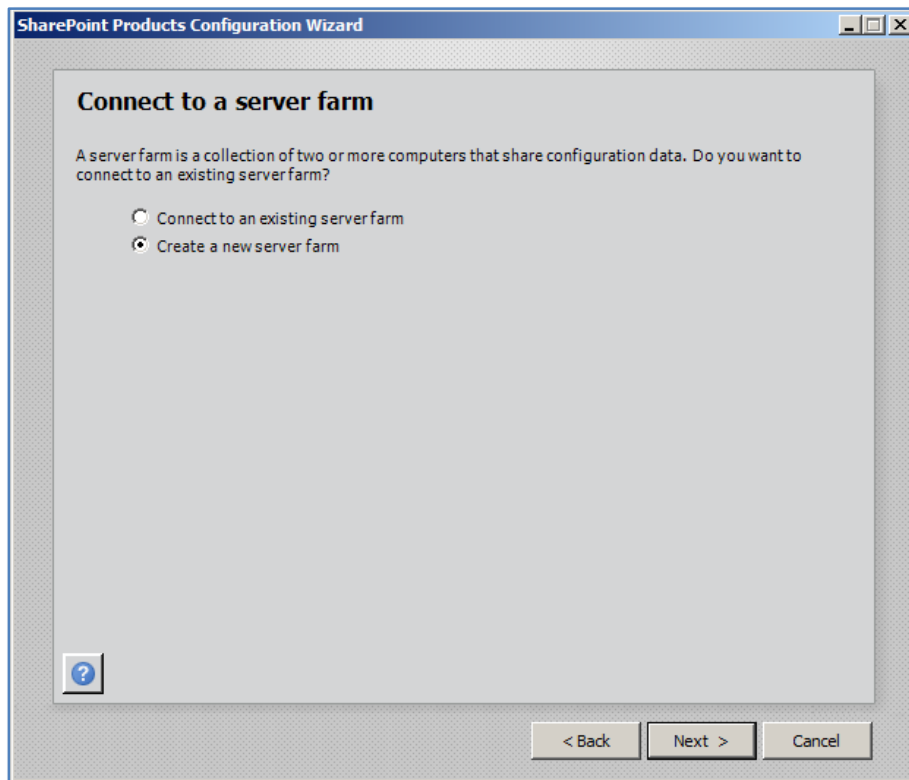
- Internet Information Services
- SharePoint Administration Service V4
- SharePoint Timer Service V4

Note that any users making use of these services on the Windows Server will have their processes interrupted during this process. If you do not wish this to happen press the **No** button to abort the process.

Press the **Yes** button to proceed.

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If you did not select a Standalone installation you are now presented with the option to either connect to an existing SharePoint Server 'SharePoint farm' or create a new server farm. In this case, because this is a new installation, select – **Create a new server farm** and press the **Next** button to continue.

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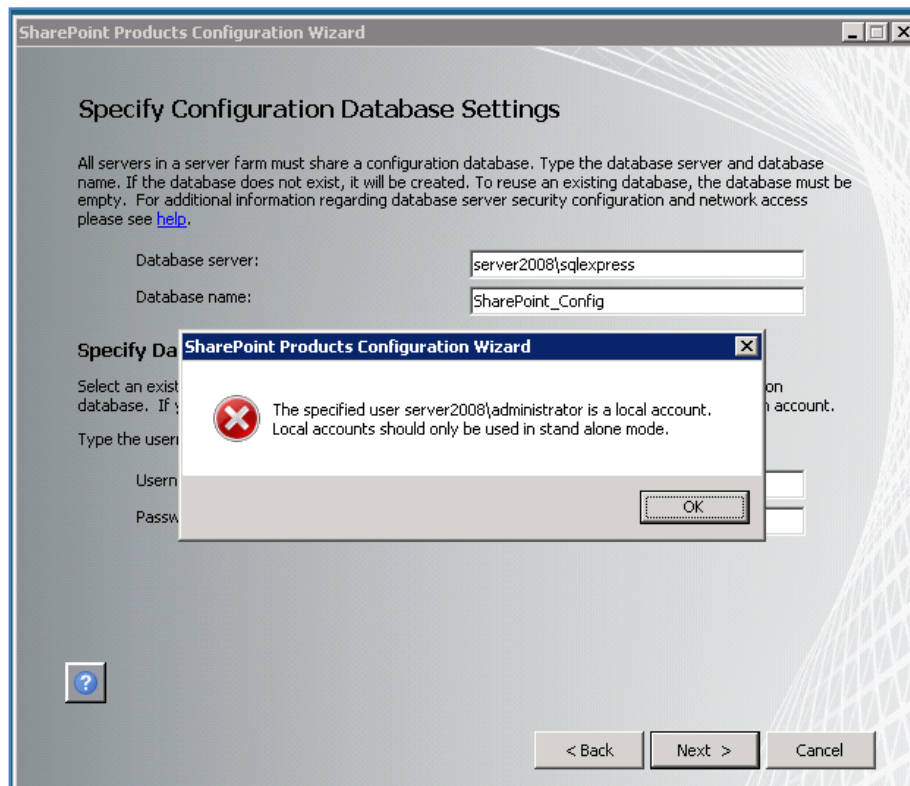
The screenshot shows the 'Specify Configuration Database Settings' step of the SharePoint Products Configuration Wizard. The window title is 'SharePoint Products Configuration Wizard'. The main heading is 'Specify Configuration Database Settings'. Below the heading, there is a paragraph of instructions: 'All servers in a server farm must share a configuration database. Type the database server and database name. If the database does not exist, it will be created. To reuse an existing database, the database must be empty. For additional information regarding database server security configuration and network access please see [help](#).' There are two text input fields: 'Database server:' with the value 'server\sqlexpress' and 'Database name:' with the value 'SharePoint\_Config'. Below this is the 'Specify Database Access Account' section. It contains a paragraph: 'Select an existing Windows account that this machine will always use to connect to the configuration database. If your configuration database is hosted on another server, you must specify a domain account. Type the username in the form DOMAIN\User\_Name and password for the account.' There are two text input fields: 'Username:' with the value 'domain\spfarm' and 'Password:' with a masked password of ten dots. At the bottom left is a help icon (a question mark in a square). At the bottom right are three buttons: '< Back', 'Next >', and 'Cancel'.

