

Team Foundation Server 2013 Installation Guide



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Chapter 1: Install Windows 2012 Server

The first step of installing Team Foundation Server 2013 is to install Windows Server. Since this installation guide is focused on installing TFS onto a single server – aka. the TFS App Tier and Data Tier will be installed on a single machine – we have to look at the system requirements for all the pieces of TFS plus the requirements for SQL Server Reporting Services, SQL Server Analysis Services, and SharePoint. This guide will show you how to install TFS2013 on a single server and will use SharePoint Foundation 2013 for the SharePoint integration.

Why am I writing all this in the chapter about installing Windows Server 2012? Because at the current moment, SharePoint Foundation 2013 is not supported on Windows Server 2012 R2. Notice that I said “2012 R2” and not “2012”. This isn’t a TFS2013 limitation but because we’re relying on SharePoint Foundation 2013, it means that we need to install TFS2013 on *Windows 2012*.

Install Windows Server 2012

- Either insert your **Windows Server 2012 DVD** into your DVD drive or mount the **Windows Server 2012 ISO image** into your virtual machine.
- Start the machine

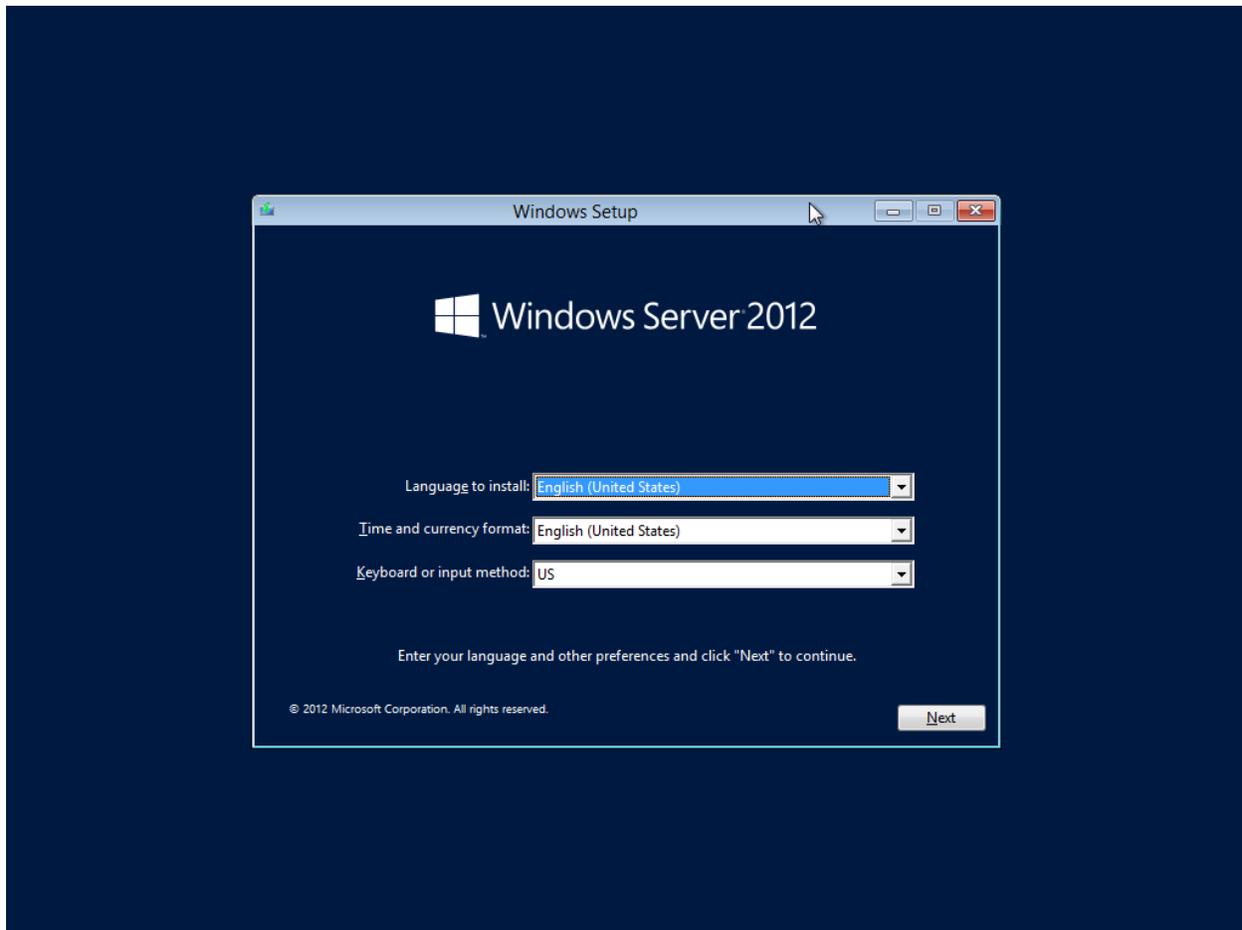
You'll eventually see a message that says Press any key to boot from CD or DVD.



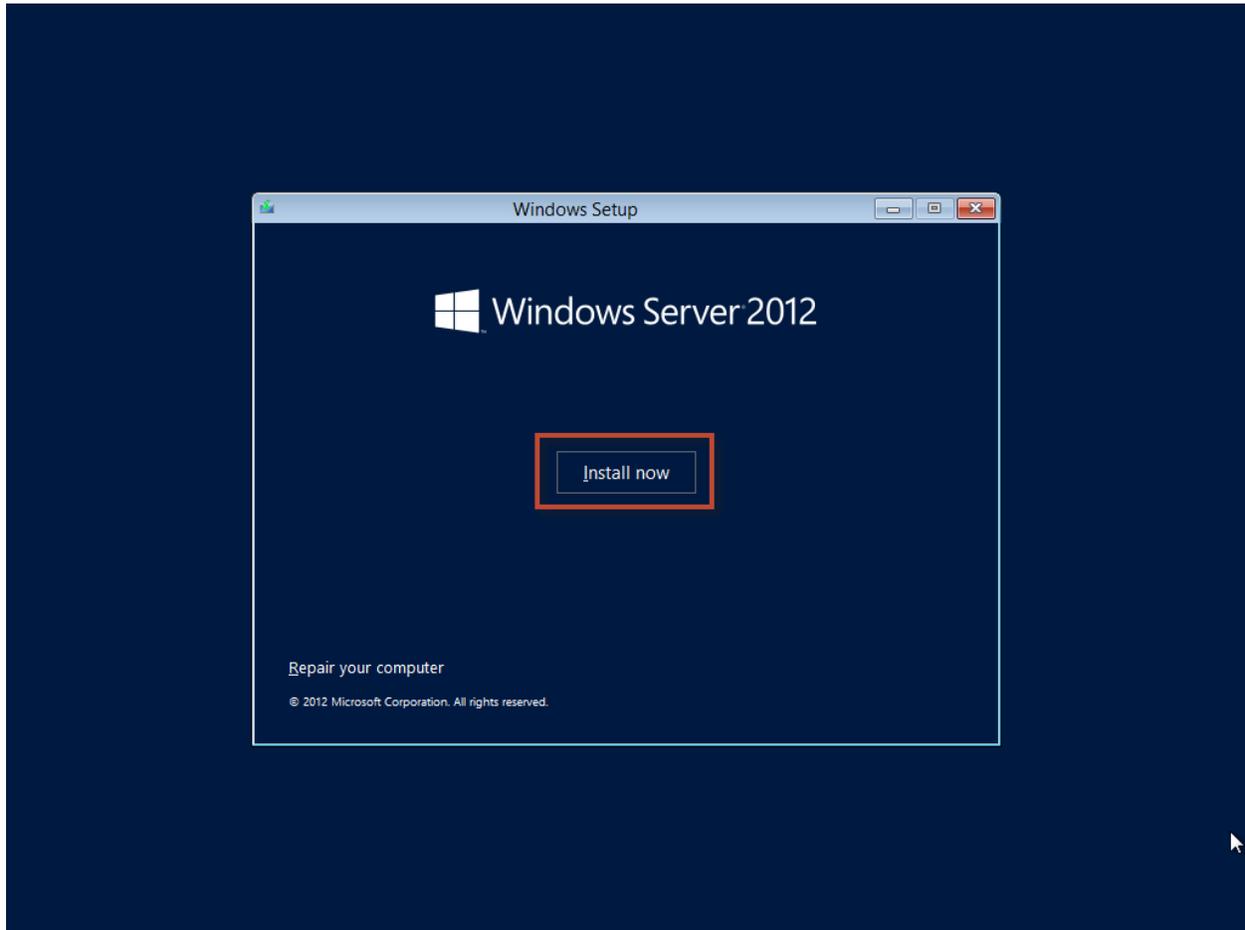
```
Press any key to boot from CD or DVD.....
```

- Press any key (example: <SPACE>) to run the Windows Server installer

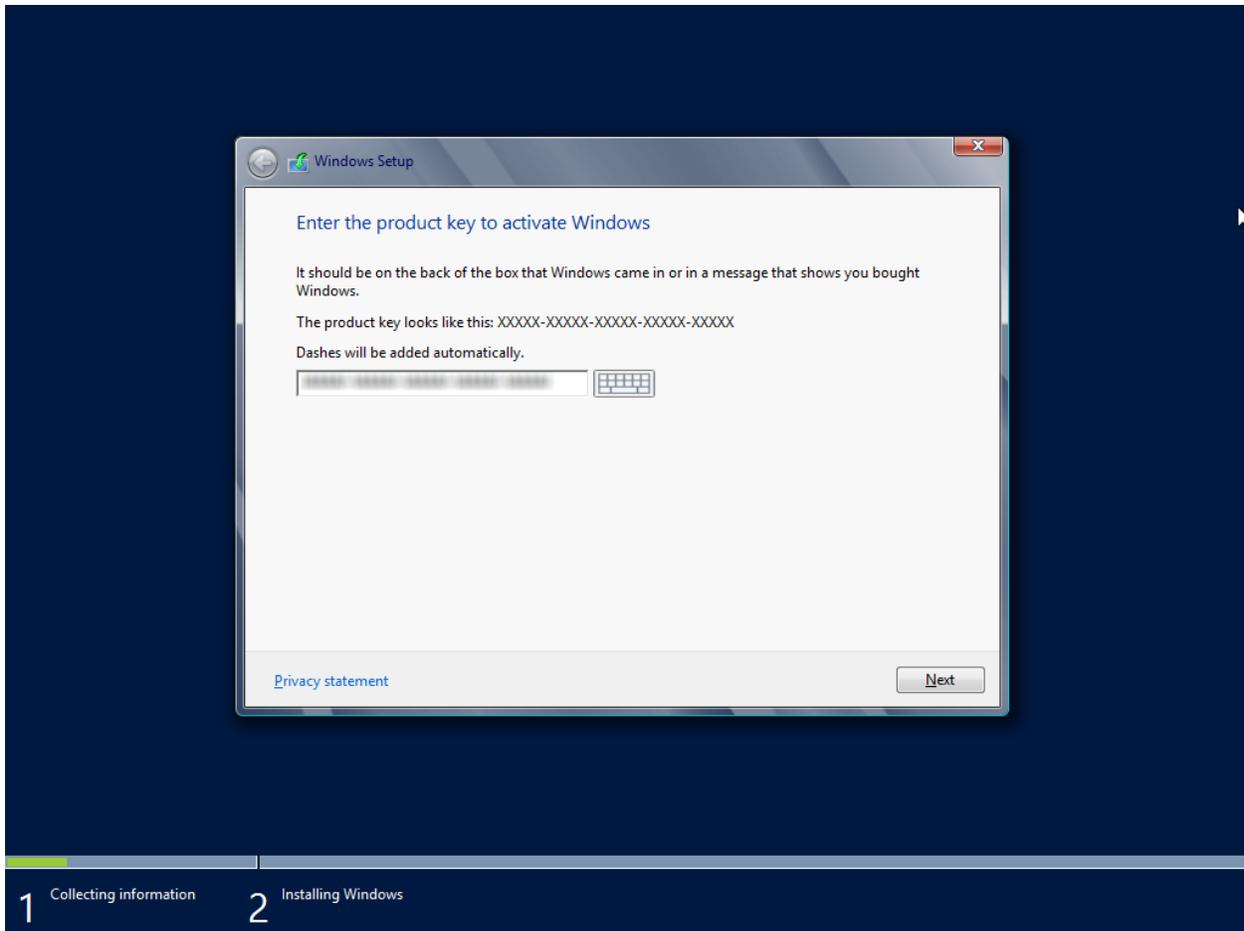
You should see the Windows Setup dialog which prompts you to choose your language, time/currency formats, and keyboard/input method. This guide will assume that you choose "English (United States)" for Language, Time/Currency and choose "US" for the keyboard settings.



- Choose your **Language to install**
- Choose your **Time and currency format**
- Choose your **Keyboard or input method**
- Click **Next**

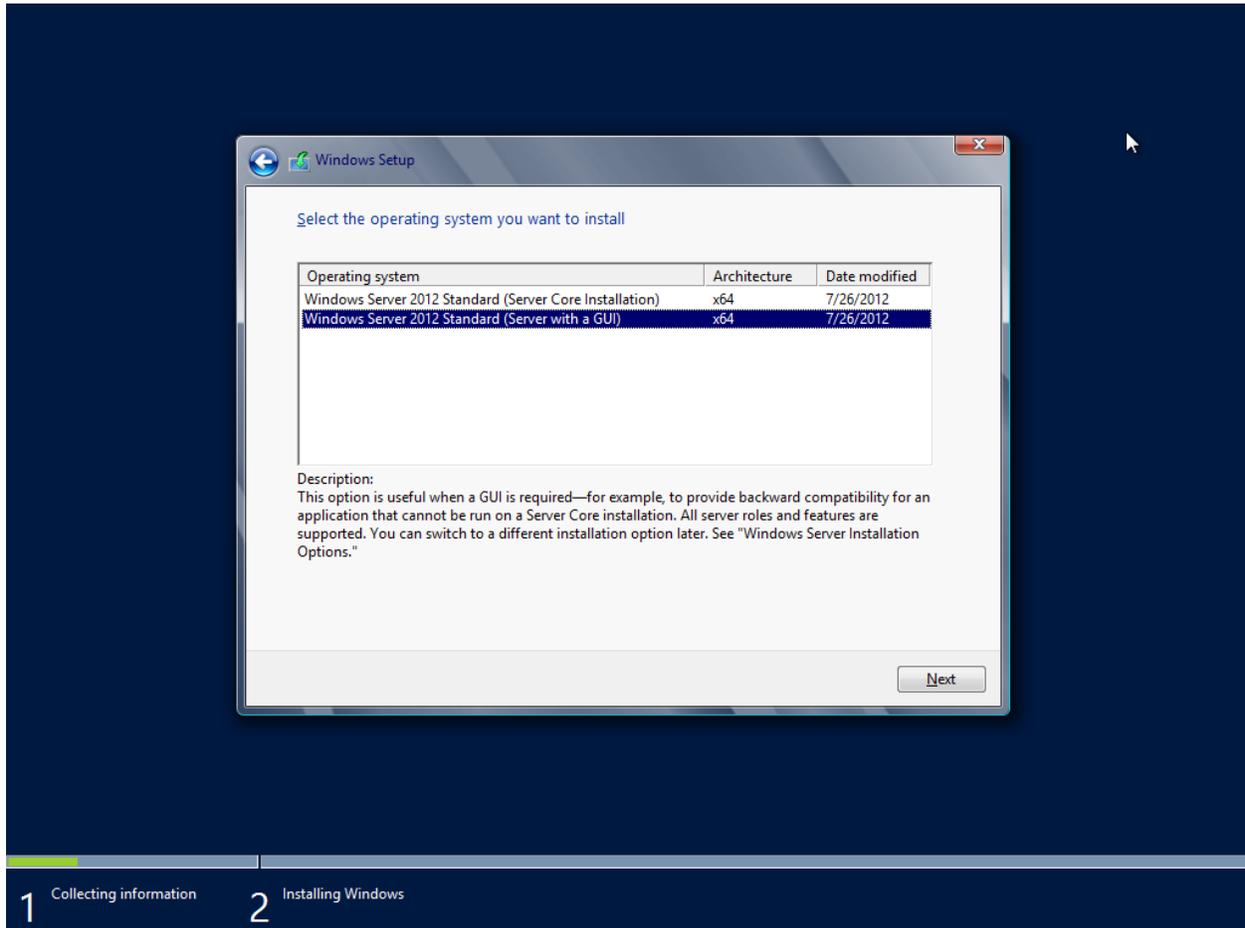


- Click the **Install now** button

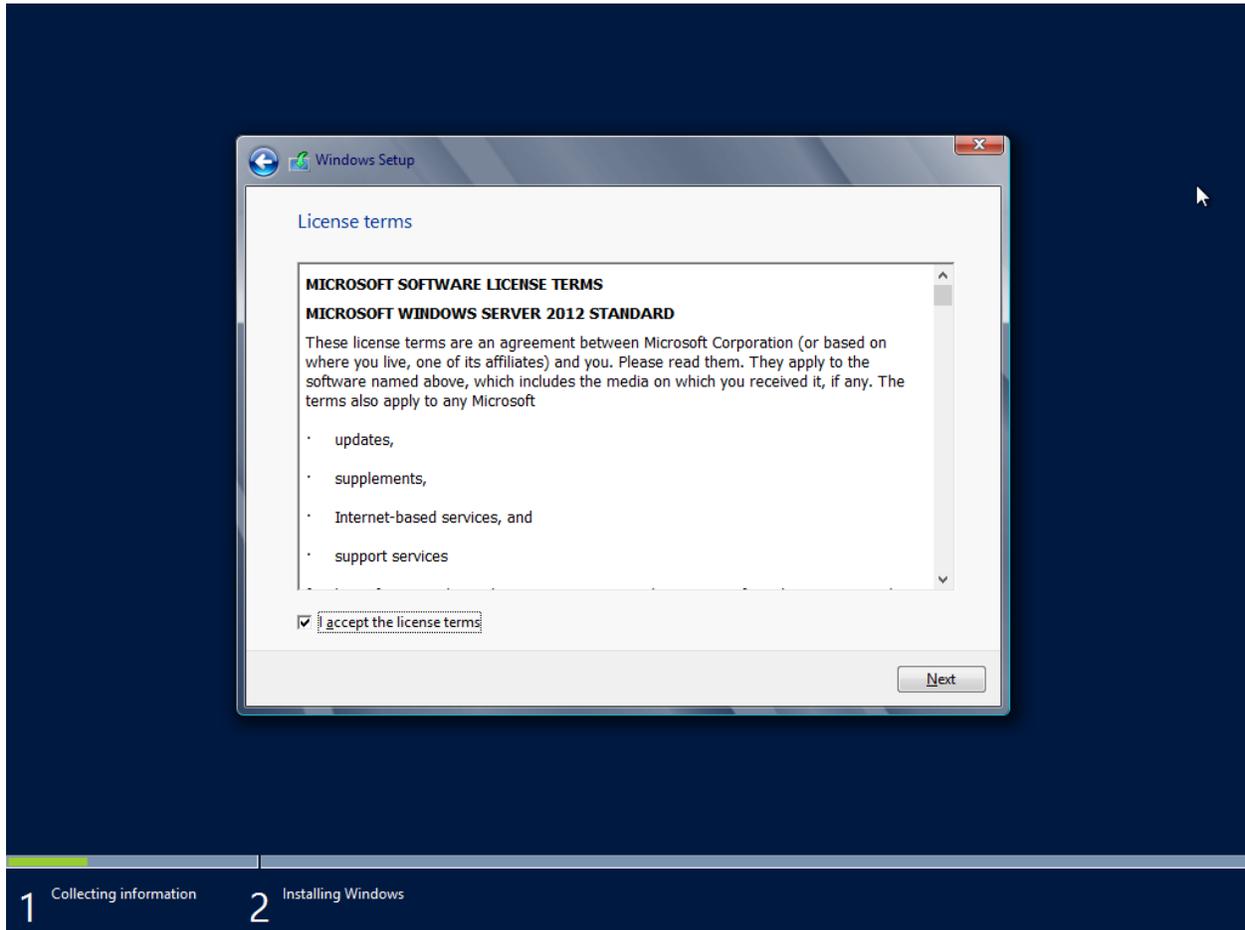


- Enter your **product key**
- Click **Next**

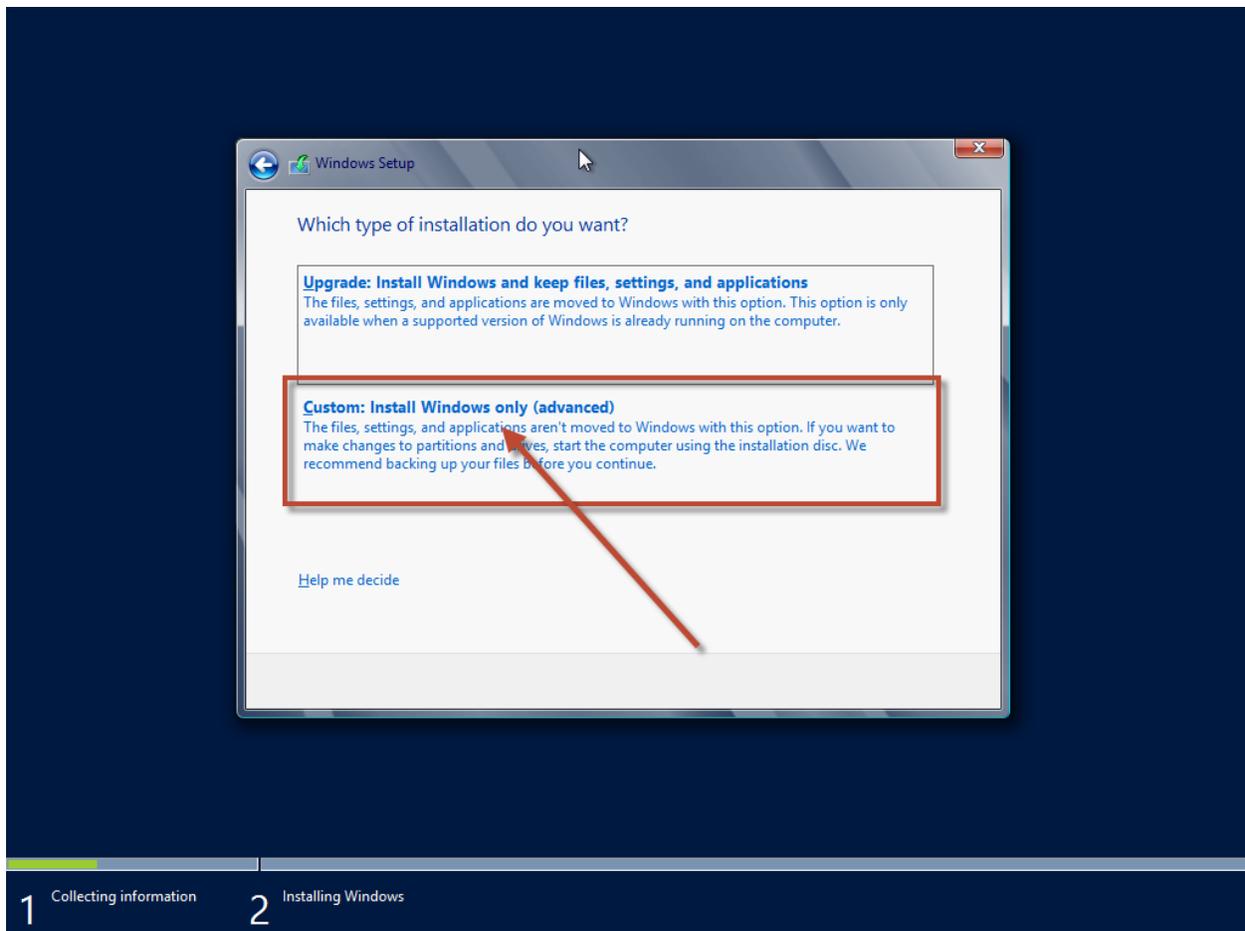
You should see a dialog asking you to **Select the operating system you want to install.**



- Choose **Windows Server 2012 Standard (Server with a GUI)**
- Click **Next**

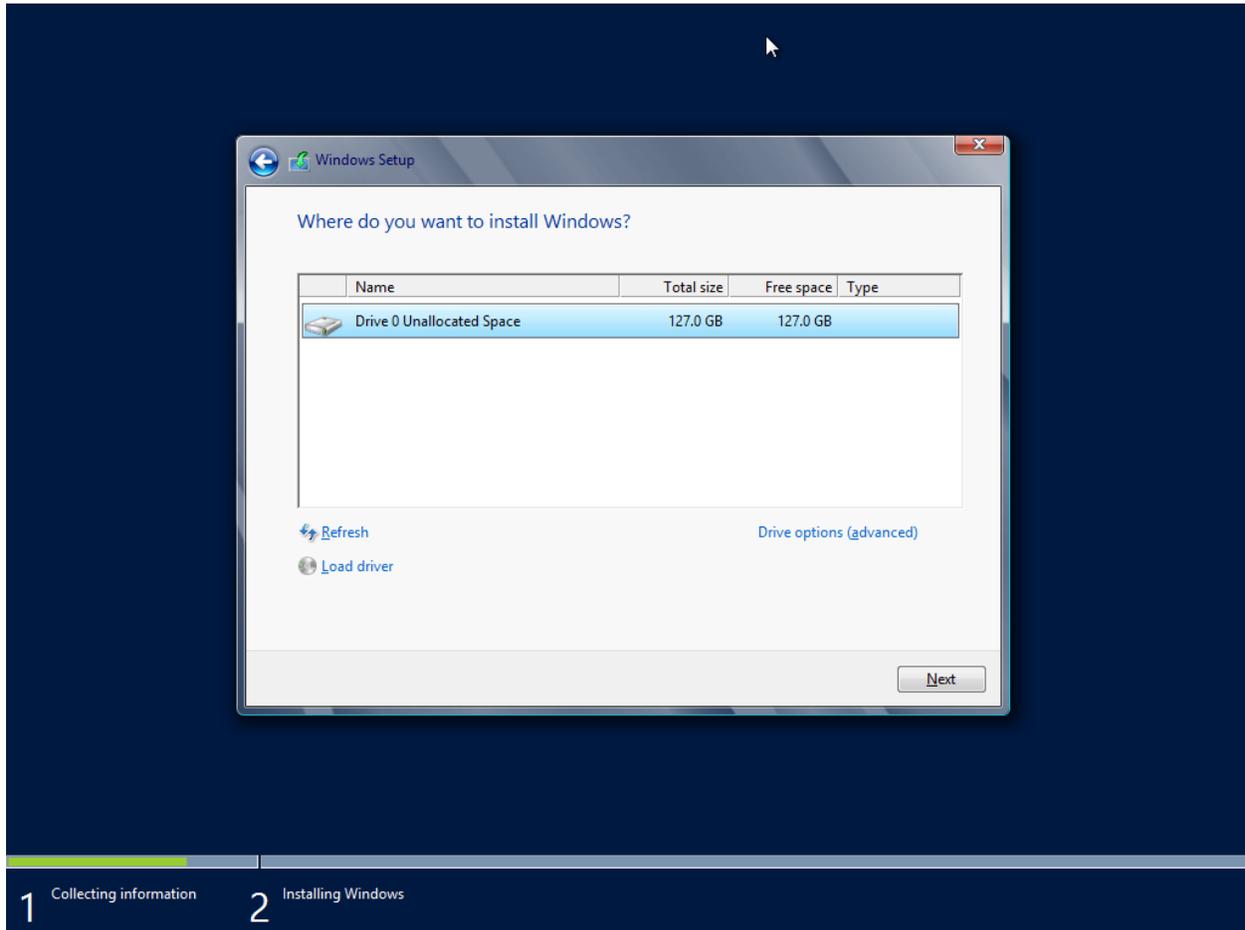


- Check the **I accept the license terms** checkbox
- Click **Next**



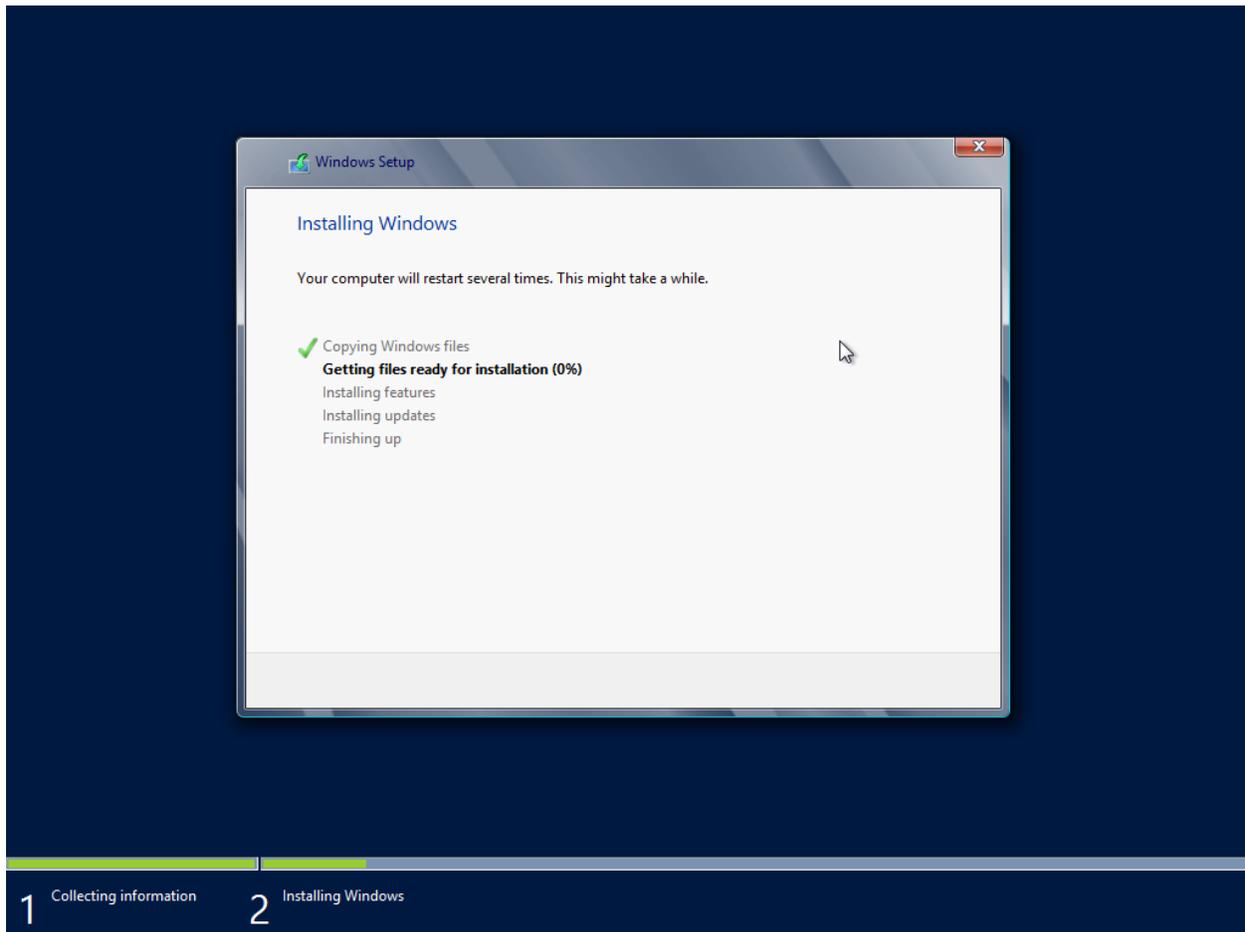
- Click **Custom: Install Windows only (advanced)**

You should now see a list of disks and partitions.

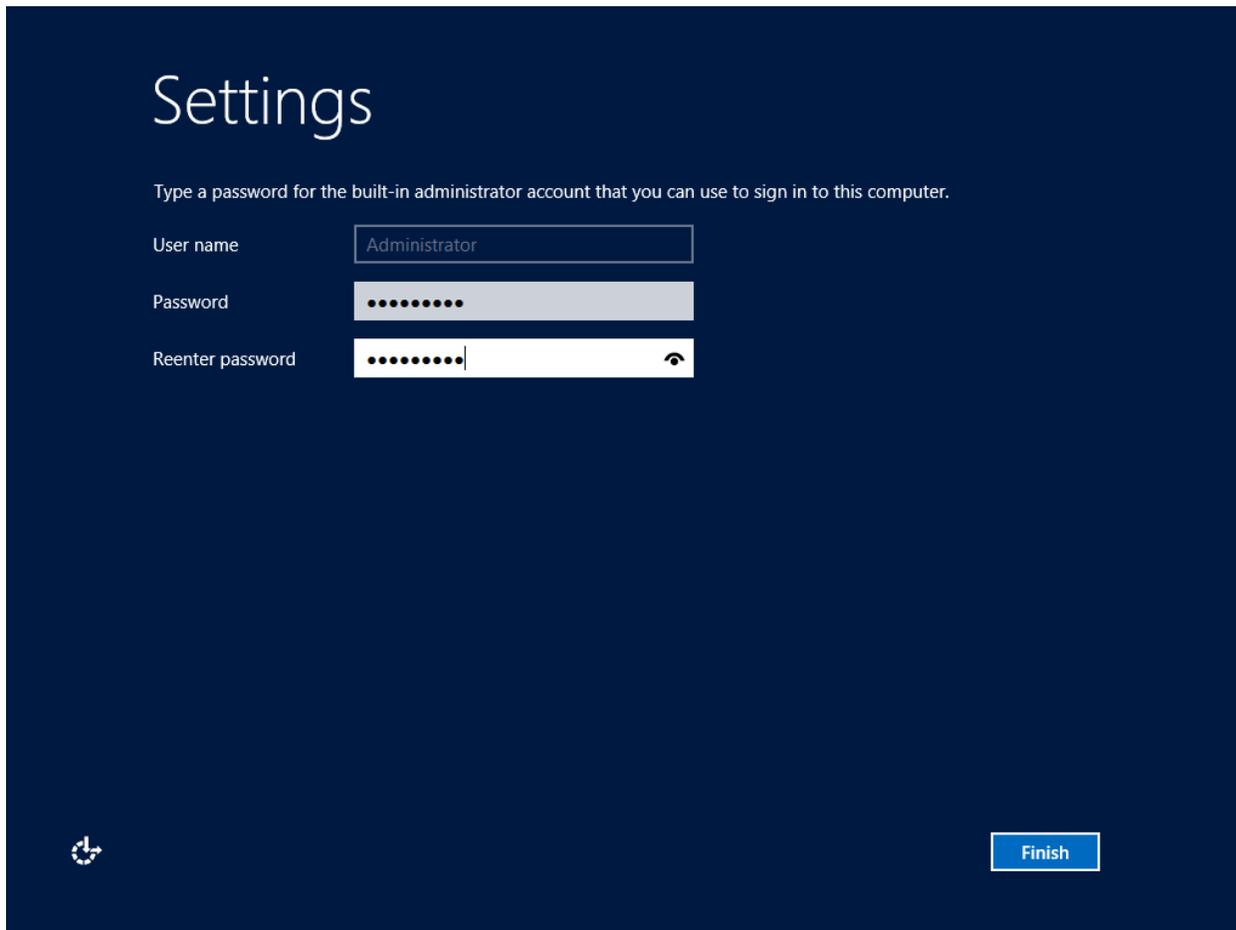


- Choose the disk and/or partition where you want to install Windows
- Click **Next**

The installation should now be running.



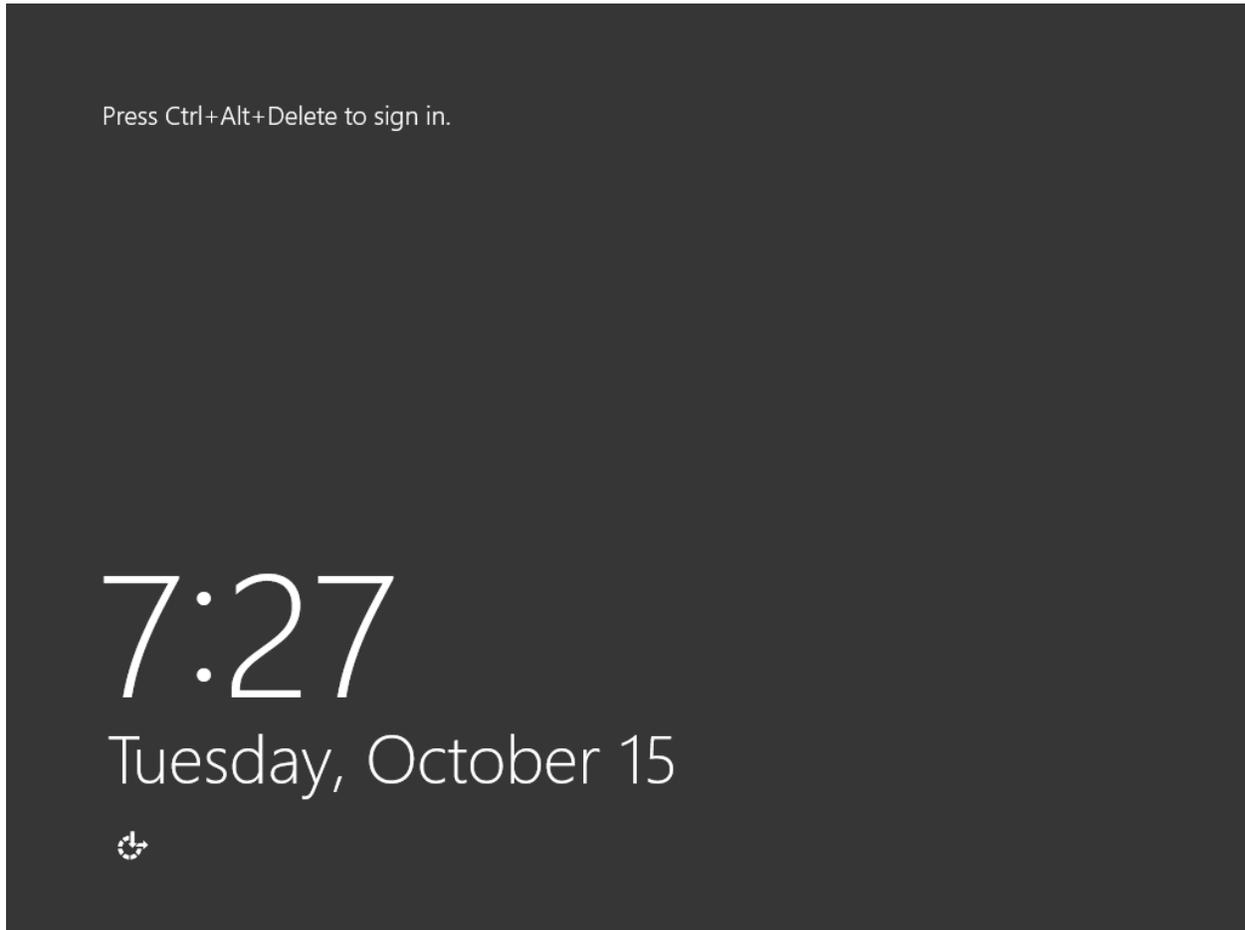
After the installer has finished setting up windows on your disk, you'll be prompted to supply an administrator password.



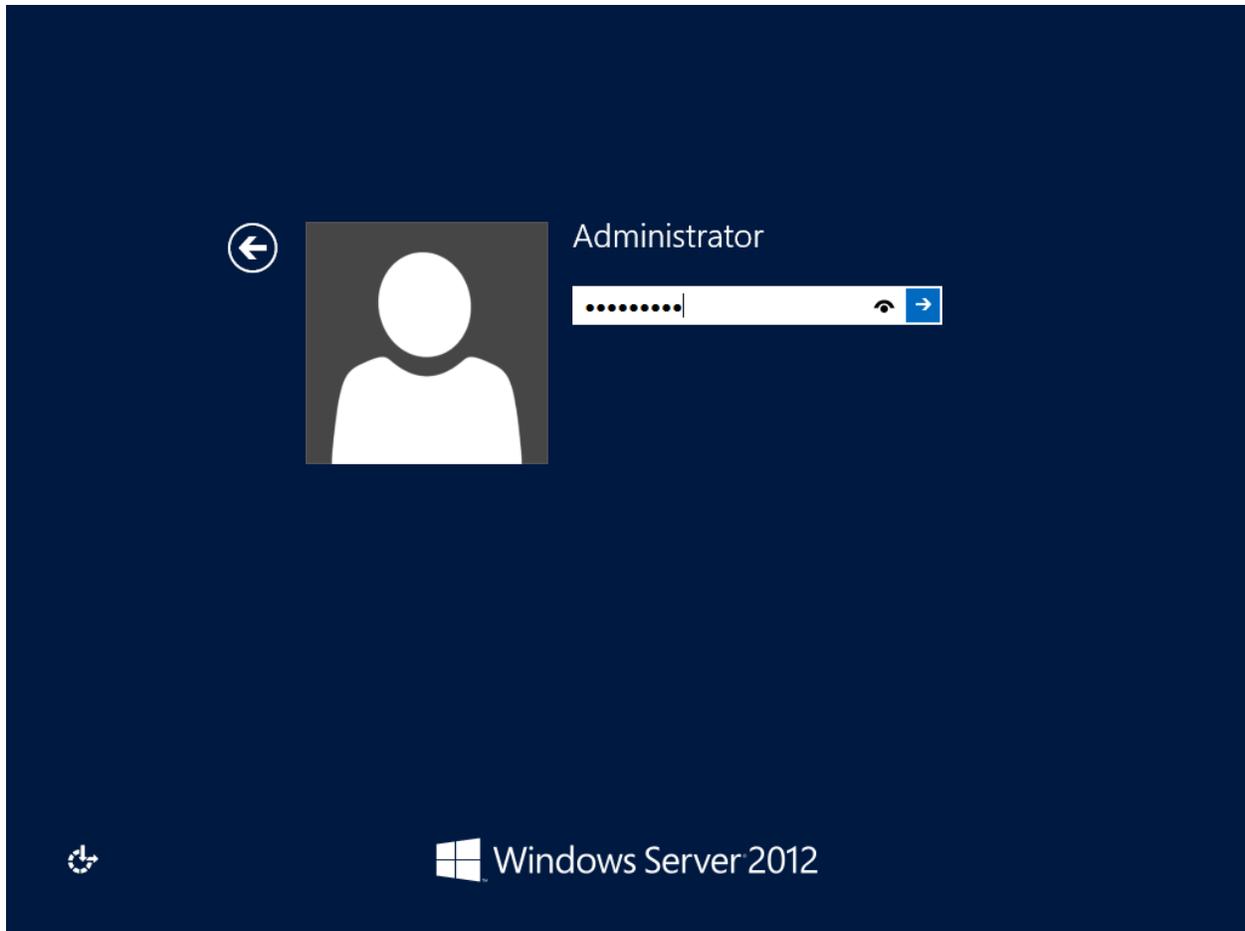
The screenshot shows a dark blue background with the word "Settings" in white at the top. Below it, a white instruction reads: "Type a password for the built-in administrator account that you can use to sign in to this computer." There are three input fields: "User name" containing "Administrator", "Password" with ten black dots, and "Reenter password" with ten black dots and a small eye icon on the right. A blue "Finish" button is in the bottom right corner, and a white circular arrow icon is in the bottom left corner.

- Enter an administrator password in the **Password** and **Reenter password** boxes
- Click the **Finish** button

You should now see the Windows Server 2012 lock screen.

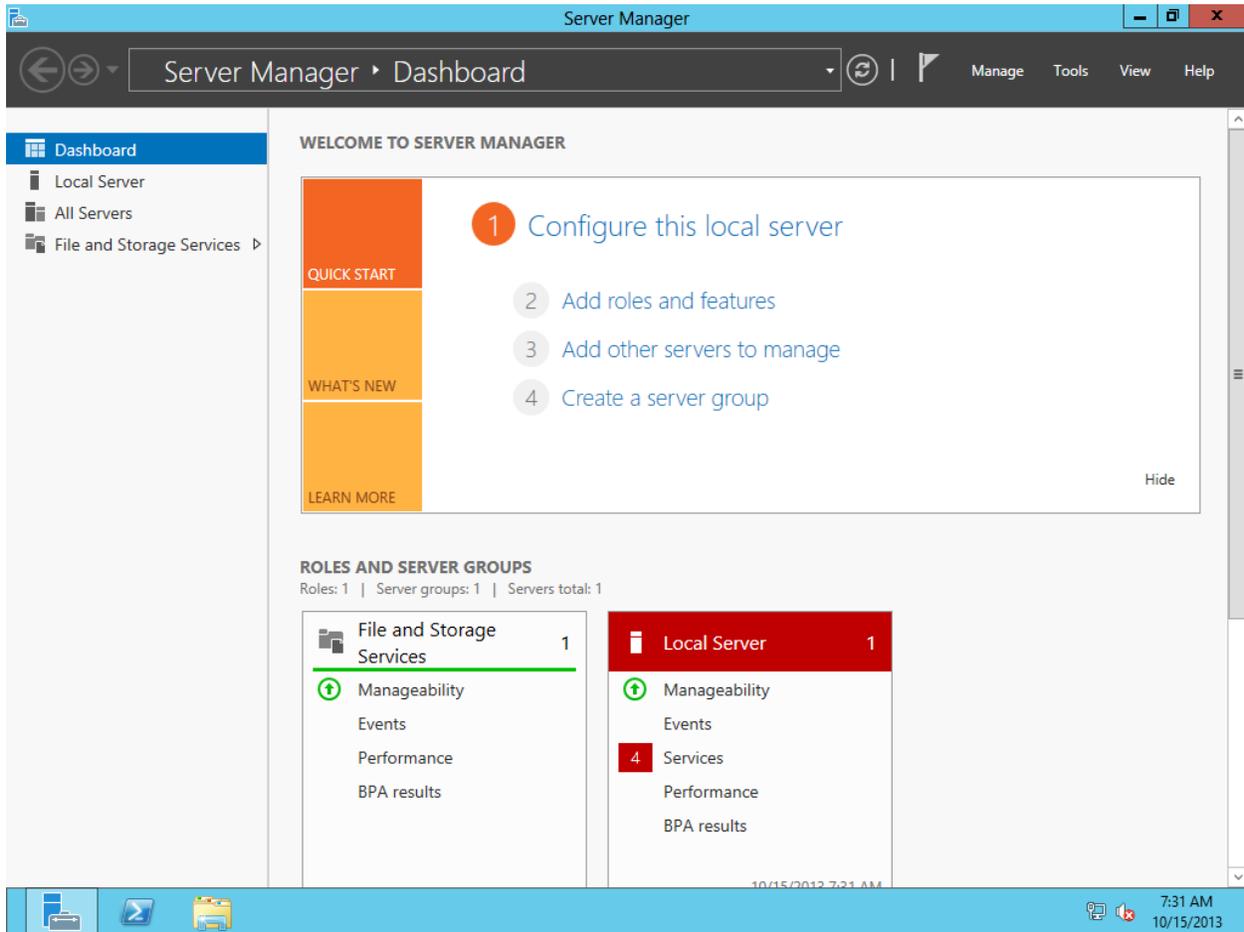


- Press **Ctrl+Alt+Del** to bring up the login dialog



- Type your administrator password followed by <Enter>

You should be able to successfully log in and you should see the Server Manager window. Windows Server 2012 has been installed.

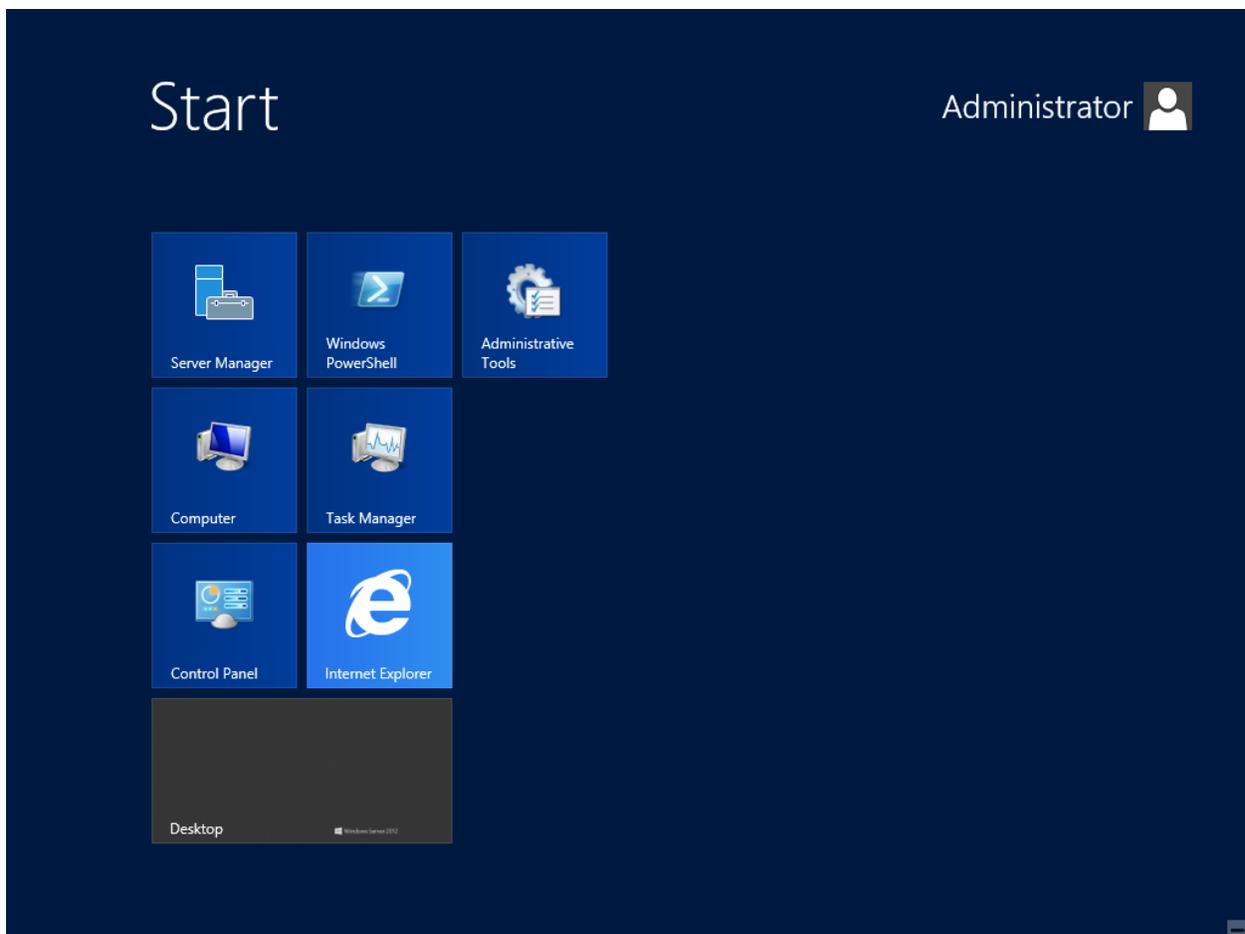


Join Windows to a Domain

At this point, you have just a basic and clean install of Windows Server 2012. For ease of permissions management, it's time to join this server to an Active Directory Domain.