Because you selected the option to create new farm (Advanced installation) you will now be prompted for the location of your database server. The *Server Farm Installation* option selected previously does not automatically install the Microsoft SQL Server 2008 Express Edition and thus you will need to already have a compatible database server available on your network. Typically, this database server will be Microsoft SQL Server (2008 Express, Express R2, Workgroup, Standard, etc). For more information about the WSF database options see - **Chapter 8 – Database Operations**.

Note that you may be required to enter your database server name as `<SERVER>\<INSTANCE>` and the database access account as `<domain>\<username>`.

When these options are complete, press the **Next** button to continue.

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If you attempt to install onto a server that is not part of a domain you will see the above screen informing you that local user accounts can only be used in stand-alone mode. You are also prevented from proceeding further.

This is different from what happens with Microsoft Office SharePoint Server (MOSS). It means in effect that to install SharePoint Server using the *Server Farm* method the server needs to be installed on will need to be part of a domain.

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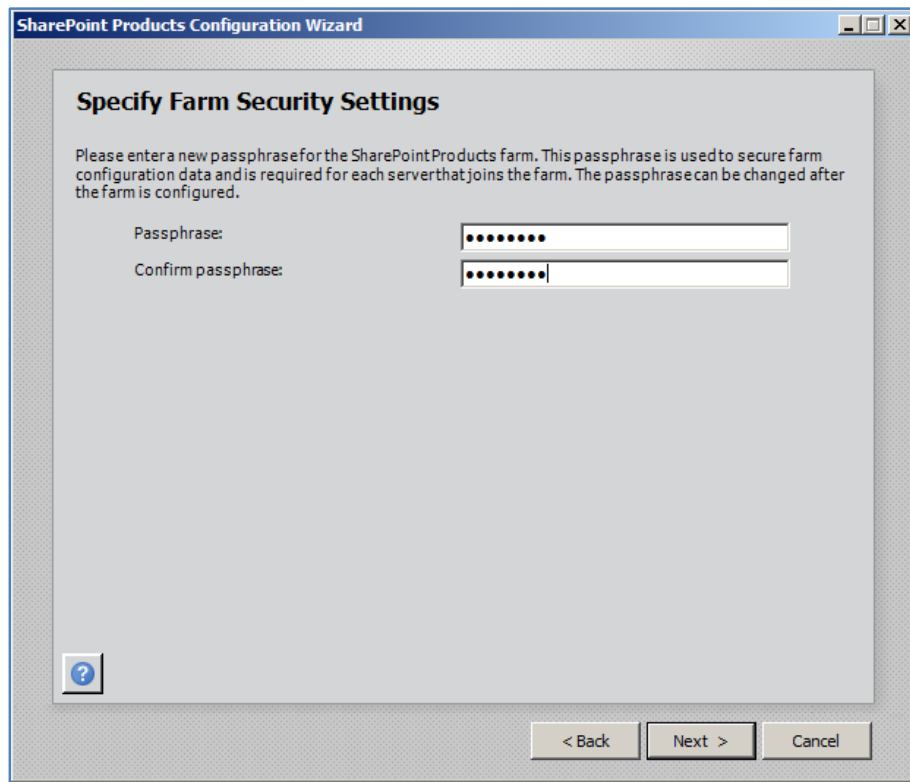
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The screenshot shows the 'Specify Configuration Database Settings' step of the SharePoint Products Configuration Wizard. The window title is 'SharePoint Products Configuration Wizard'. The main heading is 'Specify Configuration Database Settings'. Below the heading is a paragraph of instructions: 'All servers in a server farm must share a configuration database. Type the database server and database name. If the database does not exist, it will be created. To reuse an existing database, the database must be empty. For additional information regarding database server security configuration and network access please see [help](#).' There are two input fields: 'Database server:' with the value 'server\sqlexpress' and 'Database name:' with the value 'SharePoint\_Config'. Below this is the 'Specify Database Access Account' section, which includes instructions: 'Select an existing Windows account that this machine will always use to connect to the configuration database. If your configuration database is hosted on another server, you must specify a domain account. Type the username in the form DOMAIN\User\_Name and password for the account.' There are two input fields: 'Username:' with the value 'domain\spfarm' and 'Password:' with a masked password of ten dots. At the bottom left is a help icon (a question mark in a square). At the bottom right are three buttons: '< Back', 'Next >', and 'Cancel'.