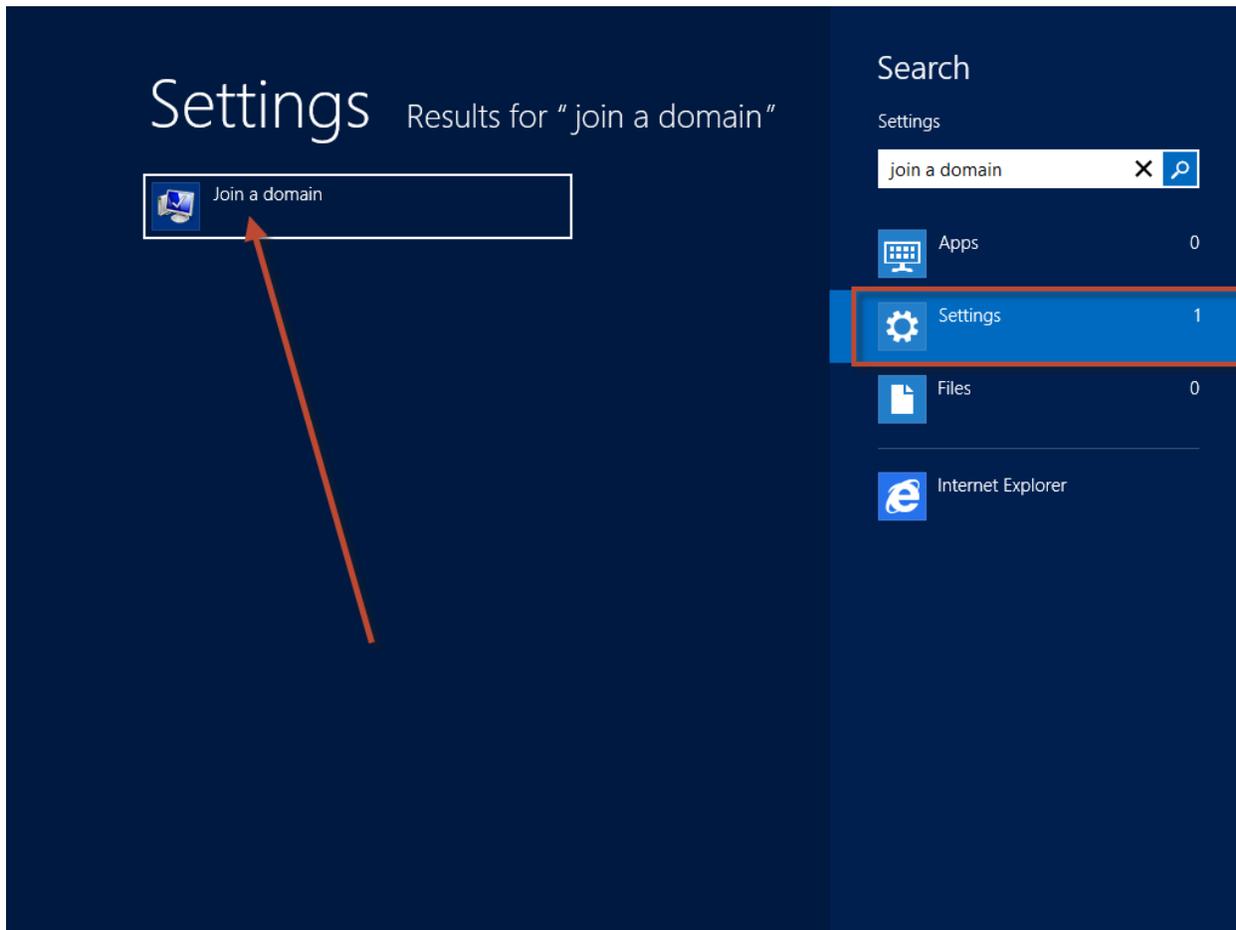
- Press the **Start** button on your keyboard to bring up the Start page

You should now see a Start page that looks something like the screenshot below. Windows Server 2012 and Windows 8 are tricky and it's not immediately obvious but you can just type stuff on the keyboard in order to perform actions. That's what you'll do on this next step...just start typing.



- Type **Join a domain**

After you start typing, you should see a search dialog appear. By default, the search is going to be on "Apps" and it won't show any results. The action you want is under **Settings**.

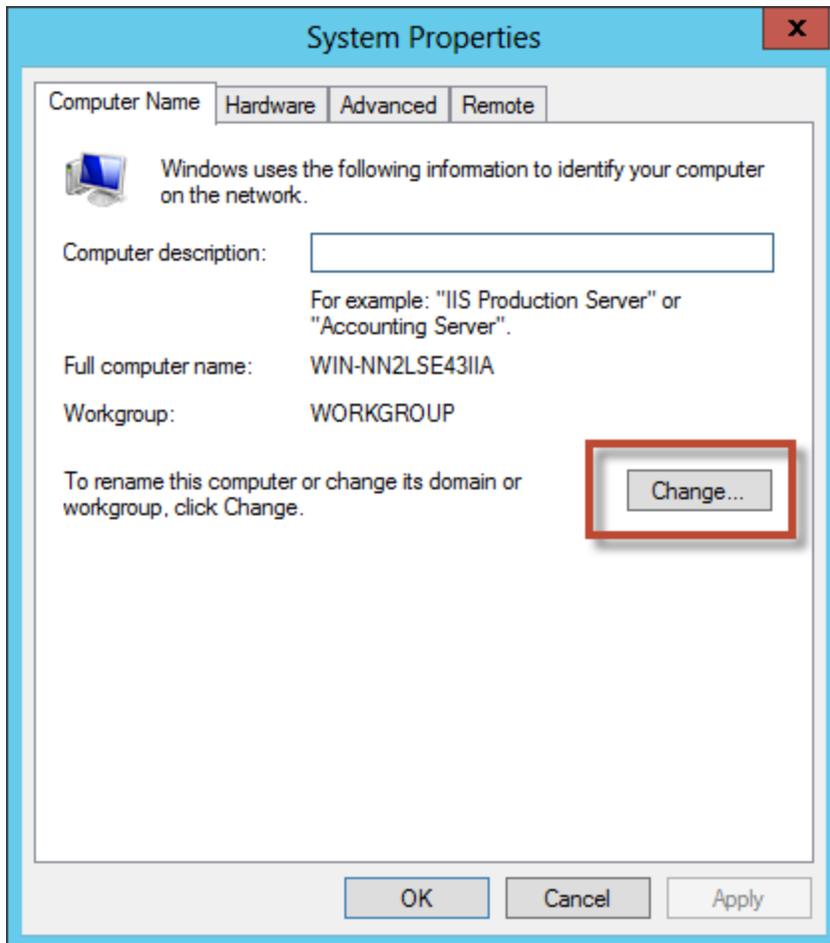


- Click on the **Settings** icon

You should now see **Join a domain** in the results.

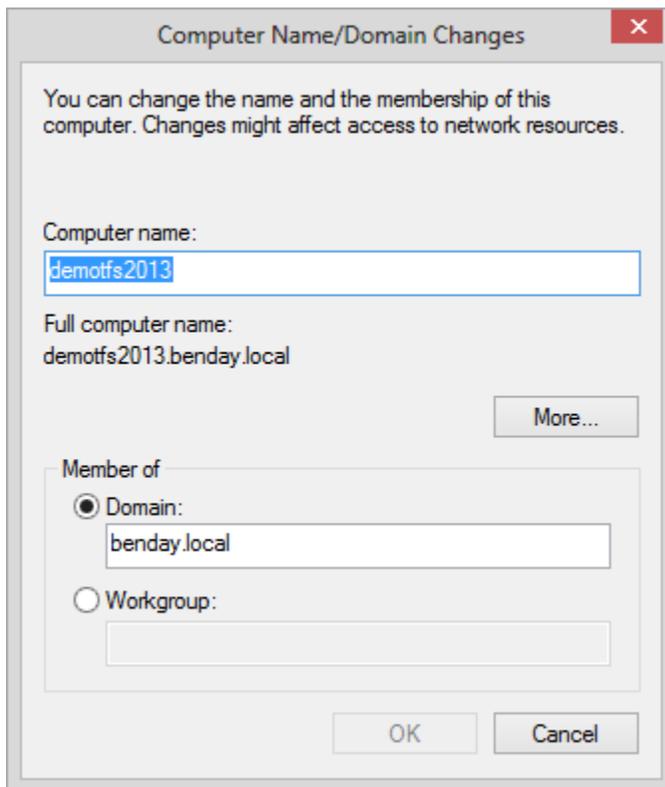
- Click **Join a domain**

You should now see the **System Properties** dialog.



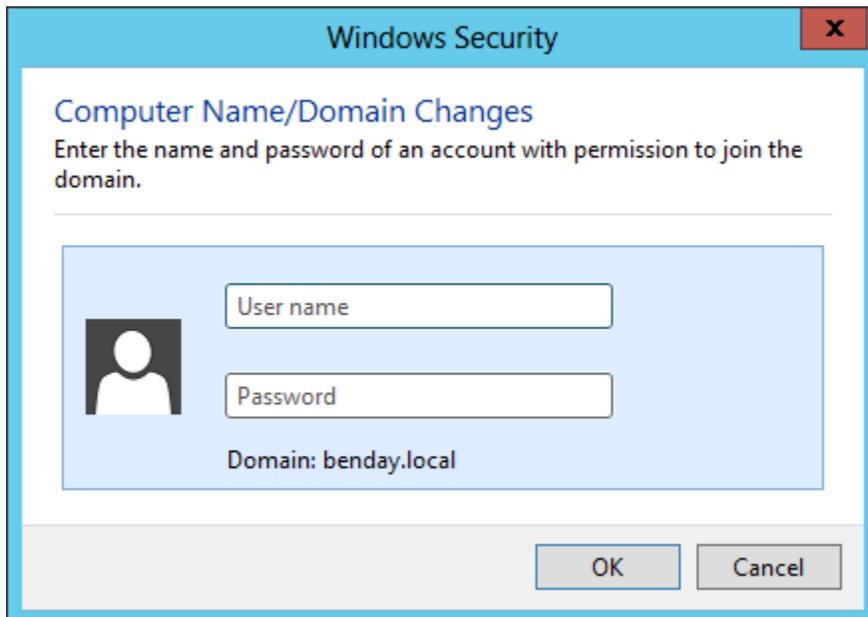
- Click the **Change...** button

You should see the **Computer Name / Domain Changes** dialog.



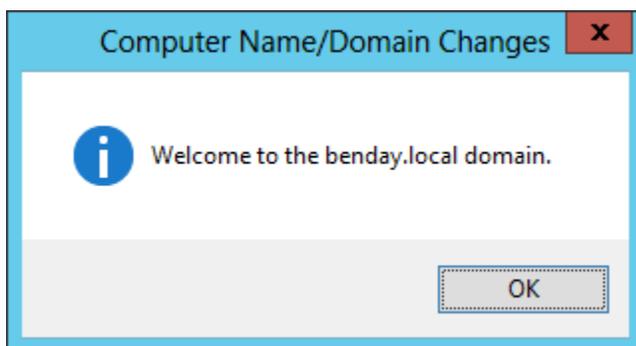
- Enter the name that you'd like to use for this computer in the **Computer name** box
- Select the **Domain** radio button
- Enter the name of your domain in the **Domain** textbox
- Click **OK**

When prompted by the **Windows Security** dialog, enter the username and password for a member of the Domain Admins group in Active Directory.



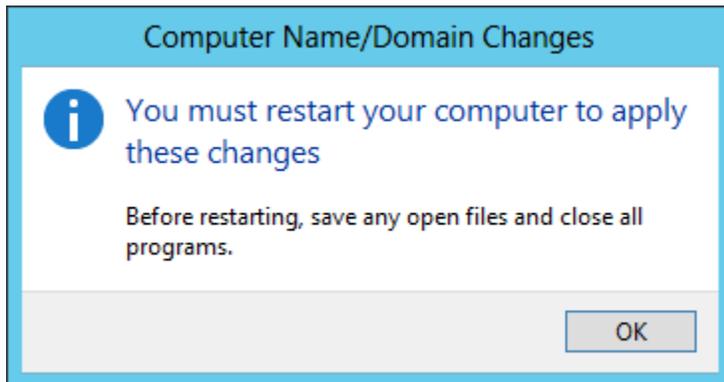
- Enter the user name & password for a member of the Domain Admins group for this domain
- Click the **OK** button

You should now see a welcome message for your domain.

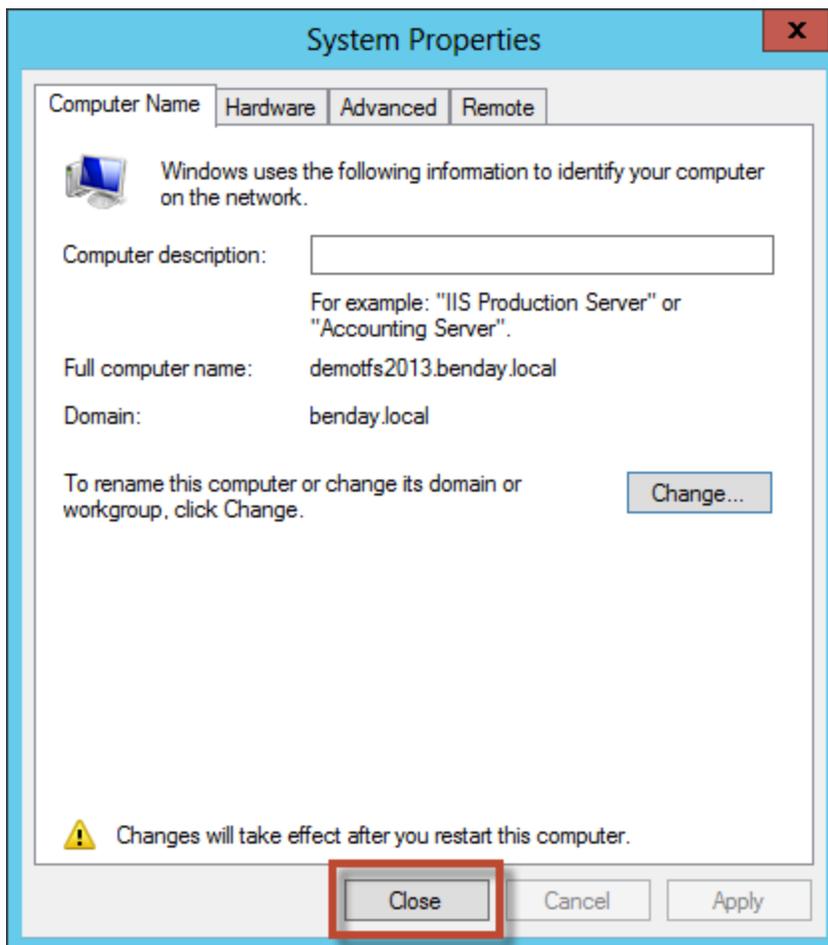


- Click **OK**

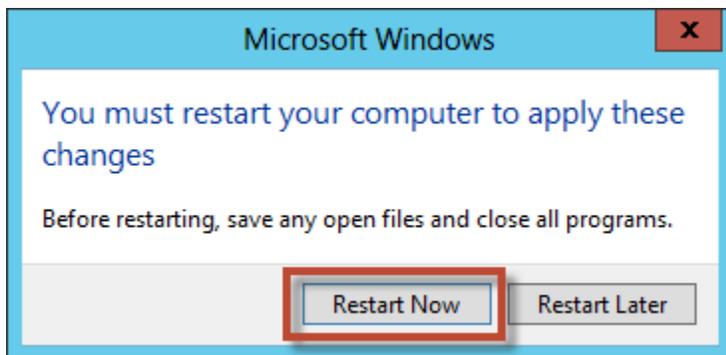
You'll be prompted to reboot the machine.



- Click the **OK** button



- Click the **Close** button



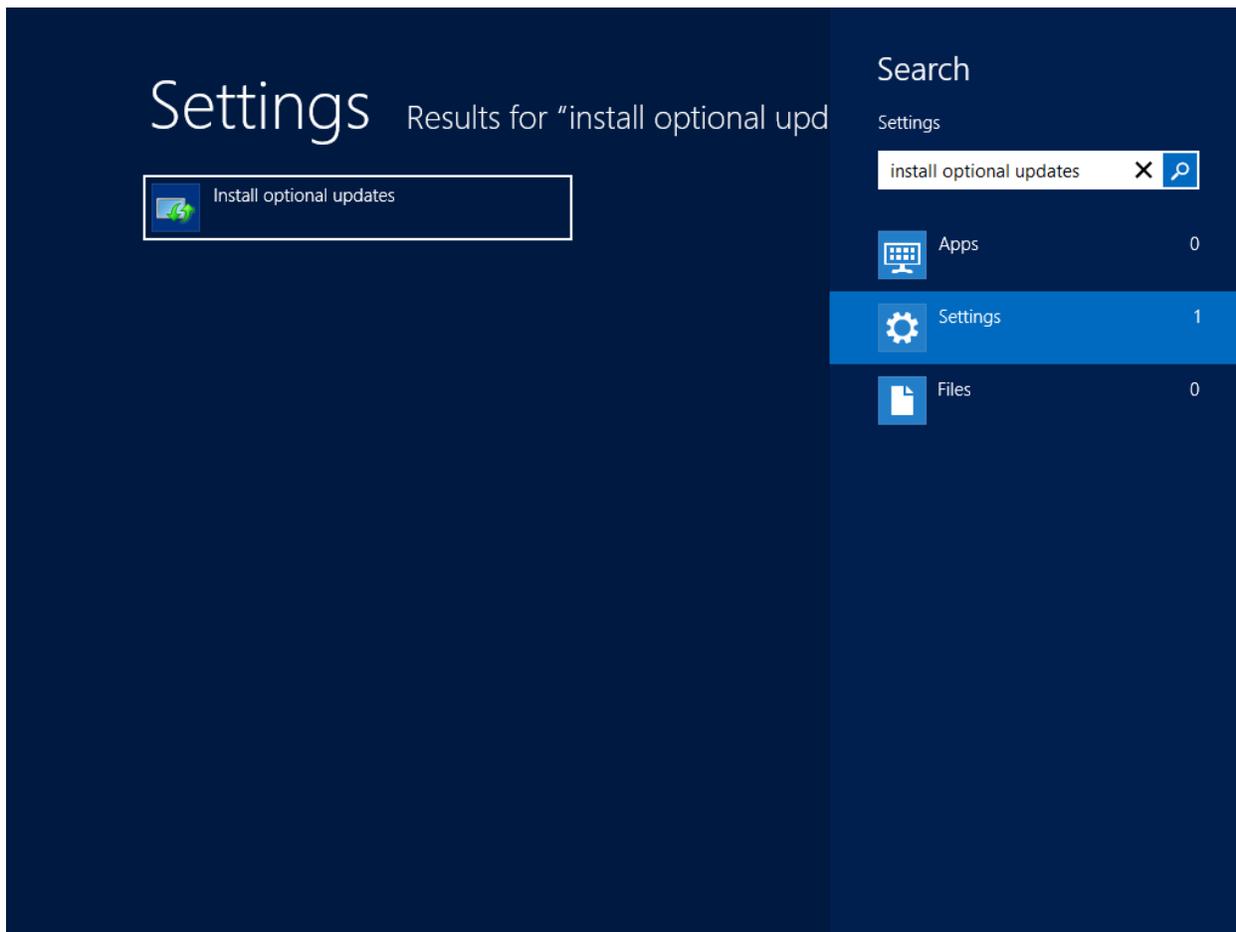
- Click the **Restart Now** button

Configure Windows Update

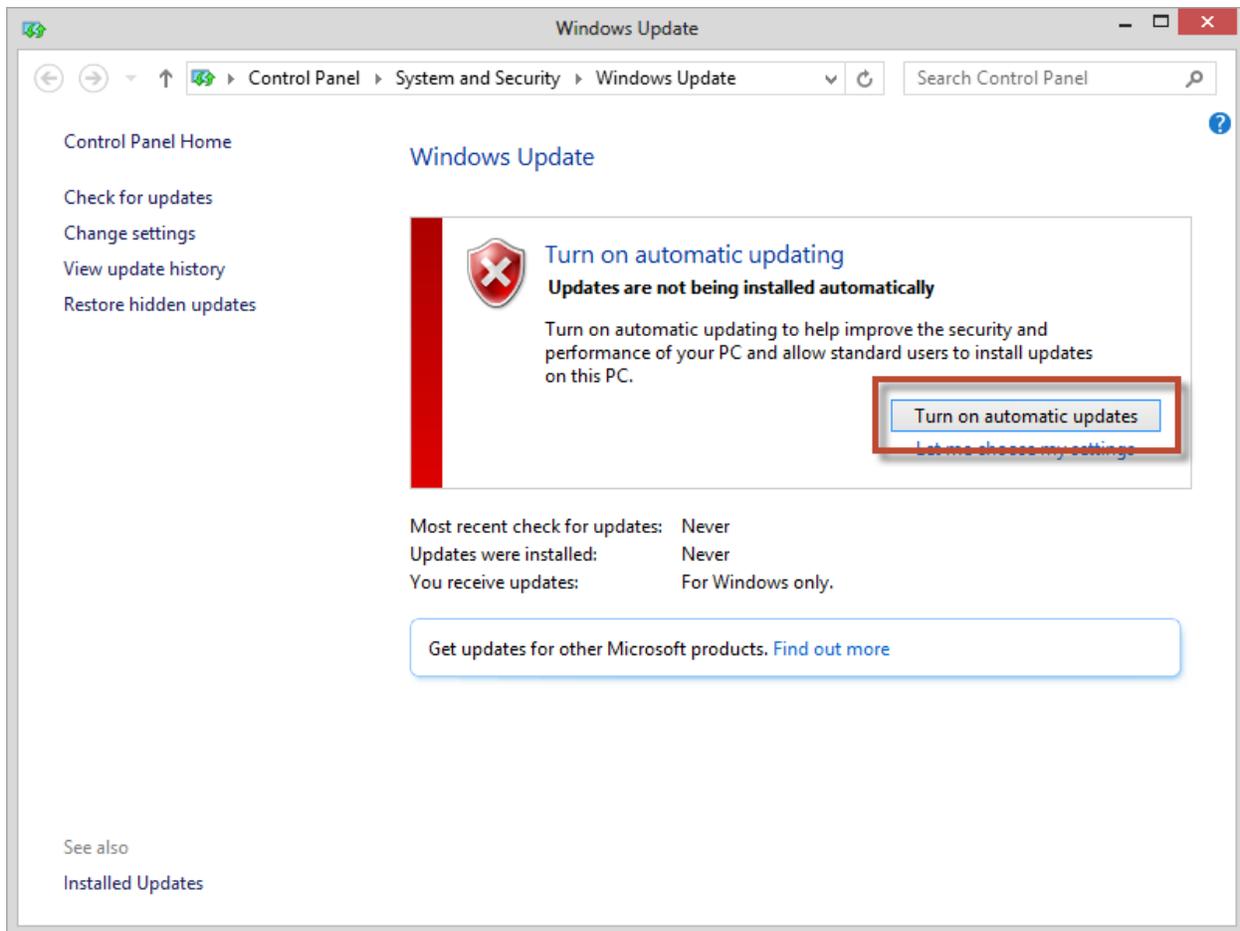
Now that Windows is joined to the domain, you should configure and run Windows Update to make sure that the server is patched.

- Log into the server using an account with **Administrator** permissions
- Press the **Start** key to get to the Start page
- Type **Install Optional Updates**
- Click the **Settings** icon

You should now see **Install optional updates** in the search results.

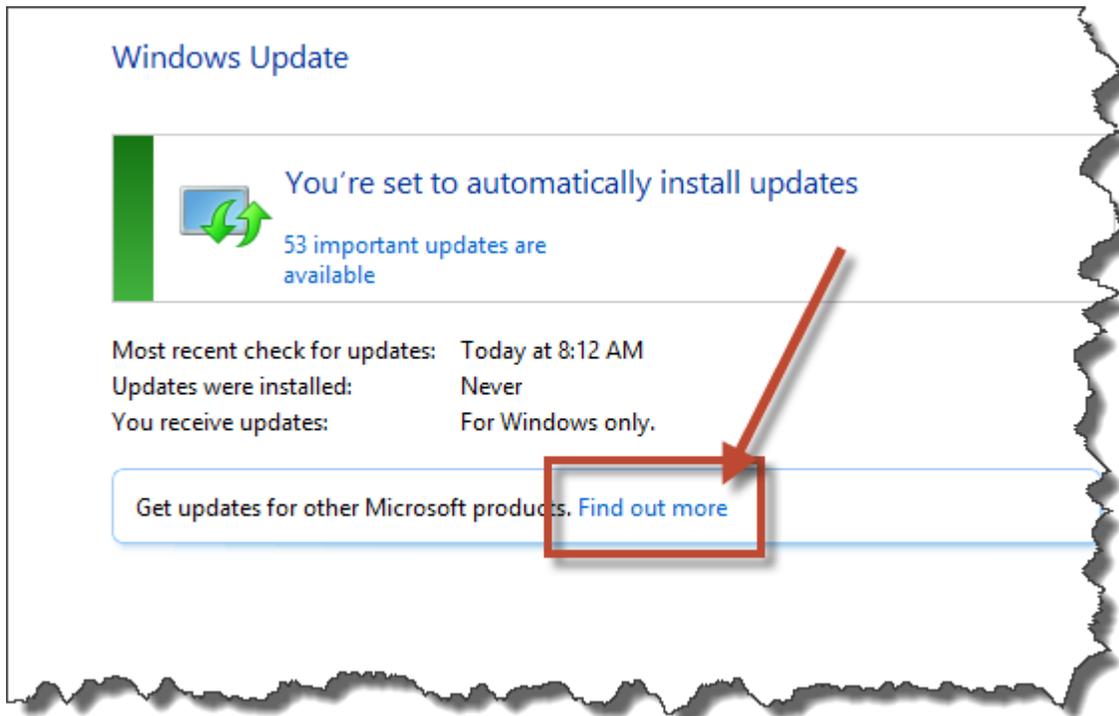


- Click **Install optional updates**



- Click the **Turn on automatic updates** button

Windows Update will spin for a while. When that's completed, you need to enable updates for other Microsoft products.



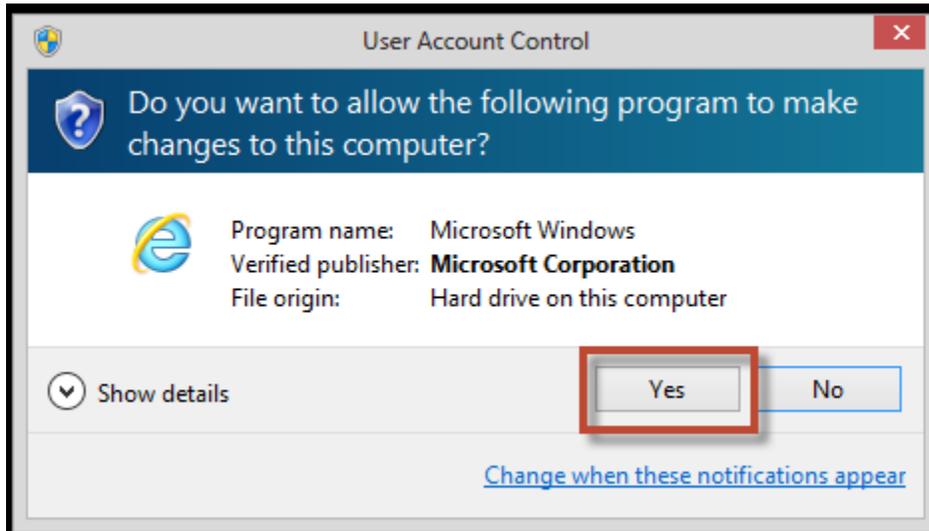
- Click **Find out more**

A browser window will appear.



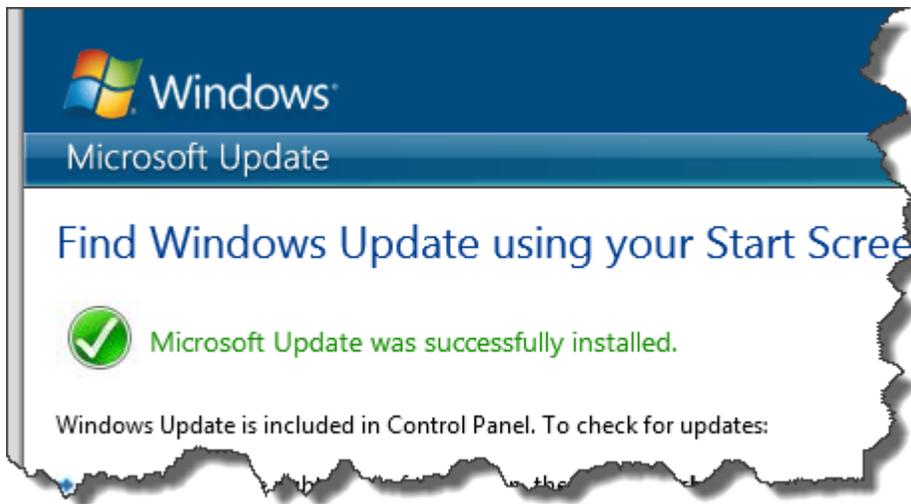
- Check the **I agree to the Terms of Use for Microsoft Update** checkbox
- Click the **Install** button

You'll see a User Account Control (UAC) prompt.



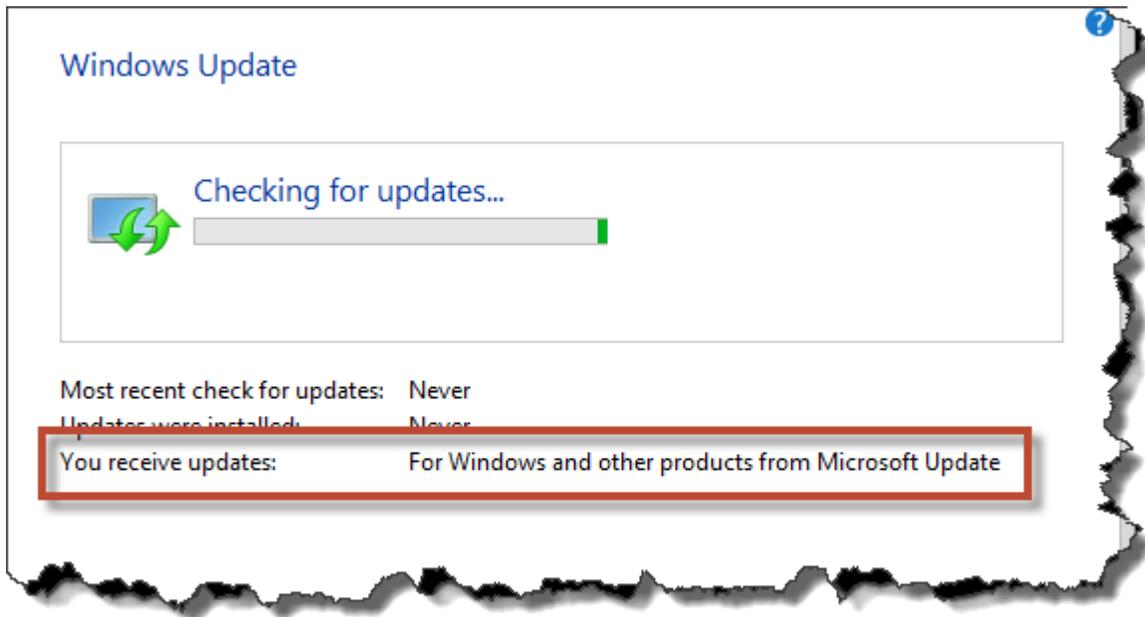
- Click **Yes**

You'll see a message that says **Microsoft Update was successfully installed.**

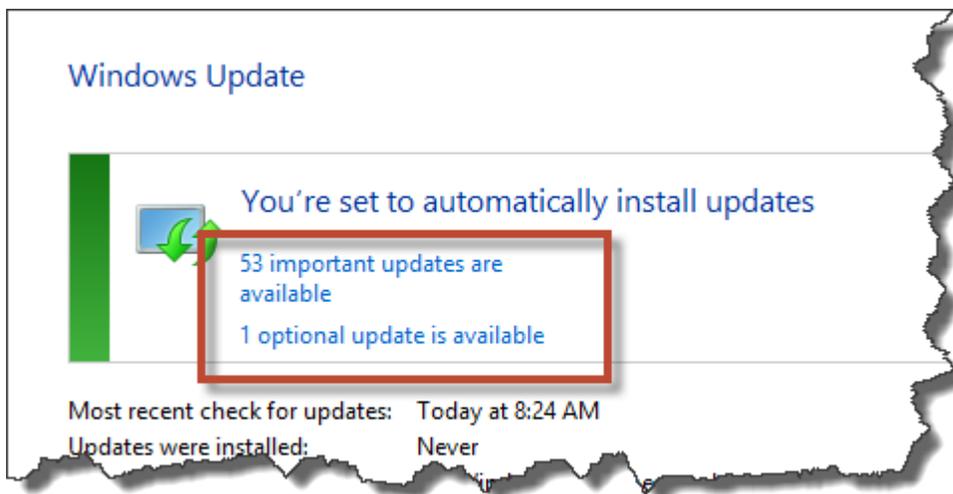


- Close the web browser and return to the Windows Update dialog

Windows Update should be checking for updates and the dialog should now say that you receive updates **For Windows and other products from Microsoft Update**.

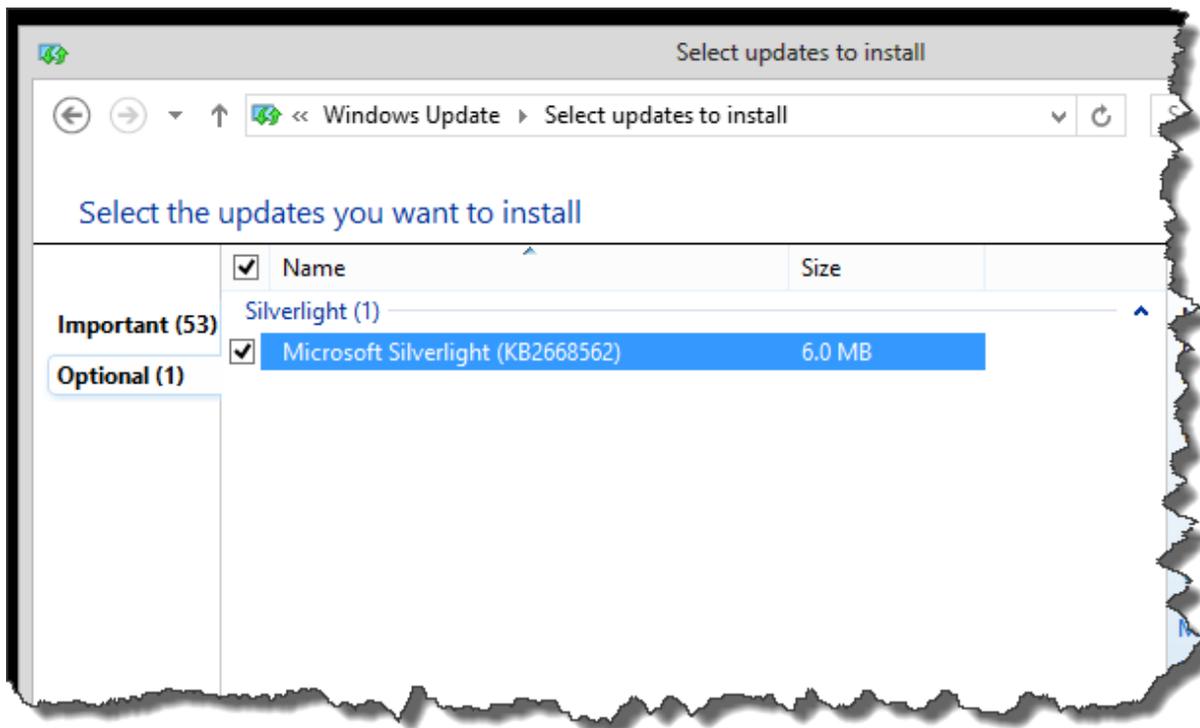


If updates are found you'll see something like the image below.



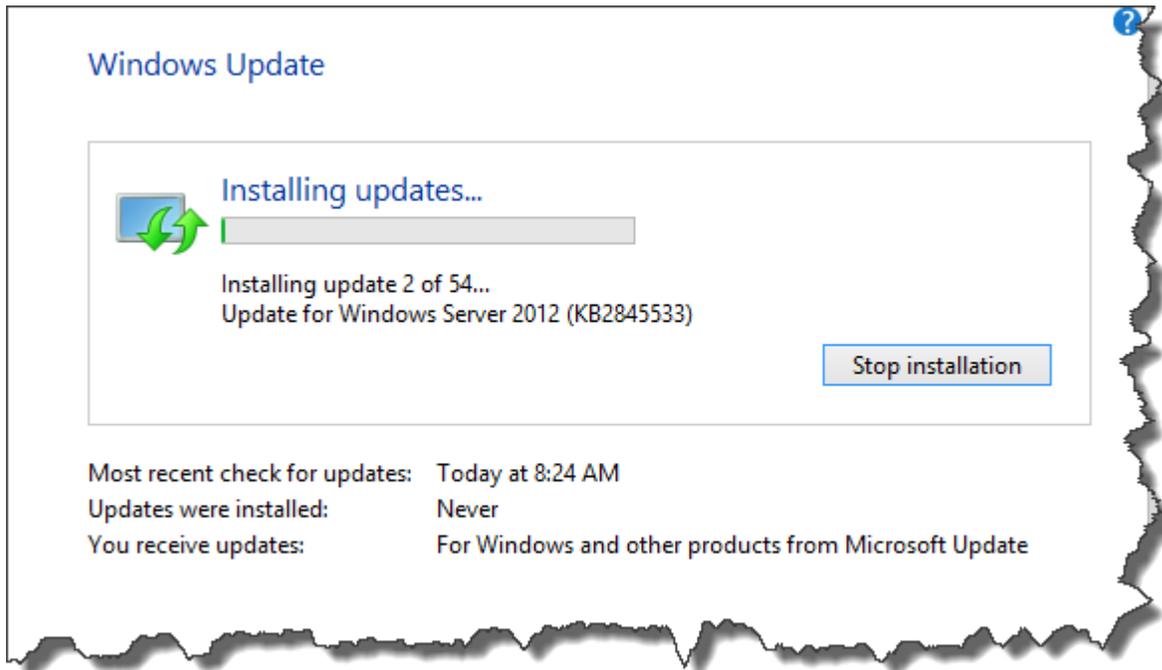
- Click on the update message

If there are any **Optional** updates, click the **Optional** tab and check all the available updates.



- If the **Optional** tab is visible and has updates, click the **Optional** tab. Then check all available optional updates.
- Click the **Install** button to begin installing

Updates should now be downloading and installing. Restart the server as necessary.

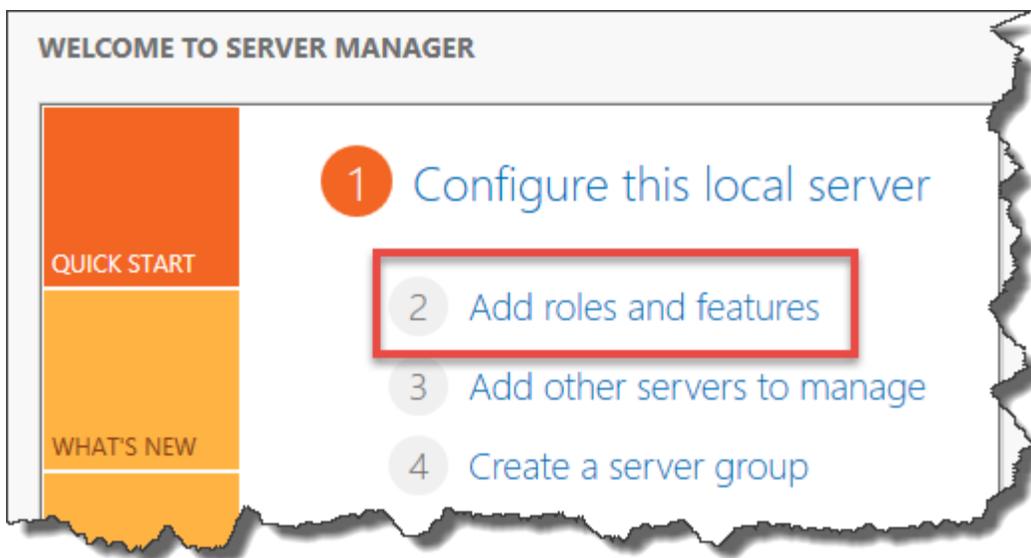


Chapter 2: Install SQL Server 2014

As of Team Foundation Server 2013 Update 2, SQL Server 2014 is an option as the data repository. This chapter will walk you through the process of installing SQL Server 2014 for use with TFS.

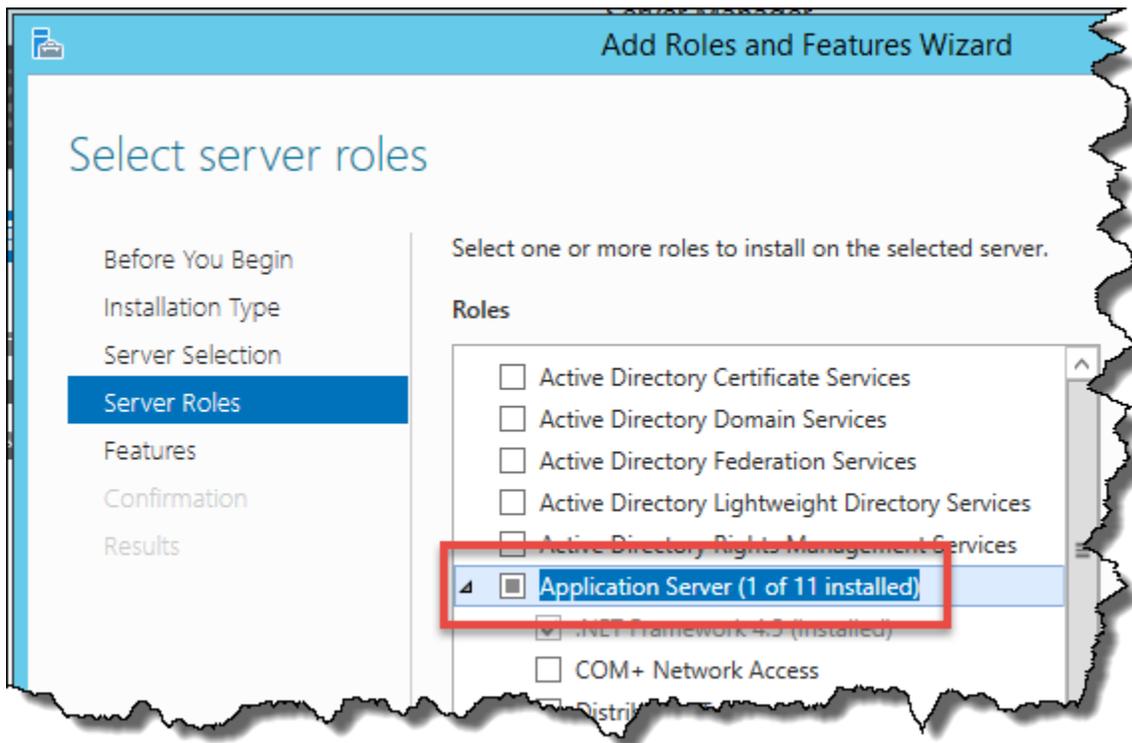
- Log on to server using an account that is a member of the **Administrators** group
- Run **Server Manager**

First we need to verify that the .NET Framework 3.5 features are installed on this server.



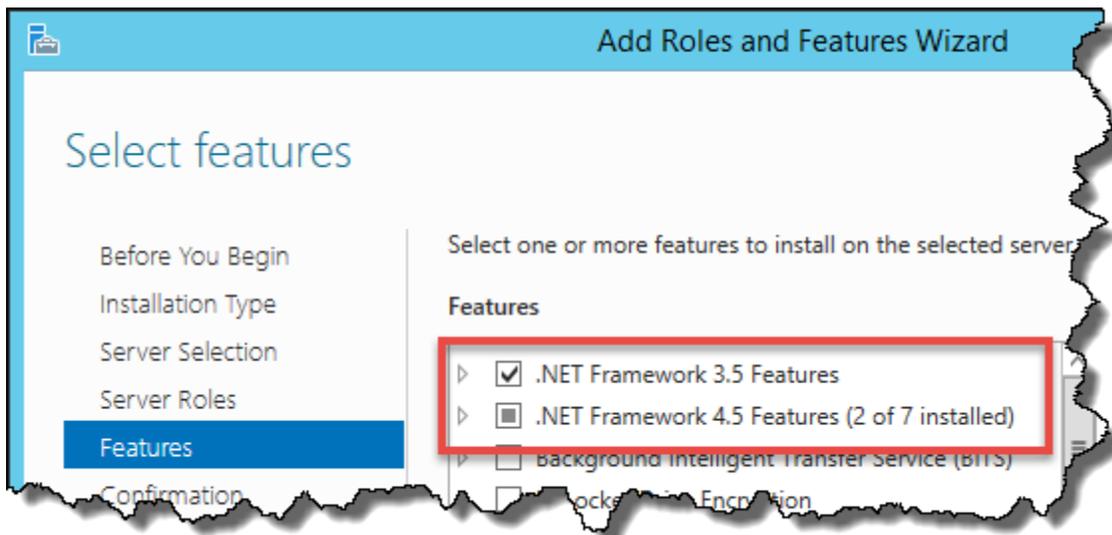
- In Server Manager, click **Add roles and features**
- On the **Before you begin** page of the wizard, click **Next**
- On the **Select installation type** page, choose **Role-based or feature-based installation** and click **Next**
- On the **Select destination server** page
 - Choose **Select a server from the server pool**
 - Select the name of the current server
 - Click **Next**

You should now be on the **Select server roles** page of the wizard.



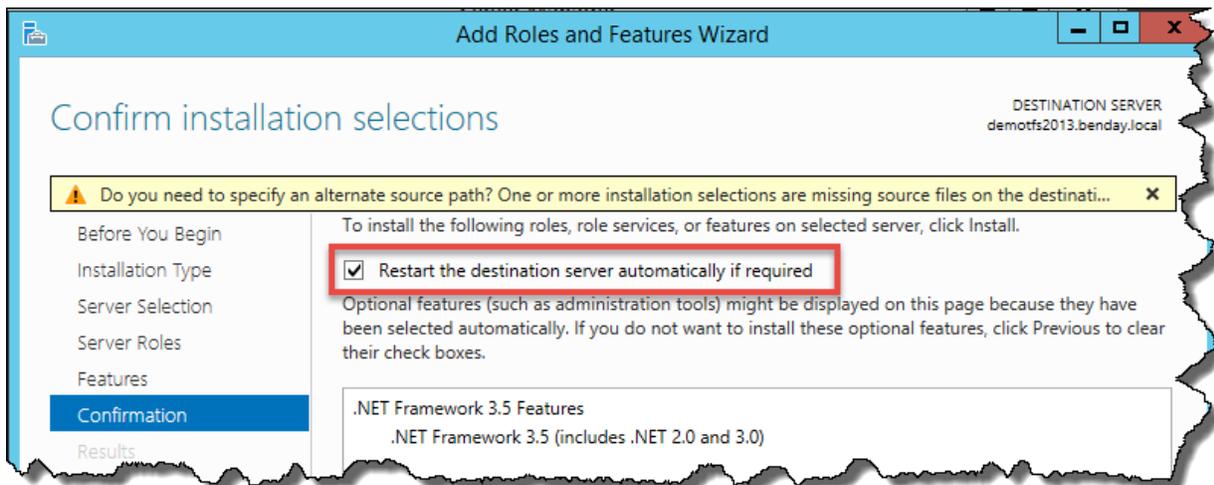
- Check **Application Server**
- Click **Next**

You should now be on the **Select features** page.



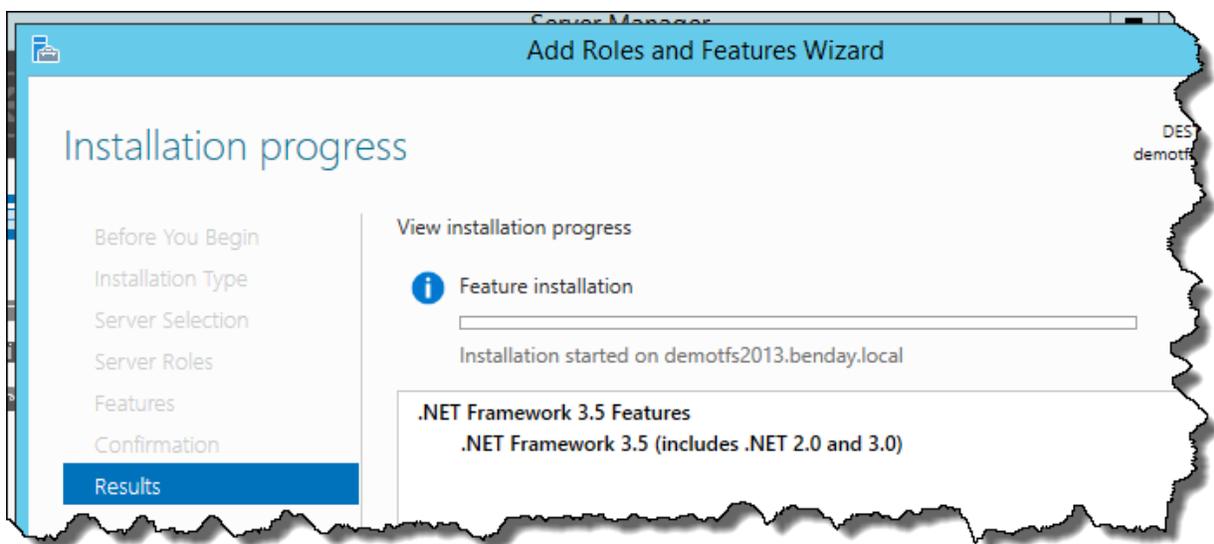
- Verify that **.NET Framework 3.5 Features** is checked
- Verify that **.NET Framework 4.5 Features** is checked
- Click **Next**

You should now be on the **Confirm installation selections** page.

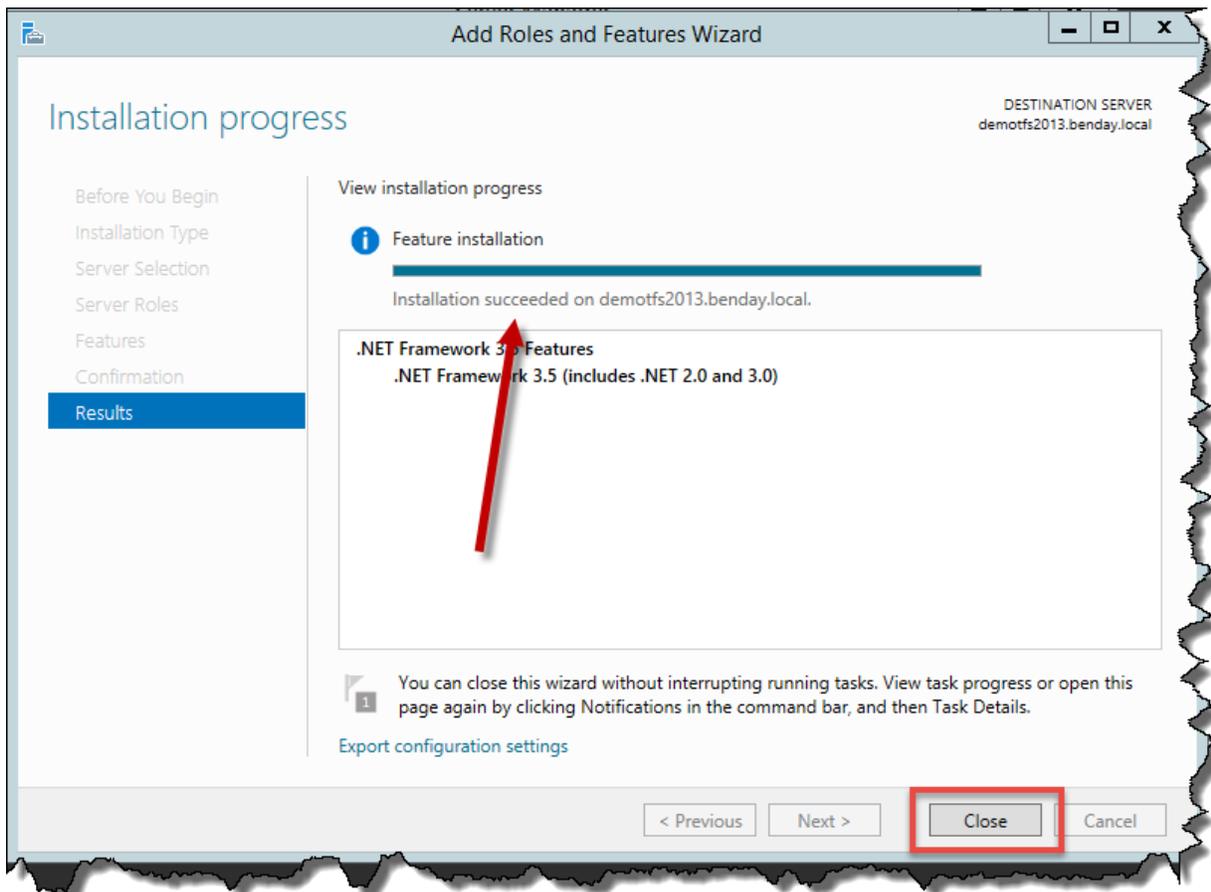


- Check **Restart the destination server automatically if required**
- Click **Install**

The features should now be installing.



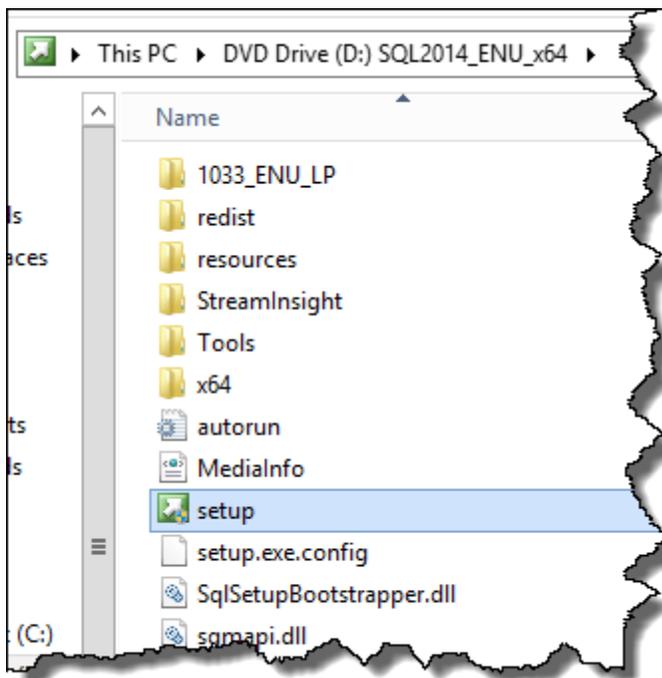
Eventually, the feature installation should finish.



- Verify that the installation succeeded
- Click **Close**

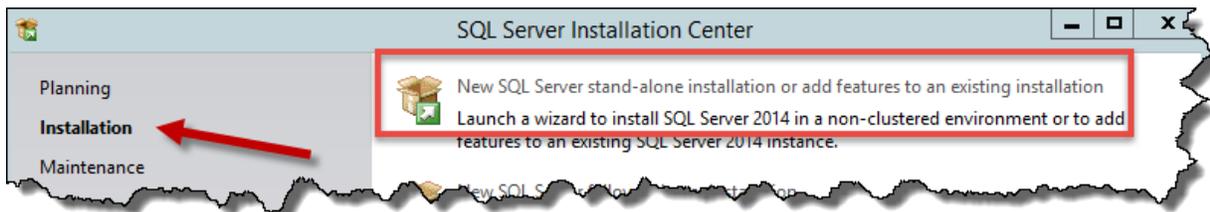
Now that the .NET Framework pre-requisite is installed, you can start the installation of SQL Server 2014.

- Insert the SQL Server 2014 DVD or mount the appropriate ISO image
- Open the DVD drive using **Windows Explorer (explorer.exe)**



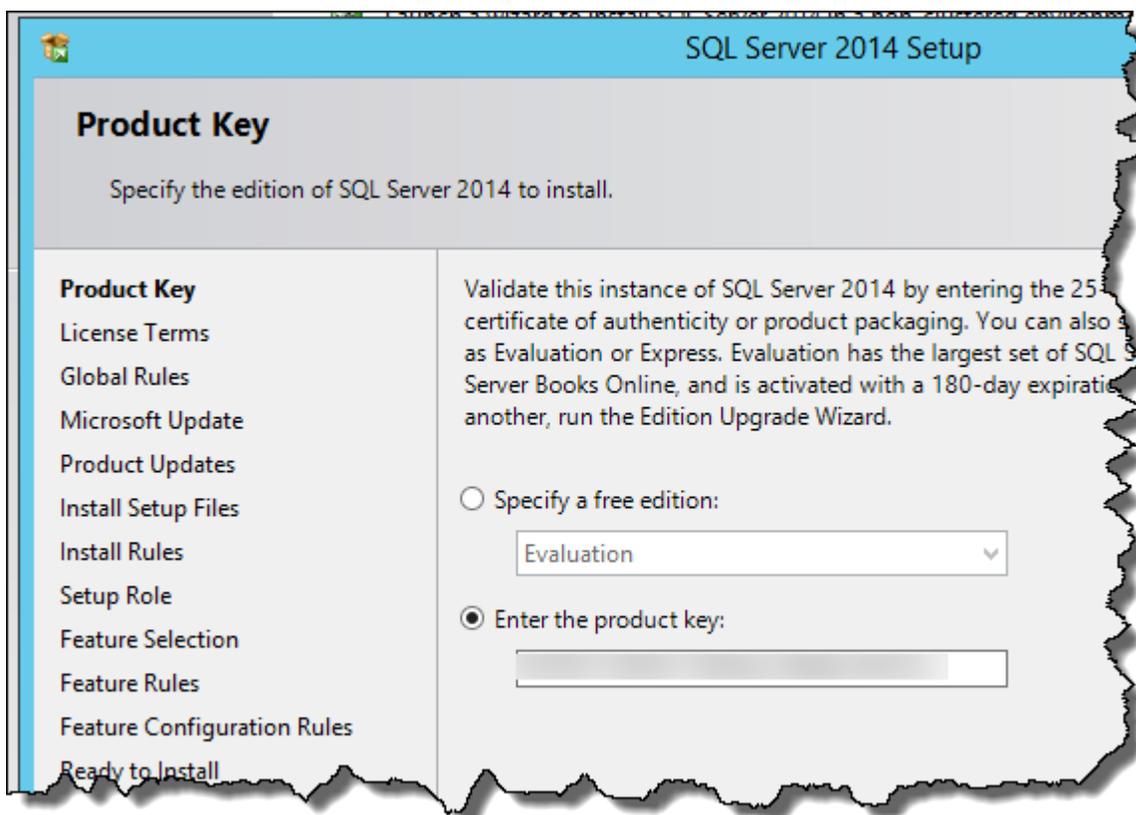
- Run the SQL Server setup program
- Click **Yes** on any User Account Control dialogs that appear

You should now see the SQL Server Installation Center window.

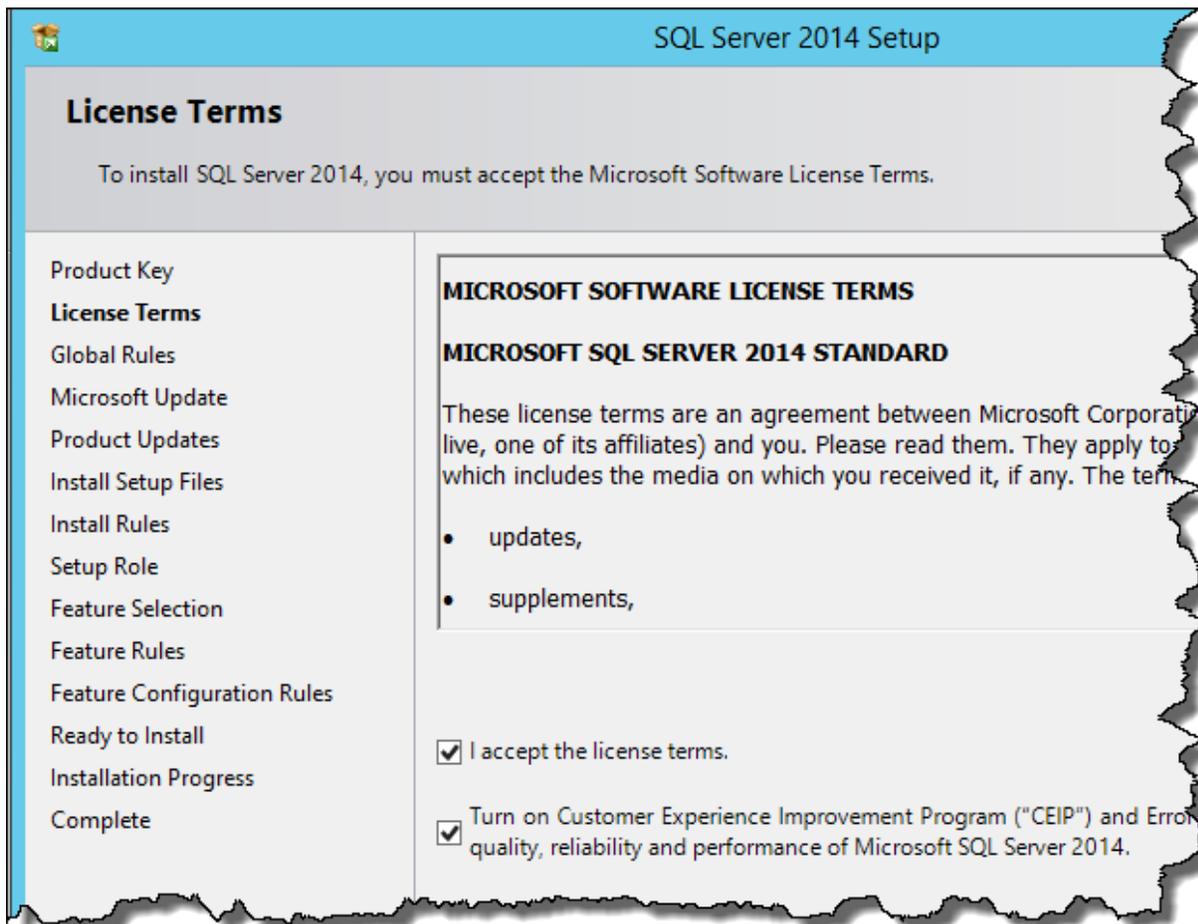


- In the left panel, click **Installation**
- In the right panel, click **New SQL Server stand-alone installation or add features to an existing installation**

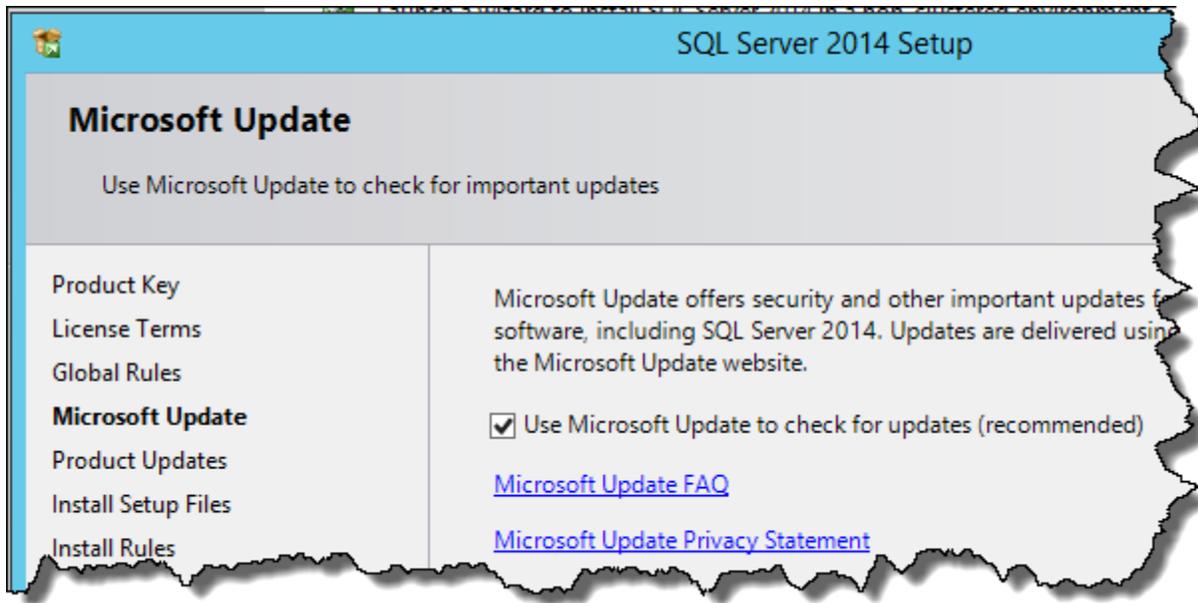
You might now be prompted for a license key.



- Enter a license key
- Click **Next**

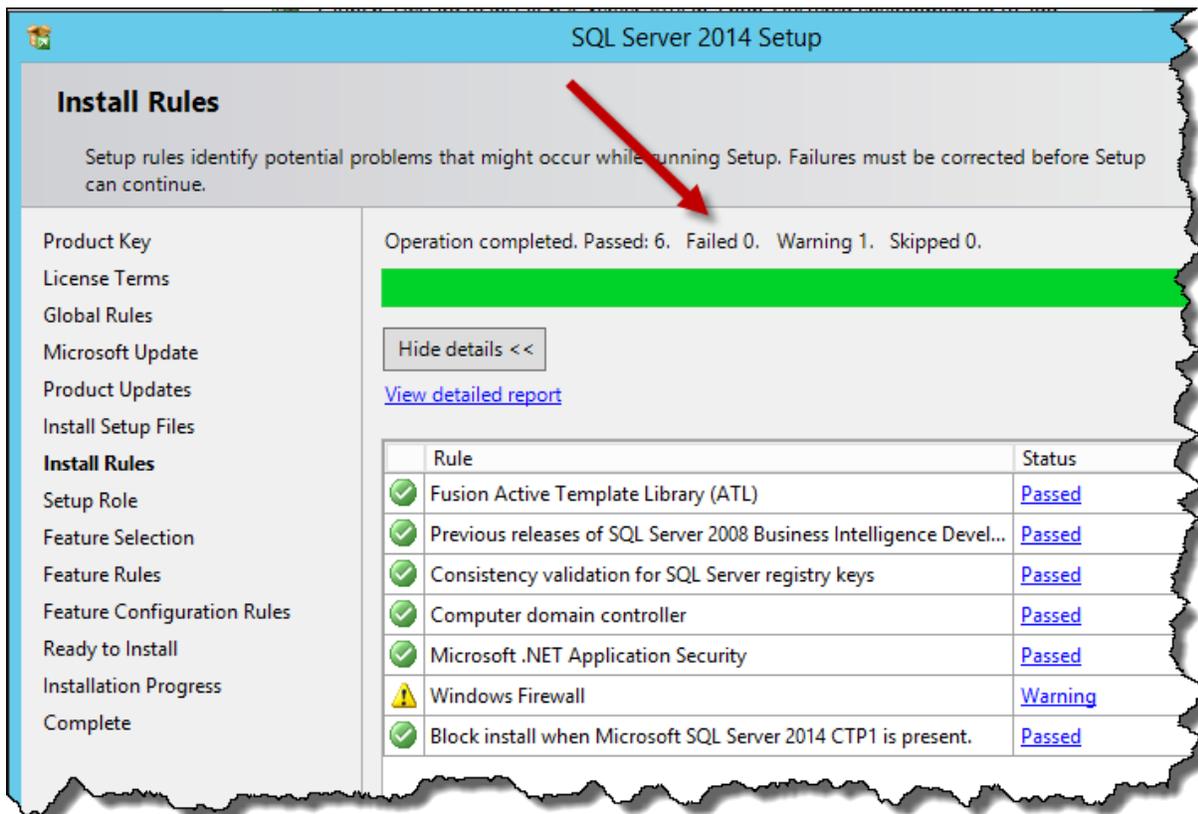


- Check **I accept the license terms**
- Check **Turn on Customer Experience Improvement Program...**
- Click **Next**



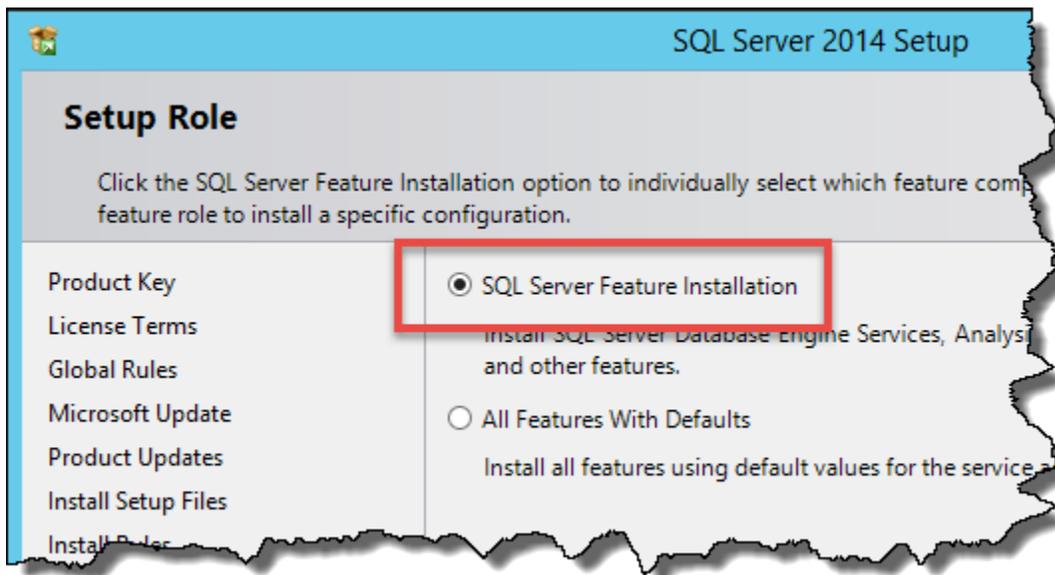
- Check **Use Microsoft Update to check for updates**
- Click **Next**

Verify that none of the install rule checks have failed.



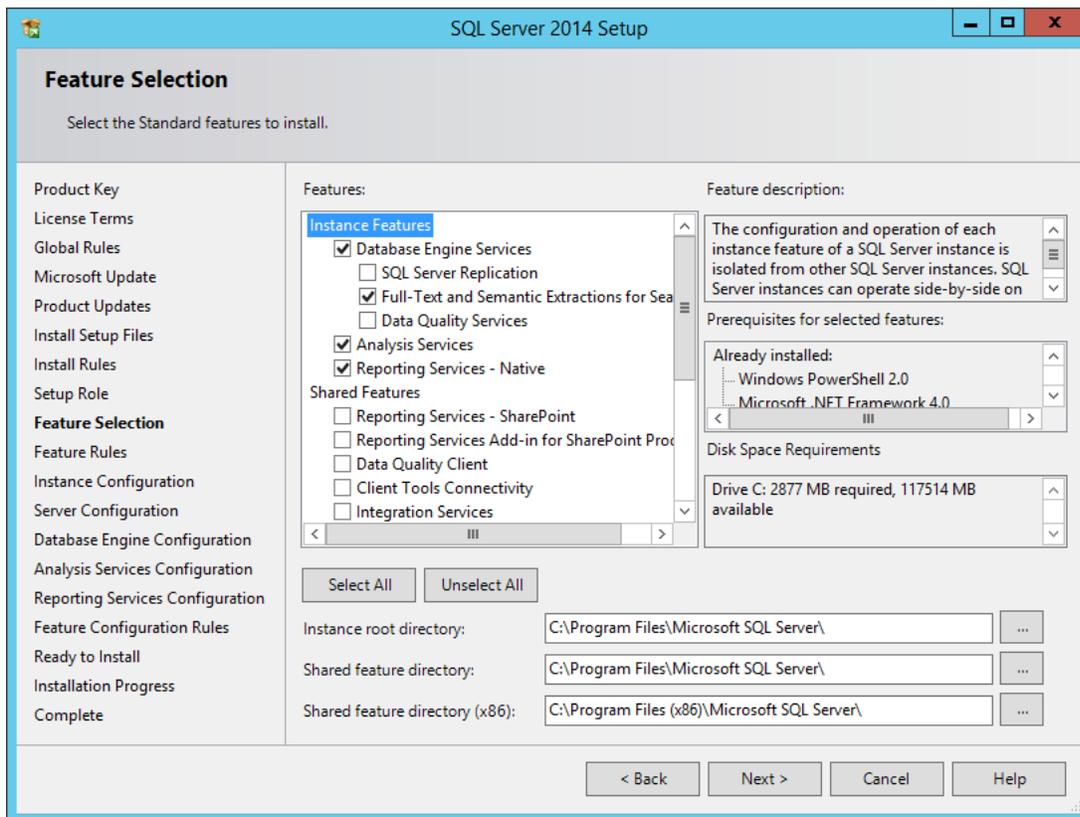
- Verify that there are 0 failures
- Click **Next**

You'll now be prompted to choose which type of installation you want to do.



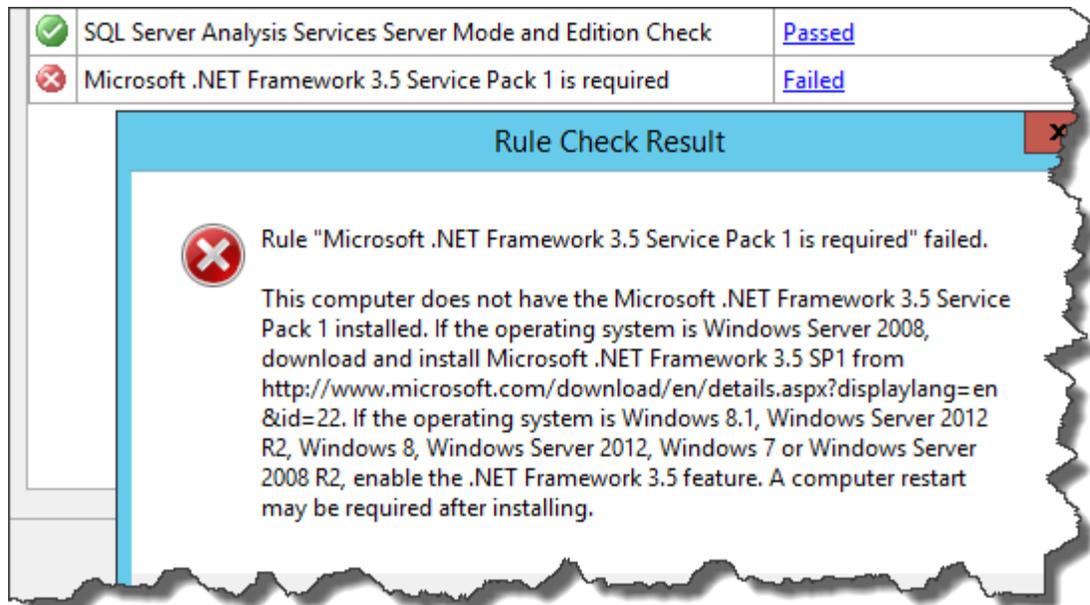
- Choose **SQL Server Feature Installation**
- Click **Next**

You should now be on the **Feature Selection** page.

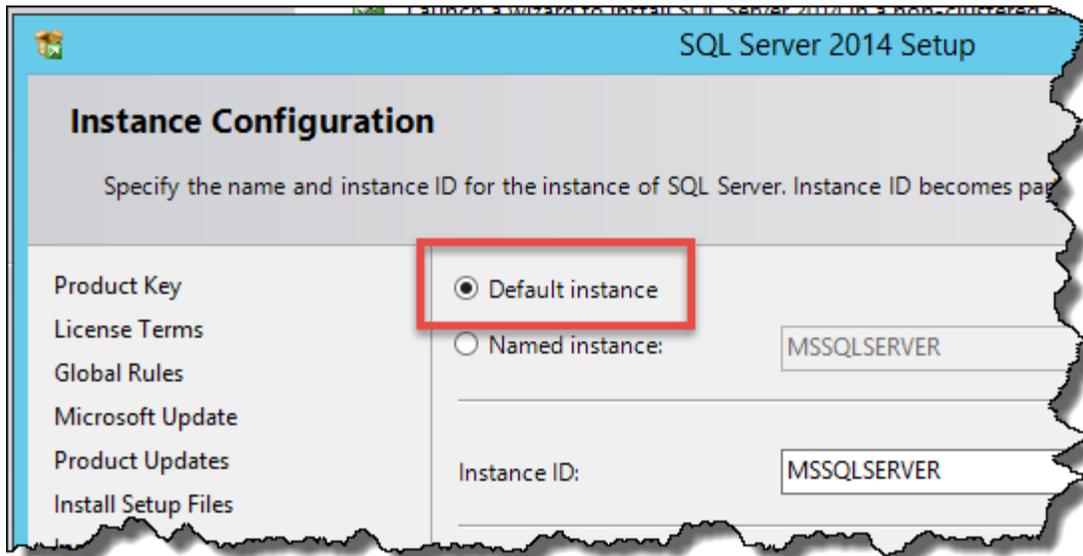


- Under **Instance Features** check
 - **Database Engine Services**
 - **Full-text and Semantic Extractions for Search**
 - **Analysis Services**
 - **Reporting Services – Native**
- (Optional) Under **Shared Features** check
 - **Management Tools – Complete**
- Click **Next**

If you get this failure, something went wrong when you installed the .NET Framework 3.5 features.

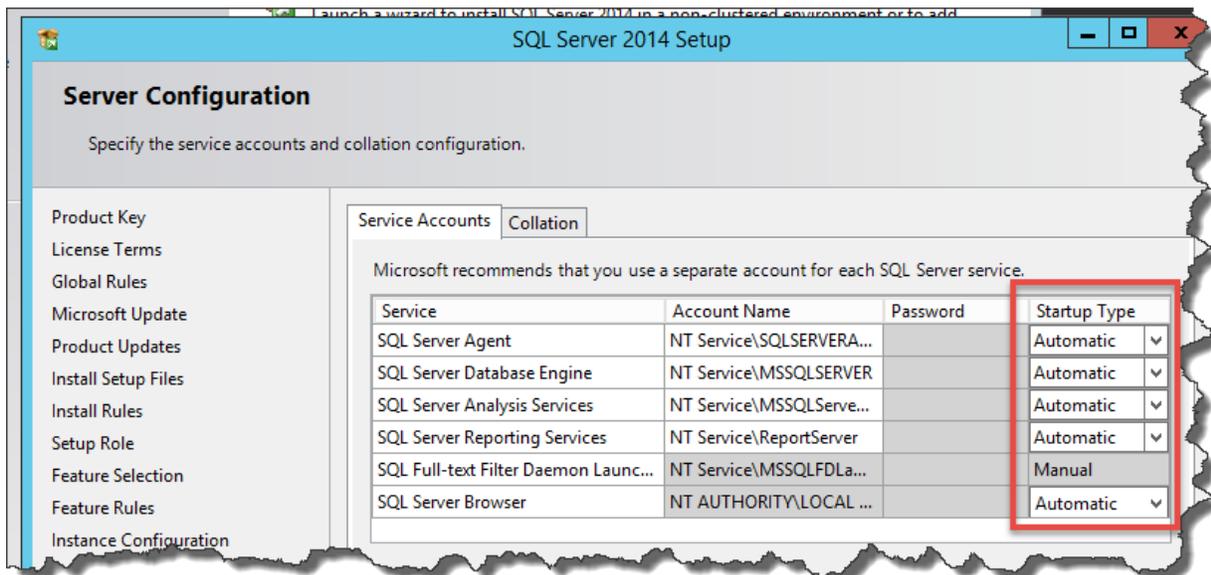


You should now be on the Instance Configuration page.

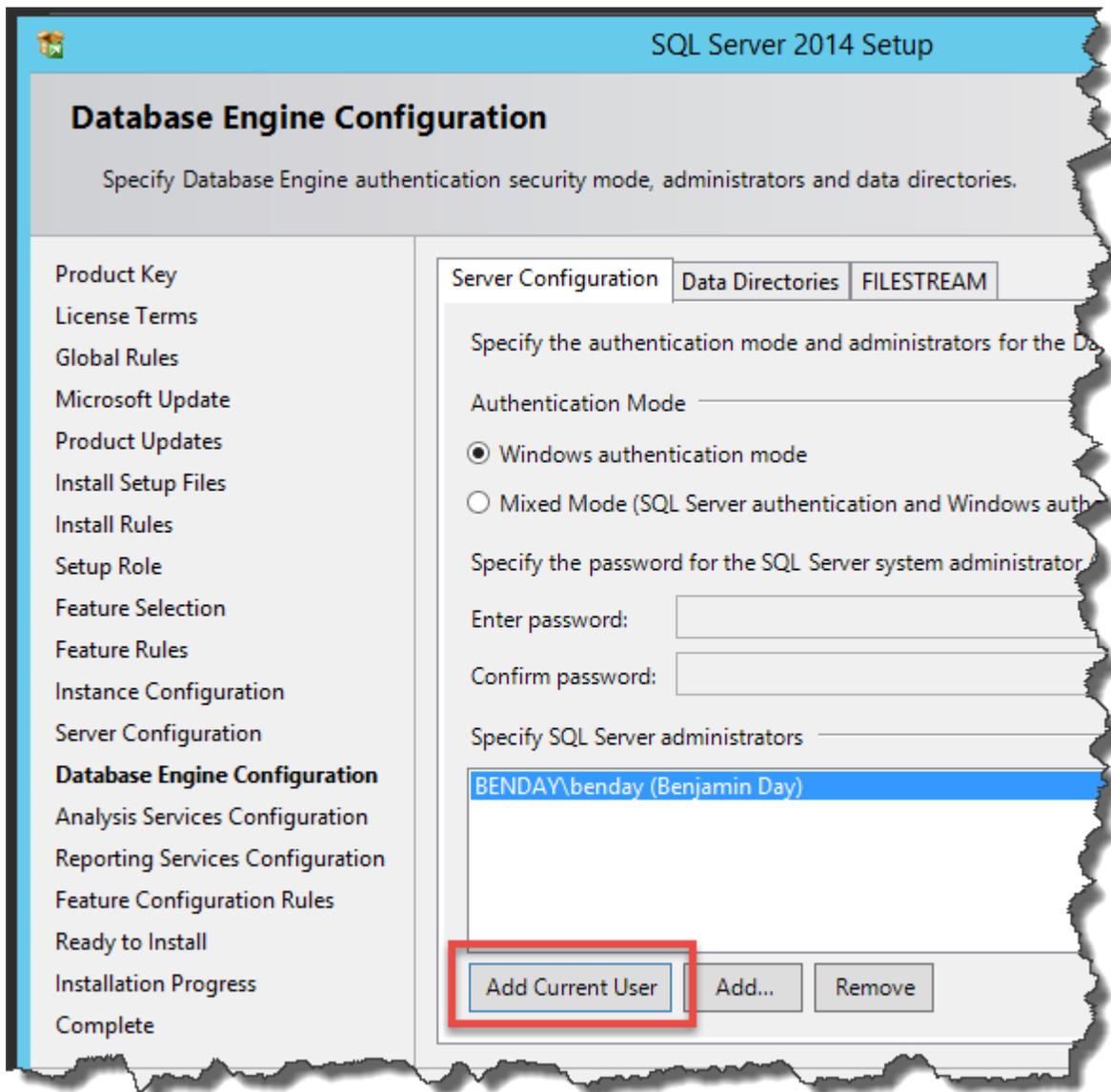


- Choose **Default instance**
- Click **Next**

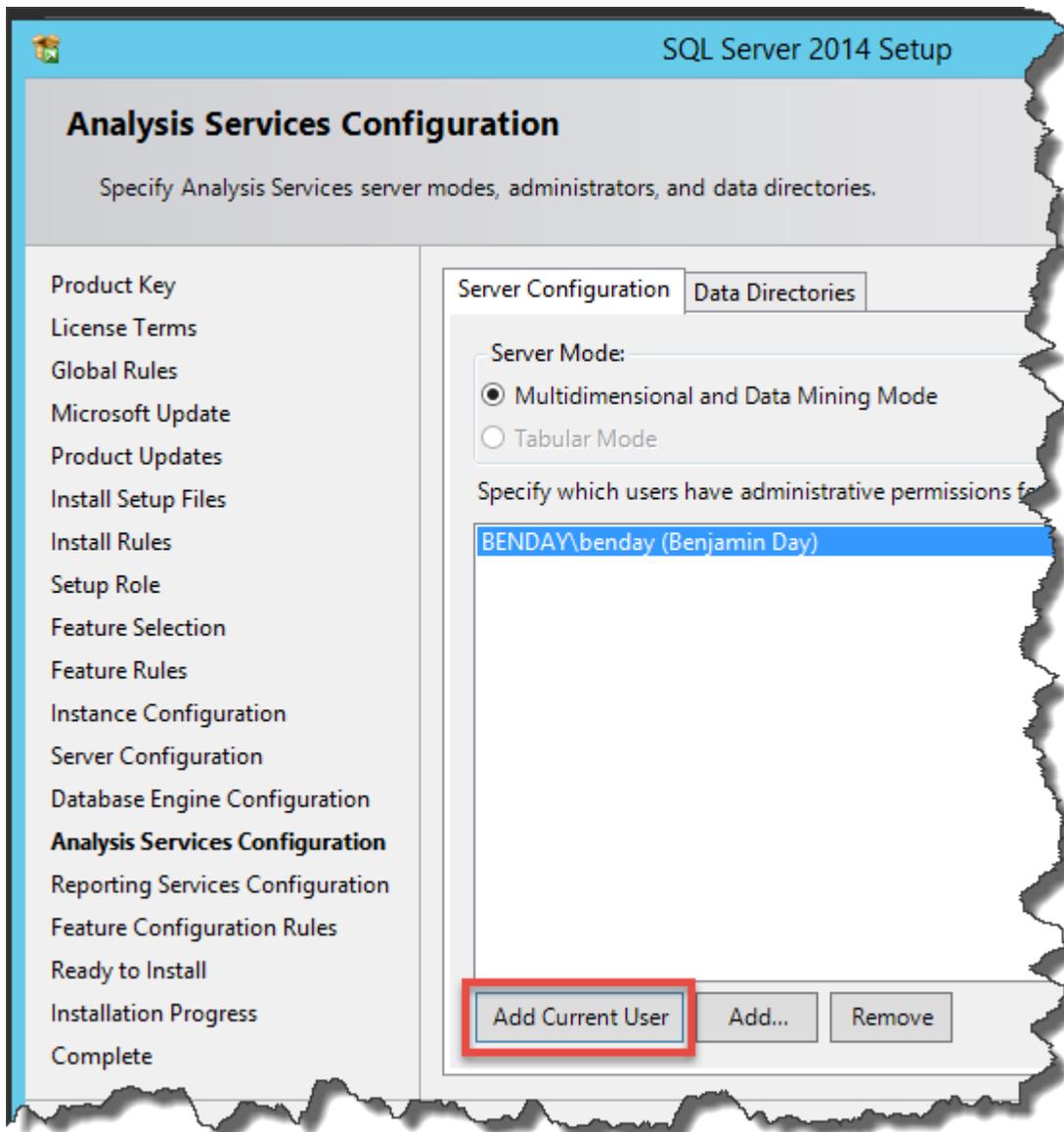
On the **Server Configuration** page you need to set all the services to automatically start.



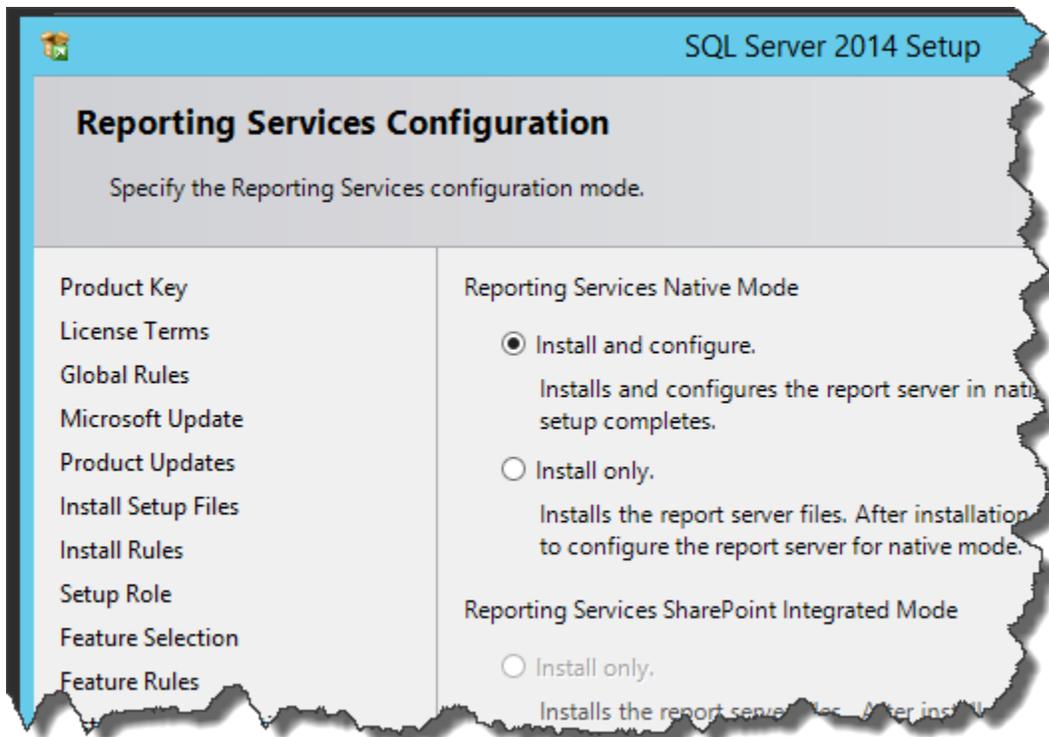
- For each service, set **Startup Type** to **Automatic**
- Click **Next**



- Choose **Windows authentication mode**
- Click the **Add Current User** button to add the current user as a SQL Server administrator
- (Optional) Click the **Add...** button and add the **Domain Admins** group to the SQL Server administrators
- Click **Next**

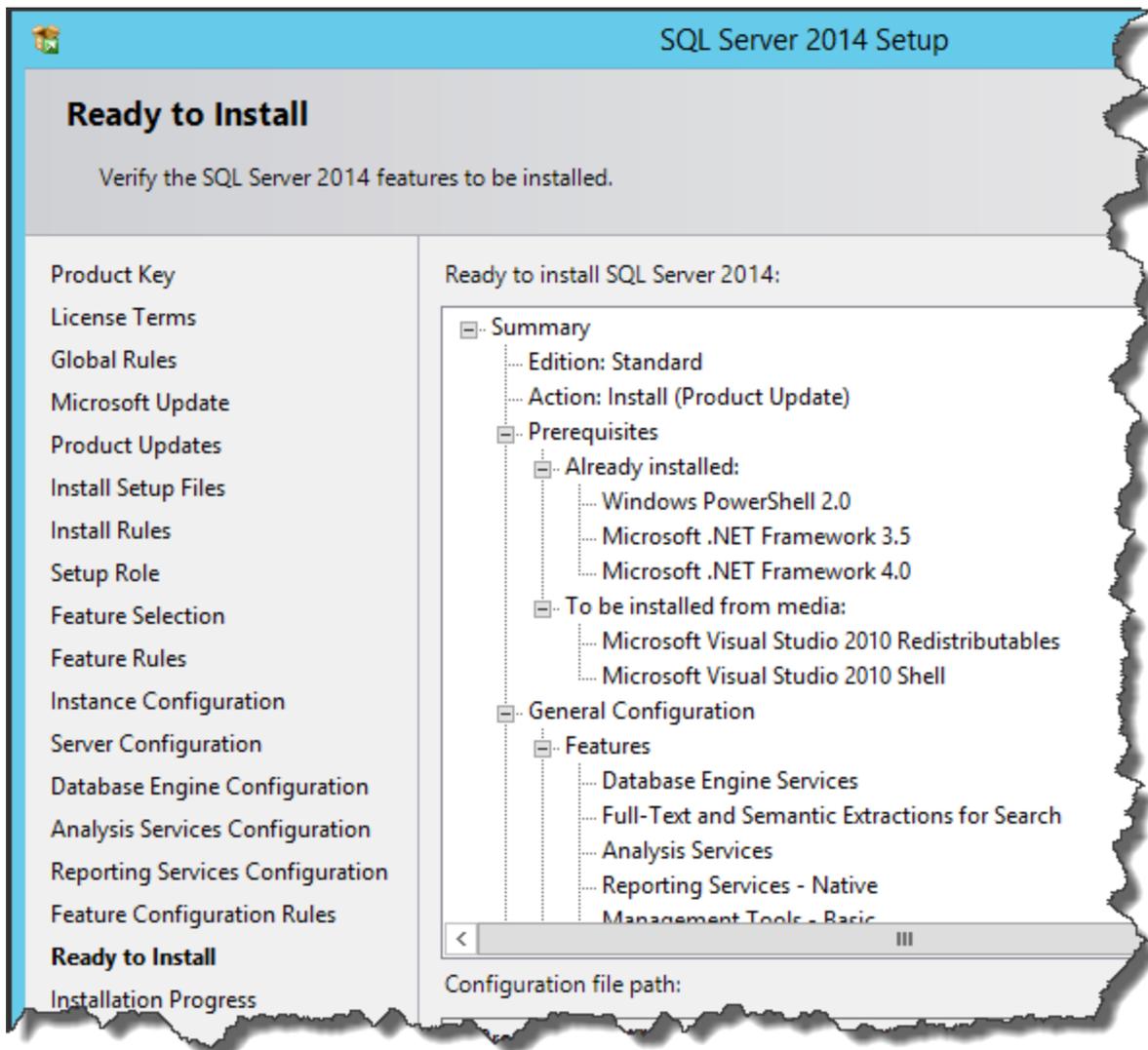


- Click the **Add Current User** button to add the current user as an Analysis Server administrator
- (Optional) Click the **Add...** button and add the **Domain Admins** group to the Analysis Services administrators
- Click **Next**



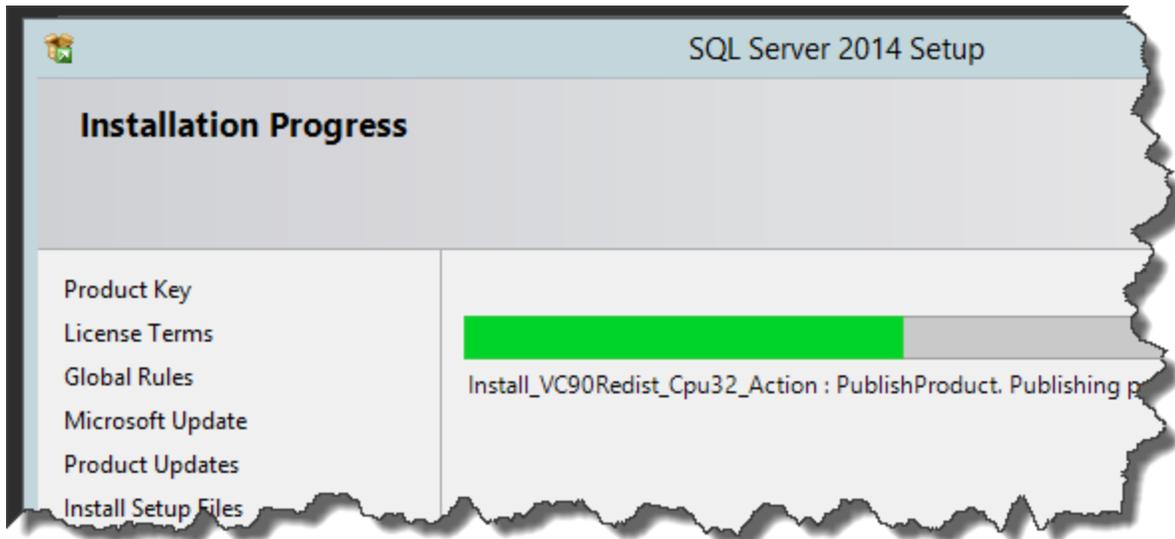
- Choose **Install and configure**
- Click **Next**

You should now see the **Ready to Install** page.