Once the server is on a domain and you have completed the required fields, press the **Next** button to continue.

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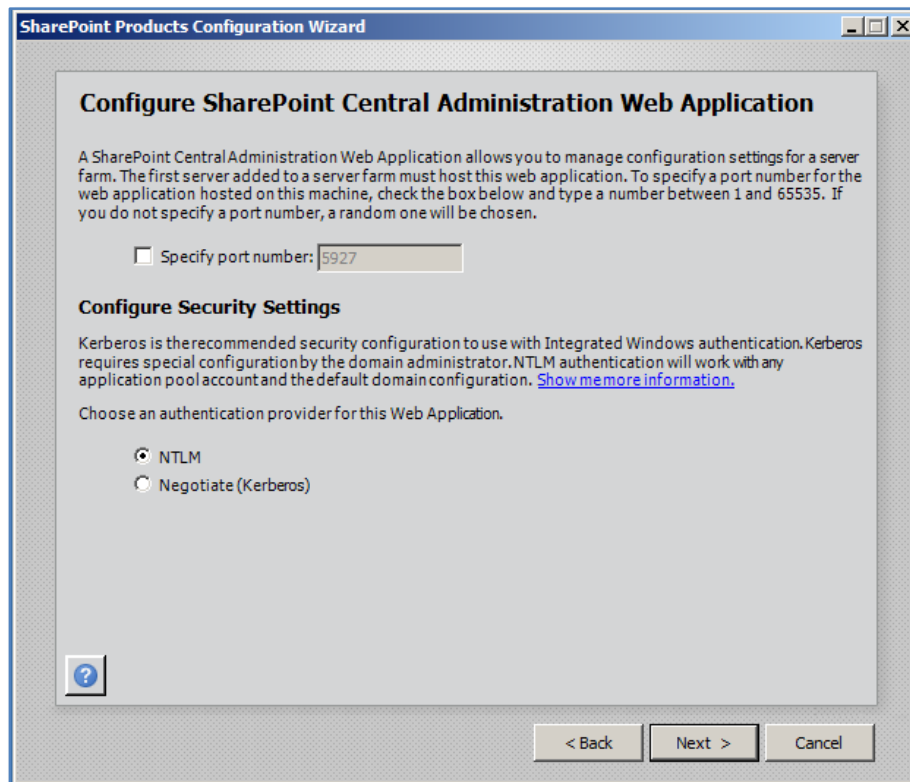


You will now be prompted to enter a passphrase. This passphrase is used by SharePoint Server to allow the different components and servers in a farm to communicate securely.

This is an additional option that is not available in Microsoft Office SharePoint Server (MOSS).

Enter the desired passphrase, ensuring that it meets your security policy and press the **Next** button to continue. Note you may change this password later if desired.

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Now you will be prompted to set the SharePoint Central Administration Web Site port number if you want. By default, the installation will choose a random port. This configuration will ensure that the SharePoint Central Administration site doesn't conflict with an existing web site (especially the default web site on port 80). It is recommended that you leave this option unchecked so the installation can select a free random port.

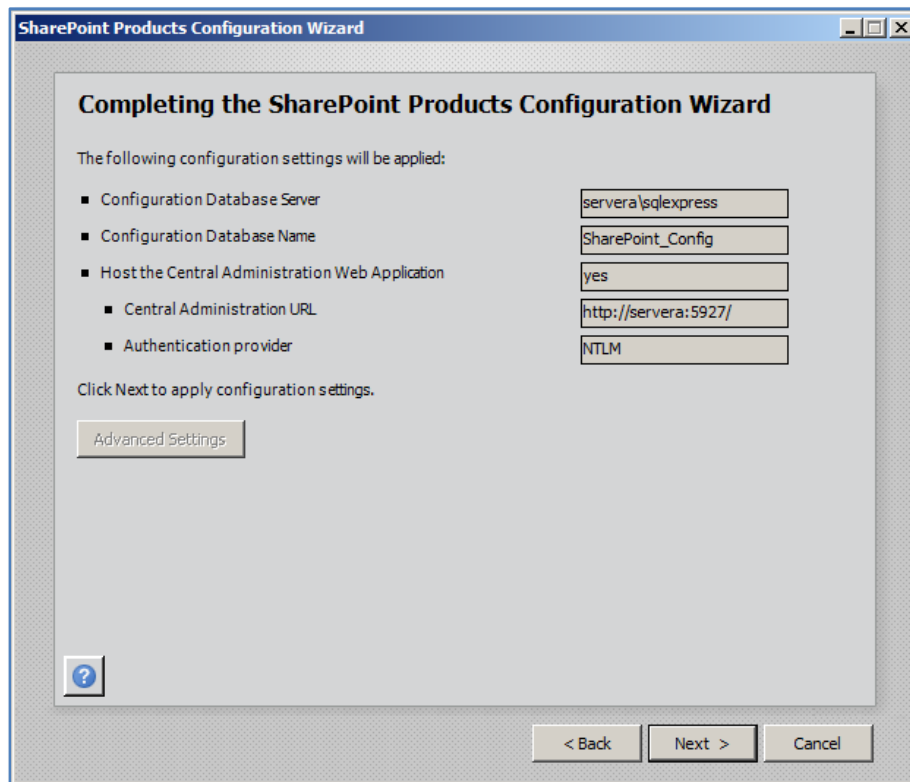
You are also prompted for the authentication provider required for SharePoint Server security. This provider is referenced by SharePoint Server to determine who has access to the information in SharePoint Server. It is possible to change this at a later stage, however initially, it is recommended that it be left as NTLM.