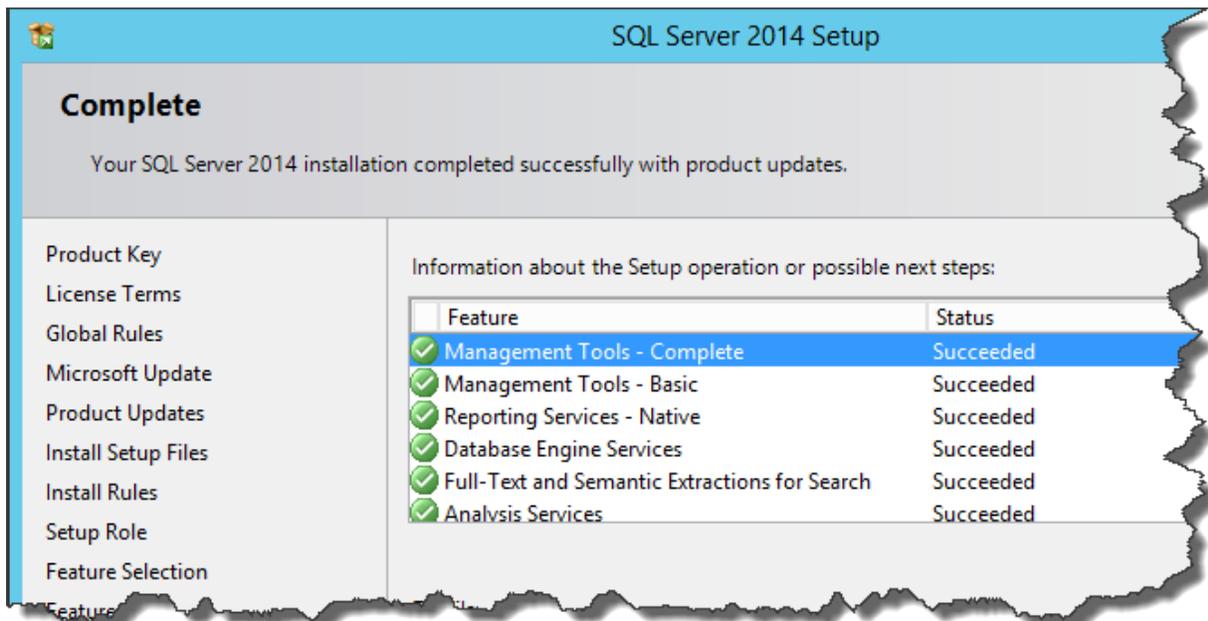


- Click **Install**

The installer should now be running.



Eventually, the installer should finish.



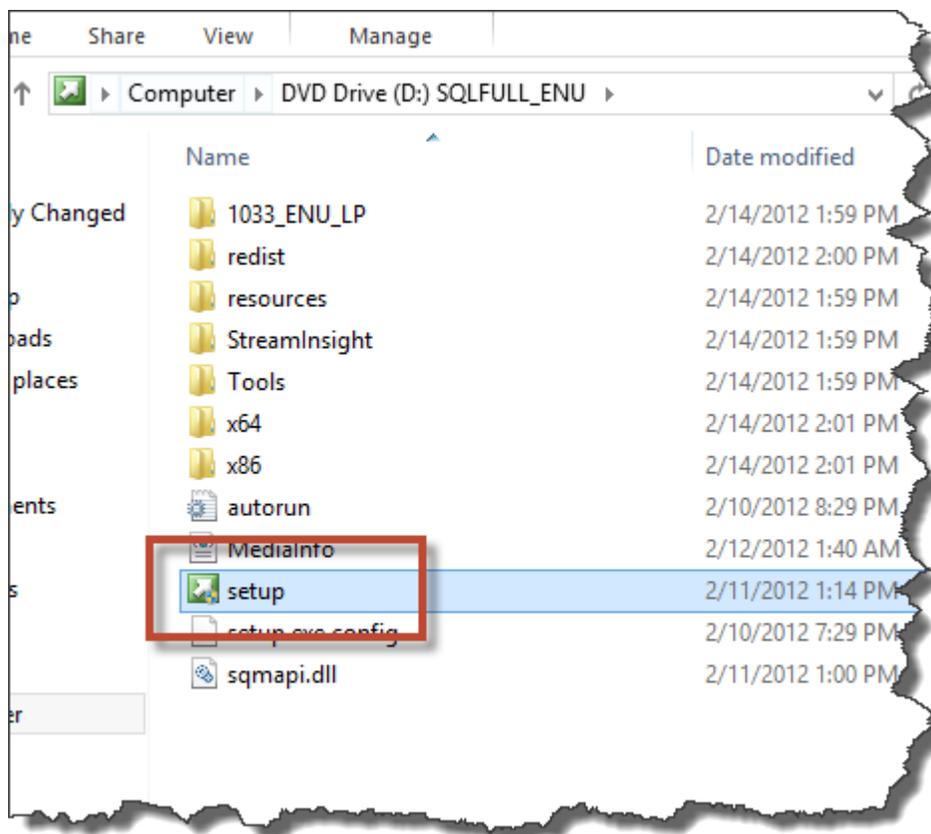
- Verify that all items installed successfully
- Click **Close** to exit the installer

SQL Server 2014 is now installed.

Chapter 3: Install SQL Server 2012

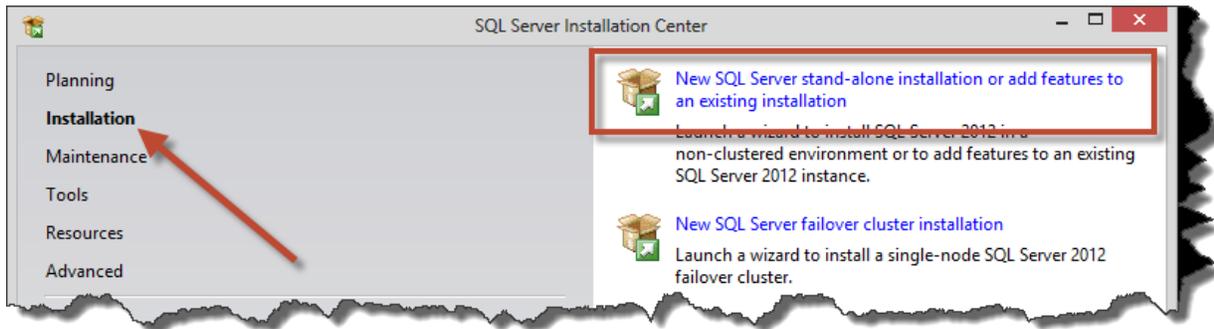
SQL Server 2012 is used as the data repository for Team Foundation Server 2013. A TFS2013 license also includes a license to install SQL Server 2012 Standard for use *exclusively* for TFS without having to purchase an additional TFS license. This chapter will walk you through the process of installing SQL Server 2012 for use with TFS.

- Log on to server using an account that is a member of the **Administrators** group
- Insert the SQL Server 2012 DVD or mount the appropriate ISO image
- Open the DVD drive using **Windows Explorer (explorer.exe)**

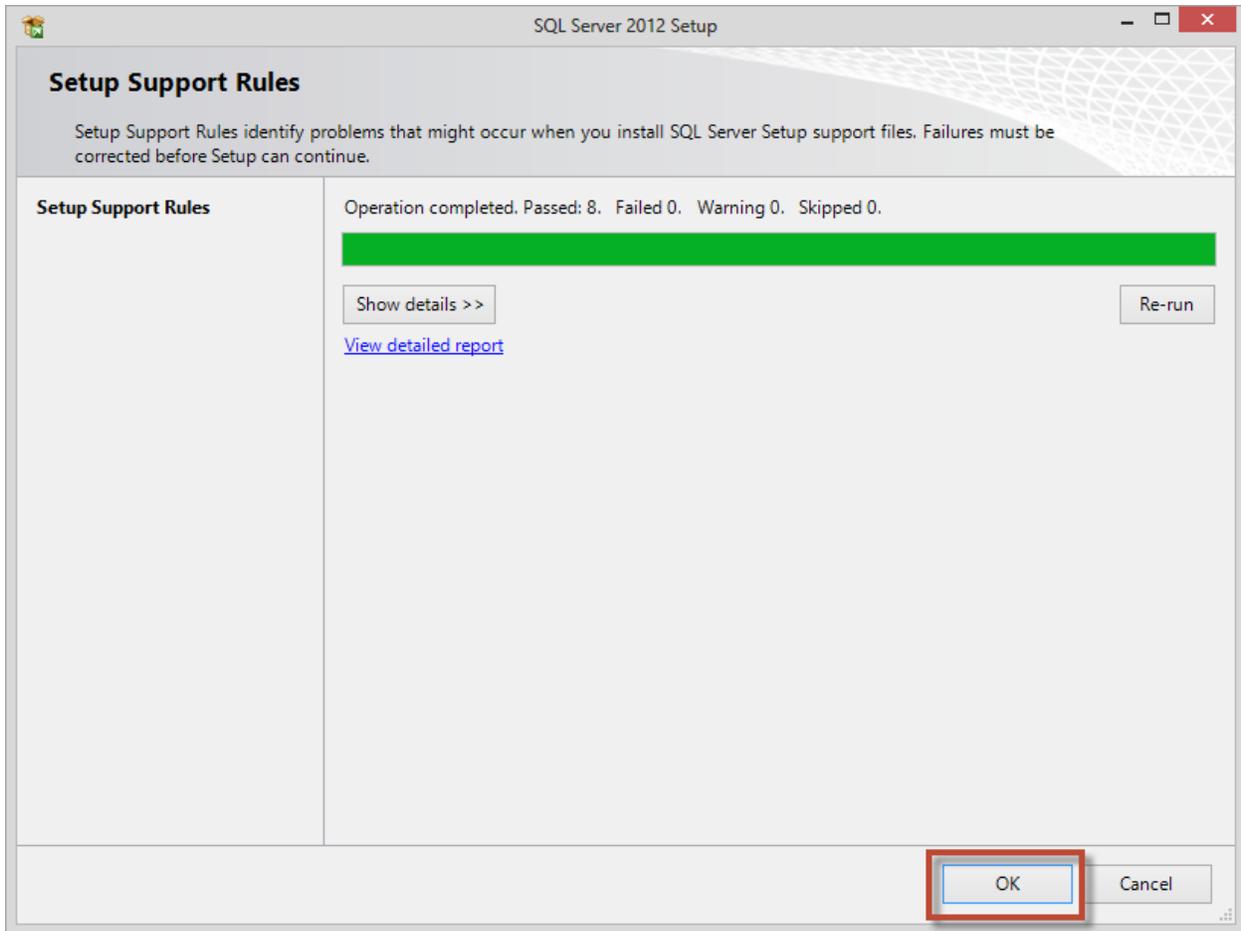


- Run the SQL Server setup program
- Click **Yes** on any User Account Control dialogs that appear

You should now see the SQL Server Installation Center window.

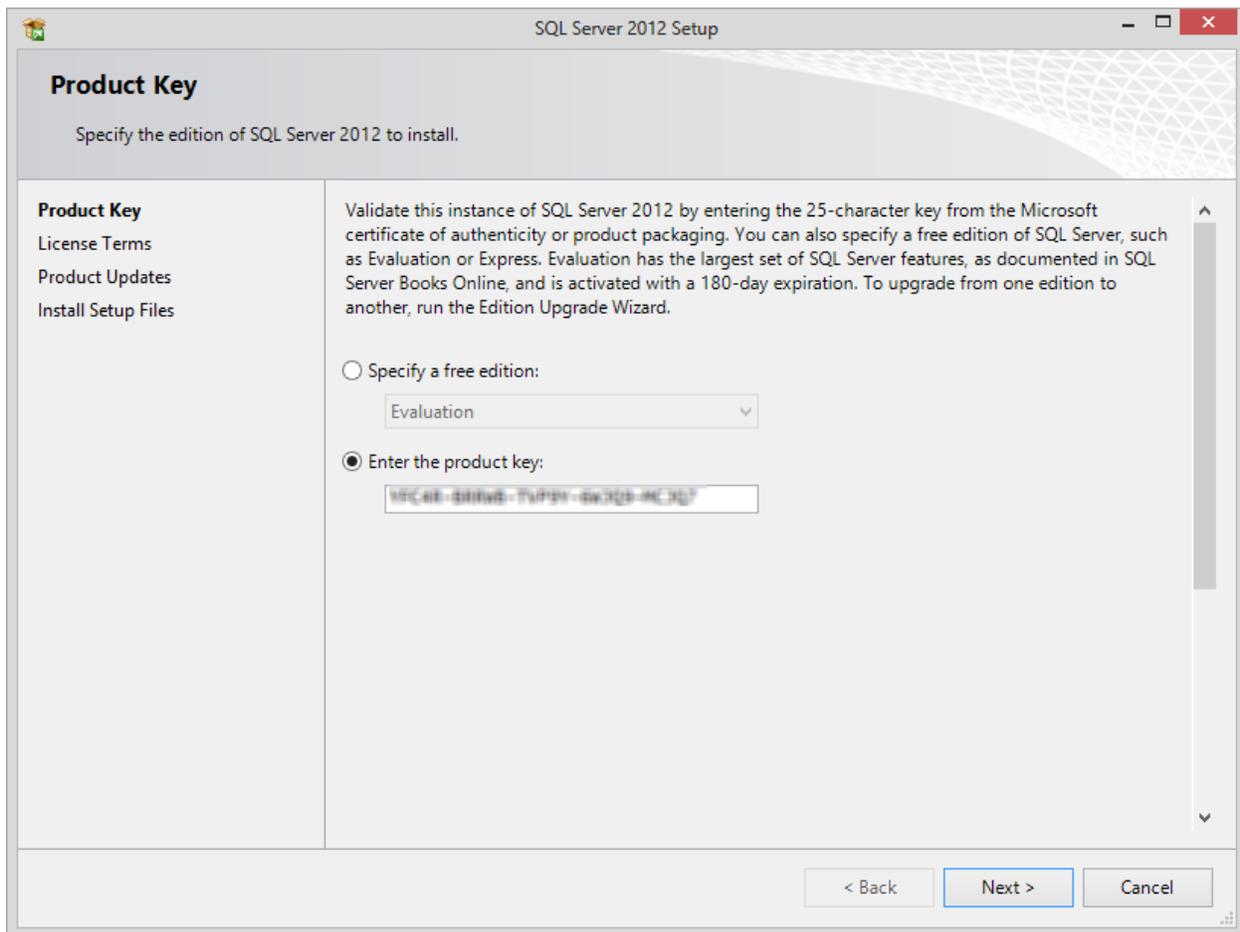


- In the left panel, click **Installation**
- In the right panel, click **New SQL Server stand-alone installation or add features to an existing installation**



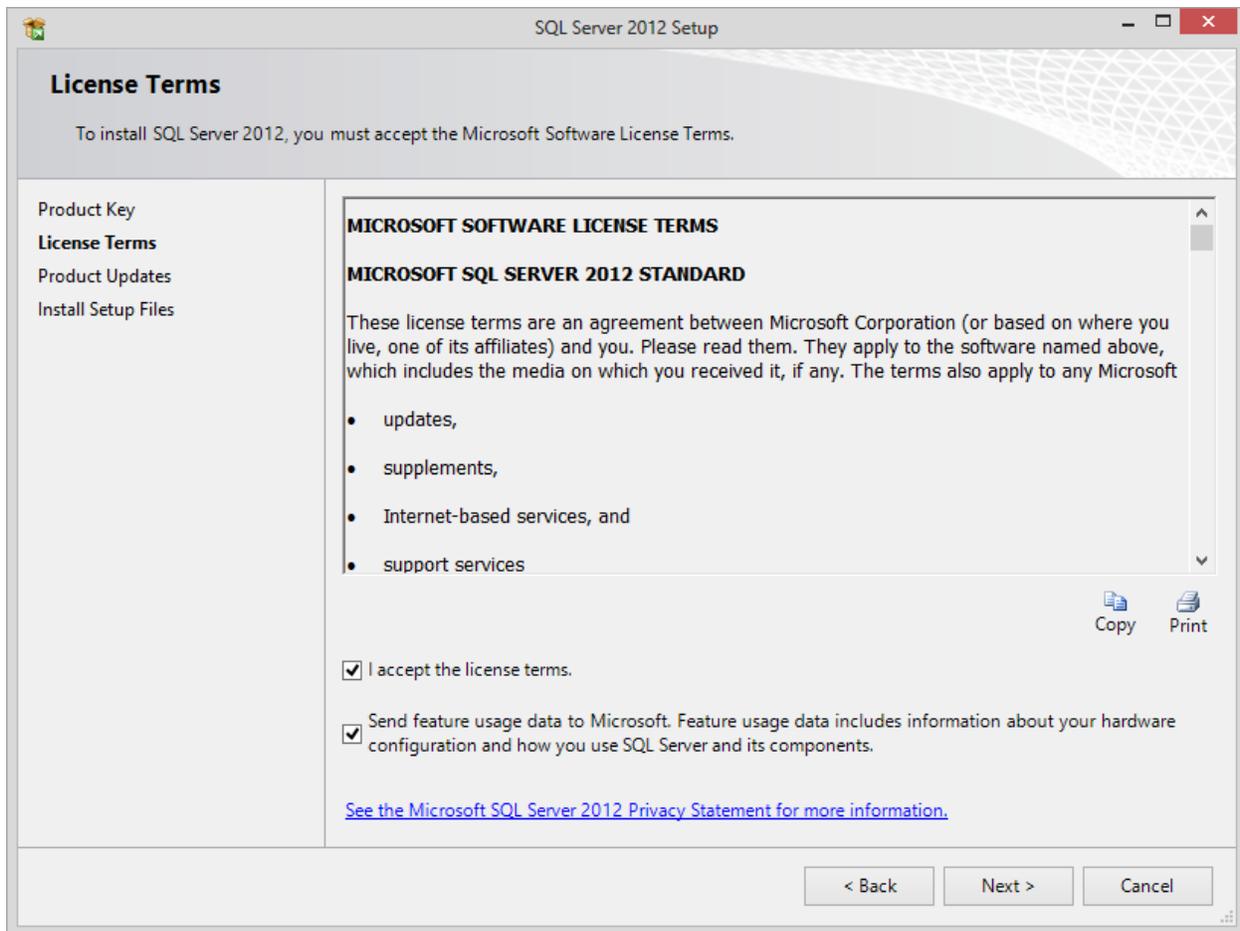
- Click **OK**

Enter your product key.



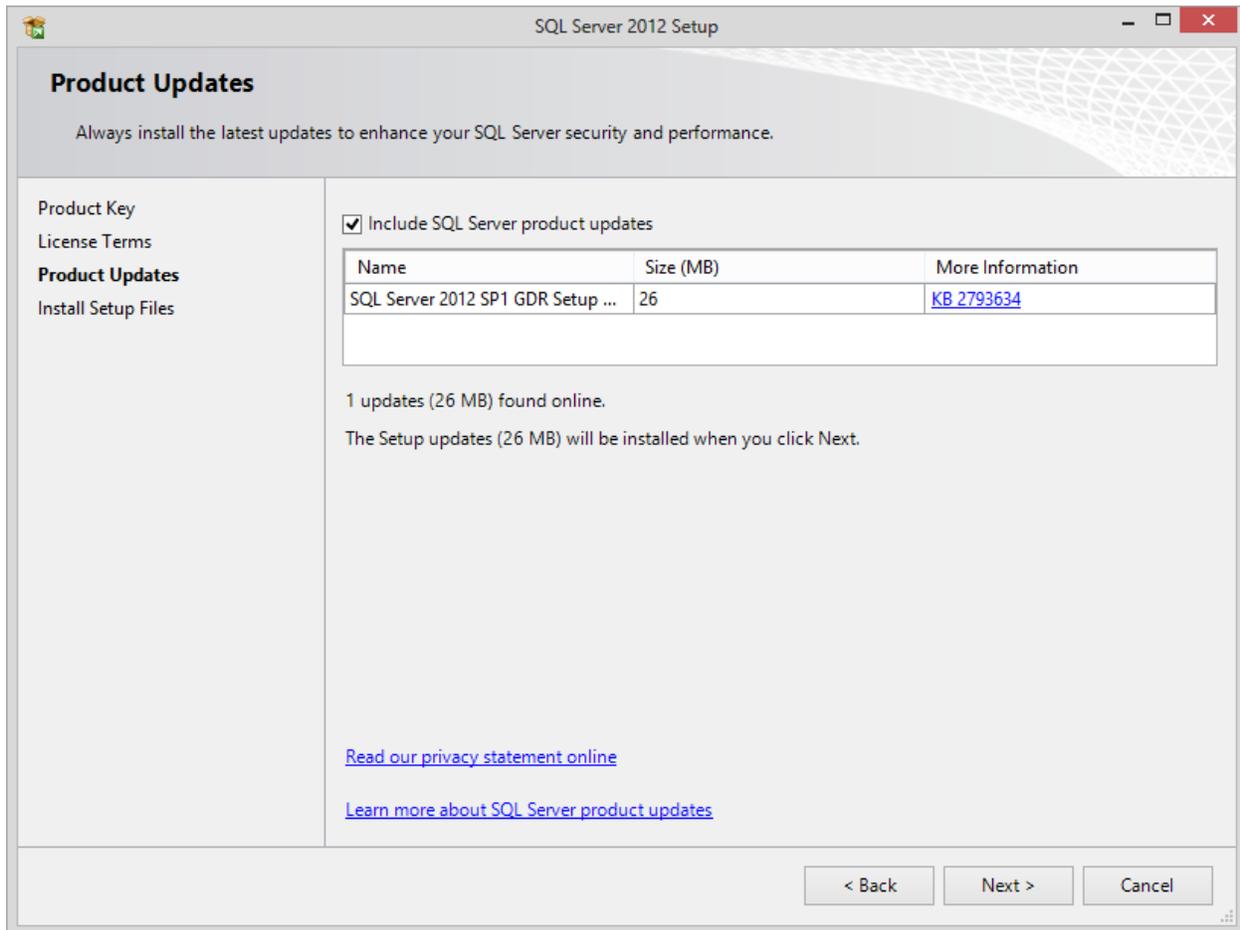
The screenshot shows the 'SQL Server 2012 Setup' window with the 'Product Key' tab selected. The window title is 'SQL Server 2012 Setup'. The main heading is 'Product Key' with the instruction 'Specify the edition of SQL Server 2012 to install.' Below this, there is a sidebar with links: 'Product Key', 'License Terms', 'Product Updates', and 'Install Setup Files'. The main content area contains the following text: 'Validate this instance of SQL Server 2012 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server, such as Evaluation or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. To upgrade from one edition to another, run the Edition Upgrade Wizard.' There are two radio button options: 'Specify a free edition:' with a dropdown menu showing 'Evaluation', and 'Enter the product key:' which is selected. Below the selected option is a text input field containing the product key: 'KJ9HJ-81HWS-7YF9Y-6W329-MC3D7'. At the bottom right, there are three buttons: '< Back', 'Next >', and 'Cancel'.

- Enter your product key
- Click **Next**



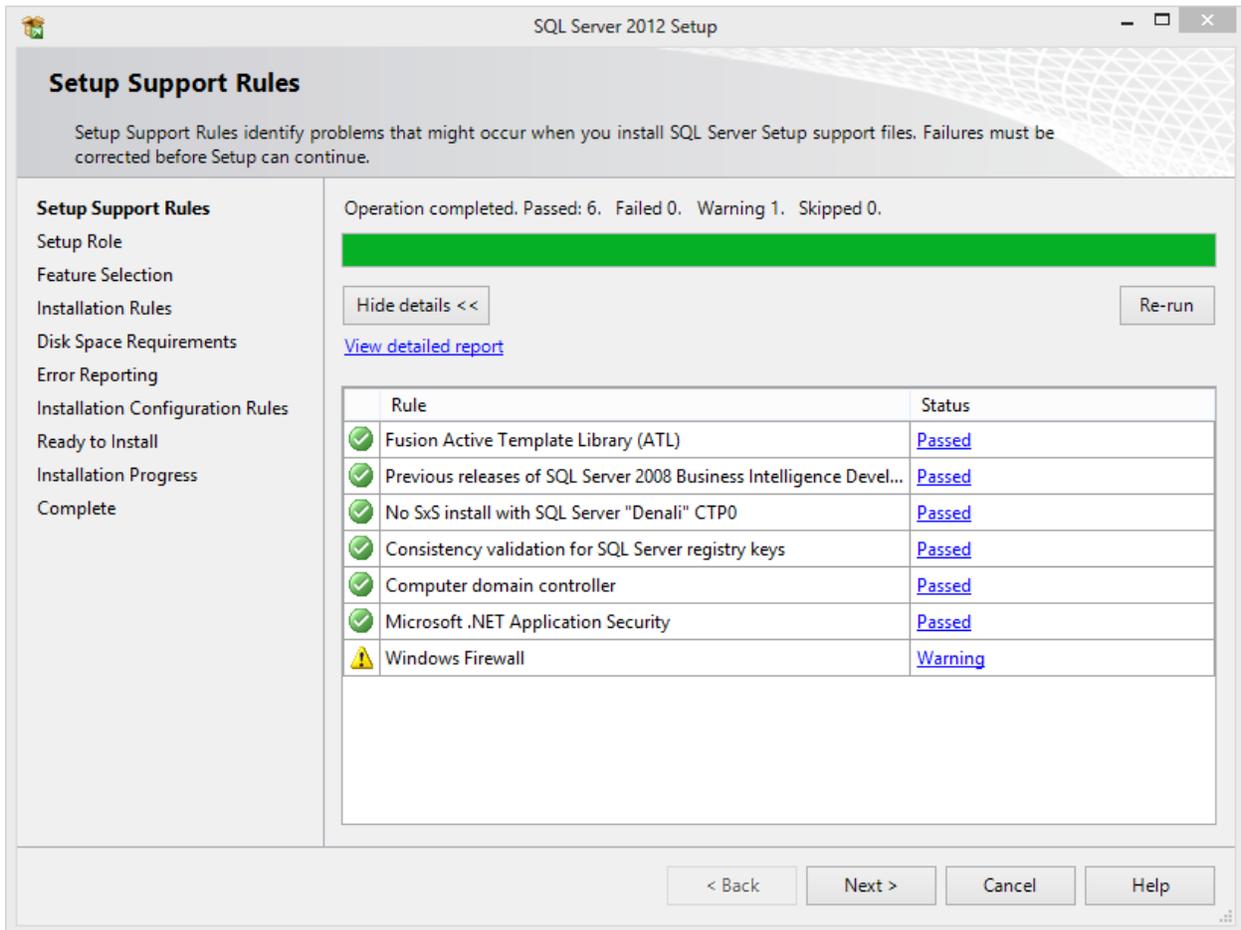
- Check **I accept the license terms**
- Check **Send feature usage data to Microsoft**
- Click **Next**

If product updates are found, install them.



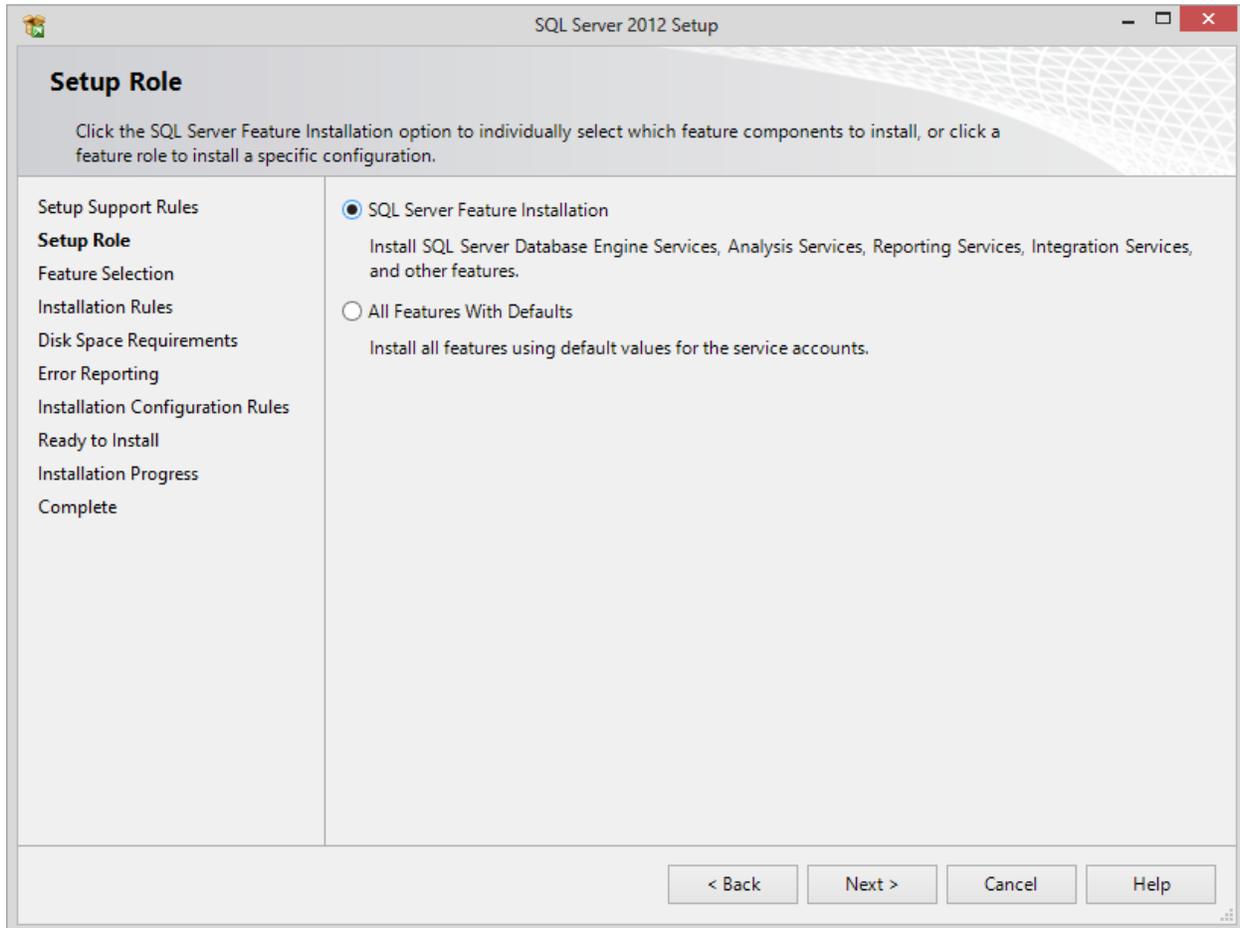
- Check **Include SQL Server product updates**
- Click **Next**

Verify that the Setup Support Rules dialog does not report any failed checks.



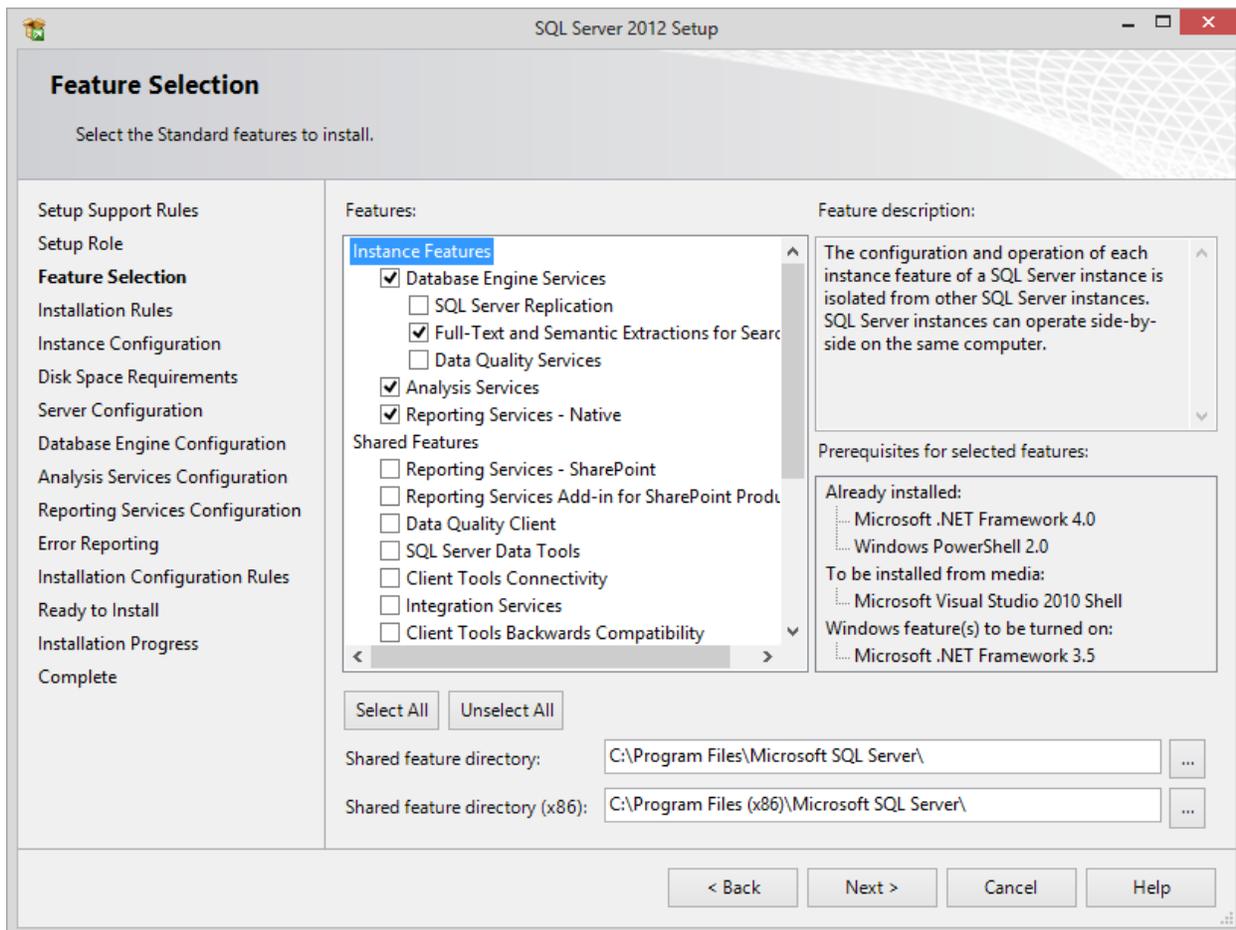
- Click **Next**

We'll be installing only some of SQL Server's features. On Setup Role, choose SQL Server Feature Installation.



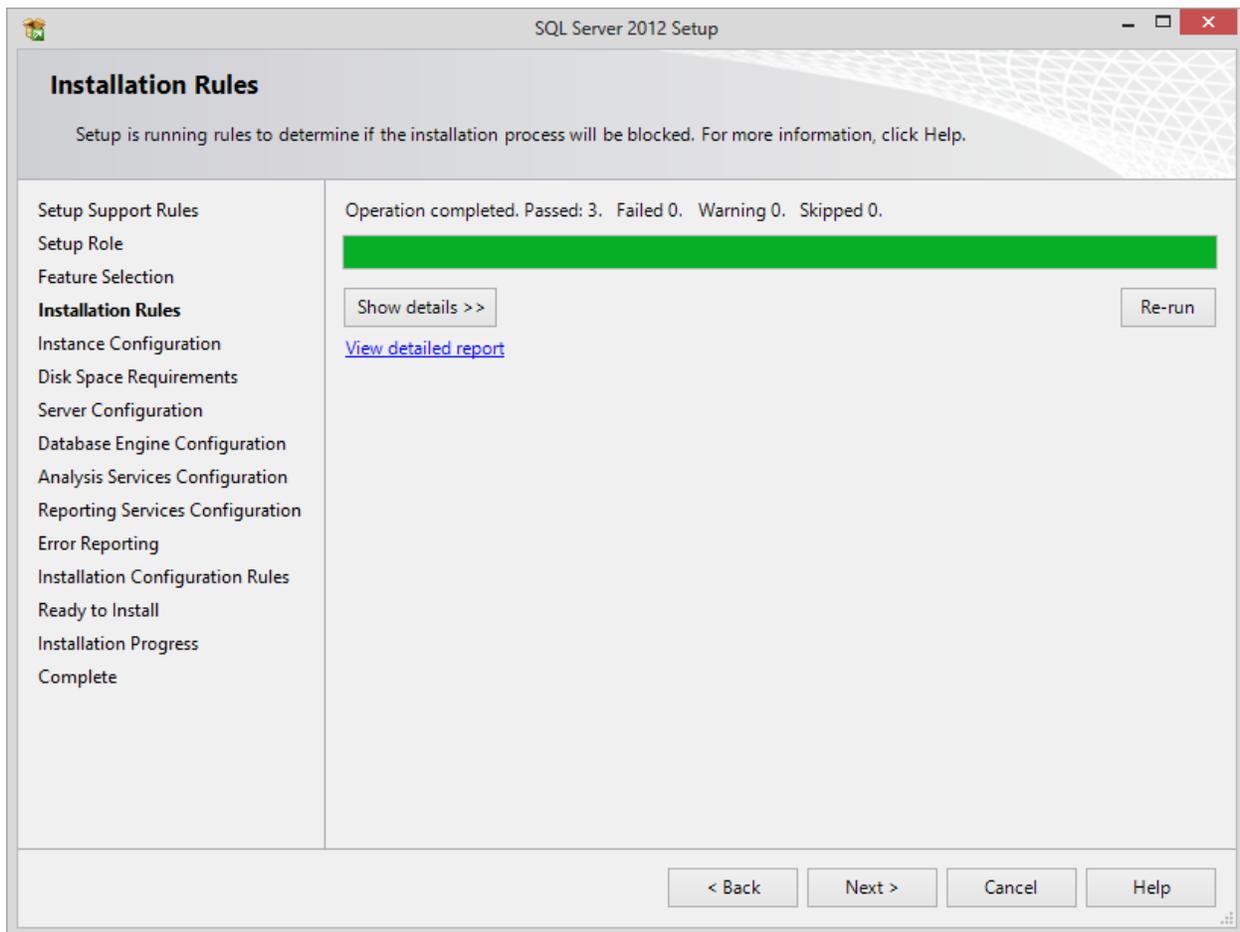
- Choose **SQL Server Feature Installation**
- Click **Next**

You should now be on the **Feature Selection** page.



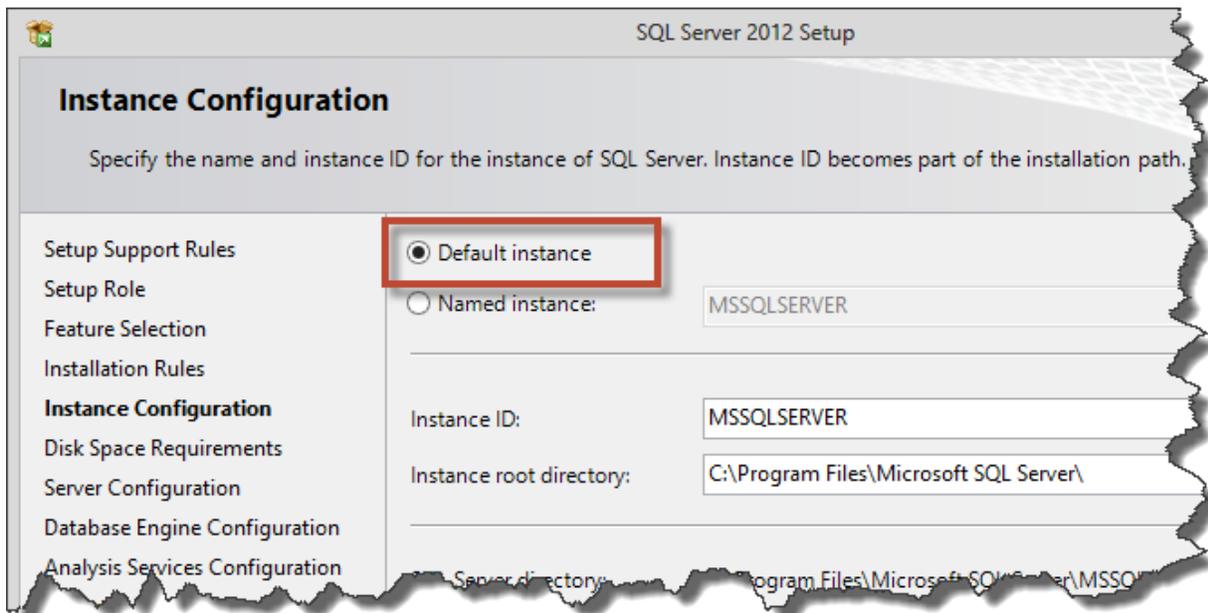
- Under **Instance Features** check
 - **Database Engine Services**
 - **Full-text and Semantic Extractions for Search**
 - **Analysis Services**
 - **Reporting Services – Native**
- (Optional) Under **Shared Features** check
 - **Management Tools – Complete**
- Click **Next**

On the **Installation Rules** page, verify that there are zero Failed checks.

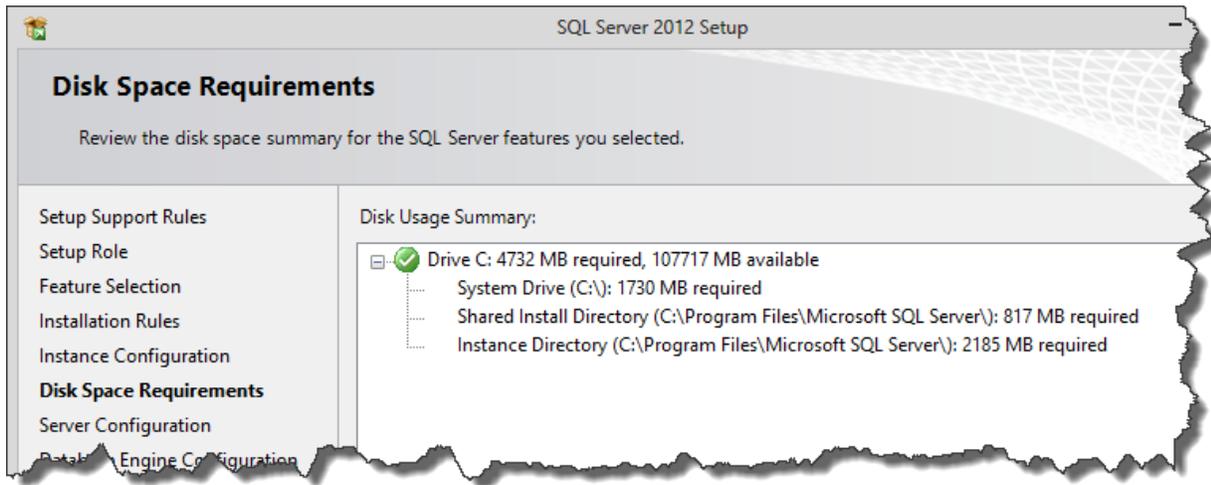


- Click **Next**

You should now be on the **Instance Configuration** page.

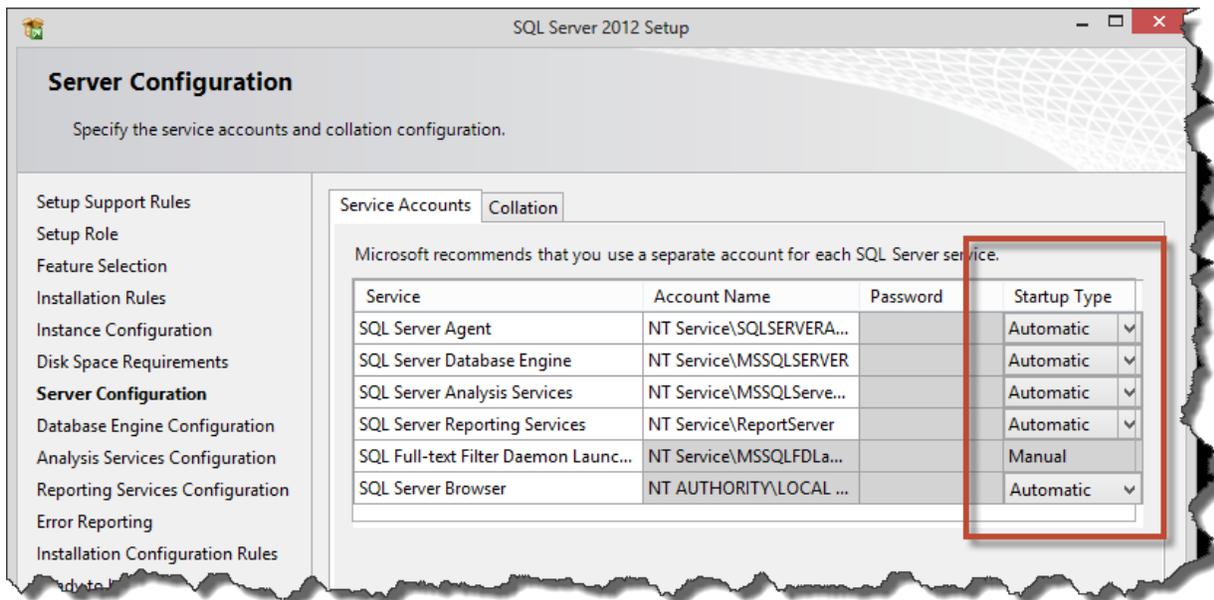


- Choose **Default instance**
- Click **Next**

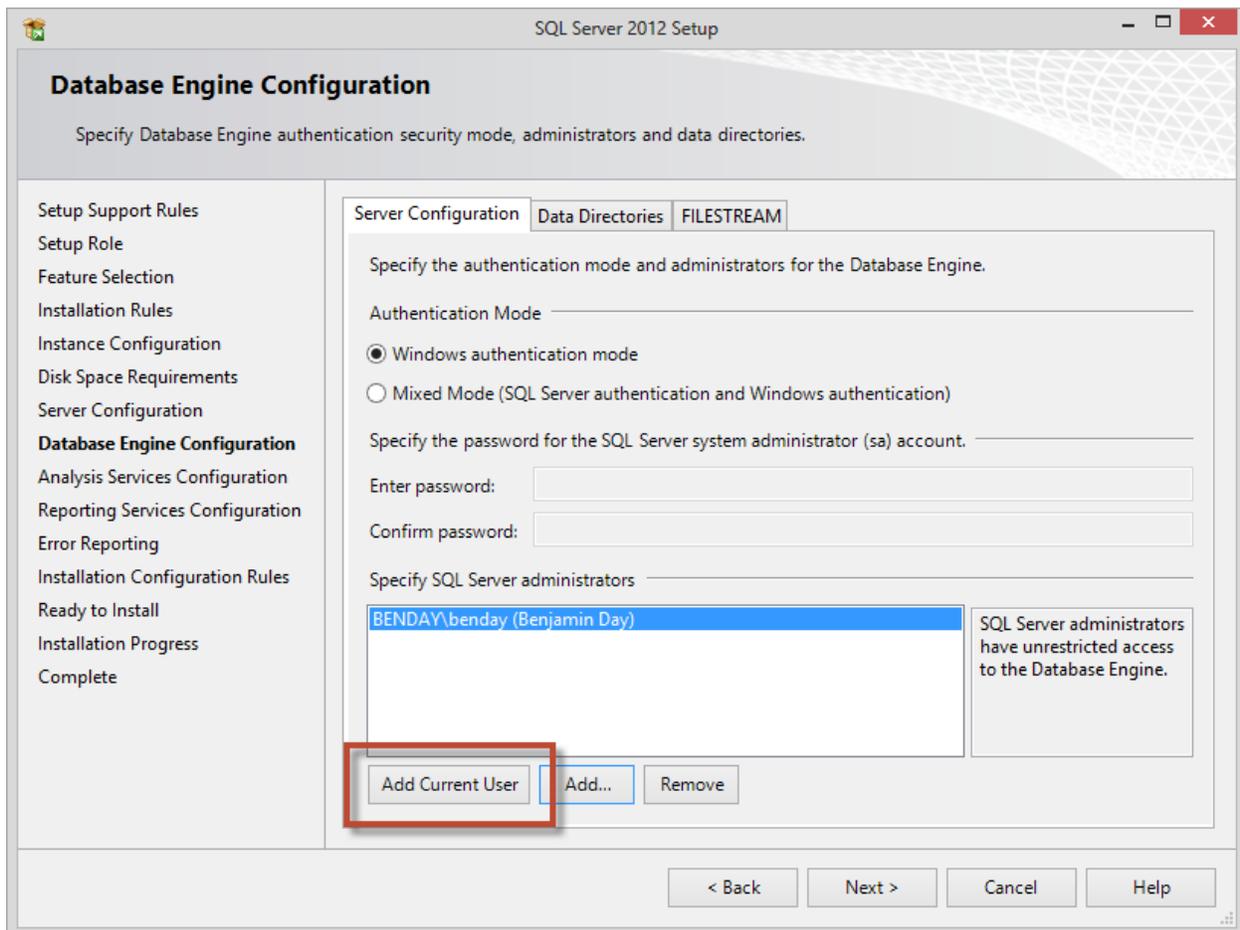


- Click **Next**

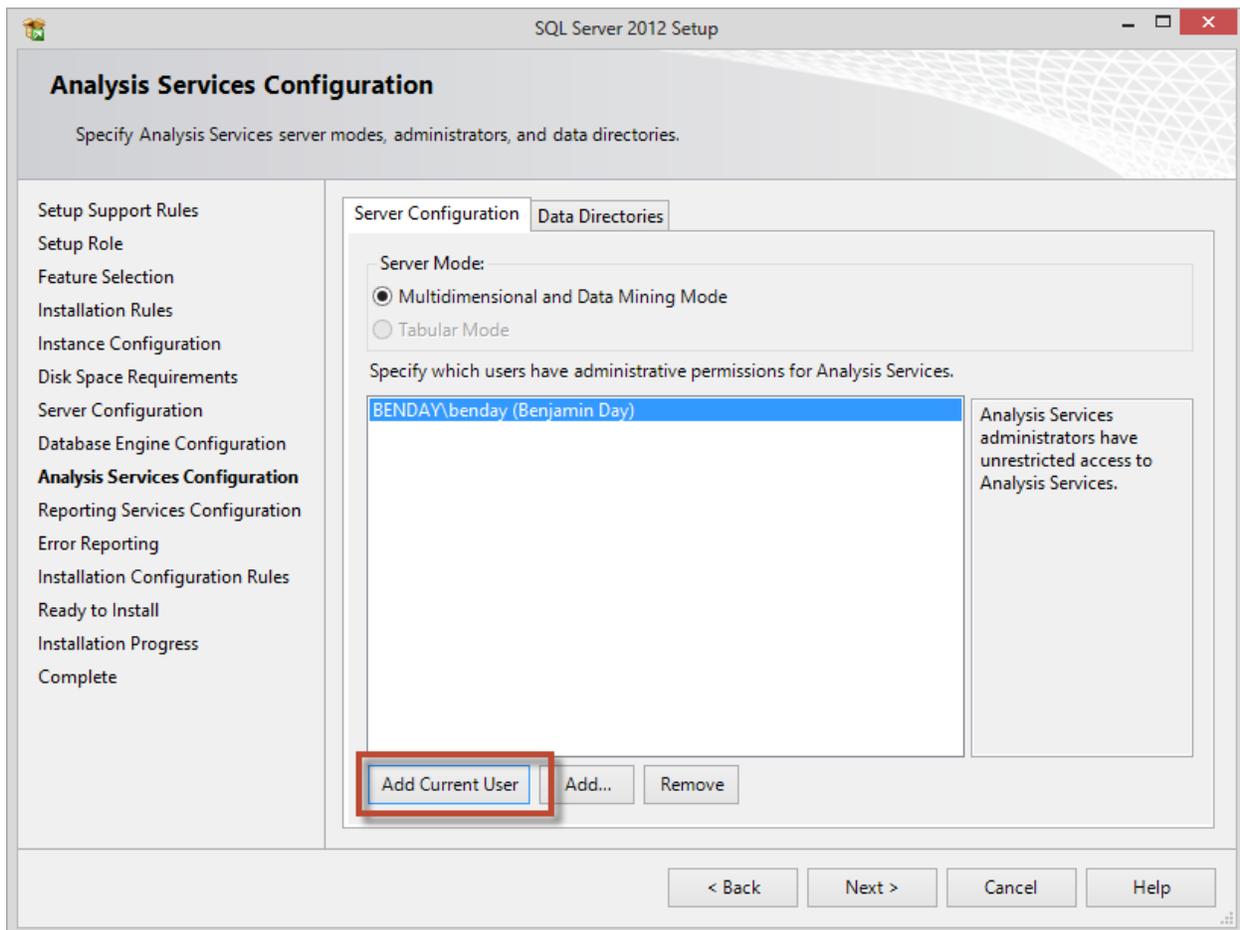
You should now be on the **Server Configuration** page.



- Do not modify the Account Name values
- Set the **Startup Type** value to **Automatic** for each service
- Click **Next**

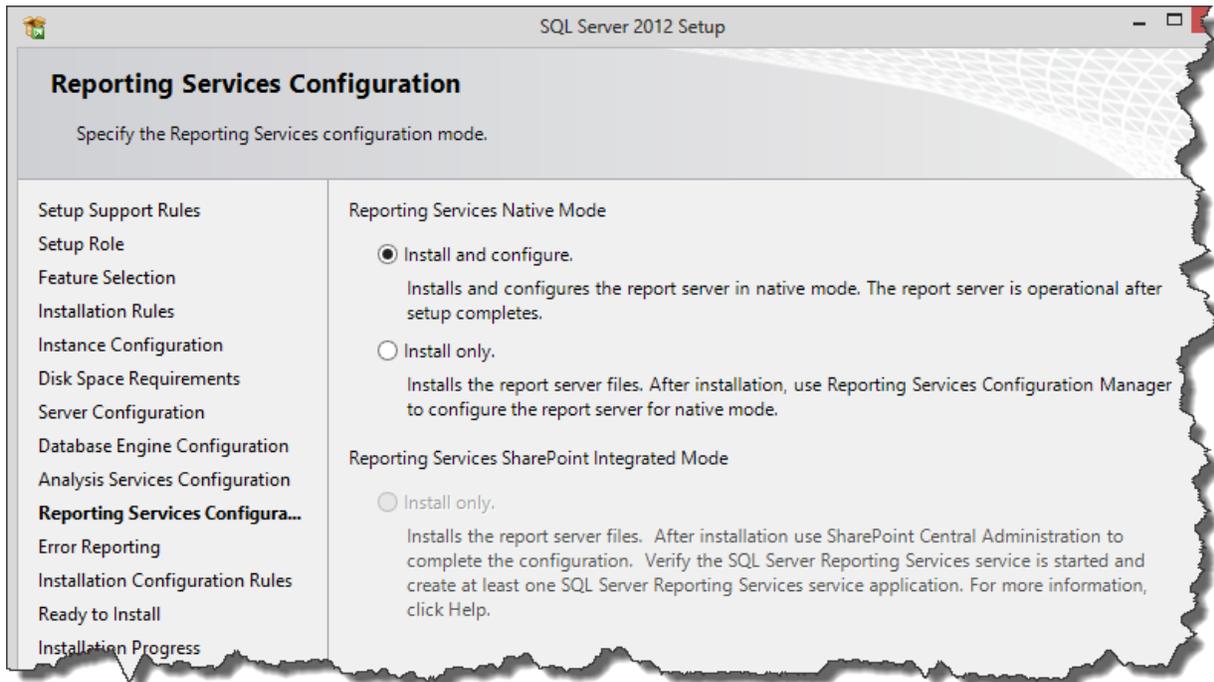


- Choose **Windows authentication mode**
- Click the **Add Current User** button to add the current user as a SQL Server administrator
- (Optional) Click the **Add...** button and add the **Domain Admins** group to the SQL Server administrators
- Click **Next**

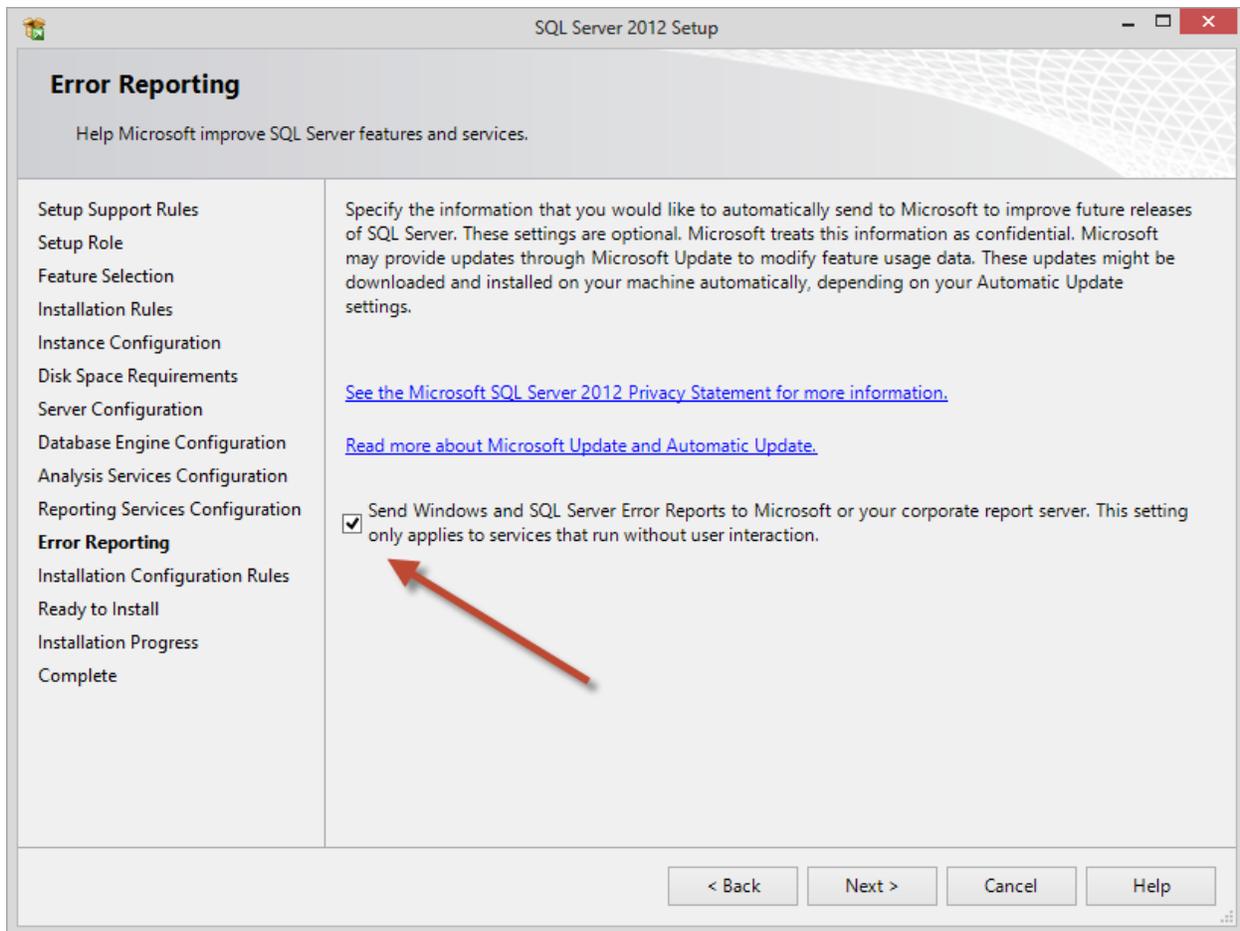


- Click the **Add Current User** button to add the current user as an Analysis Server administrator
- (Optional) Click the **Add...** button and add the **Domain Admins** group to the Analysis Services administrators
- Click **Next**

You should now be on the **Reporting Services Configuration** page.

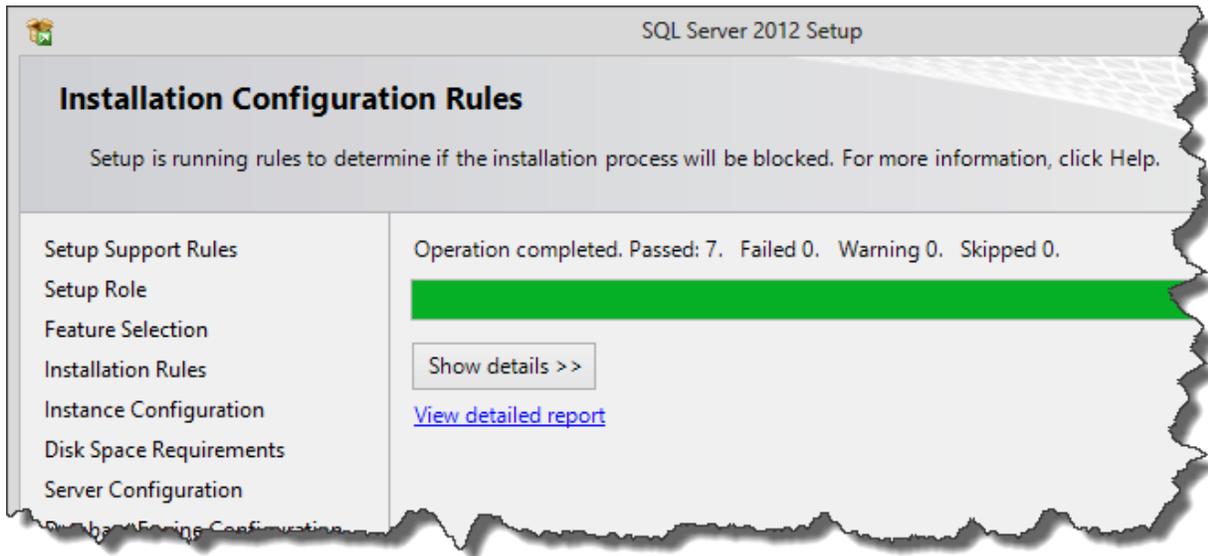


- Choose **Install and configure**
- Click **Next**



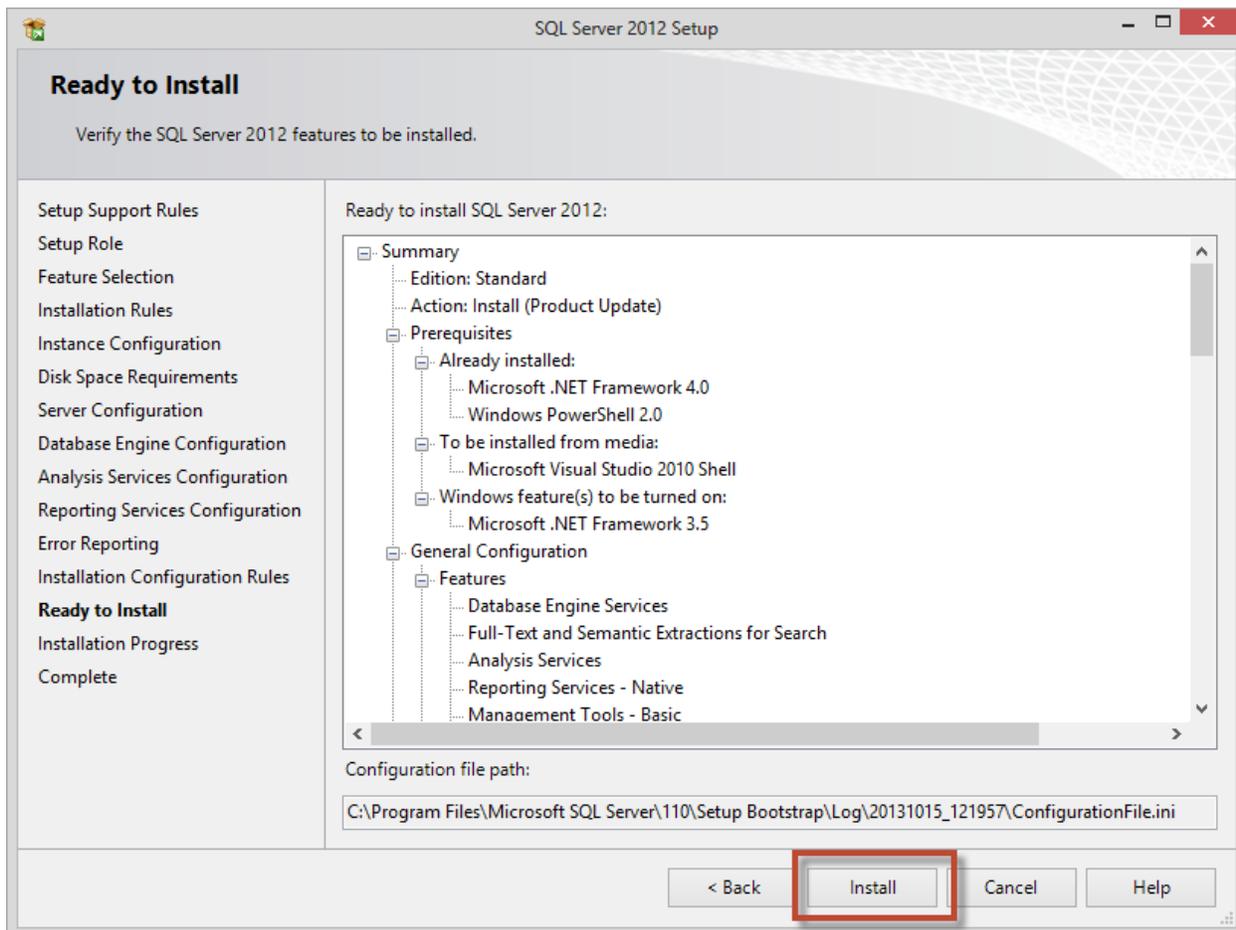
- Check **Send Windows and SQL Server Error Reports to Microsoft**
- Click **Next**

On the **Installation Configuration Rules** page, verify that there are zero Failed checks.



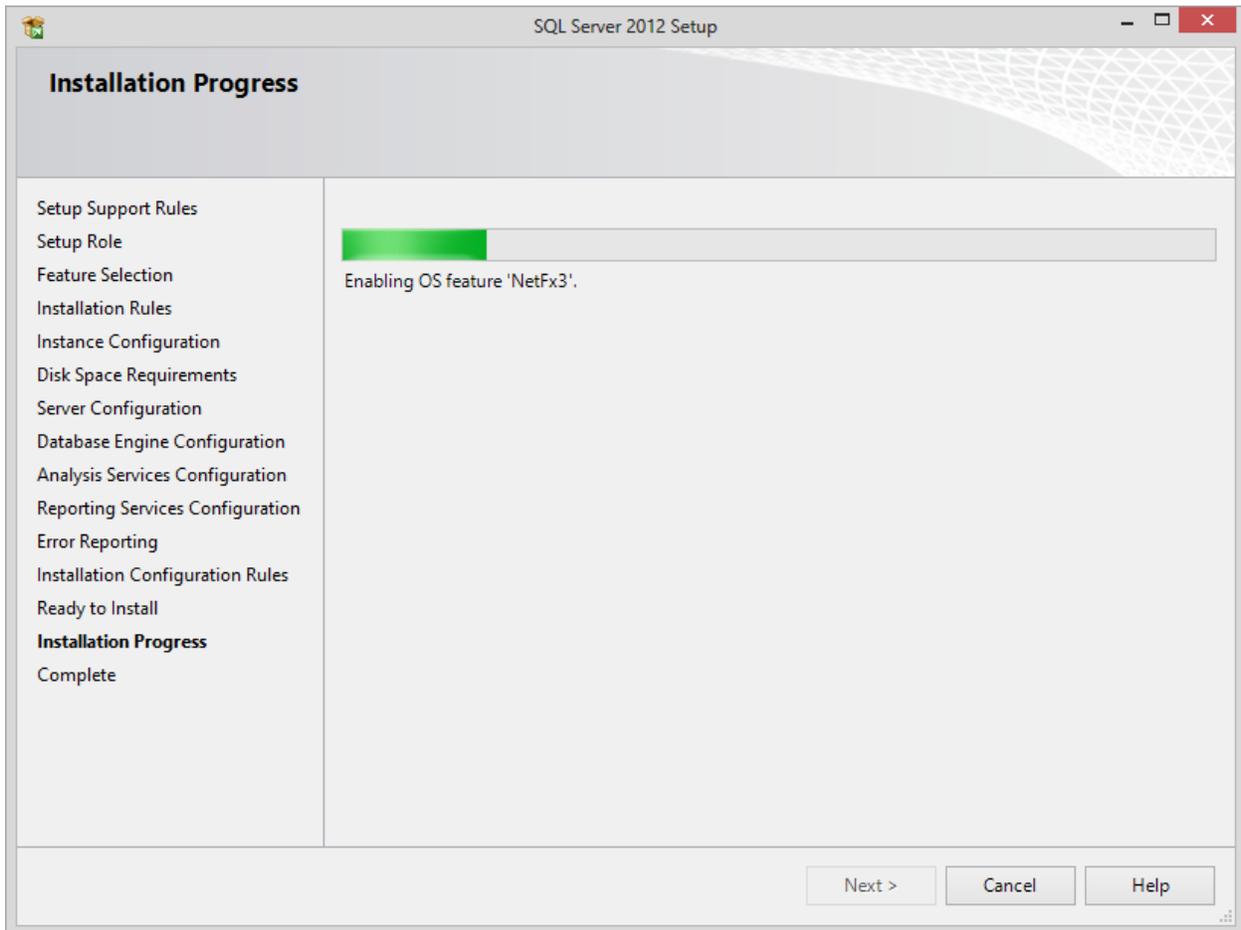
- Click **Next**

You should see the **Ready to Install** page with a summary of the feature installations.

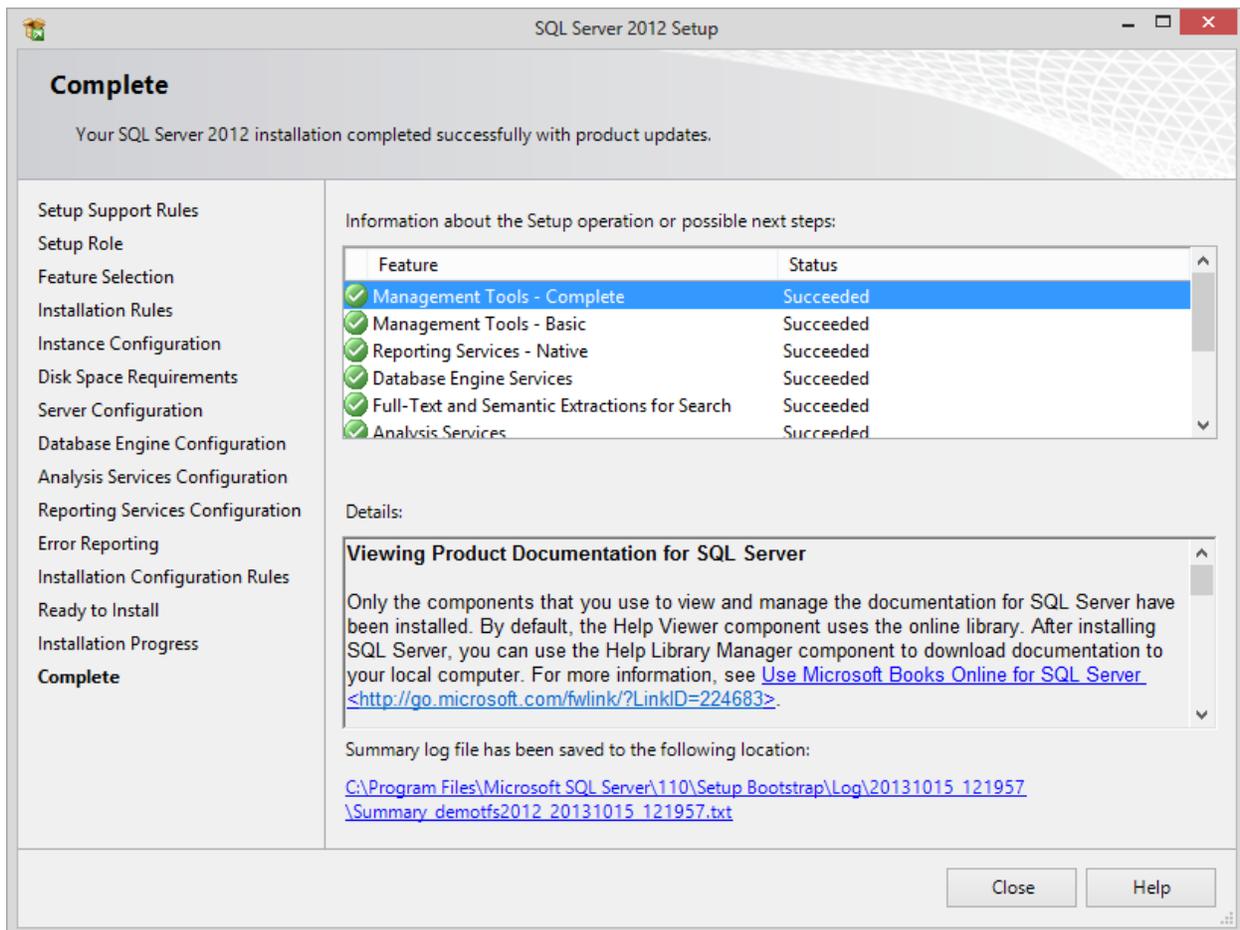


- Click **Install**

The install should now be running.



After running for a while, the installation should complete successfully.



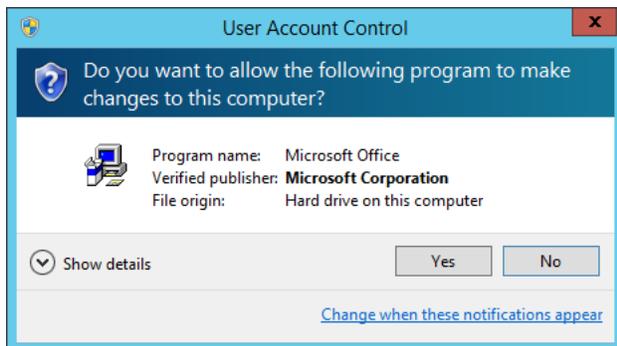
- Click **Close** to close the Setup window
- Close out of any other SQL Server installer windows.

SQL Server 2012 is now installed. Download and install the latest service pack and updates for SQL Server 2012.

Chapter 4: Install SharePoint Foundation 2013 w/ Service Pack 1

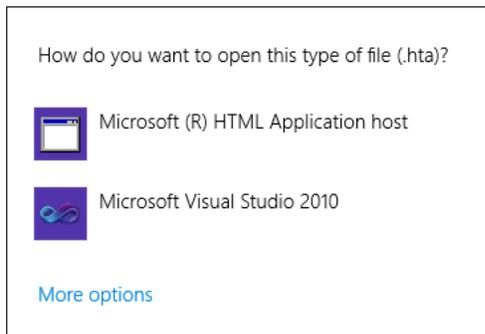
If you chose Windows Server 2012 R2 as your operating system for Team Foundation Server 2013 Update 2, you'll find that installing SharePoint is a bit of a problem. SharePoint Foundation 2013 RTM isn't supported on Windows Server 2012 R2. Good news and bad news. The good news is that SharePoint 2012 Service Pack 1 *is* supported. The bad news is that installing it directly through the TFS2013.2 installer *isn't*. Not a huge problem but you will have to install SharePoint Foundation 2013 manually.

- Download the **SharePoint Foundation 2013 with Service Pack 1** installer from Microsoft
- Log on to the server using a user account with Administrator privileges
- Double-click the installer (sharepoint.exe) to begin the install



- Click **Yes** on the User Account Control dialog

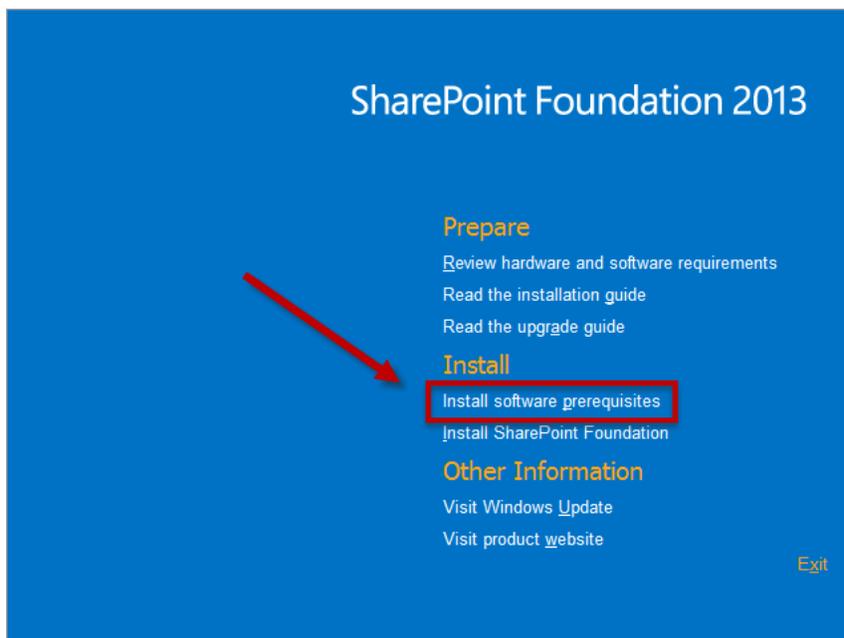
The SharePoint installer will run briefly and then disappear. You might be prompted with a dialog like the one below that asks **“How do you want to open this type of file (.hta)?”**



- Choose **Microsoft (R) HTML Application host**

Install SharePoint Foundation 2013 Pre-requisites

You'll eventually see the **SharePoint Foundation 2013** installer main menu.



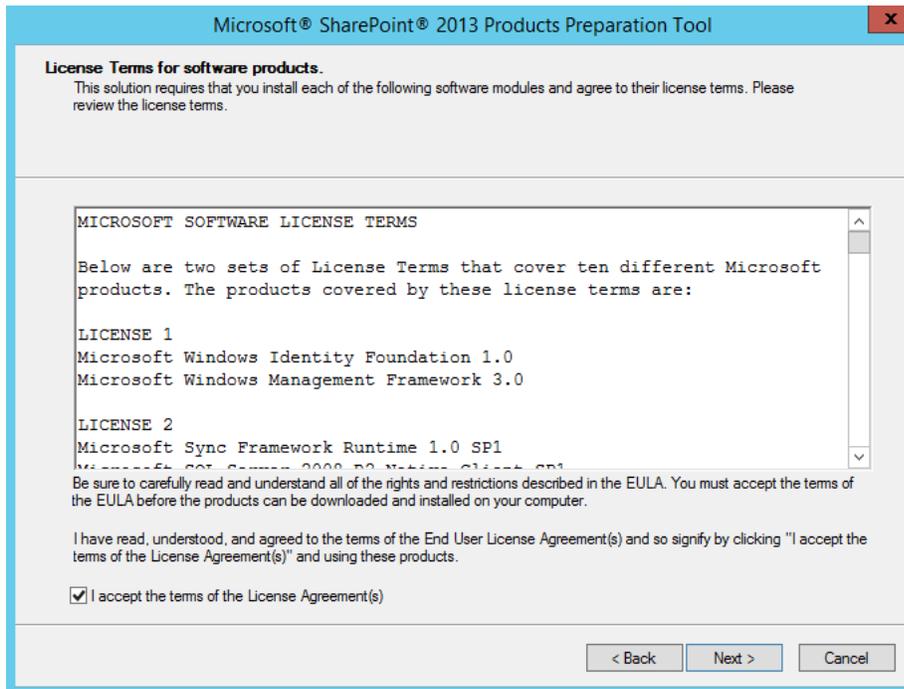
- Click **Install software prerequisites**

You should now see the welcome screen for the **Microsoft SharePoint 2013 Products Preparation Tool**.



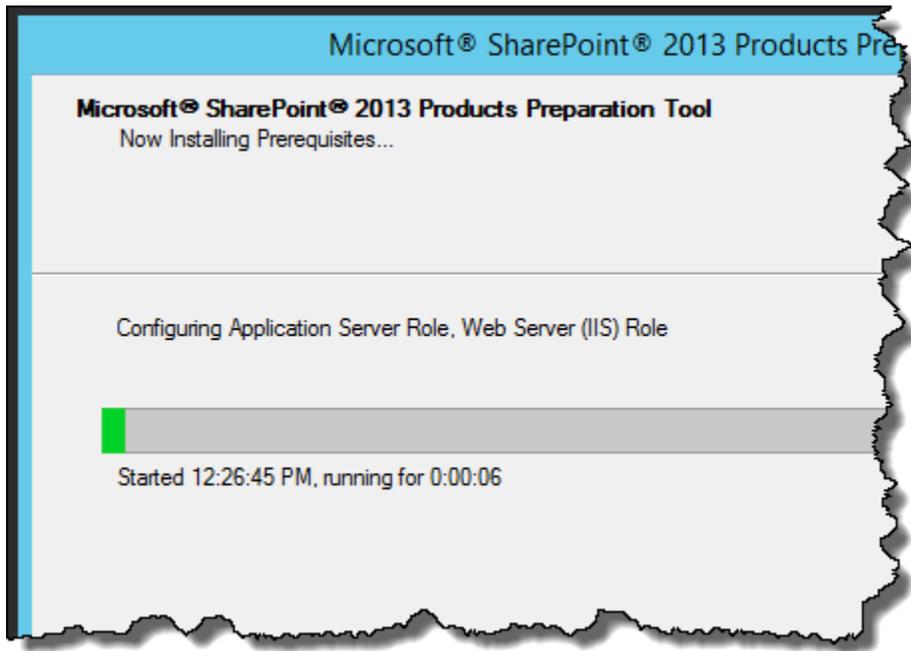
- Click **Next**

You'll be prompted to accept the license terms.

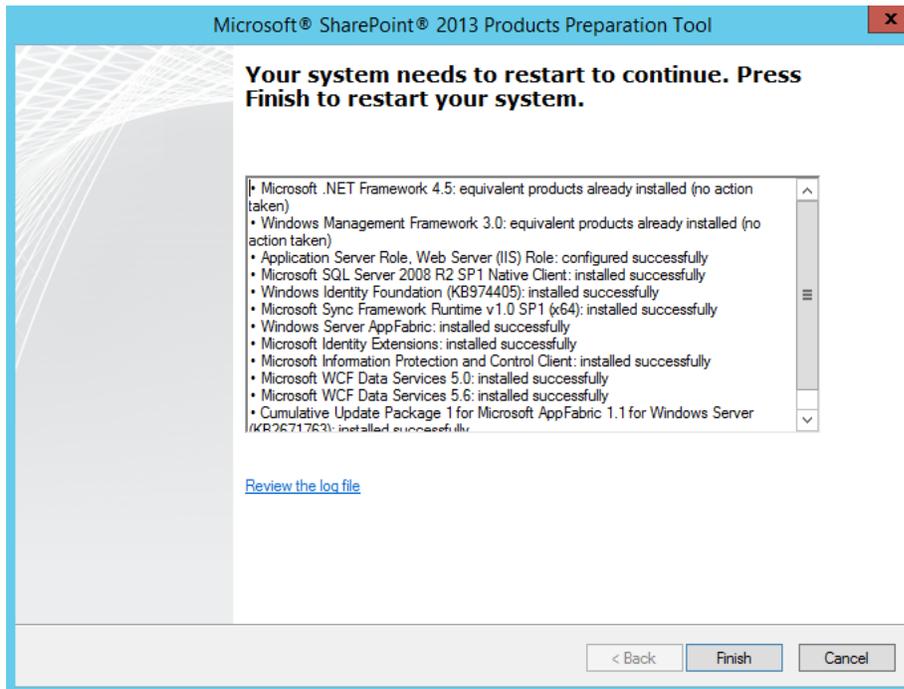


- Check **I accept the terms of the License Agreement(s)**
- Click **Next**

The installer should now be running.

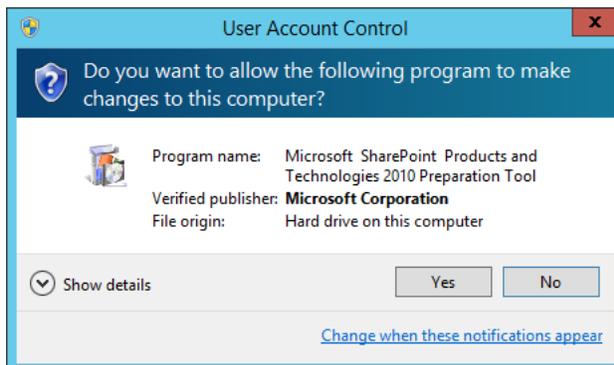


The installer should complete and will prompt you to restart the server.



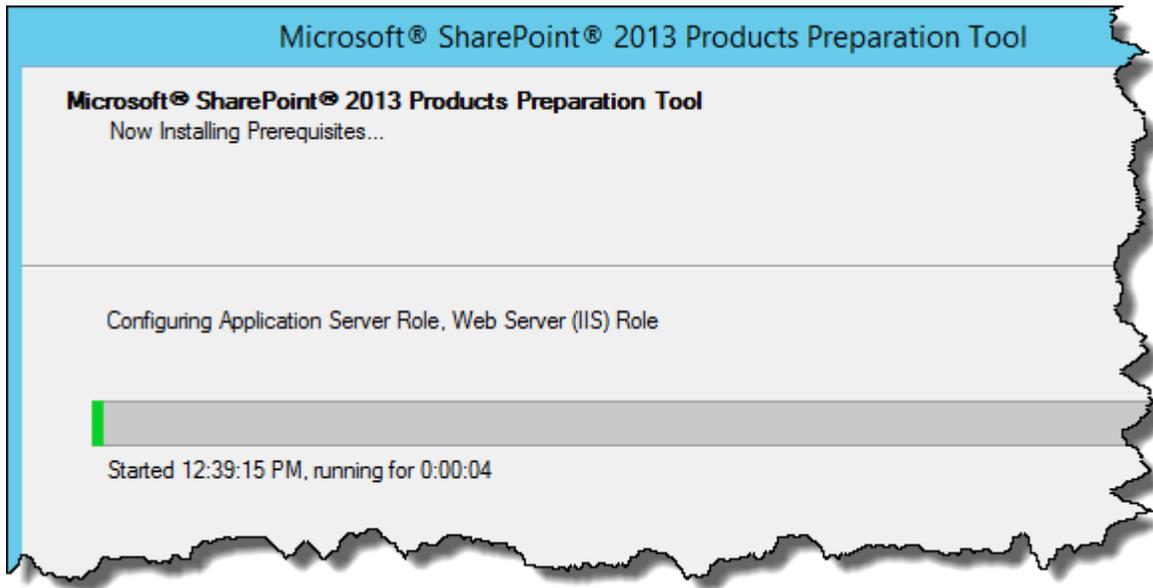
- Click **Finish**
- After the server has rebooted, log back into the server

The installer will resume and will probably present you with a User Account Control dialog.

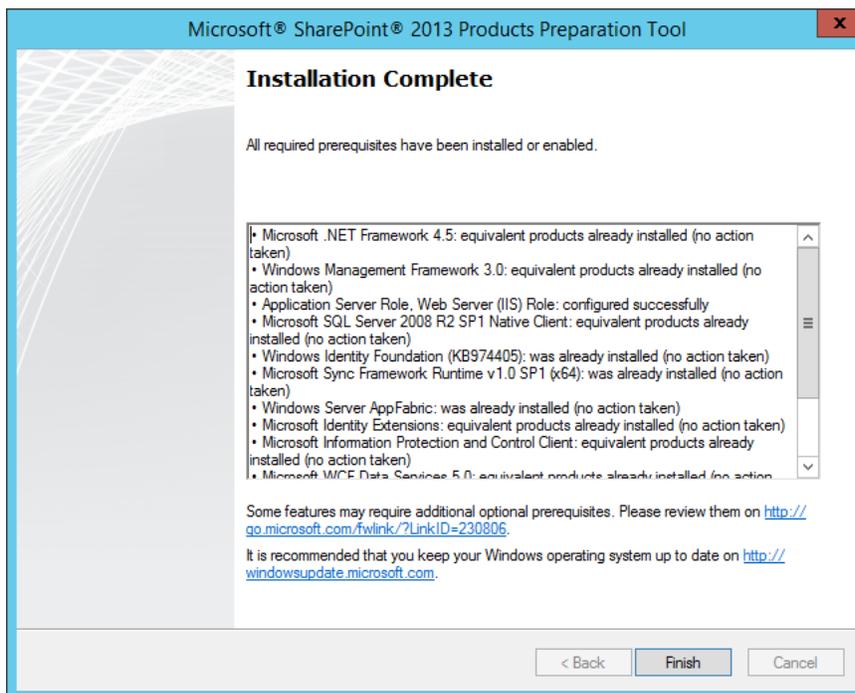


- Click **Yes**

The installer will run some more.



It will eventually finish and present you with the **Installation Complete** page.



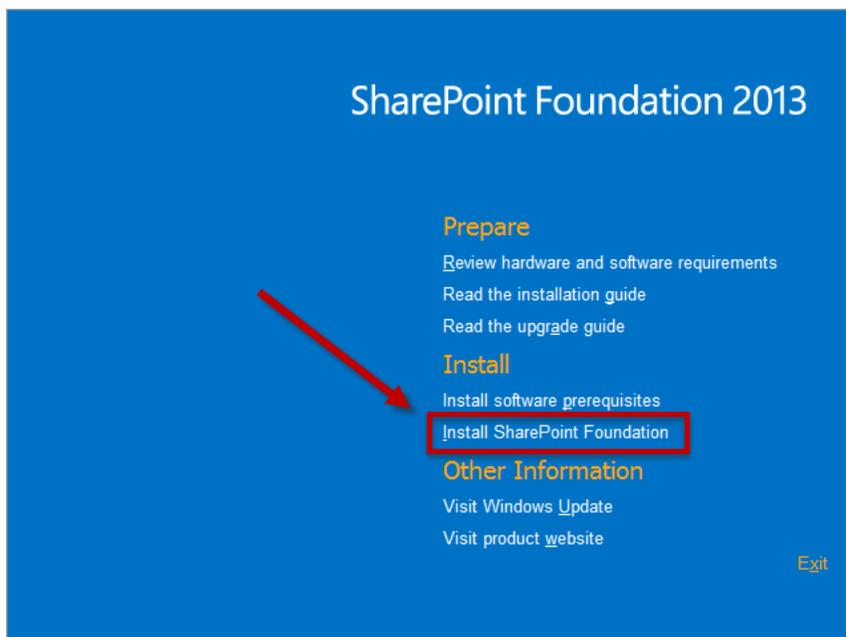
- Click **Finish**

Install SharePoint Foundation

The pre-requisites are now installed and now you need to resume the installation of SharePoint Foundation 2013.

- Double-click **sharepoint.exe**

You should now see the welcome screen of the installer.



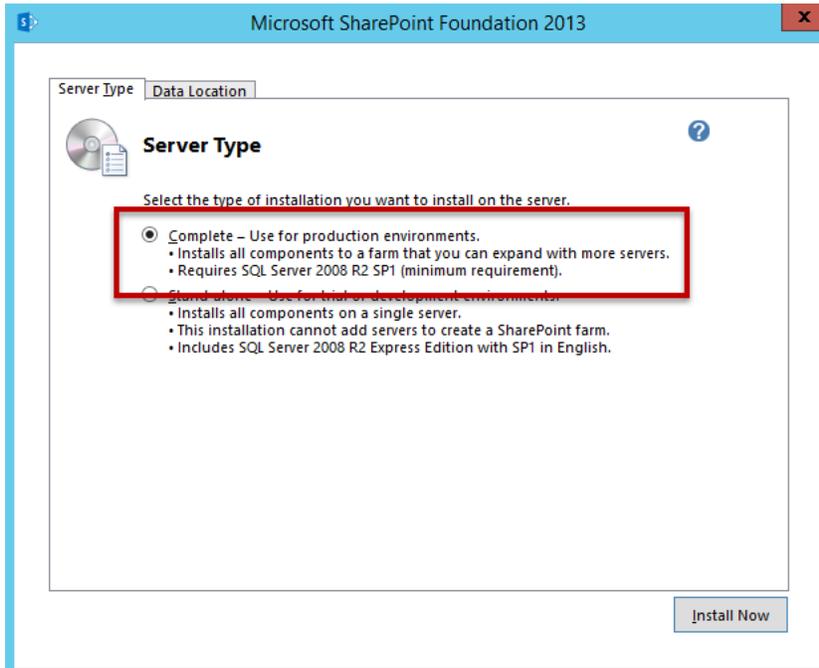
- Click **Install SharePoint Foundation**

You should now see the **Read the Microsoft Software License Terms** dialog.



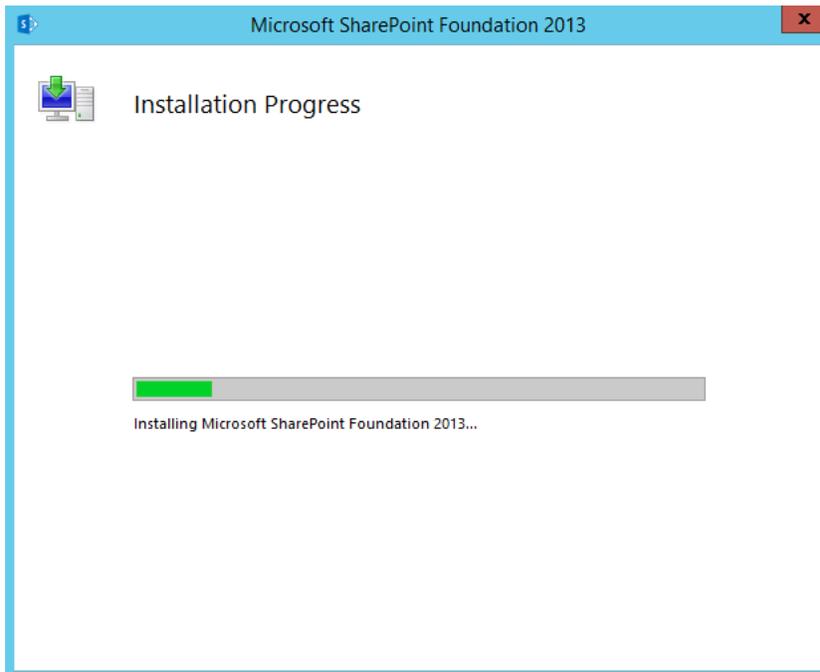
- Check **I accept the terms of this agreement**
- Click **Continue**

You'll be prompted to choose the **Server Type**.

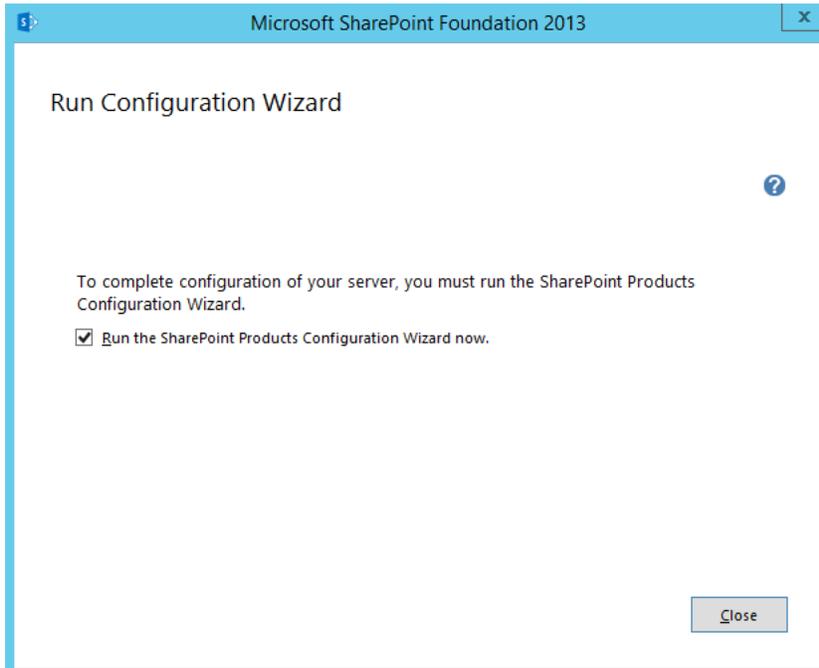


- Choose **Complete – Use for production environments**
- Click **Install Now**

The installer should now be running.



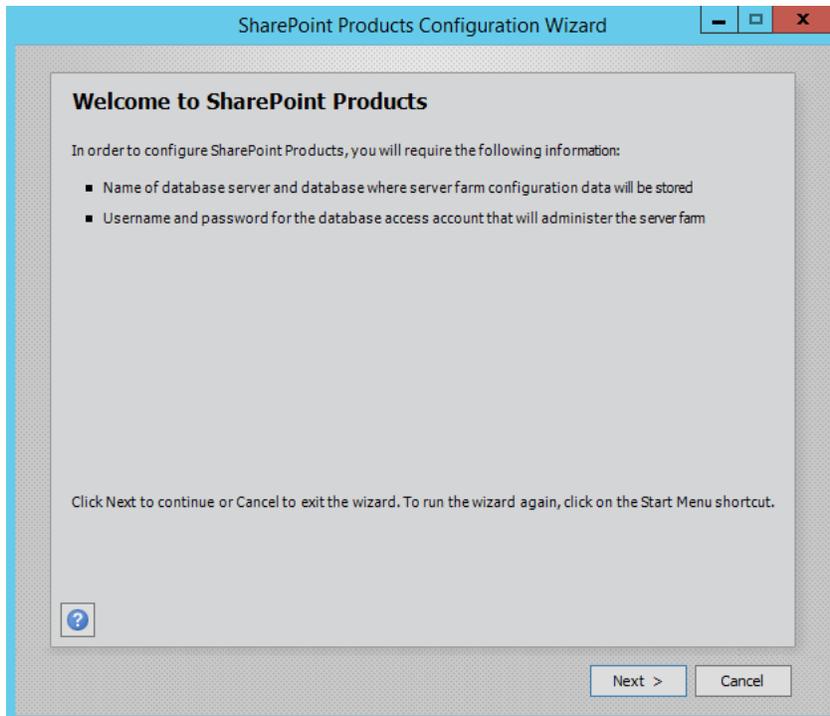
When the installer completes, you should see the screen below.



- Check **Run the SharePoint Products Configuration Wizard now**
- Click **Close**

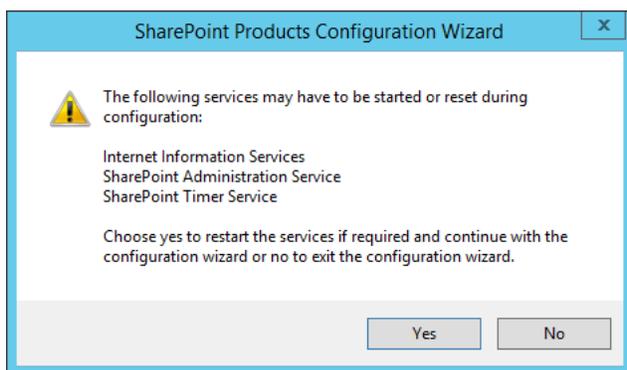
Run the SharePoint Products Configuration Wizard App

You should now see the **SharePoint Products Configuration Wizard**.