When this is complete press the **Next** button to continue.



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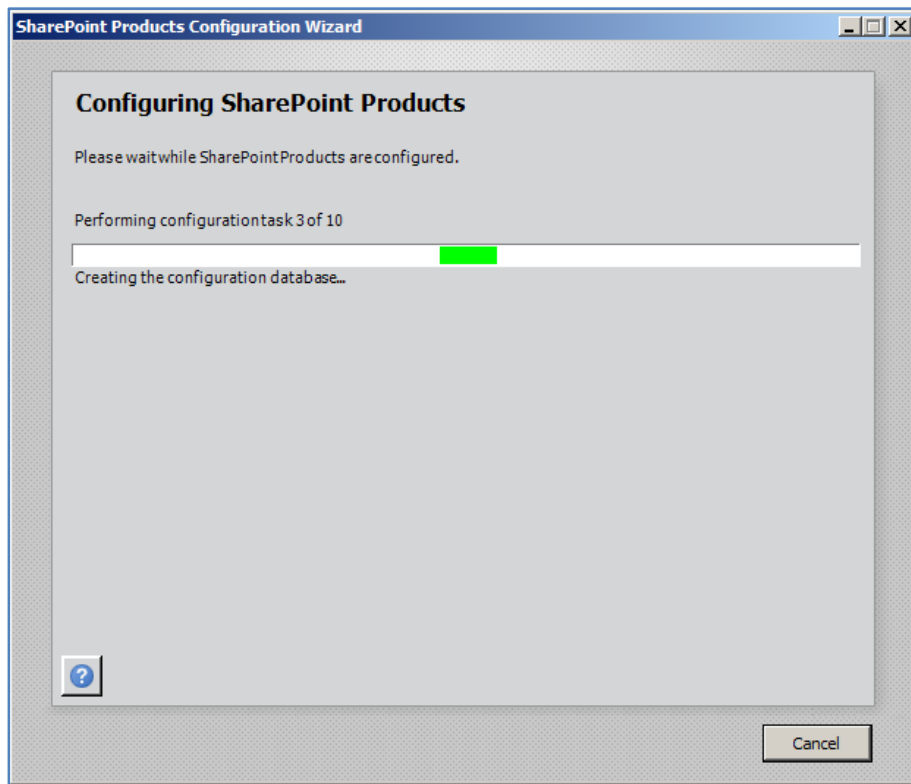
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You are now finally presented with a summary of your installation choices. After reviewing these press the **Next** button to continue.