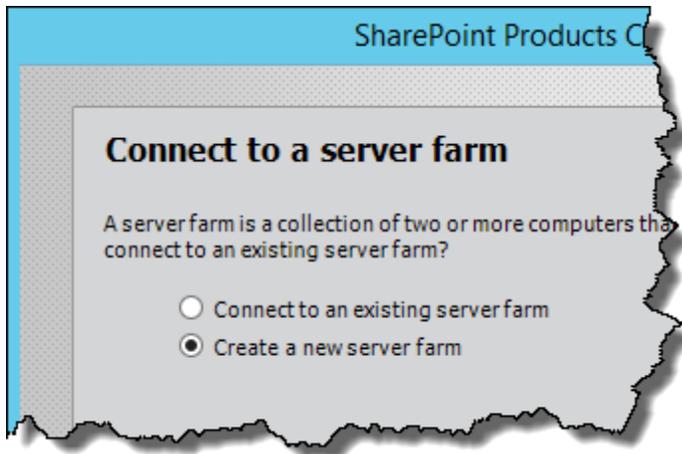


- Click **Next**

You'll be prompted for permission to start or reset the Internet Information Services, SharePoint Administration Service, and SharePoint Timer Service.



- Click **Yes**



- Choose **Create a new server farm**
- Click **Next**

You should now see the **Specify Configuration Database Settings** page.

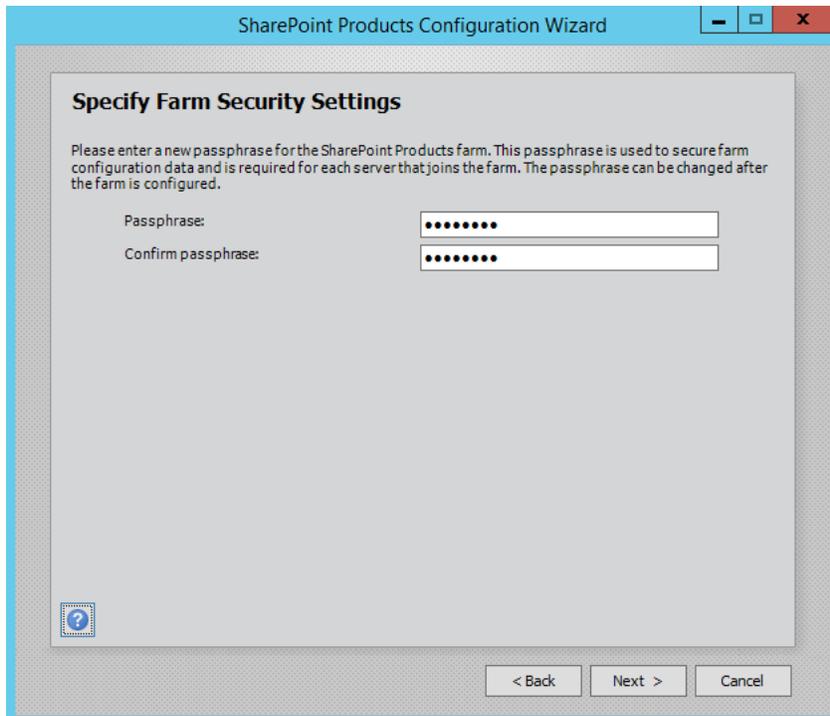
The screenshot shows the 'Specify Configuration Database Settings' page of the SharePoint Products Configuration Wizard. The window title is 'SharePoint Products Configuration Wizard'. The page contains the following sections and fields:

- Specify Configuration Database Settings**
 - Text: All servers in a serverfarm 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](#).
 - Database server: demotfs2013
 - Database name: SharePoint_Config
- Specify Database Access Account**
 - Text: 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.
 - Username: benday\tfsreports
 - Password: [masked]

At the bottom of the page are three buttons: '< Back', 'Next >', and 'Cancel'. A help icon is located in the bottom left corner.

- In the **Database server** box, enter the **name of your SQL Server**
- In the **Database name** box, leave the default value of **SharePoint_Config**
- In the **Username** box, enter the name of your TFS Reports user (ex. *domain\tfsreports*)
- In the **Password** box, enter the password for your TFS Reports user
- Click **Next**

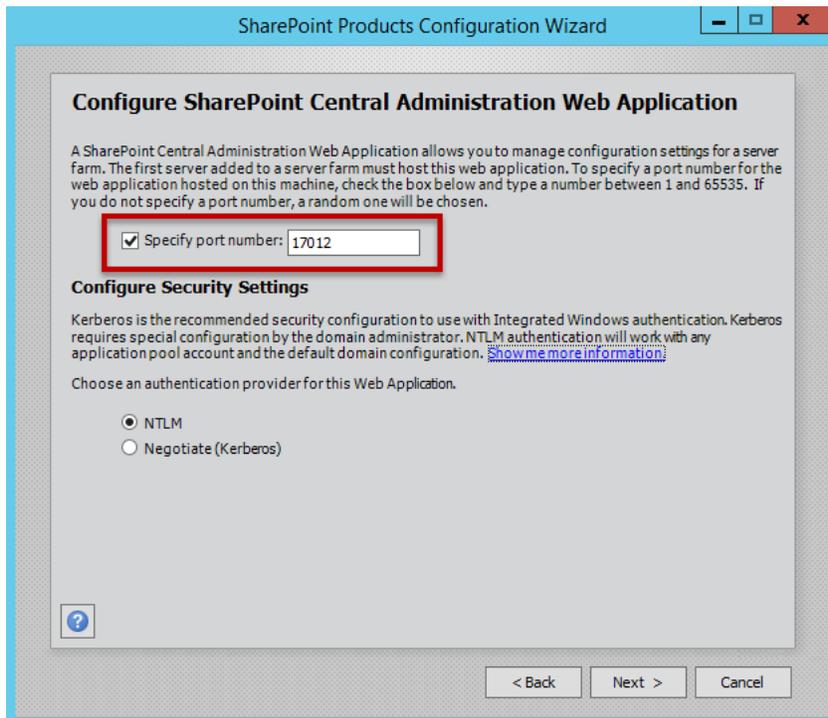
You'll be prompted to provide a passphrase for the SharePoint farm. After you have entered this passphrase, be sure to remember it because some day you might want to add more machines to this farm and you'll need to provide this passphrase again. (But that'll probably be years from now and you'll have forgotten it. ☺)



The screenshot shows a window titled "SharePoint Products Configuration Wizard" with a sub-header "Specify Farm Security Settings". The main text reads: "Please enter a new passphrase for the SharePoint Products farm. This passphrase is used to secure farm configuration data and is required for each server that joins the farm. The passphrase can be changed after the farm is configured." Below this text are two input fields: "Passphrase:" and "Confirm passphrase:", both containing seven dots. At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel". A help icon (question mark in a square) is located in the bottom-left corner of the dialog area.

- Enter a passphrase in both boxes
- Click **Next**

You should now be on the **Configure SharePoint Central Administration Web Application** page.



SharePoint Products Configuration Wizard

Configure SharePoint Central Administration Web Application

A SharePoint Central Administration Web Application allows you to manage configuration settings for a server farm. The first server added to a server farm must host this web application. To specify a port number for the web application hosted on this machine, check the box below and type a number between 1 and 65535. If you do not specify a port number, a random one will be chosen.

Specify port number: 17012

Configure Security Settings

Kerberos is the recommended security configuration to use with Integrated Windows authentication. Kerberos requires special configuration by the domain administrator. NTLM authentication will work with any application pool account and the default domain configuration. [Show me more information](#)

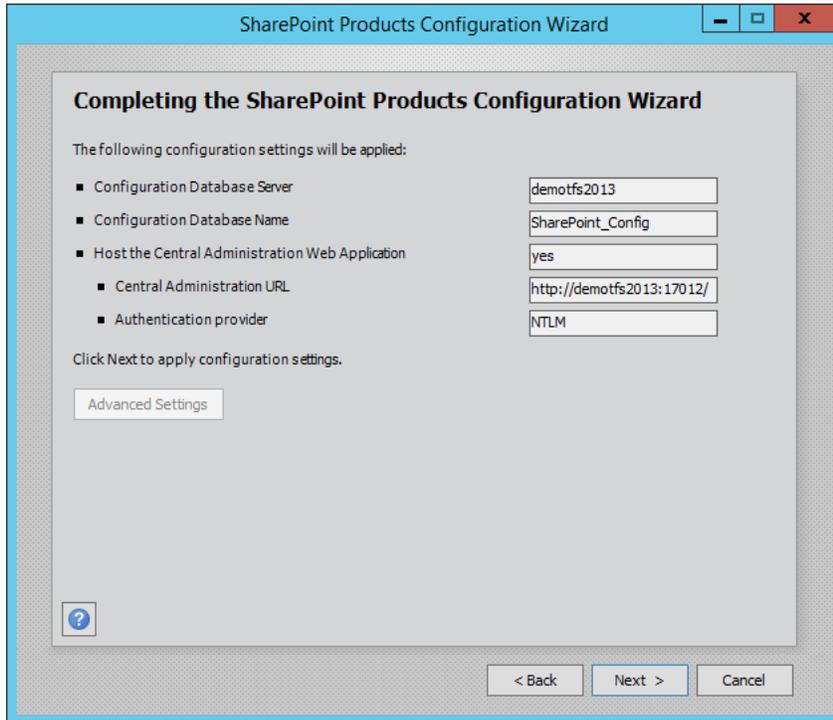
Choose an authentication provider for this Web Application.

NTLM
 Negotiate (Kerberos)

< Back Next > Cancel

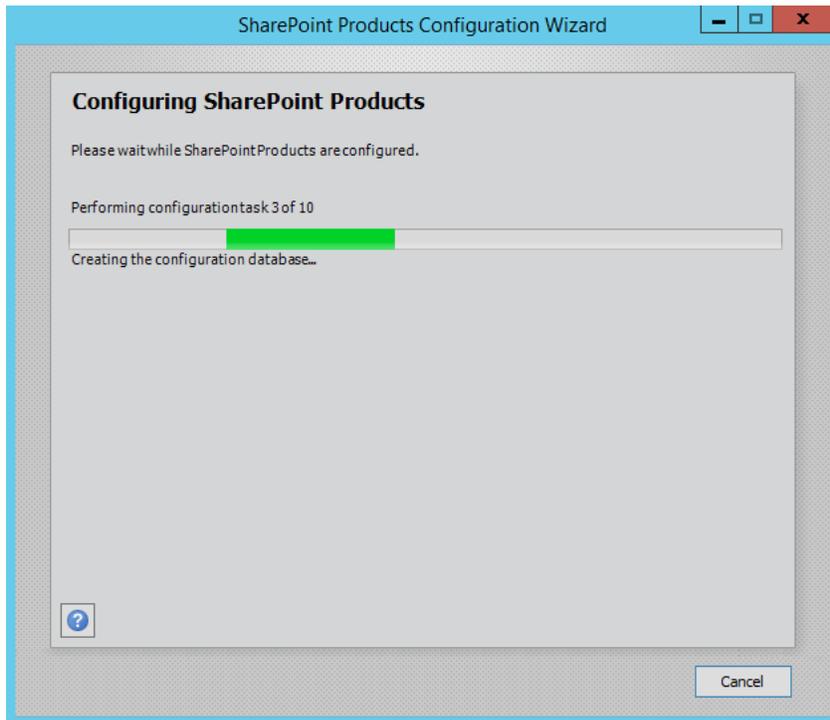
- Change the port number to **17012**
- Choose **NTLM**
- Click **Next**

The installer will show you a confirmation screen.

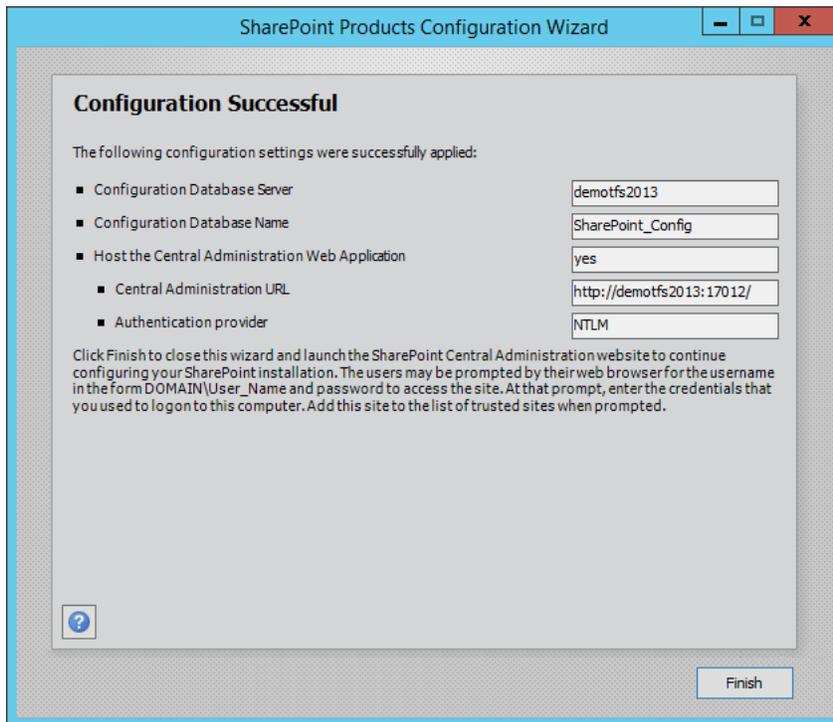


- Click **Next** to begin the installation

The configuration utility should be running.



After a while (in my most recent case, 3 hours) the installer should complete with the message **Configuration Successful**.

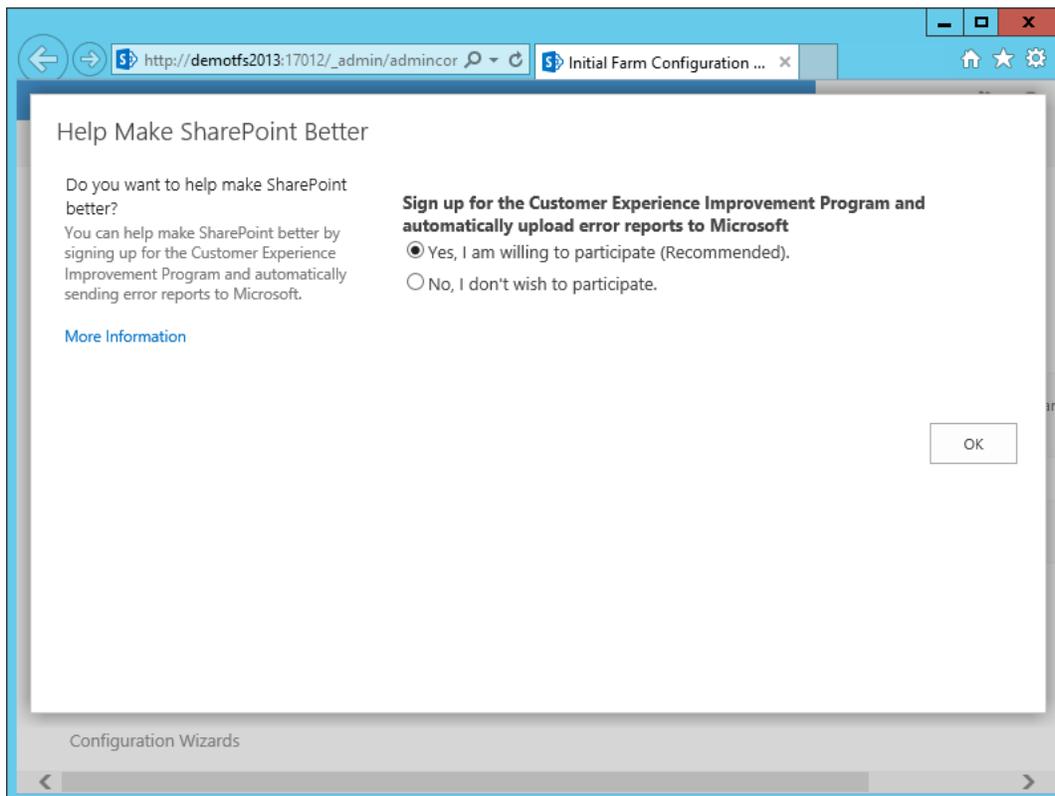


- Click **Finish**

Run the SharePoint Configuration Web-based Wizard

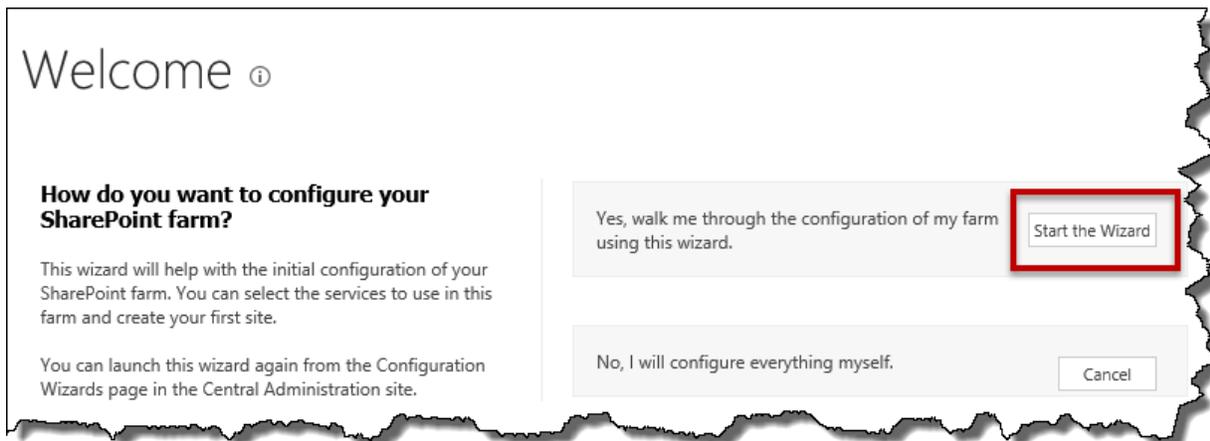
It's time to run yet another configuration wizard. This time in a browser.

You might see a **Help Make SharePoint Better** window.



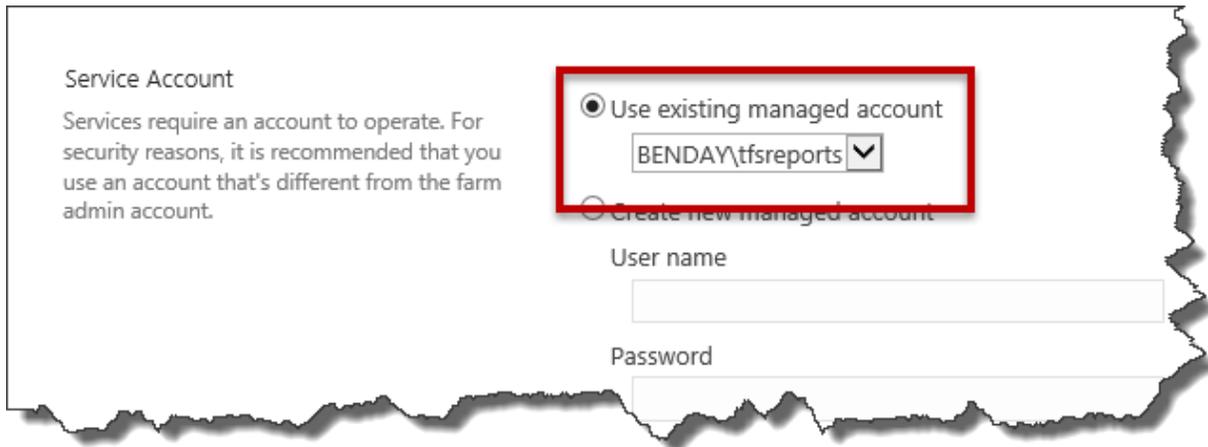
- Choose **Yes, I am willing to participate**
- Click **OK**

You should now be on the **How do you want to configure your SharePoint farm** page.



- Click **Start the Wizard**

You should now be on the **Services** page.



Service Account

Services require an account to operate. For security reasons, it is recommended that you use an account that's different from the farm admin account.

Use existing managed account
BENDAY\Tfsreports ▼

Create new managed account

User name

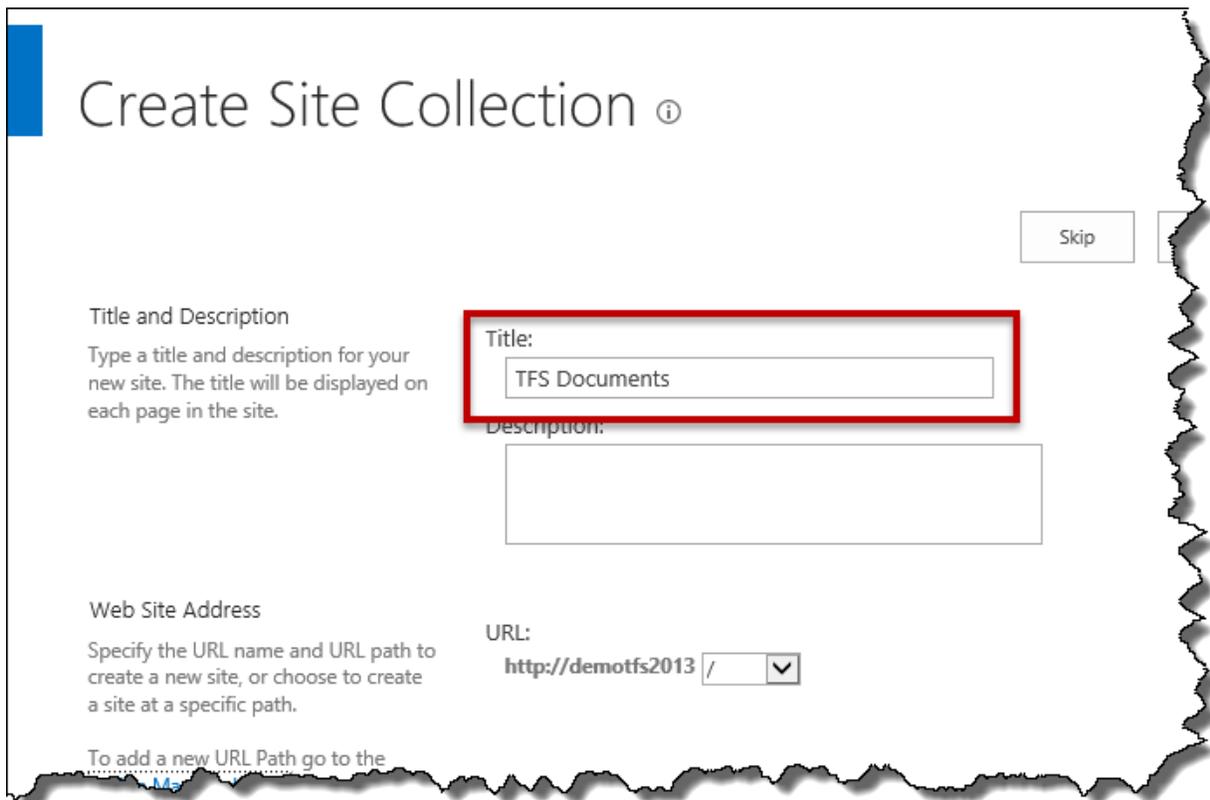
Password

- Choose **Use existing managed account**
- Click **Next**

You should see a message saying **Working on it.**



After a (long) while, the wizard will prompt you to **Create Site Collection**.



Create Site Collection ⓘ

Skip

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.

URL:

To add a new URL Path go to the [Me](#)

- Set **Title** to **TFS Documents**
- Click **OK**



You should soon see the **This completes the Farm Configuration Wizard** screen.



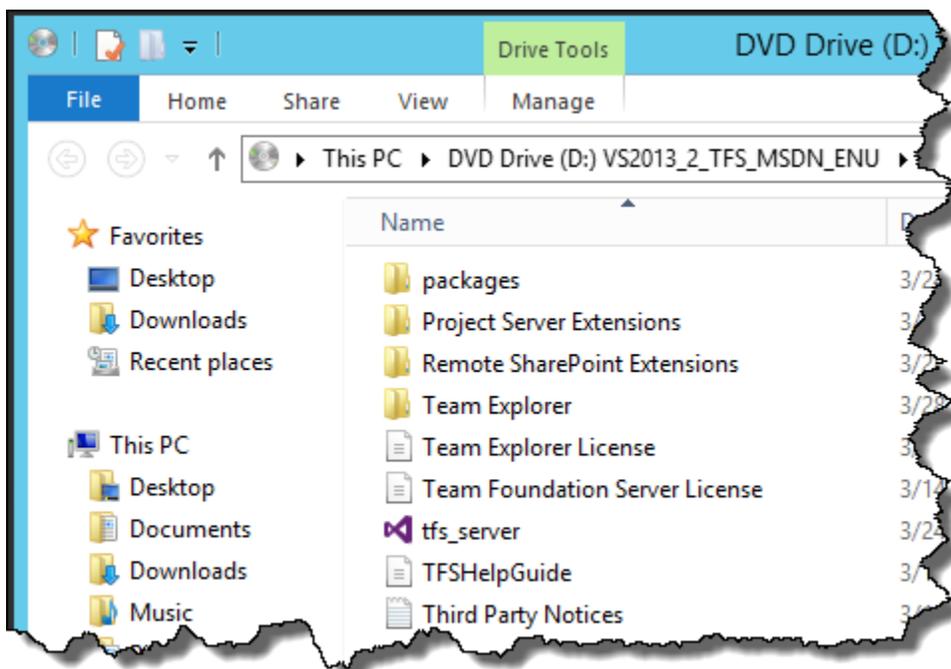
- Click **Finish**

SharePoint Foundation 2013 is now installed.

Chapter 5: Install Team Foundation Server 2013 Update 2

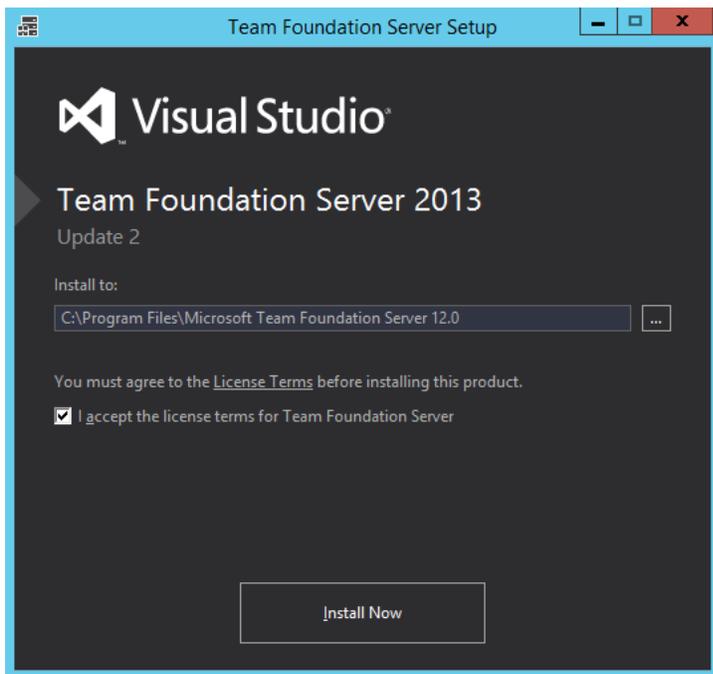
Now that Windows and SQL Server are installed, you're ready to install Team Foundation Server 2013 (TFS2013).

- If you're installing this on a Hyper-V virtual machine with dynamic memory enabled, change the **minimum amount of RAM to 8GB** (at least temporarily) to allow SharePoint Foundation 2013 to install.
- Log on to the server using a user account with Administrator privileges
- Mount the TFS2013 Update 2 ISO image or insert a TFS2013 Update 2 installer DVD
- Using Windows Explorer (explorer.exe), navigate to the installer directory



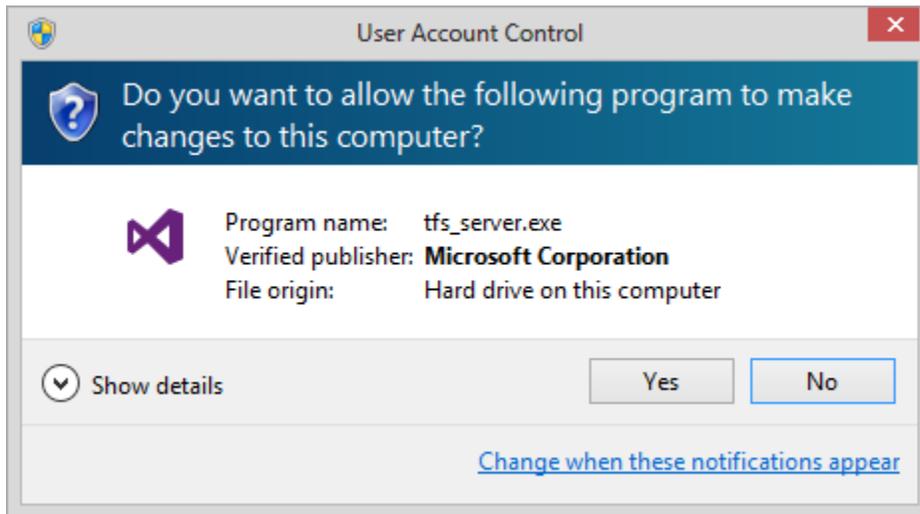
- Run **tfs_server.exe**

You should see the **Team Foundation Server Setup** dialog.



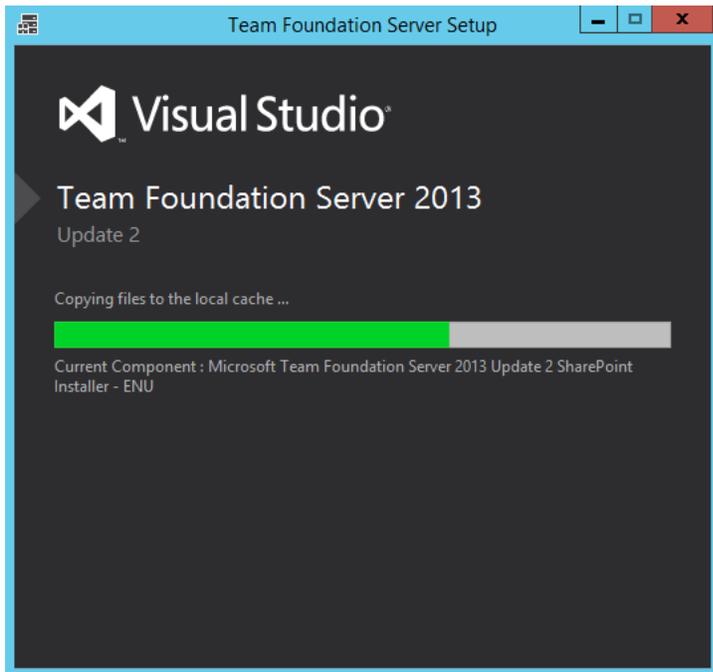
- Check **I accept the license terms for Team Foundation Server**
- Click **Install Now**

You'll see a User Account Control dialog.

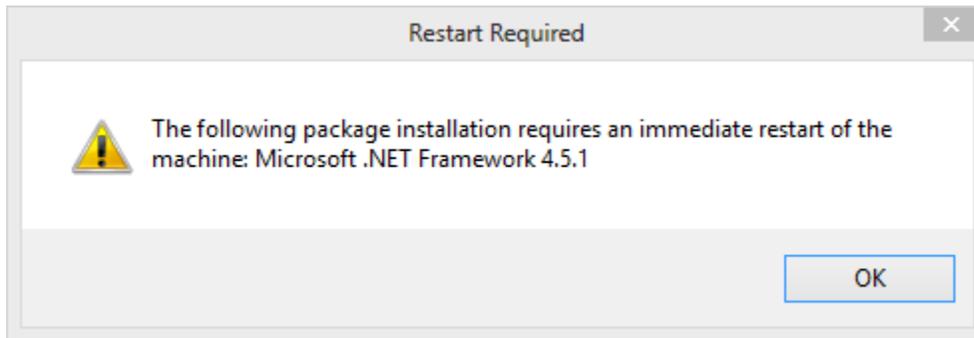


- Click **Yes**

The installer will run and copy files to your disk.



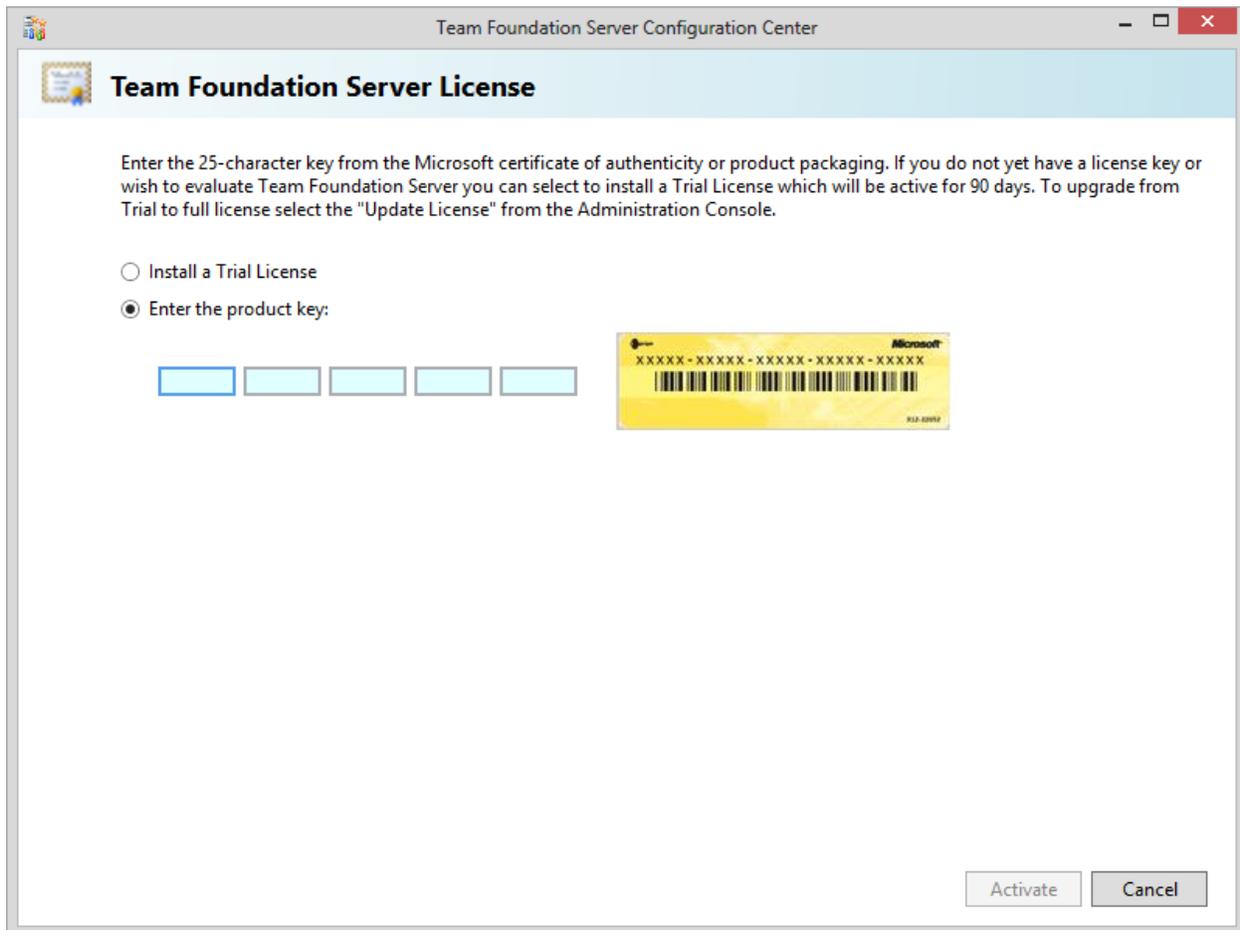
You may be prompted to restart your machine.



- Click **OK** to restart your machine
- When the server has finished rebooting, log in with the same user account to resume the installation

When you log back in, the installer will resume.

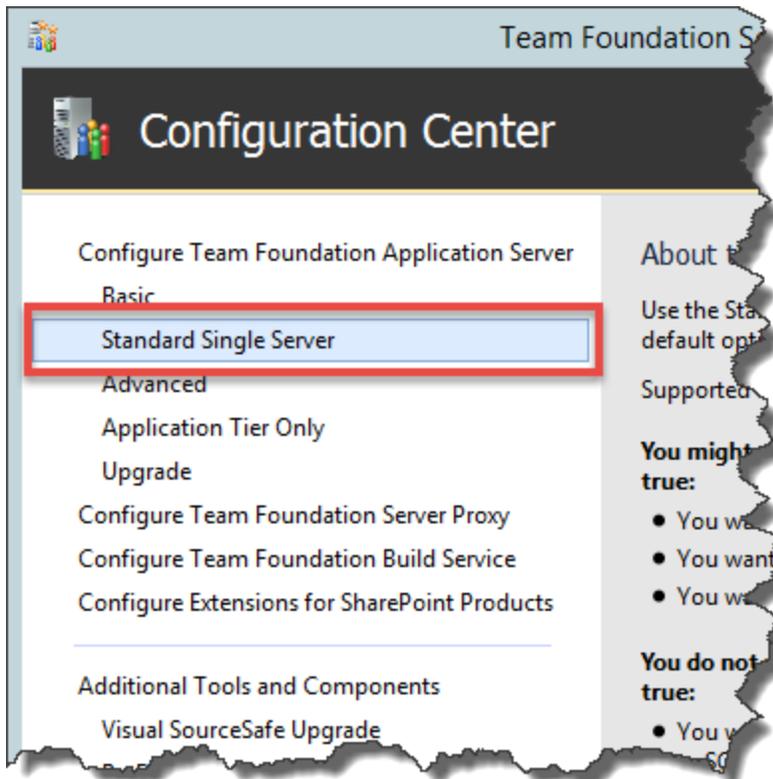
You might be prompted to supply a product key for the installation. If you have the product key, you can enter it now or you can complete the installation with a trial license.



The screenshot shows a window titled "Team Foundation Server Configuration Center" with a sub-header "Team Foundation Server License". The main text reads: "Enter the 25-character key from the Microsoft certificate of authenticity or product packaging. If you do not yet have a license key or wish to evaluate Team Foundation Server you can select to install a Trial License which will be active for 90 days. To upgrade from Trial to full license select the 'Update License' from the Administration Console." Below this text are two radio buttons: "Install a Trial License" (unselected) and "Enter the product key:" (selected). Under "Enter the product key:" are five empty text boxes for entering the key. To the right of these boxes is a yellow Microsoft license key card with a barcode and the text "XXXXX-XXXXX-XXXXX-XXXXX-XXXXX". At the bottom right of the window are "Activate" and "Cancel" buttons.

- Enter your **product key** or choose **Install a Trial License**
- Click **Activate**

You should now see the **Team Foundation Server Configuration Center**. You'll be doing a **Standard Single Server** configuration.



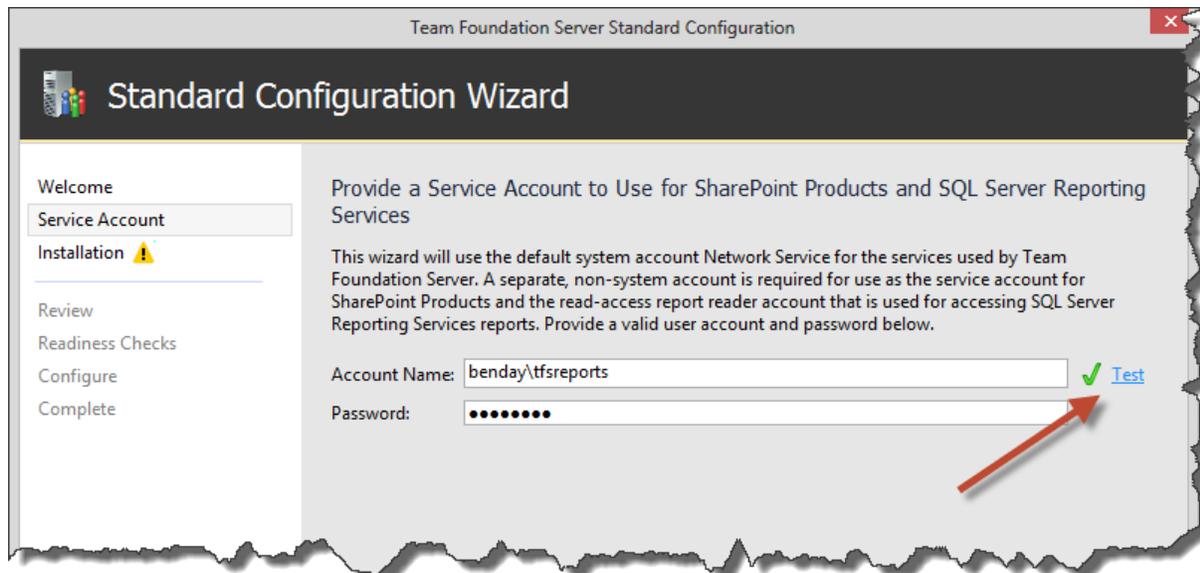
- Choose **Standard Single Server** from the left panel
- Click **Start Wizard**

You should now be on the **Standard Configuration Wizard**'s welcome screen.



- Select **Yes, I want to participate...**
- Click **Next**

You'll be prompted for a username and password that will be used as a service account for accessing SharePoint and SQL Server Reporting Services. This account is typically named *{domain-name}\TFSReports*.



- Type the user account into the **Account Name** text box
- Type the password into the **Password** text box
- Click the **Test** link to verify the username and password
- Click **Next**

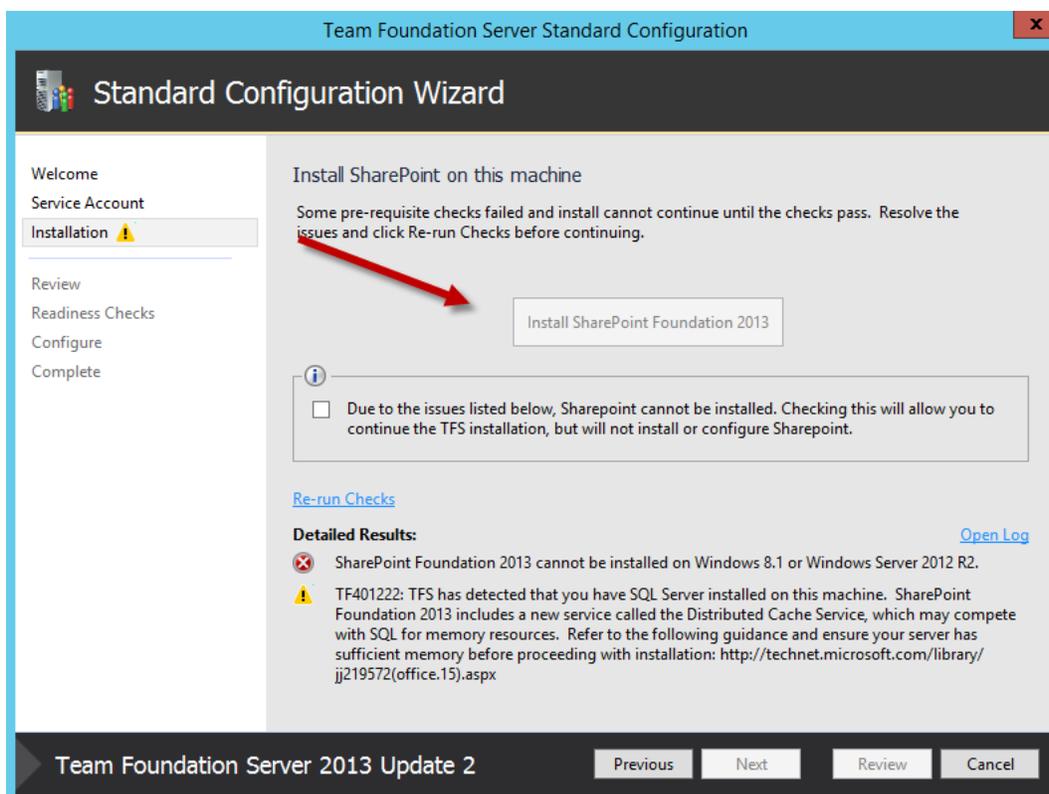
You'll now be on the SharePoint installation screen. There are a handful of different things that could happen at this point: "Blocked", "Install SharePoint Automatically", or "Install SharePoint Manually".

NOTE: If you already did a manual install of SharePoint Foundation 2013, skip forward in this guide to the "SharePoint Option 3: Manually Installed SharePoint" heading.

SharePoint Option 1: Blocked

If you're installing Team Foundation Server 2013 Update 2 on Windows Server 2012 R2 or installing TFS2013.RTM or TFS2013.1 on Windows Server 2012 R2, you'll see a screen like the one below. SharePoint Foundation 2013 RTM cannot be installed on Windows Server 2012 R2 and you'll see the following messages:

- "Due to the issues listed below, SharePoint cannot be installed."
- "SharePoint Foundation 2013 cannot be installed on Windows 8.1 or Windows Server 2012 R2."

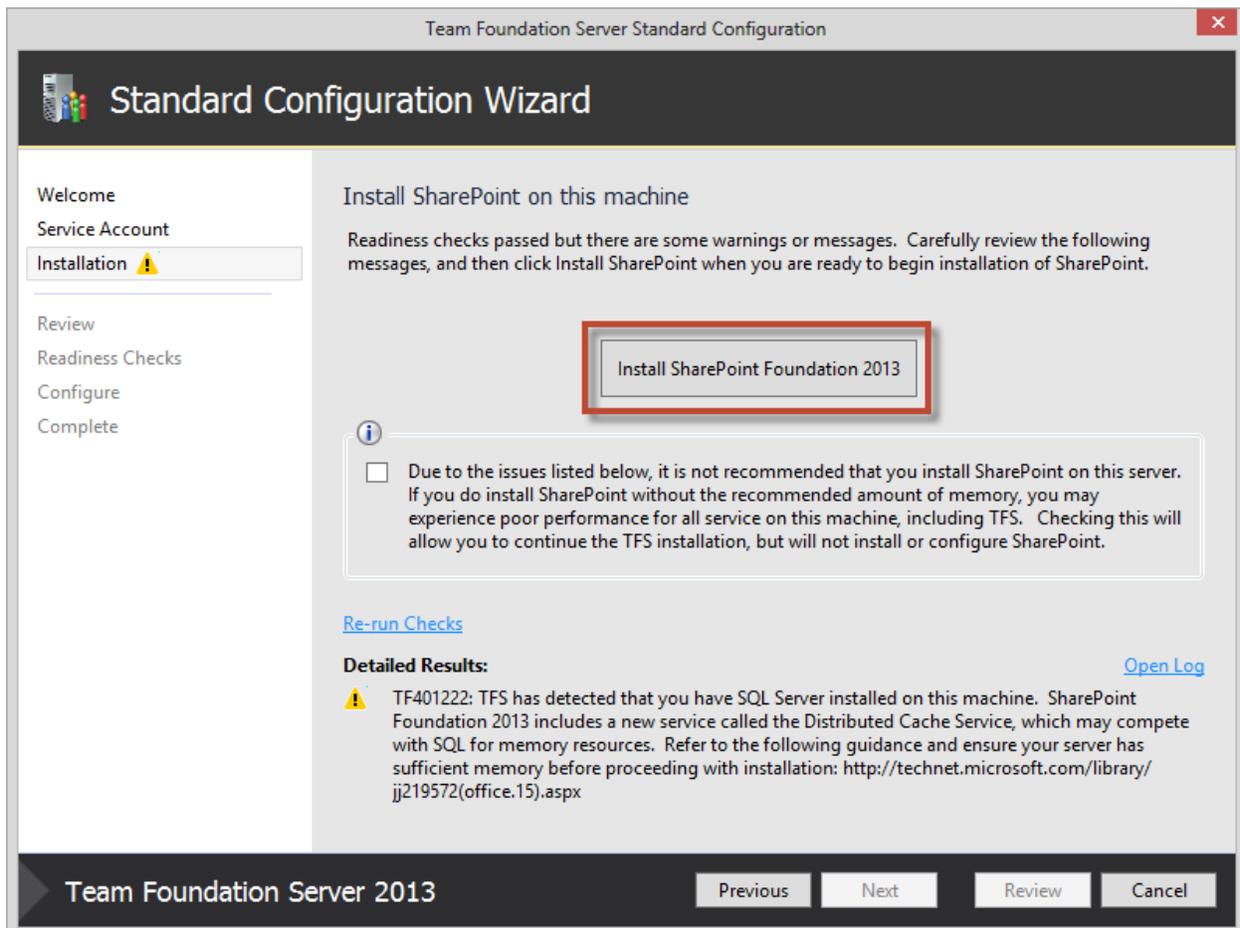


All is not lost though! You can do a manual installation of SharePoint Foundation 2013 *with Service Pack 1* and you'll be fine. There's another chapter in this installation guide that will walk you through that process.