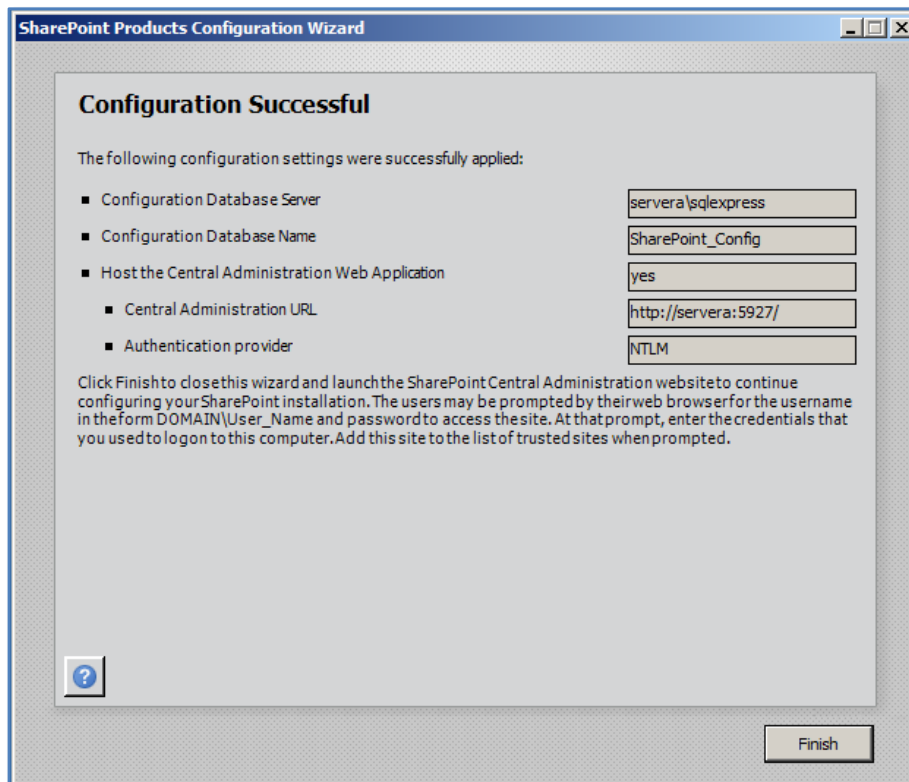
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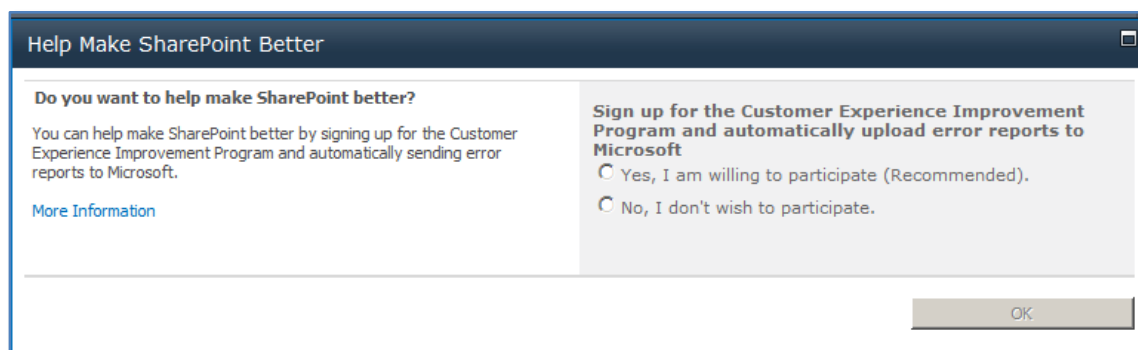


The configuration wizard will now run through ten or so stages to complete the configuration on the server. During this process there is no option to enter further information and the only option available is to press the **Cancel** button to halt the process.

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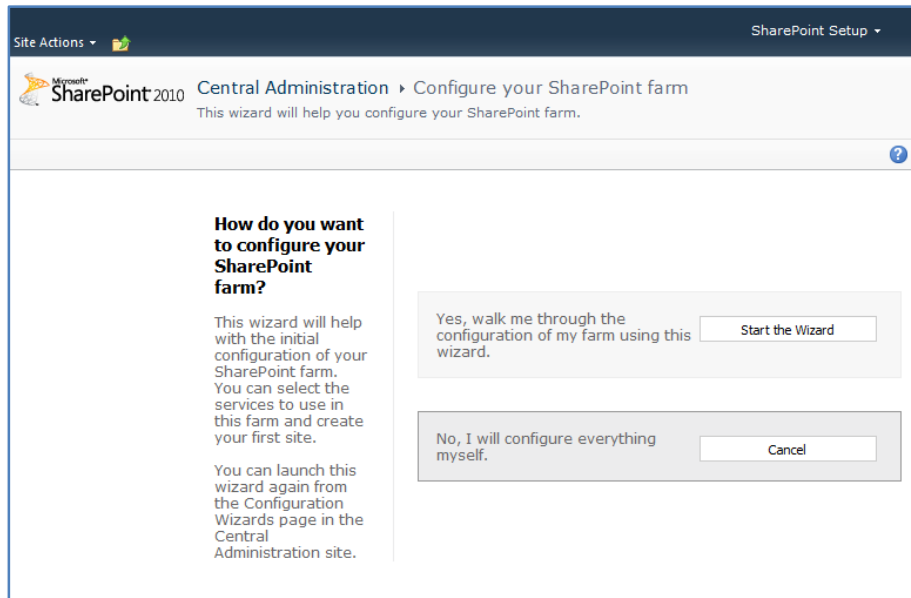


Once the wizard has completed all the steps you will see the above summary screen indicating that the configuration was successful. Press the **Finish** button to continue.