SharePoint Option 2: Automatic Installation

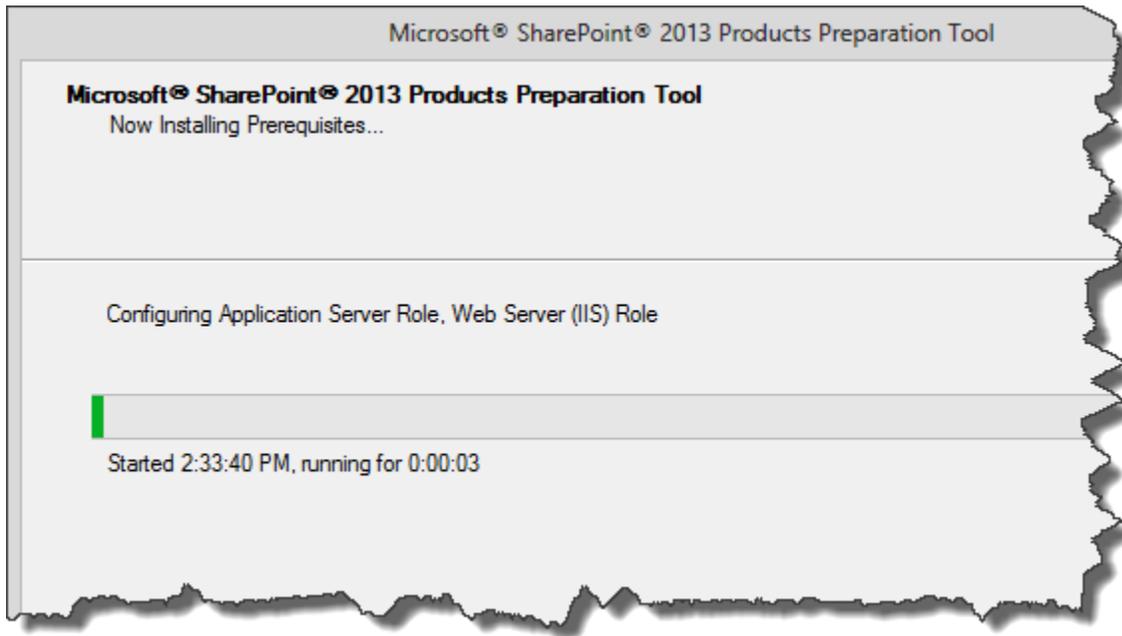
In an ideal world, you'll see a screen similar to the one below that doesn't warn you of any issues and allows you to just go ahead and install SharePoint Foundation 2013. If you're doing a "single server" installation of TFS (TFS, SQL Server, and SharePoint Foundation on the same machine) like what this guide helps you to do, there will be a warning here about memory usage competition between SQL Server and SharePoint Foundation 2013's Distributed Cache Service. Installing SharePoint Foundation 2013 may cause performance problems on this server and at some point you may want to separate these services.

If your screen looks like the one below:

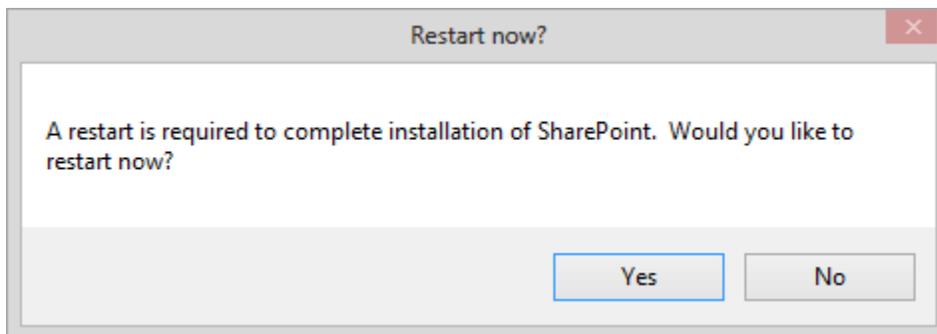


- Click **Install SharePoint Foundation 2013**

The SharePoint 2013 installer should now be running.

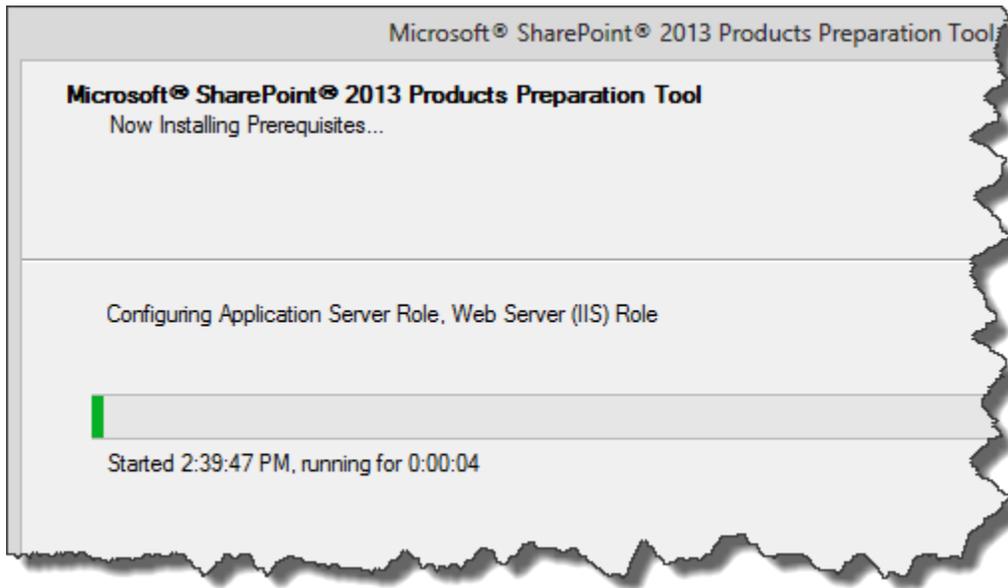


If prompted to restart the server, follow the instructions to restart the server and then log back in to the server.

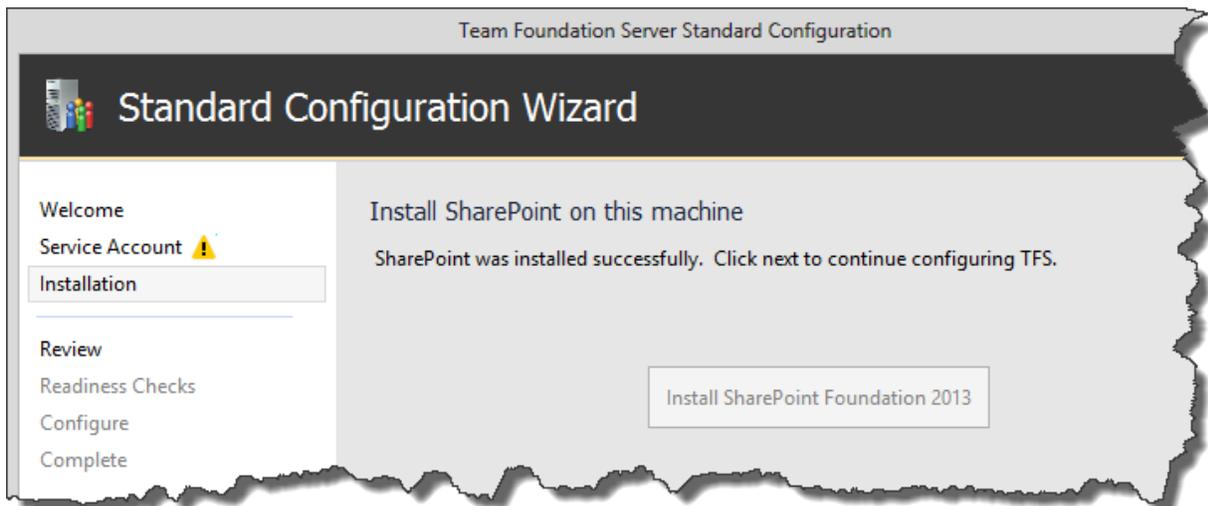


- Click **Yes** to restart the server
- After the server has restarted, log back in as the same user

After logging back in, the installer will resume.

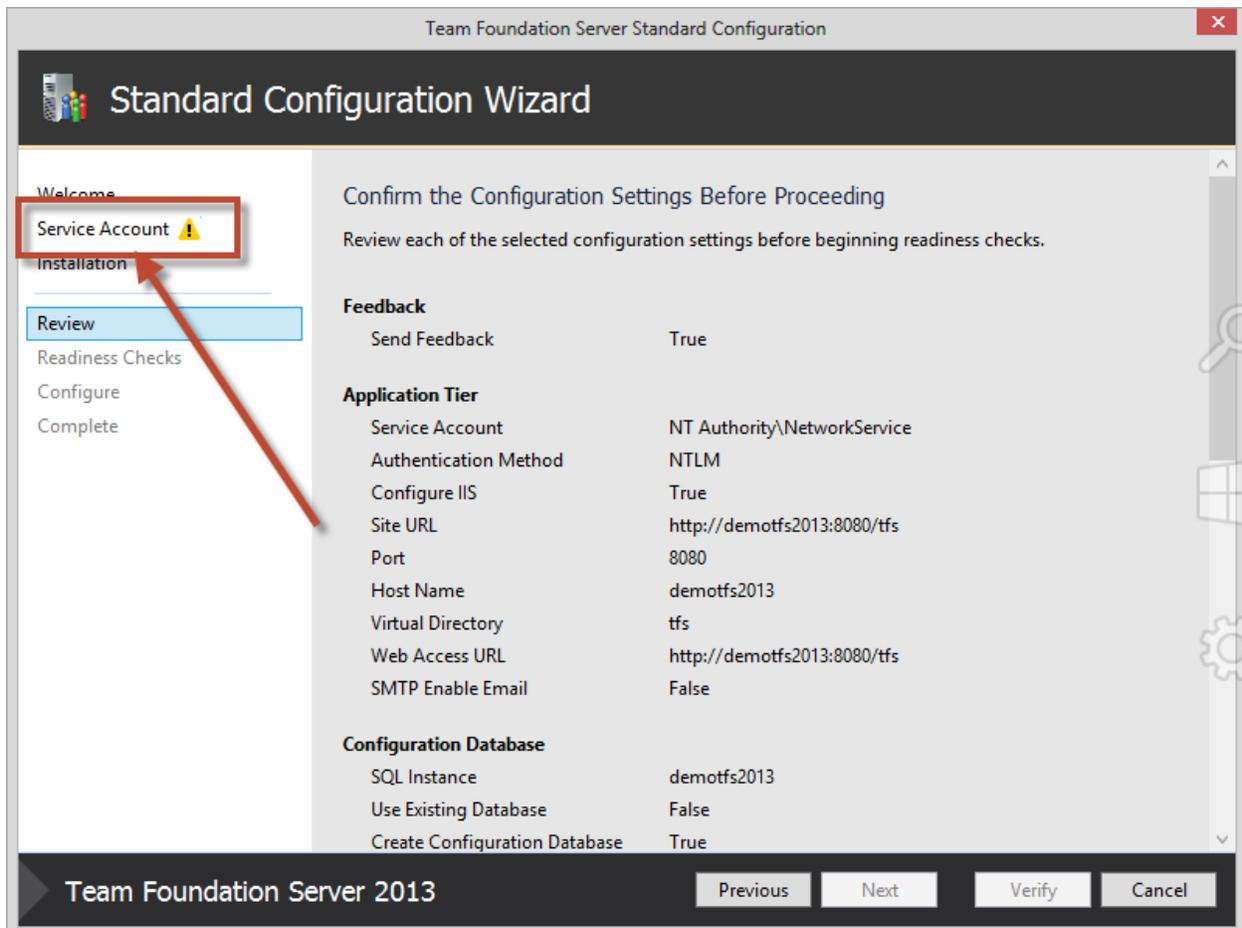


There may be several reboots but eventually SharePoint will be finished installing.



- Click **Next**

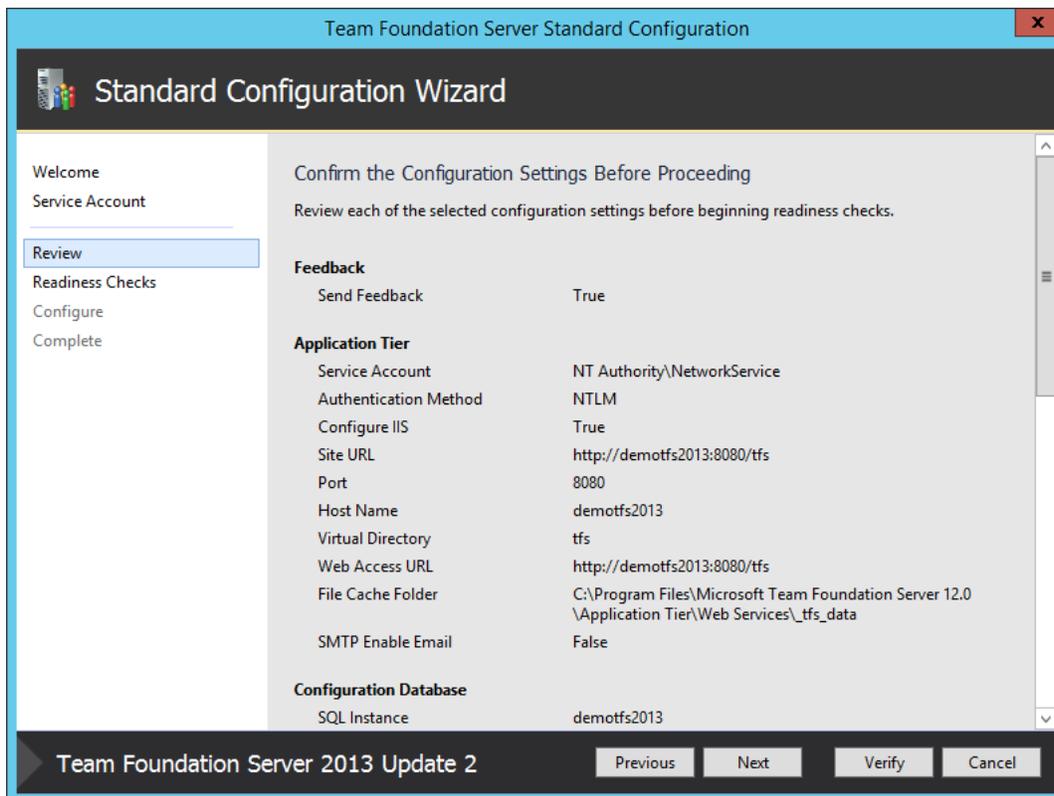
You'll see a summary of the TFS configuration and, if you've rebooted, you'll see a warning icon next to the Service Account section. This is because you need to re-type the service account's password.



- Click the **Service Account** link
- Re-enter the password for the service account
- Click **Readiness Checks**

SharePoint Option 3: Manually Installed SharePoint

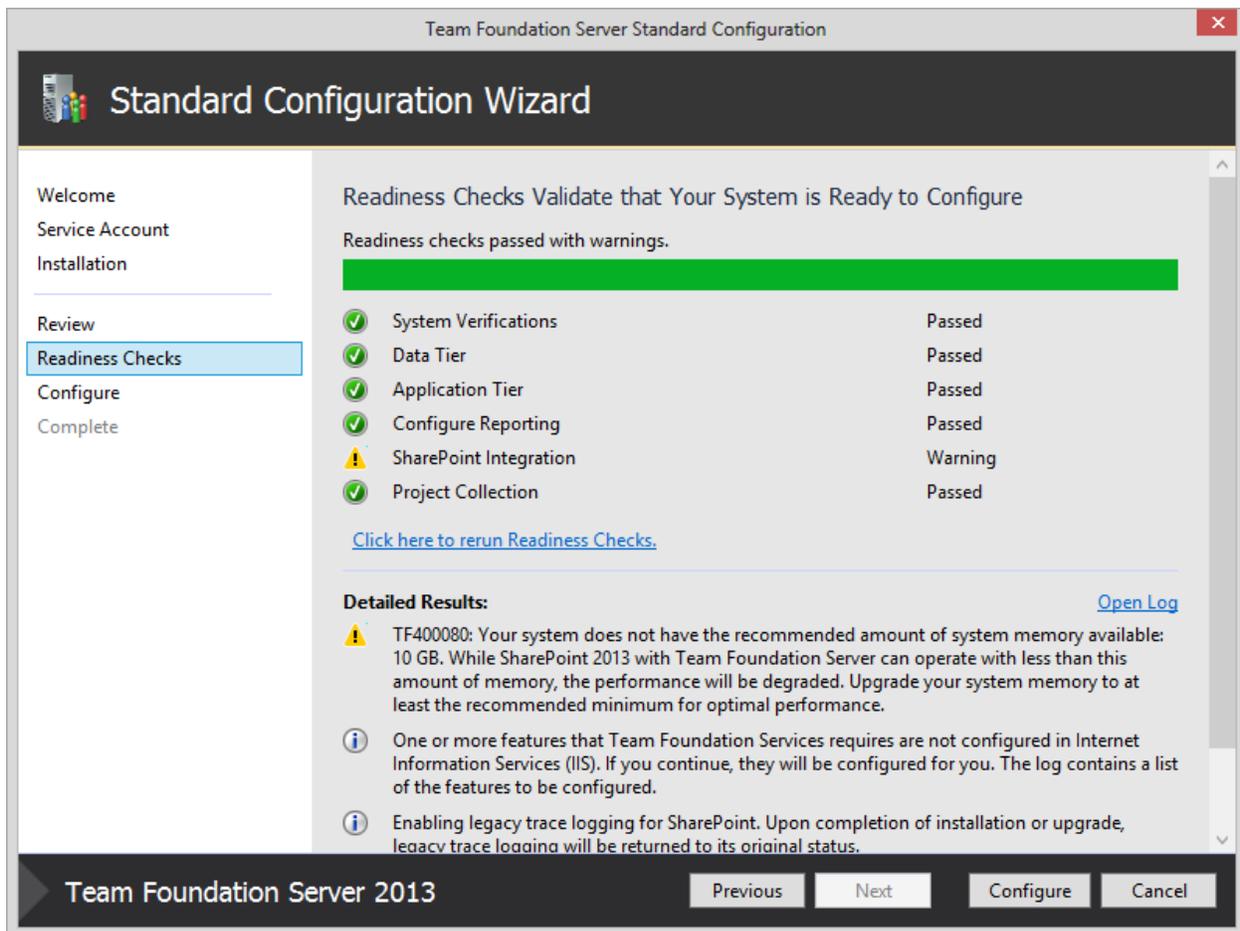
If you manually installed SharePoint the standard TFS installation process is a lot shorter. You'll have entered the TFSReports username and password on the previous screen and you'll land on the following screen and won't see any prompts about SharePoint installation at all.



- Click **Next**

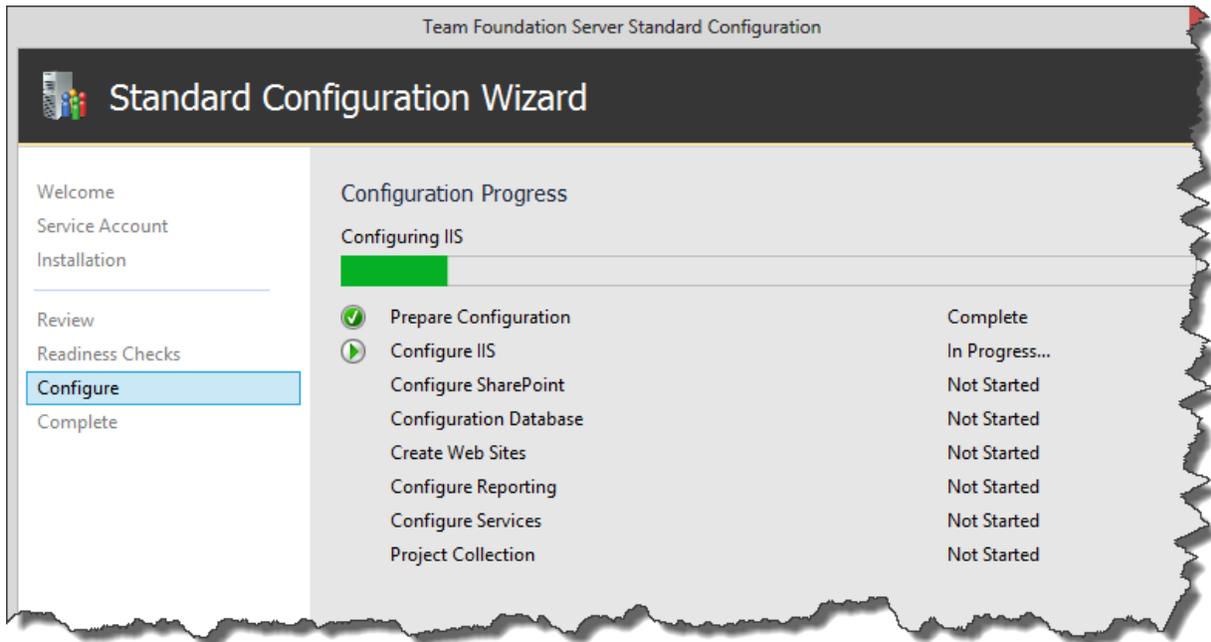
TFS2013 Readiness Checks

The readiness checks should run without any errors. There may be warnings (probably about SharePoint memory) but they can be safely ignored for TFS installations that are not intended to be high-performance.

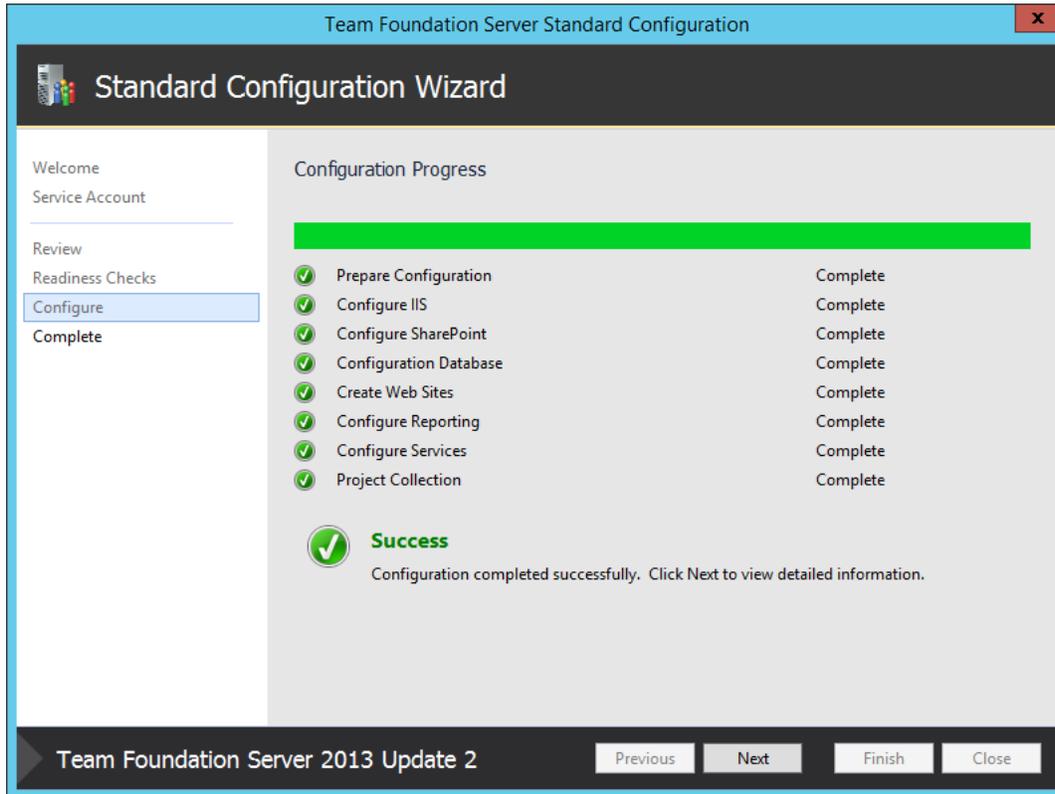


- Click **Configure**

The installer should now be in the process of configuring Team Foundation Server 2013.

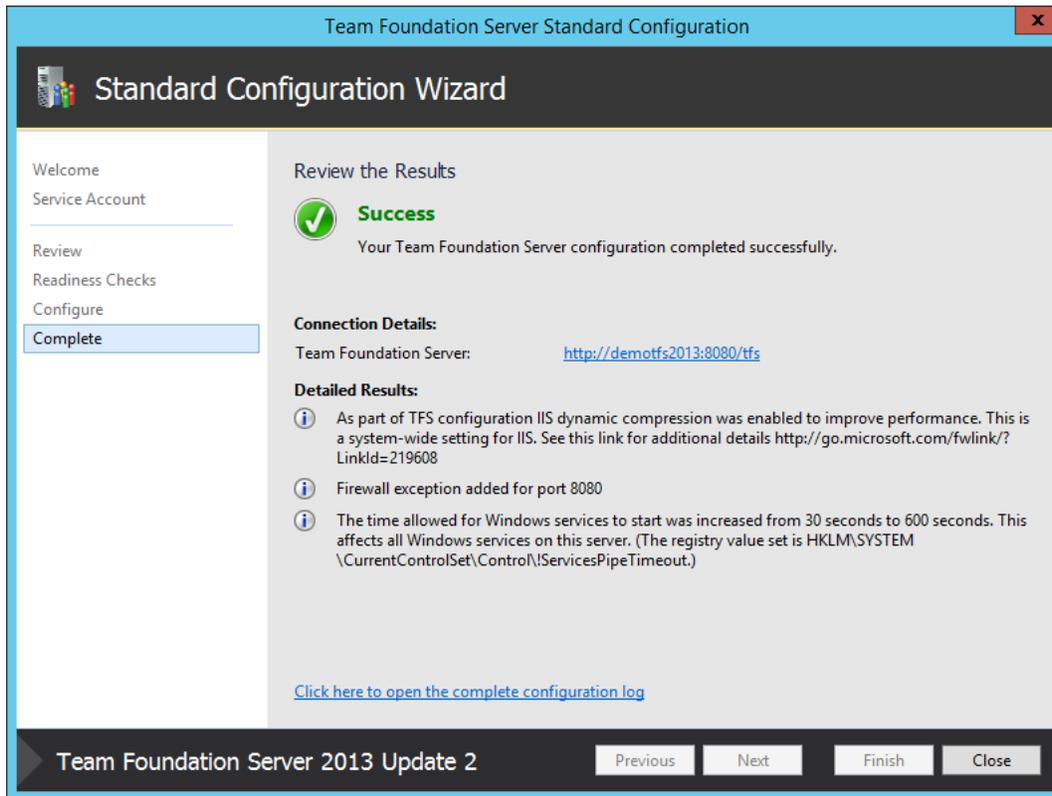


The configuration process should complete with a message saying Success.



- Click **Next**

You should now see the summary page that summarizes the results of the installation.



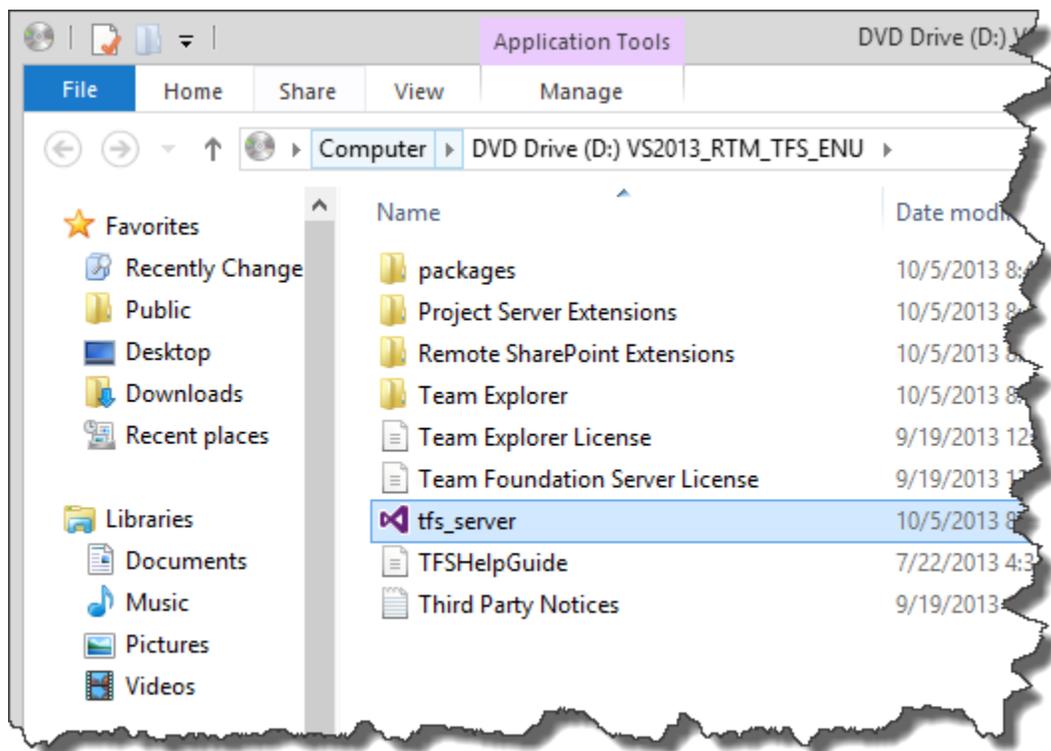
- Click **Close** to exit the installer

Team Foundation Server 2013 Update 2 is now installed.

Chapter 6: Install Team Foundation Server 2013 (RTM)

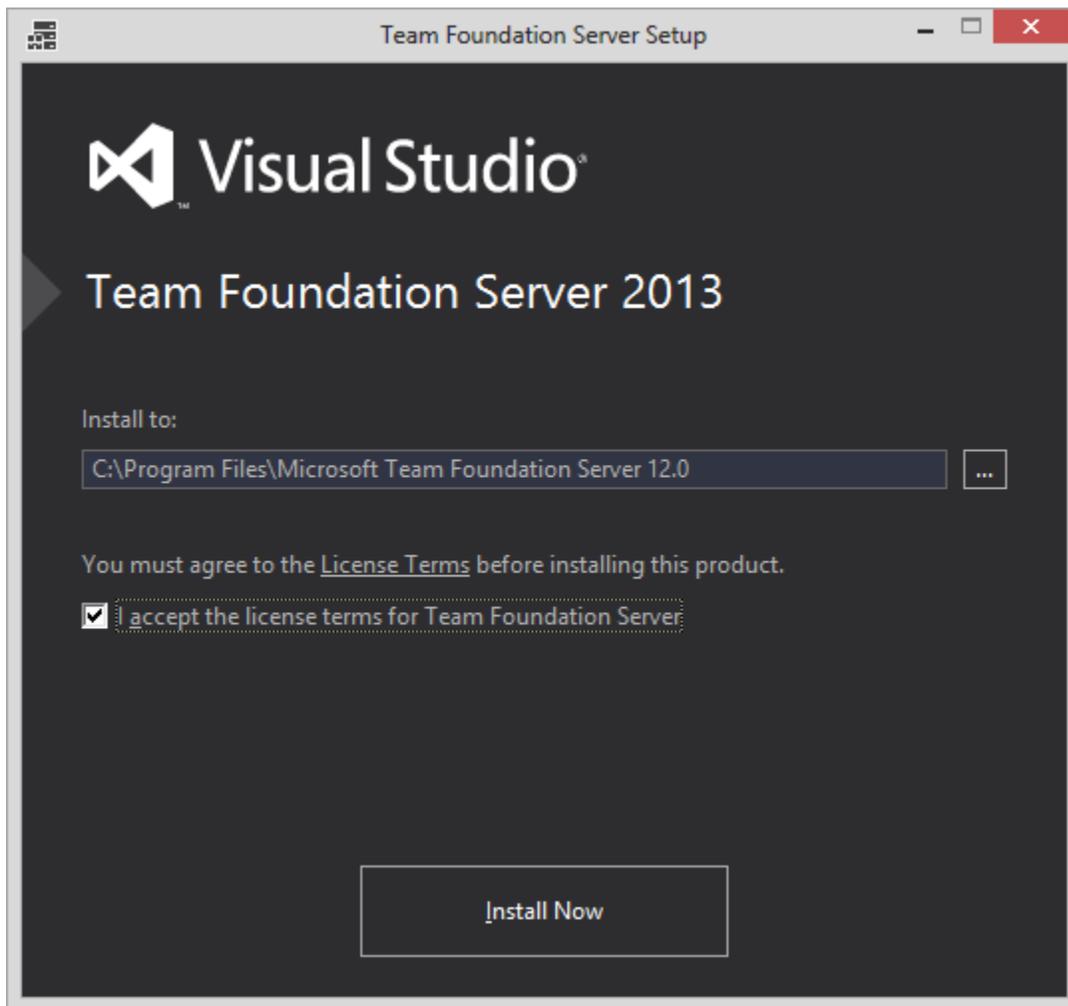
Now that Windows and SQL Server are installed, you're ready to install Team Foundation Server 2013 (TFS2013).

- If you're installing this on a Hyper-V virtual machine with dynamic memory enabled, change the **minimum amount of RAM to 8GB** (at least temporarily) to allow SharePoint Foundation 2013 to install.
- Log on to the server using a user account with Administrator privileges
- Mount the TFS2013 ISO image or insert a TFS2013 installer DVD
- Using Windows Explorer (explorer.exe), navigate to the installer directory



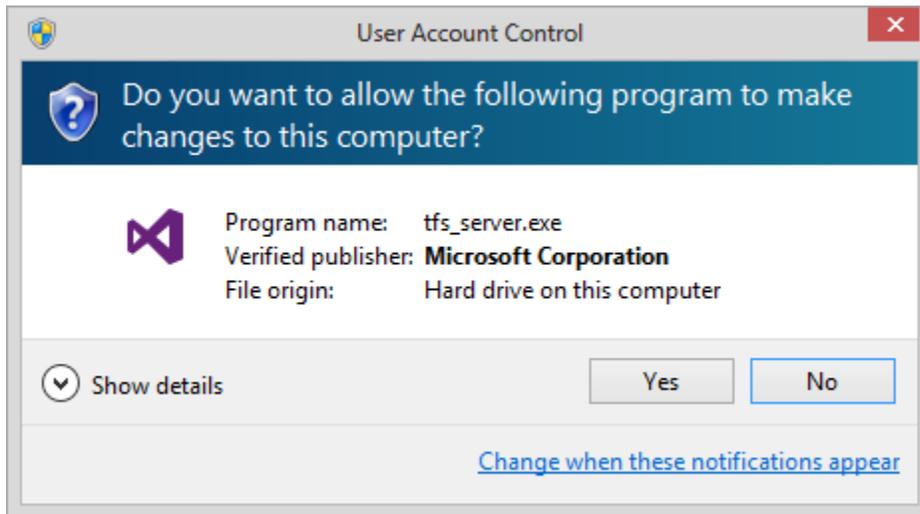
- Run **tfs_server.exe**

You should see the **Team Foundation Server Setup** dialog.



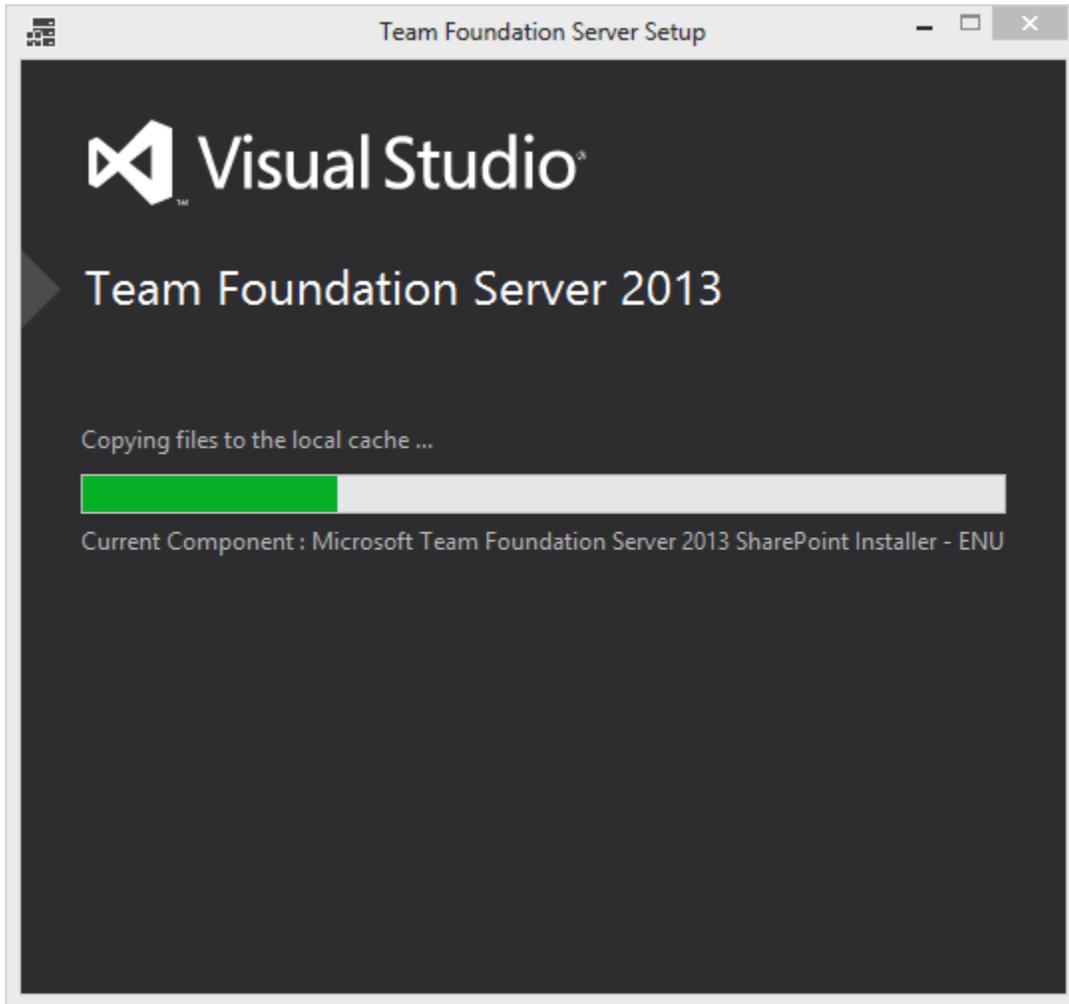
- Check **I accept the license terms for Team Foundation Server**
- Click **Install Now**

You'll see a User Account Control dialog.

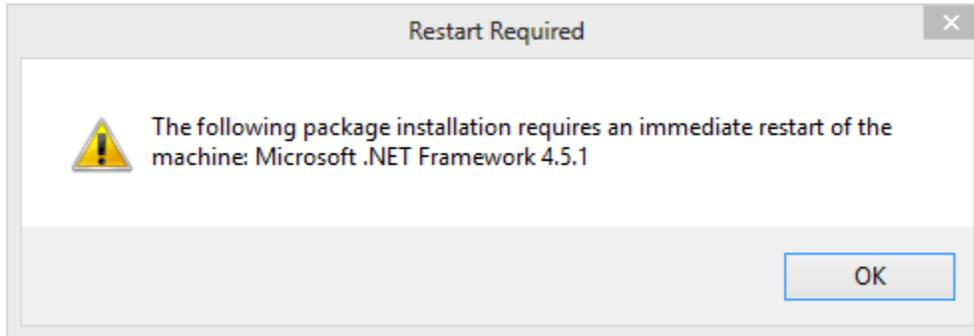


- Click **Yes**

The installer will run and copy files to your disk and install some component pieces such as the .NET Framework.

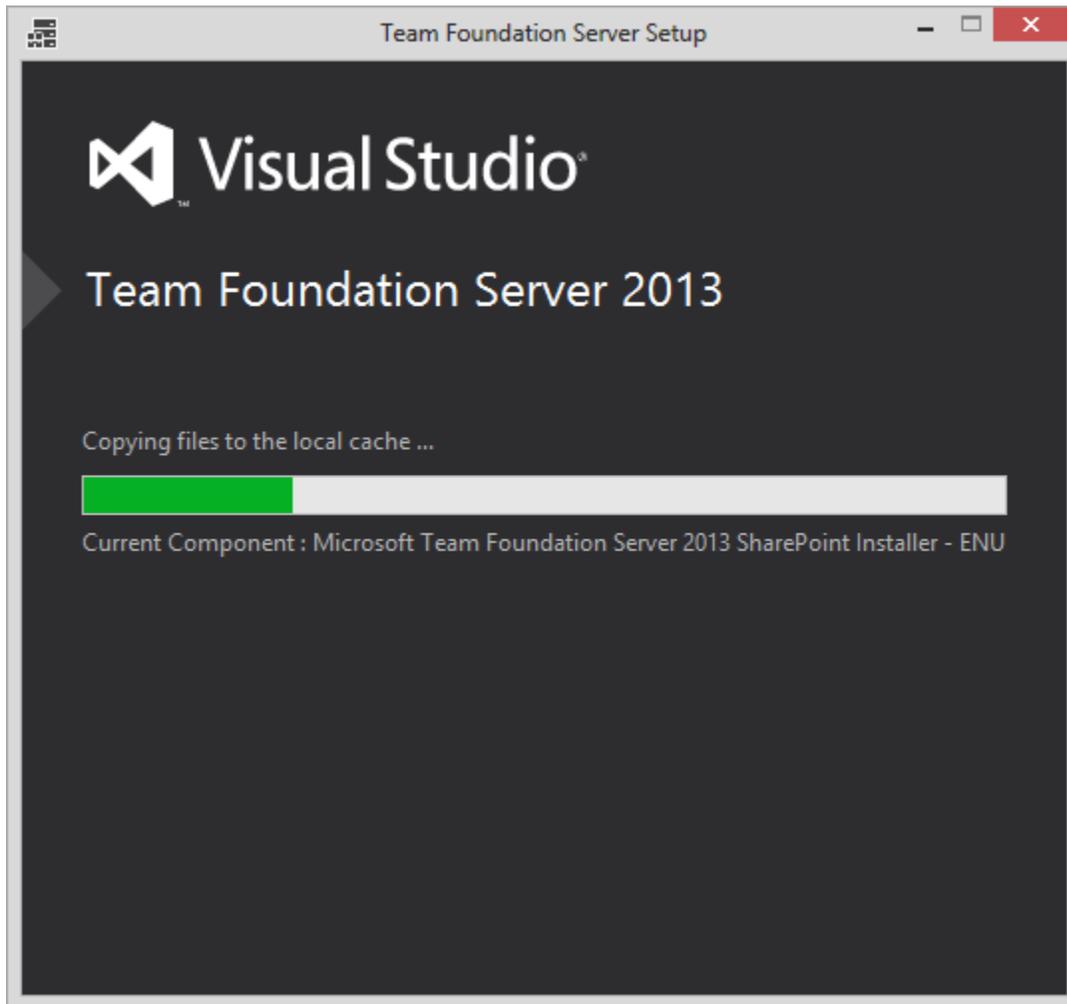


You may be prompted to restart your machine.

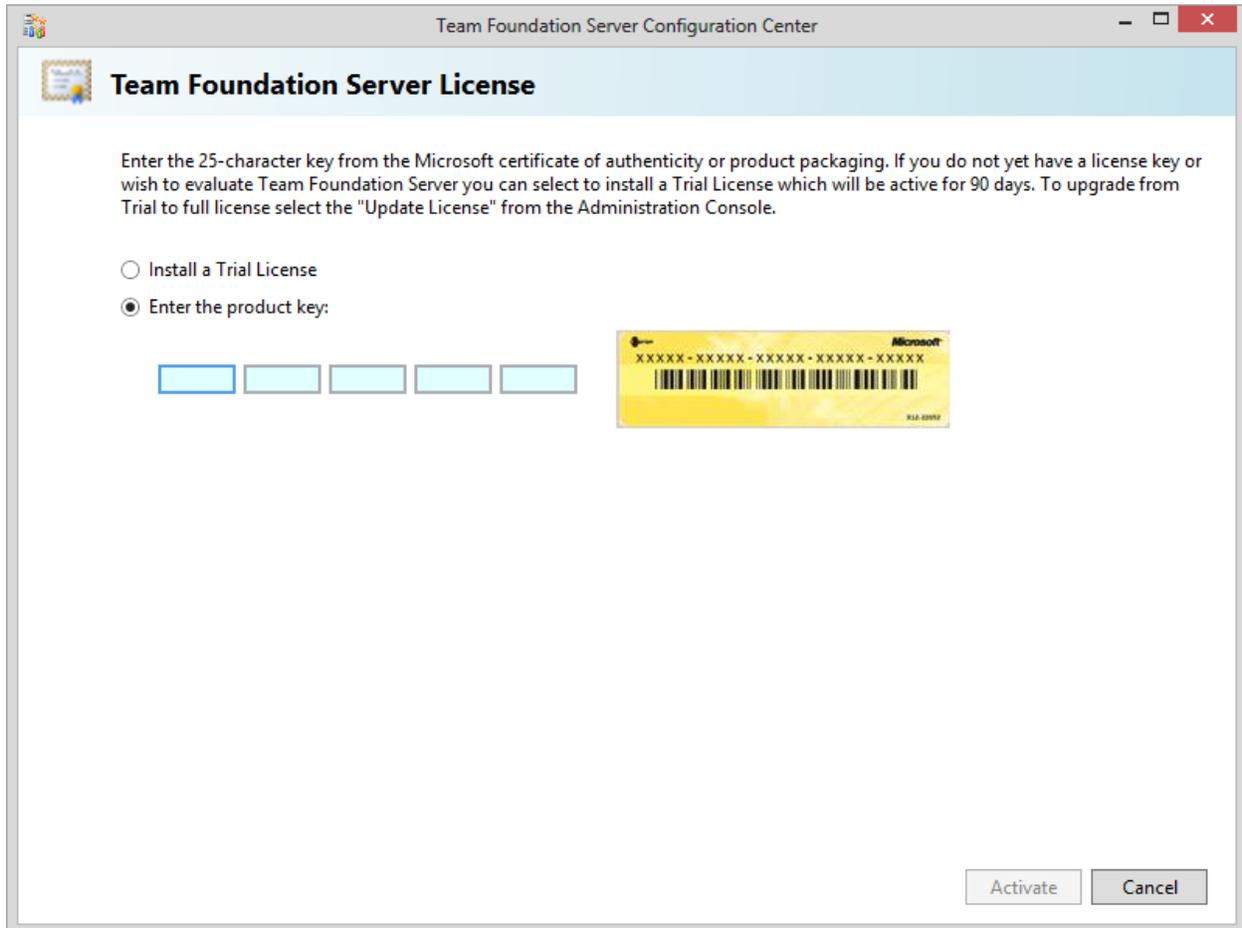


- Click **OK** to restart your machine
- When the server has finished rebooting, log in with the same user account to resume the installation

When you log back in, the installer will resume.



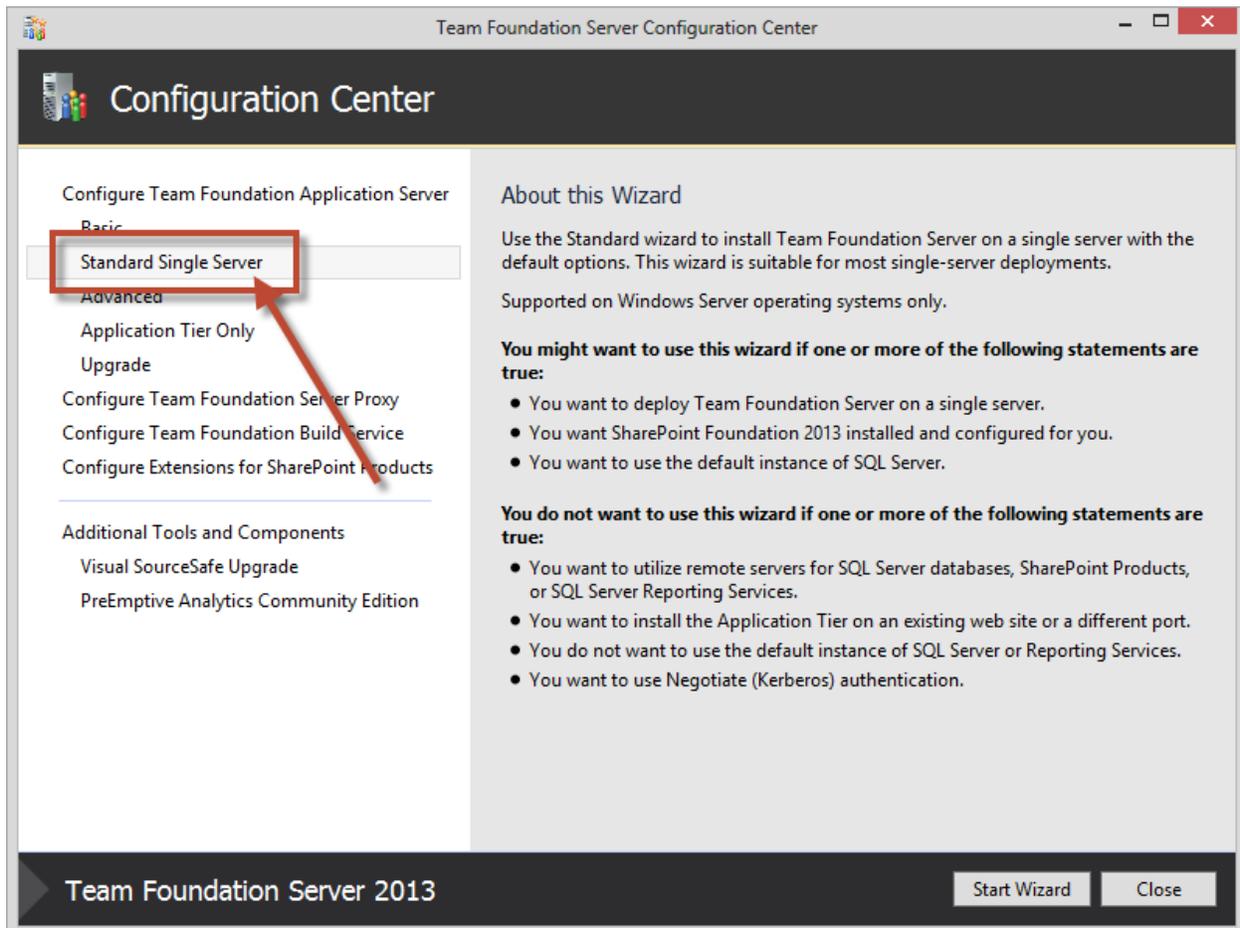
You'll be prompted to supply a product key for the installation. If you have the product key, you can enter it now or you can complete the installation with a trial license.