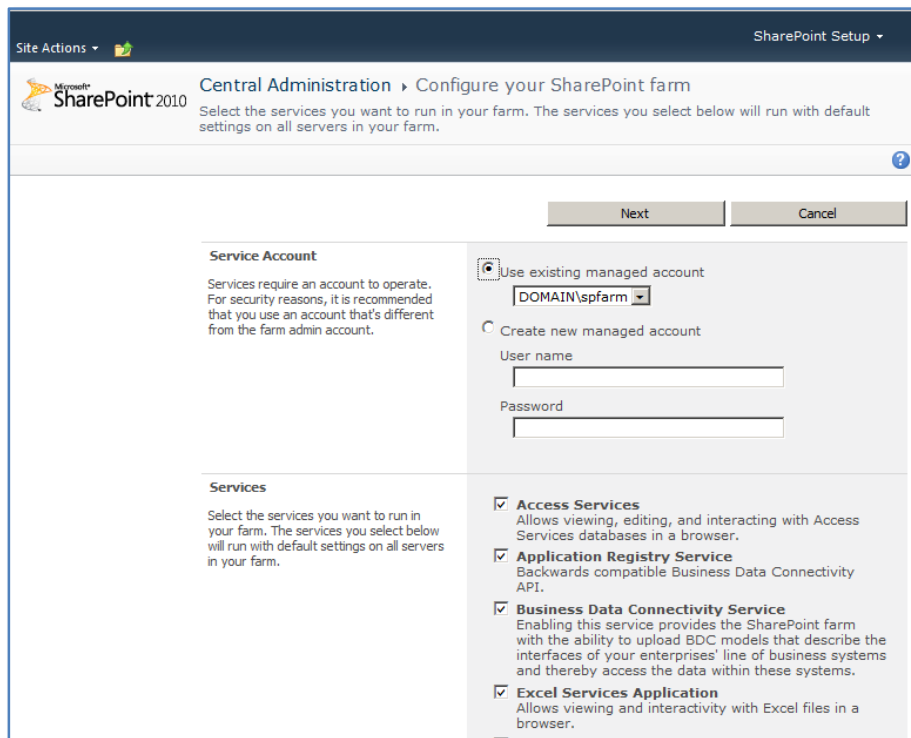
You will now be taken to the SharePoint Central administration site and prompted to whether you wish to participate in the Customer Experience Program. Make your selection and press **OK**.

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You will now be taken to the SharePoint Central administration site. The process will also start the SharePoint configuration wizard for you as shown above.

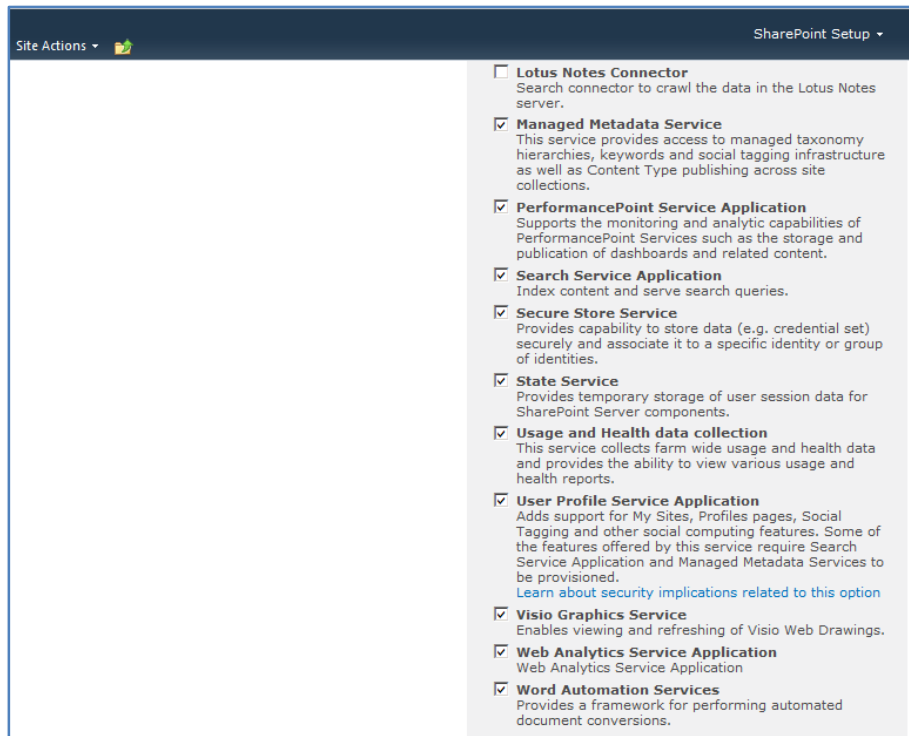
In most cases you will need to add the server URL to the safe sites to allow the scripts that run the wizard to function.



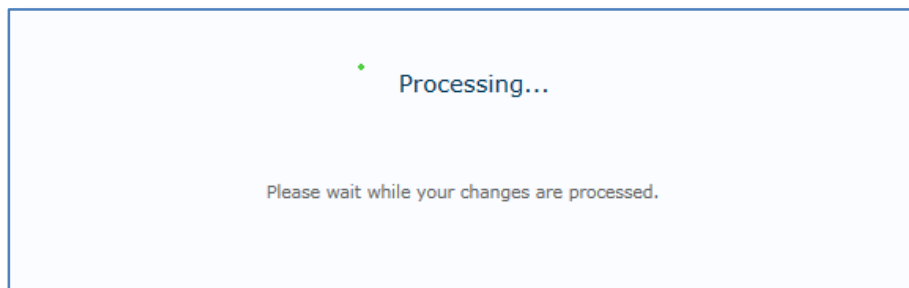
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You should now be presented with the options for the desired *Service Account* and *Services*.

You will also see a selection of services to configure. Unselect those which are not desired and scroll down the screen for more options.



Make the desired selections and press the **Next** button to continue.



Your selections will now be configured. This process may take a few minutes to run and should not be interrupted.

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Microsoft SharePoint 2010 Central Administration > Configure your SharePoint farm  
Use this page to create a new top-level Web site.

Skip OK Cancel

**Title and Description**  
Type a title and description for your new site. The title will be displayed on each page in the site.

Title:  
Description:

**Web Site Address**  
Specify the URL name and URL path to create a new site, or choose to create a site at a specific path.  
To add a new URL Path go to the [Define Managed Paths](#) page.

URL:  
http://servera/

**Template Selection**  
A site template determines what lists and features will be available on your new site. Select a site template based on the descriptions of each template and how you intend to use the new site. Many aspects of a site can be

Select a template:  
Collaboration Meetings Enterprise Publishing Custom  
Team Site  
Blank Site  
Document Workspace  
Blog  
Group Work Site  
Visio Process Repository

The next step in the wizard process is to select a *Title* for the site as well as the *Template* on which it will be based.

Now select the template you wish to use when creating your SharePoint Site site.

Make you desired selections and press the **Next** button to continue.

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**Web Site Address**  
Specify the URL name and URL path to create a new site, or choose to create a site at a specific path.  
To add a new URL Path go to the [Define Managed Paths](#) page.

**Template Selection**  
A site template determines what lists and features will be available on your new site. Select a site template based on the descriptions of each template and how you intend to use the new site. Many aspects of a site can be customized after creation. However, the site template cannot be changed once the site is created.

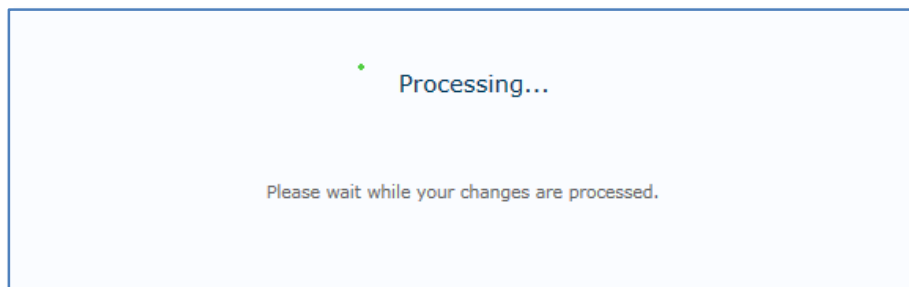
URL:  
**http://servera/**

Select a template:  
Collaboration Meetings Enterprise Publishing Custom

- Team Site
- Blank Site
- Document Workspace
- Blog
- Group Work Site
- Visio Process Repository

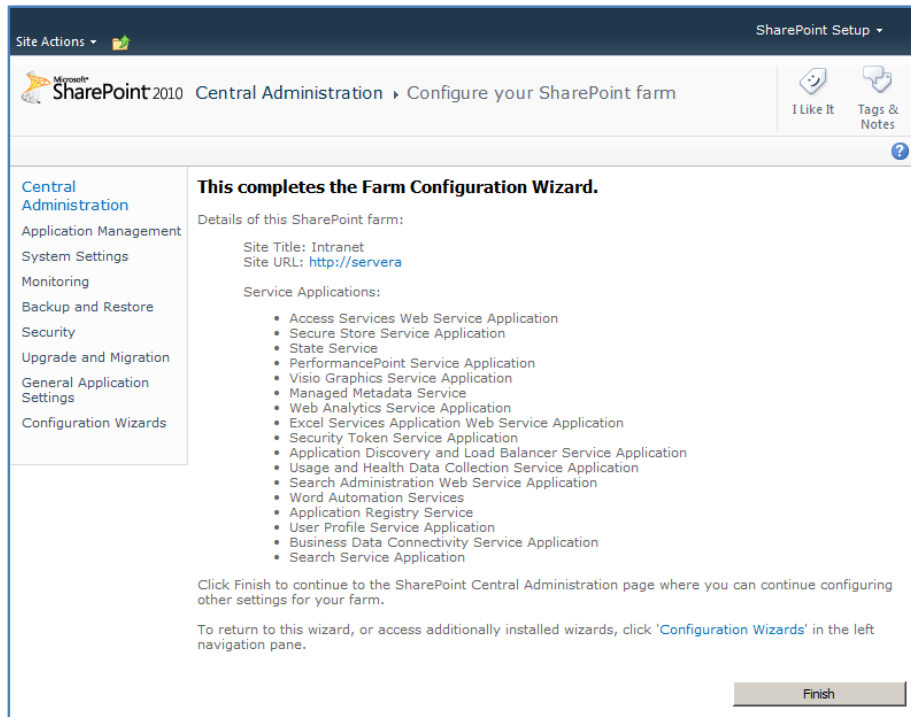
A site for teams to quiddly organize, author, and share information. It provides a document library, and lists for managing announcements, calendar items, tasks, and discussions.

Skip OK Cancel

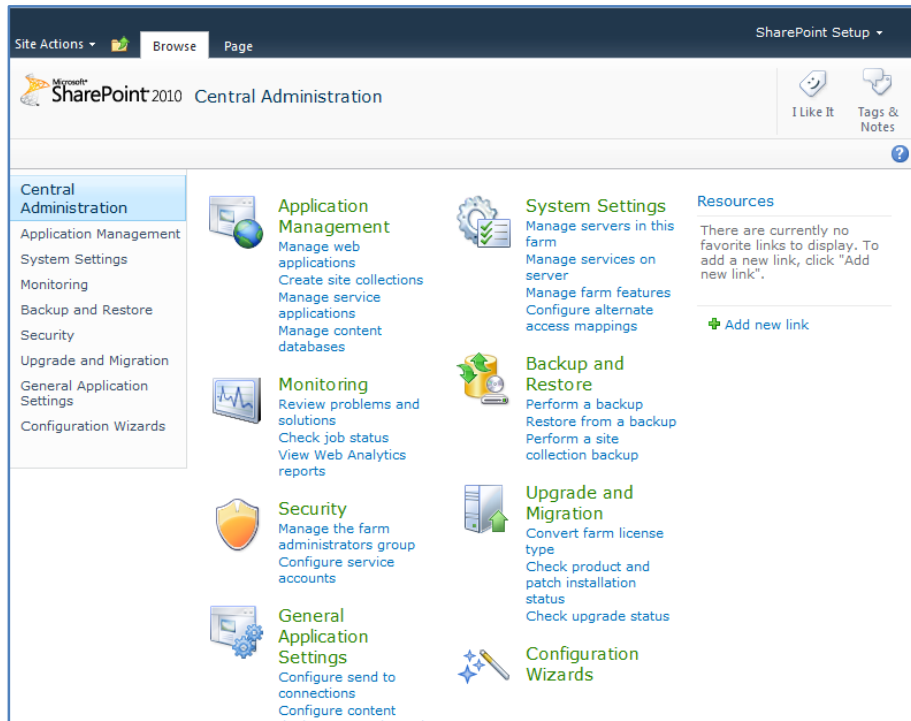


Your selections will now be configured. This process may take a few minutes to run and should not be interrupted.

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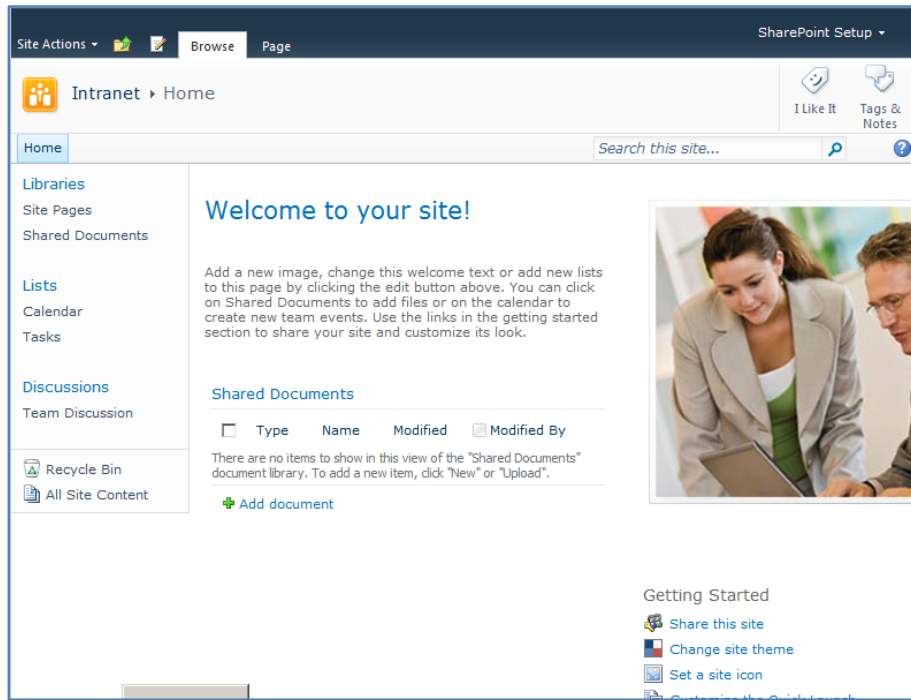
Once processing is complete the wizard will finish. You will see a link in the middle of the page to your new SharePoint site (in this case <http://servera>). Click on this link to display your new SharePoint Server site.





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If everything has completed successfully you should now see the familiar SharePoint Server team web site displayed in your browser. You will note that this site is now the default web site for that server (i.e. operates on port 80).



## 3.4 Conclusion

Prior to any installation you need to decide on what type of installation you wish to perform, advanced, default or stand alone. Each of these options presents a number of different options that can be selected during the installation process and can affect the future growth of your installation.

Please send your comments and feedback to [director@ciaops.com](mailto:director@ciaops.com).