The screenshot shows a window titled "Team Foundation Server Configuration Center" with a sub-header "Team Foundation Server License". The main text reads: "Enter the 25-character key from the Microsoft certificate of authenticity or product packaging. If you do not yet have a license key or wish to evaluate Team Foundation Server you can select to install a Trial License which will be active for 90 days. To upgrade from Trial to full license select the 'Update License' from the Administration Console." Below this text are two radio buttons: "Install a Trial License" (unselected) and "Enter the product key:" (selected). Under "Enter the product key:" are five empty text boxes for input. To the right of these boxes is a yellow Microsoft license key card with a barcode and the text "XXXXX-XXXXX-XXXXX-XXXXX-XXXXX". At the bottom right of the dialog are "Activate" and "Cancel" buttons.

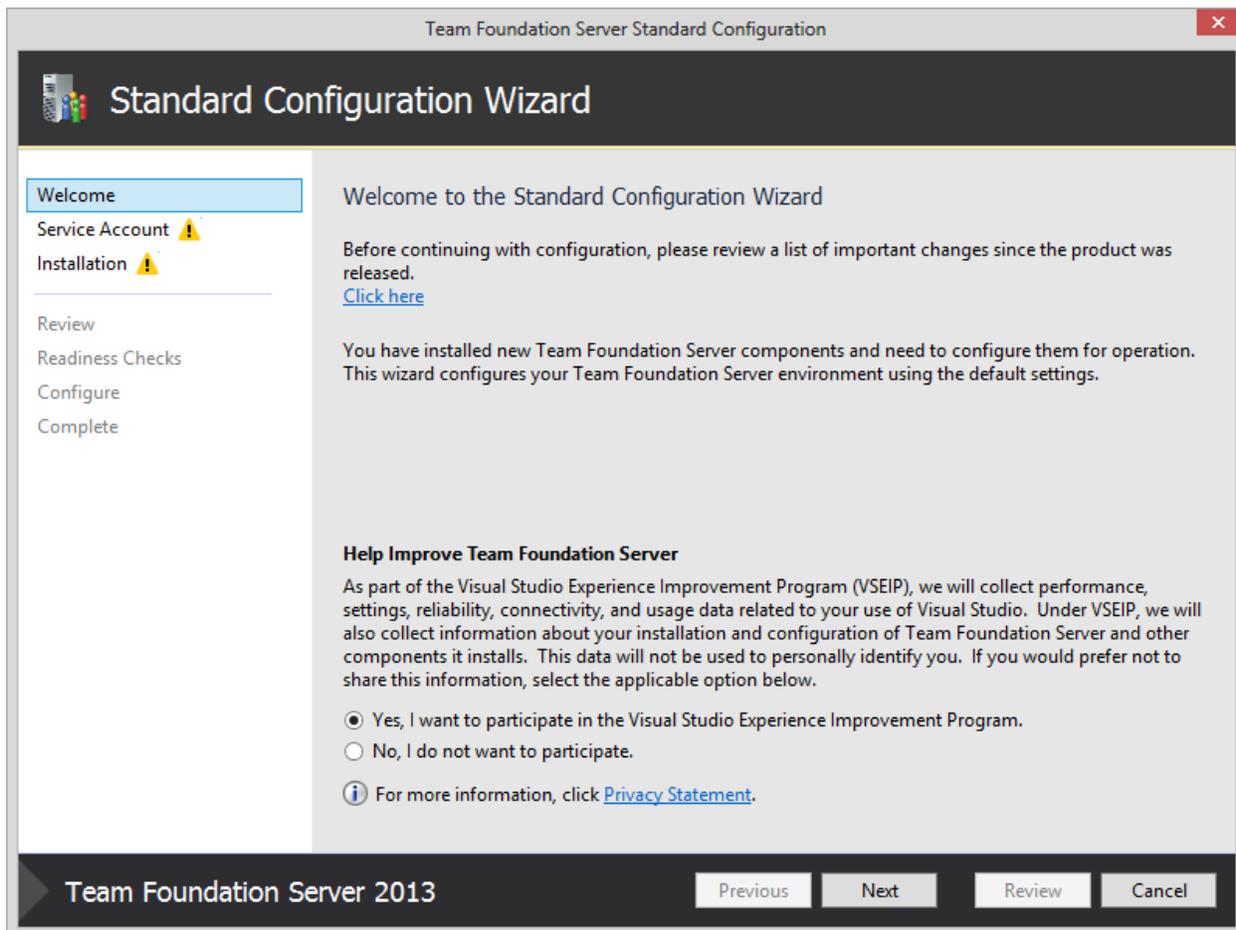
- Enter your **product key** or choose **Install a Trial License**
- Click **Activate**

You should now see the **Team Foundation Server Configuration Center**. You'll be doing a **Standard Single Server** configuration.



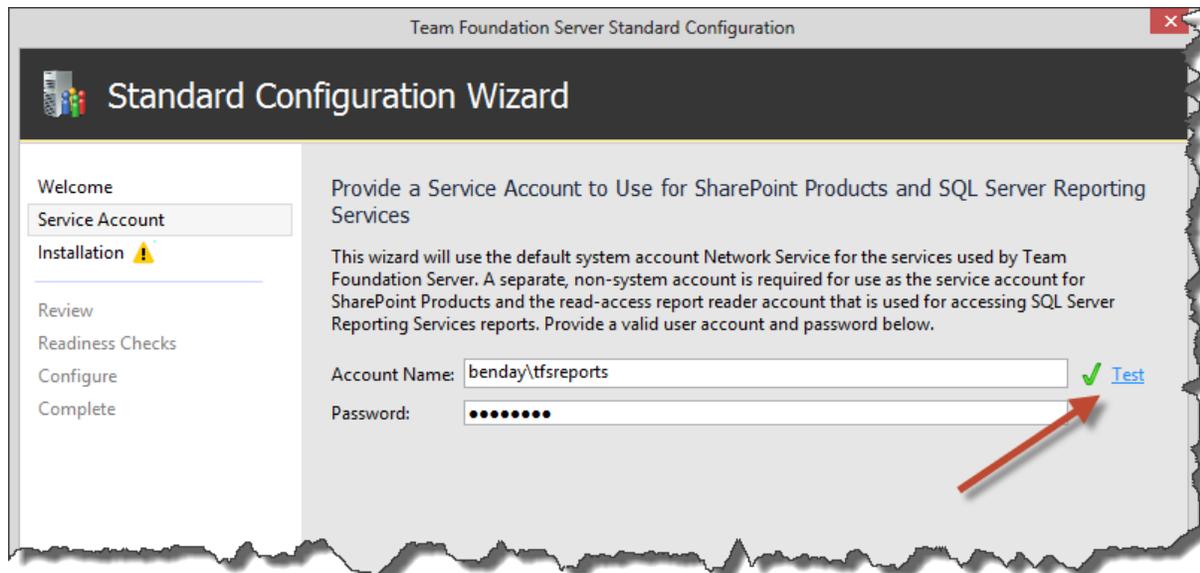
- Choose **Standard Single Server** from the left panel
- Click **Start Wizard**

You should now be on the **Standard Configuration Wizard**'s welcome screen.



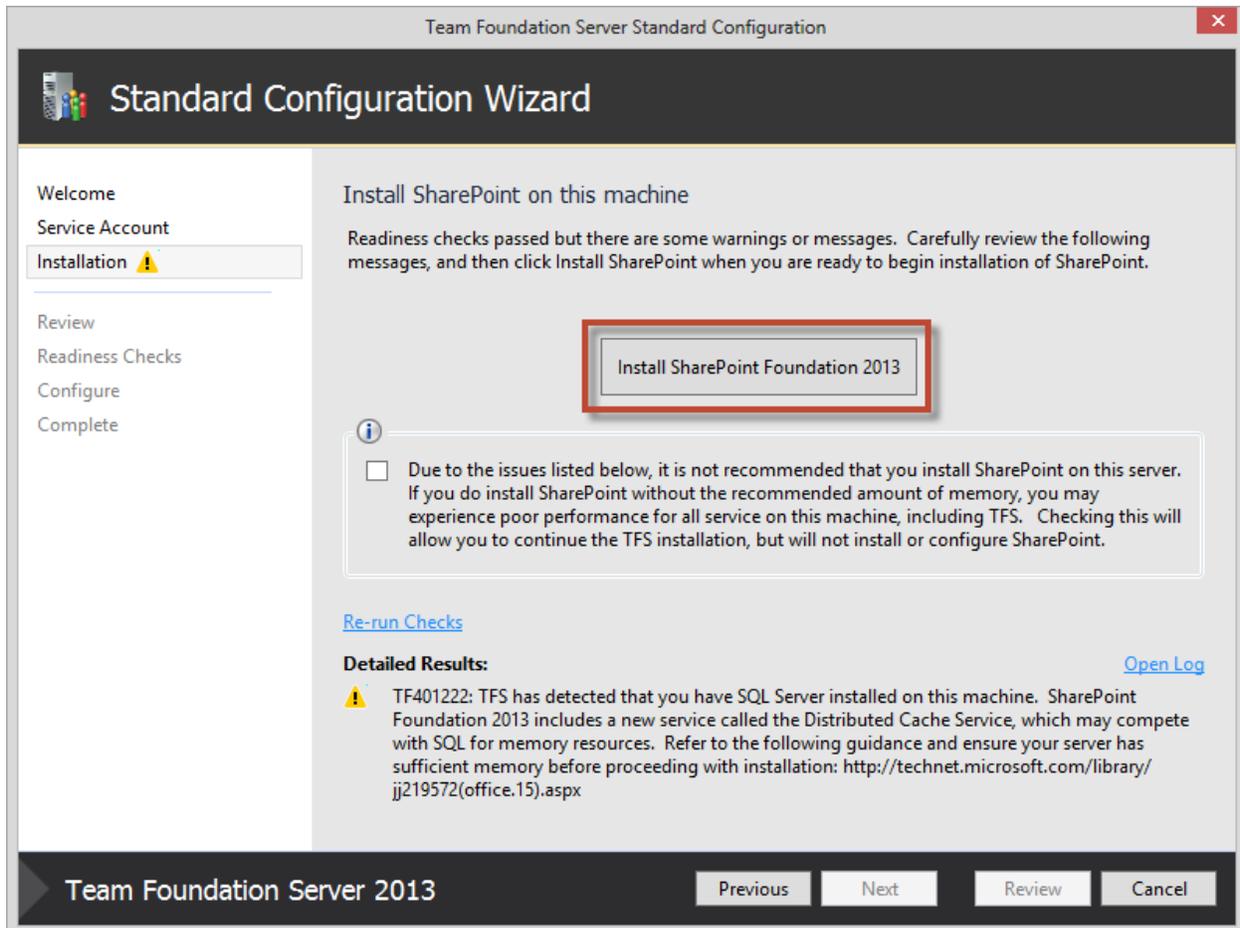
- Click **Next**

You'll be prompted for a username and password that will be used as a service account for accessing SharePoint and SQL Server Reporting Services. This account is typically named *{domain-name}\TFSReports*.



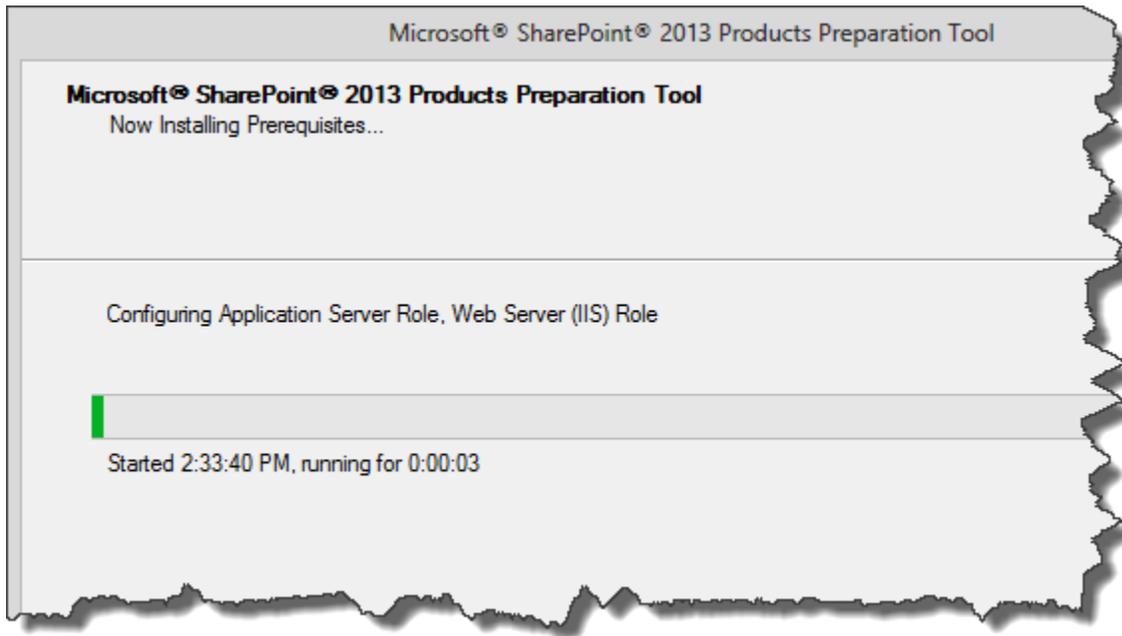
- Type the user account into the **Account Name** text box
- Type the password into the **Password** text box
- Click the **Test** link to verify the username and password
- Click **Next**

You'll be prompted to install SharePoint Foundation 2013. This screen may display a warning about memory usage competition between SQL Server and SharePoint Foundation 2013's Distributed Cache Service. Installing SharePoint Foundation 2013 may cause performance problems on this server and at some point you may want to separate these services.

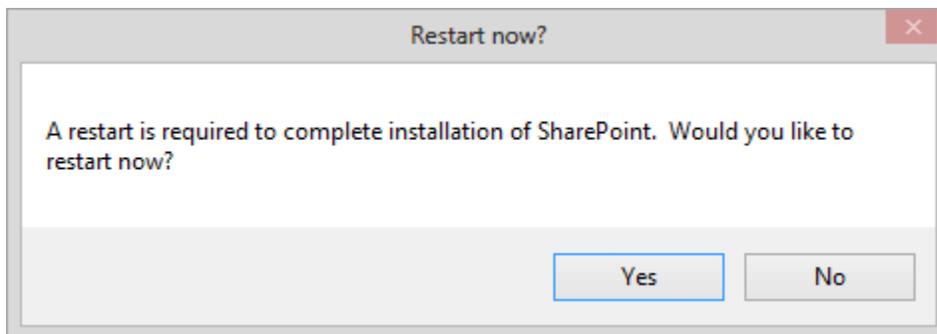


- Click **Install SharePoint Foundation 2013**

The SharePoint 2013 installer should now be running.

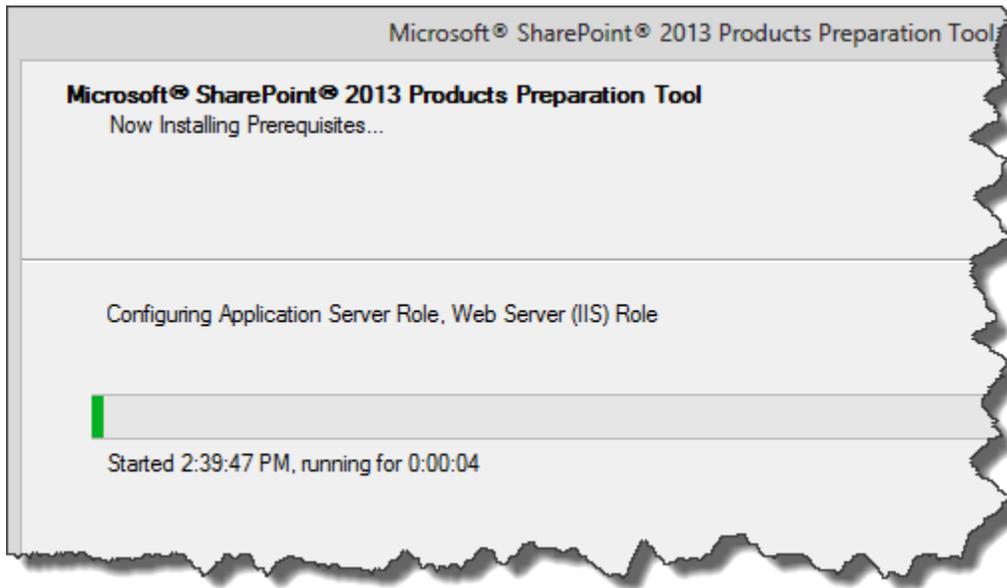


If prompted to restart the server, follow the instructions to restart the server and then log back in to the server.

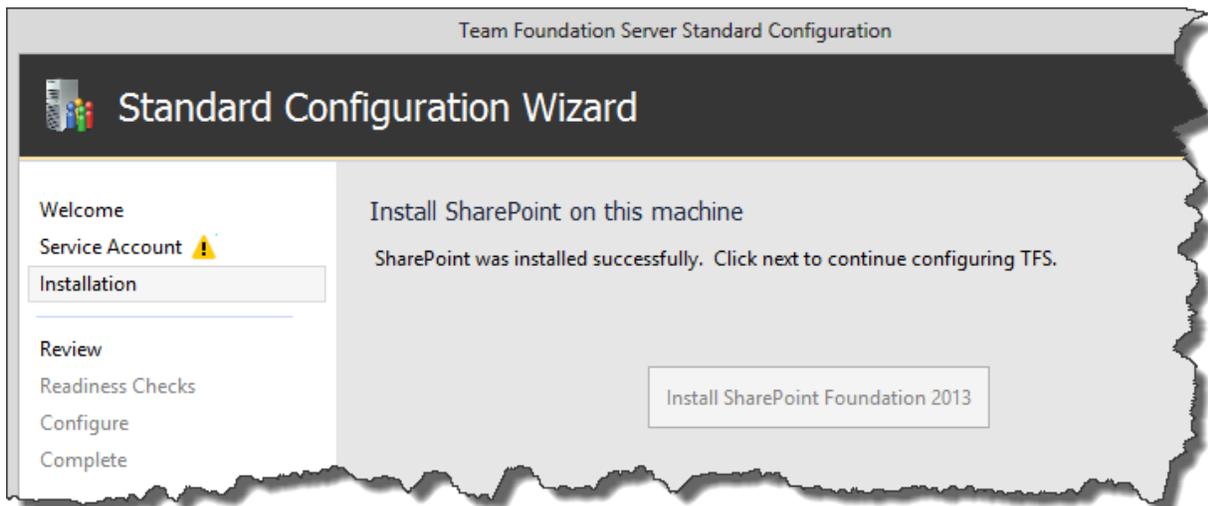


- Click **Yes** to restart the server
- After the server has restarted, log back in as the same user

After logging back in, the installer will resume.

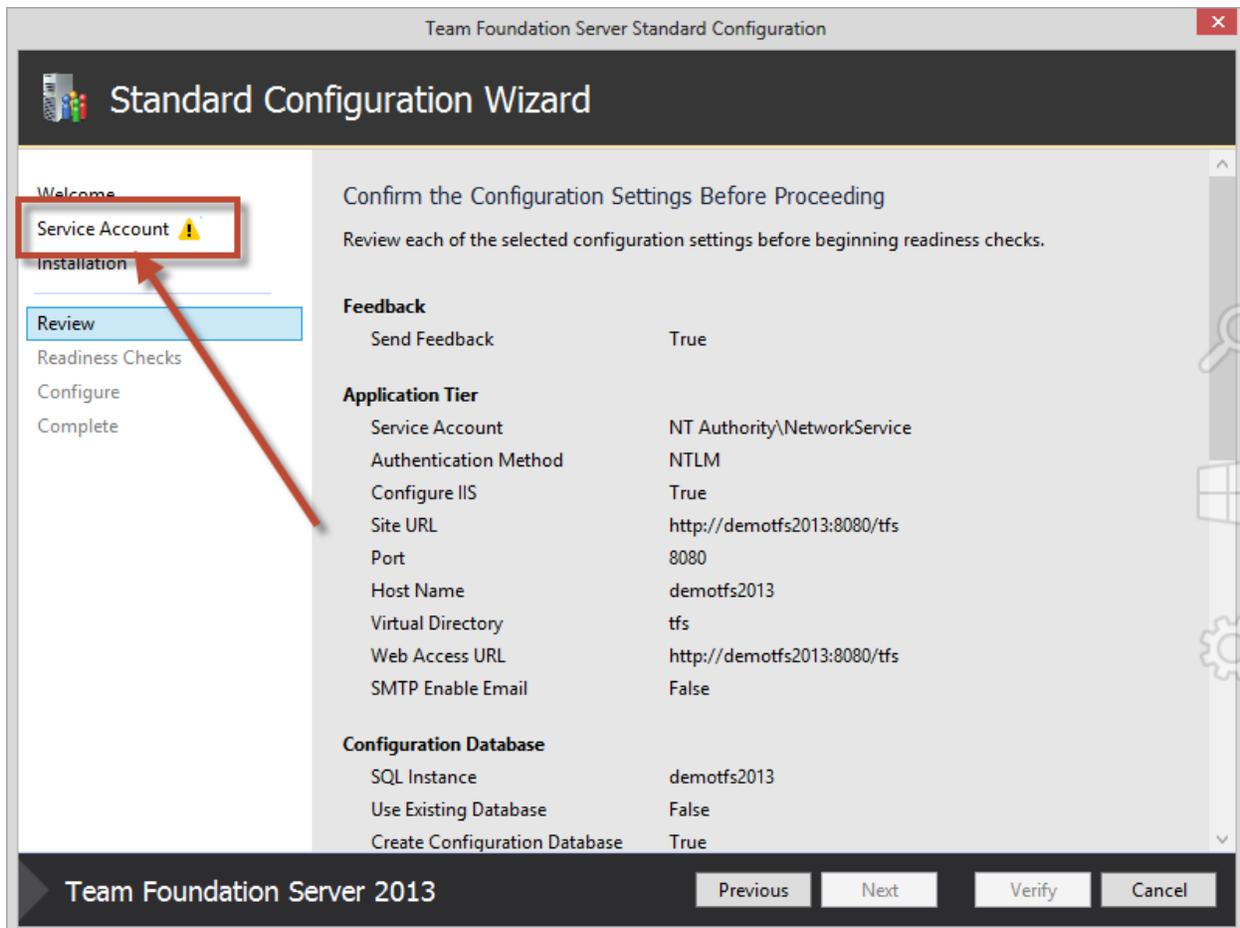


There may be several reboots but eventually SharePoint will be finished installing.



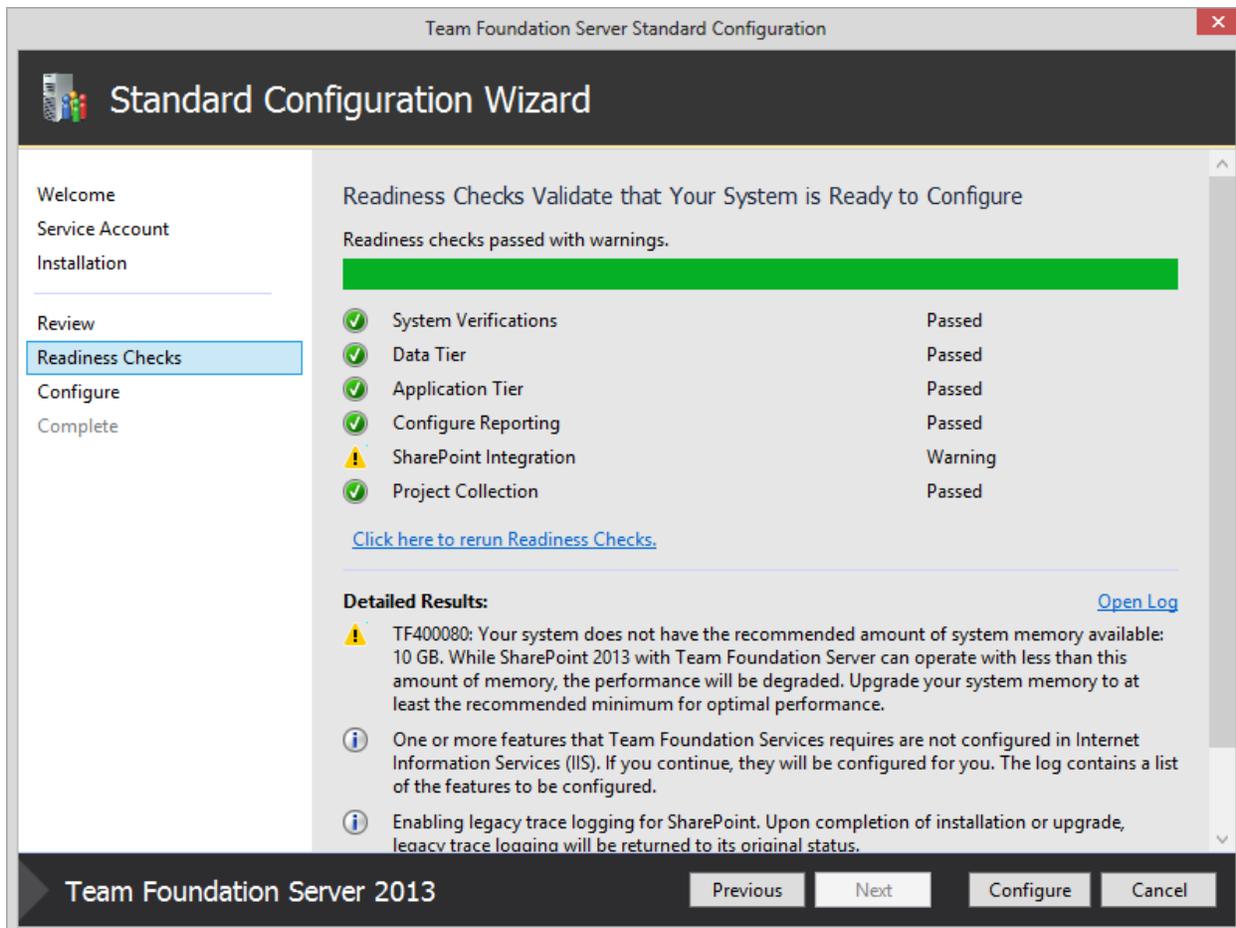
- Click **Next**

You'll see a summary of the TFS configuration and, if you've rebooted, you'll see a warning icon next to the Service Account section. This is because you need to re-type the service account's password.



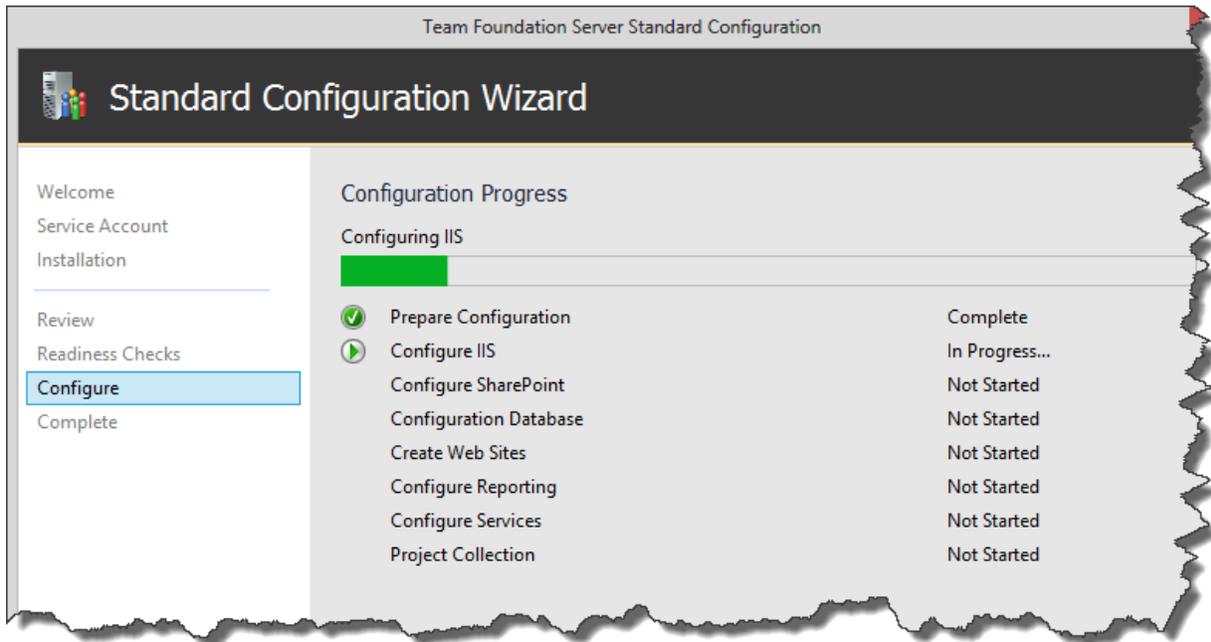
- Click the **Service Account** link
- Re-enter the password for the service account
- Click **Readiness Checks**

The readiness checks should run without any errors. There may be warnings (probably about SharePoint memory) but they can be safely ignored for TFS installations that are not intended to be high-performance.

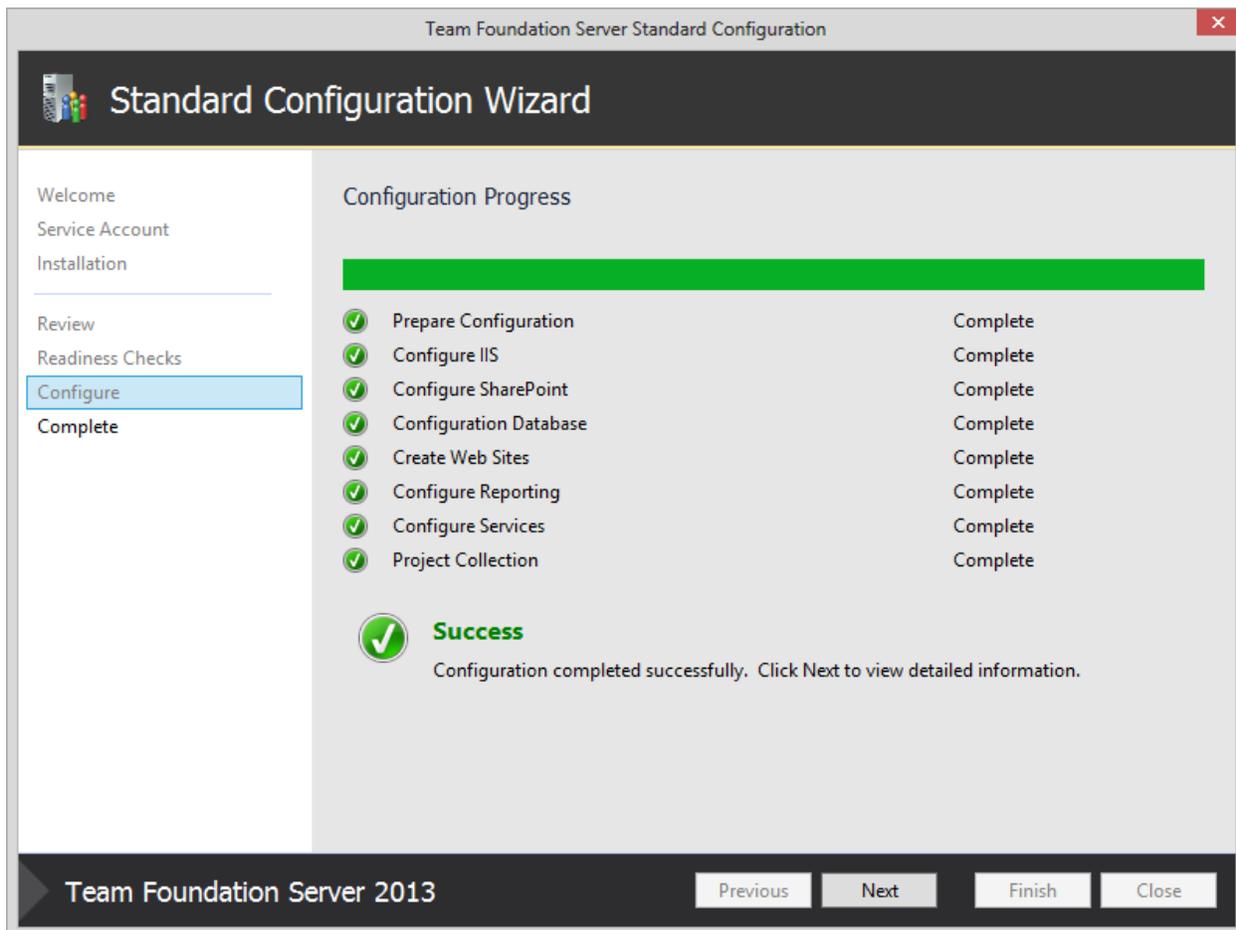


- Click **Configure**

The installer should now be in the process of configuring Team Foundation Server 2013.

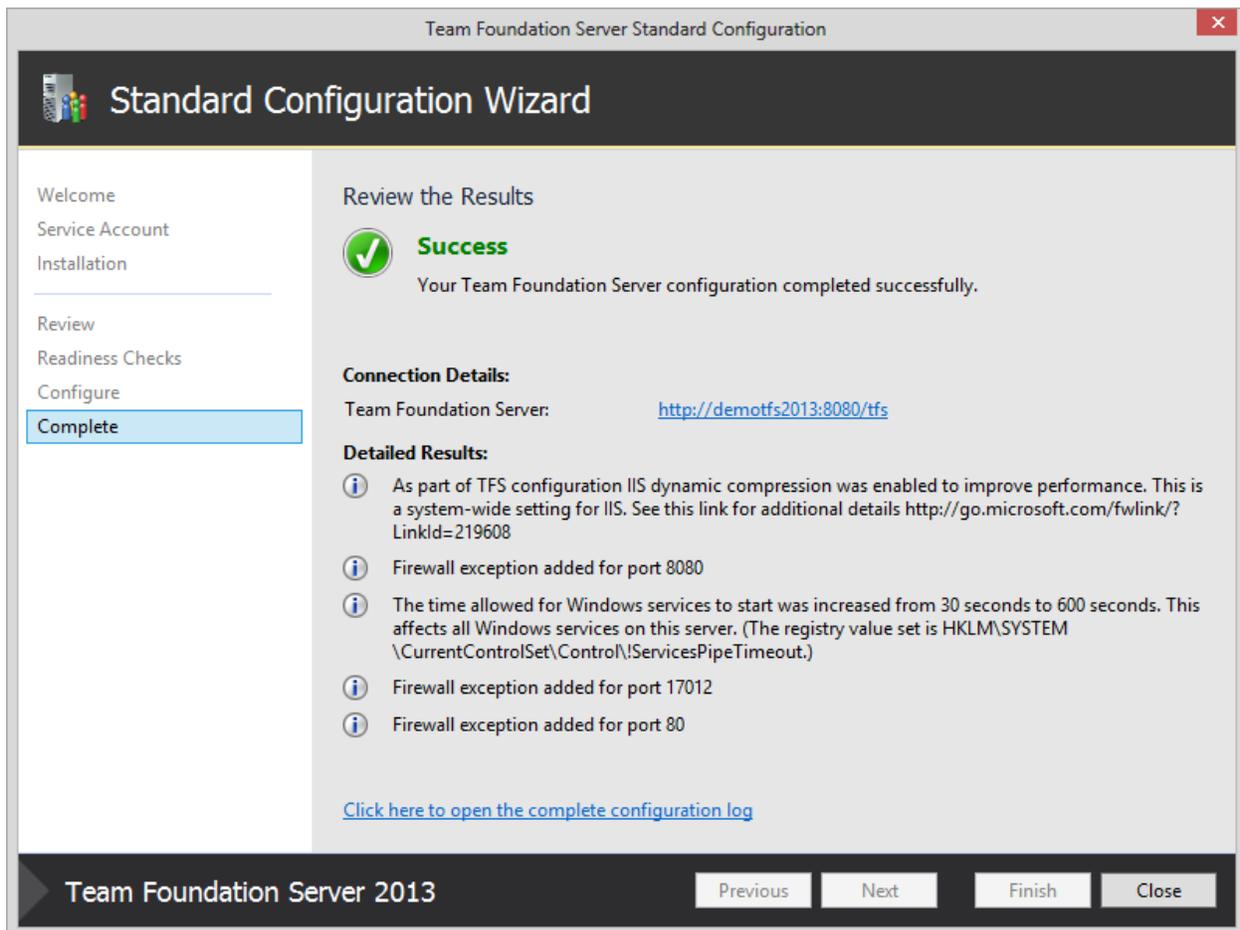


The configuration process should complete with a message saying Success.



- Click **Next**

You should now see the summary page that summarizes the results of the installation.



- Click **Close** to exit the installer

Team Foundation Server 2013 is now installed.

Chapter 7: Install TFS2013 Build Server

If you'd like to do automated builds with Team Foundation Server 2013 (TFS2013), you're going to need a machine that has the TFS Build services installed. TFS2013's build services are made up of two different services: the TFS Build Controller and the TFS Build Agent. The Controller and Agent(s) can be on the same machine or on different machines. It's probably **not** a good idea but the Build Controller & Agent(s) can be installed on the same machine as TFS itself.

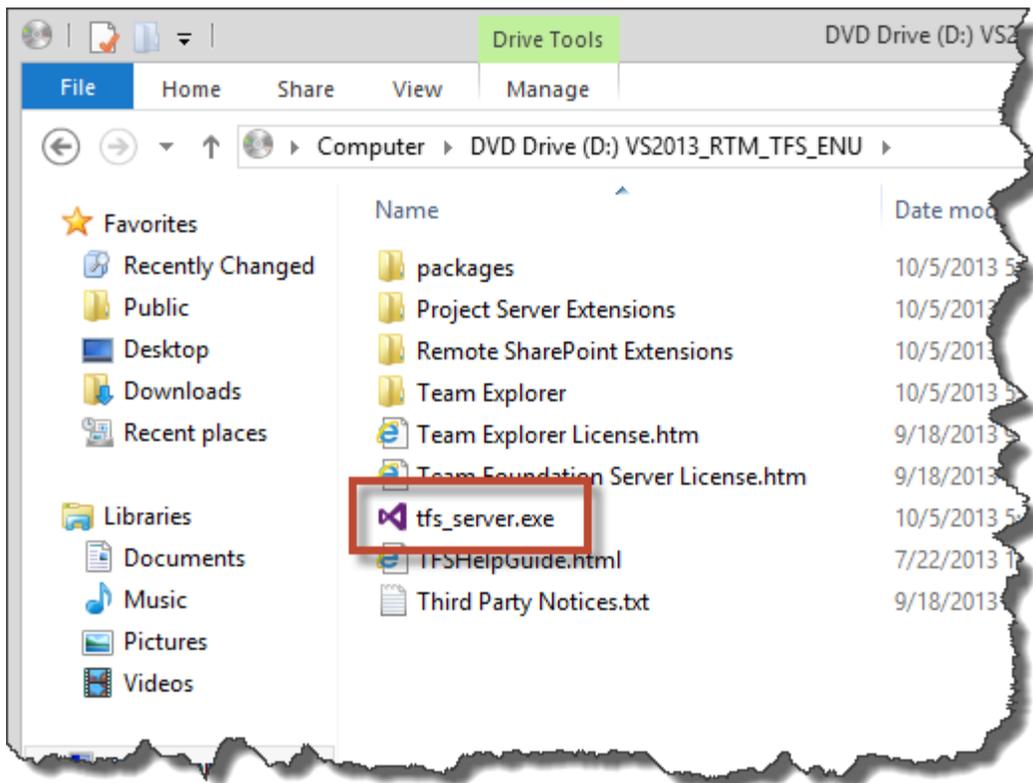
The controller & agent services can be installed on any of the following operating systems:

- Windows 2008 R2 with SP1
- Windows Server 2012
- Windows Server 2012 R2
- Windows 7 SP1
- Windows 8
- Windows 8.1

This install guide assumes that you're doing the installation as an Active Directory user and that that user is a member of the Administrators group on the TFS2013 app server and/or is a member of the Active Directory Domain Admins group. This guide also assumes that you're putting the build service on a machine that is not the TFS app tier.

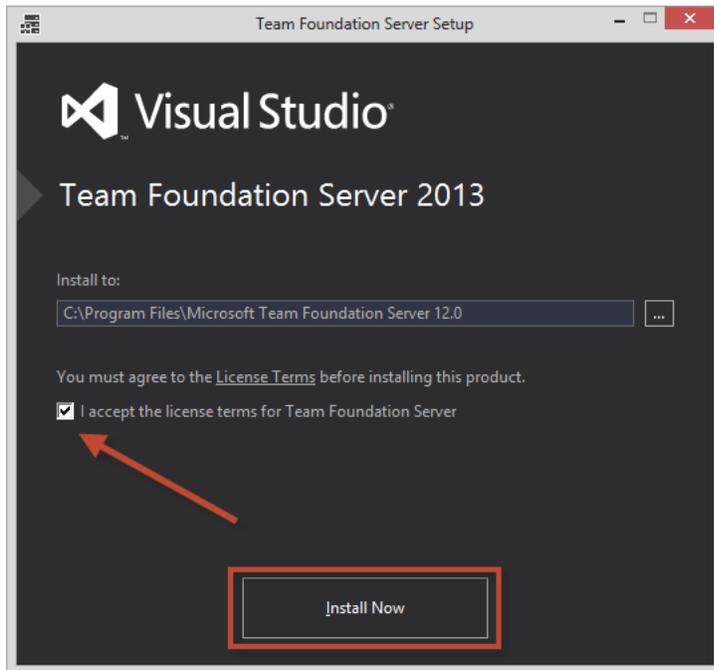
- Log on to the server that you want to install TFS Build services using an account that is an Administrator on the TFS2013 machine
- Insert the TFS2013 installer DVD or mount the TFS2013 ISO image
- Open the installer drive using Windows Explorer (explorer.exe)

You should see the TFS installer directory and it should look similar to the image below.



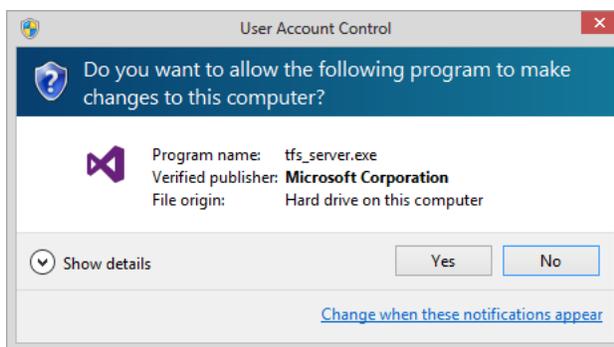
- Double-click **tfs_server.exe** to start the installer

You should now see the Team Foundation Server Setup dialog.

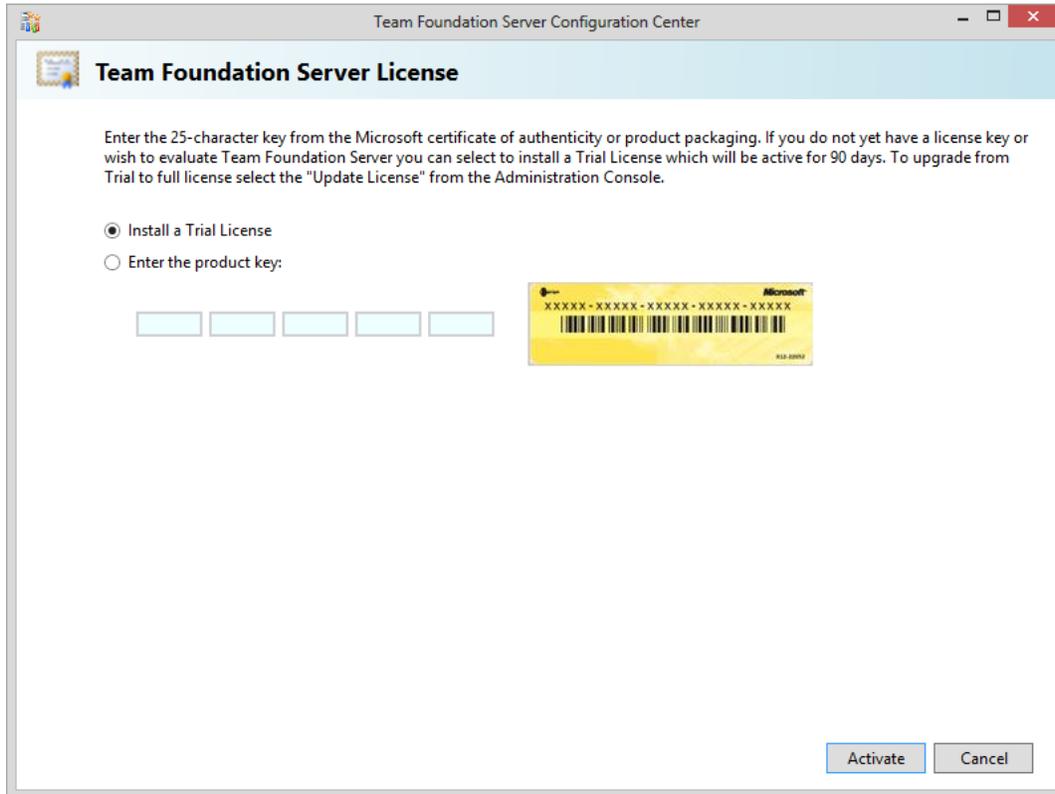


- Check **I accept the license terms for Team Foundation Server**
- Click the **Install Now** button

You'll be prompted with a User Account Control dialog.

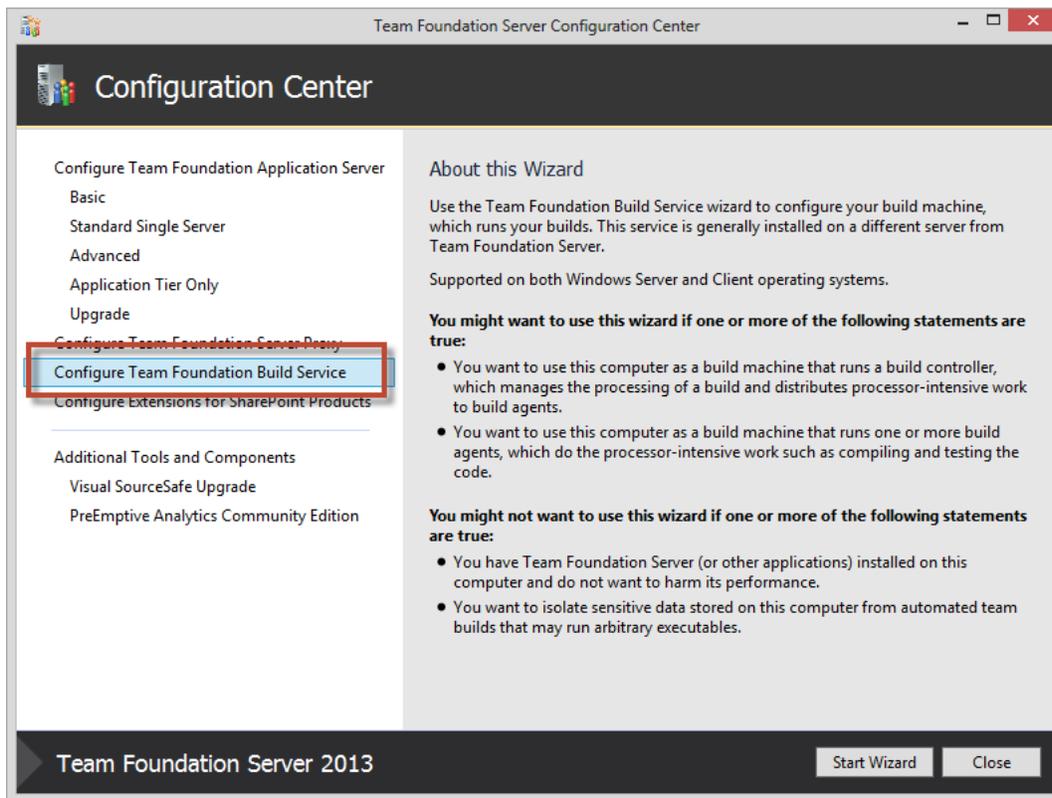


- Click the **Yes** button



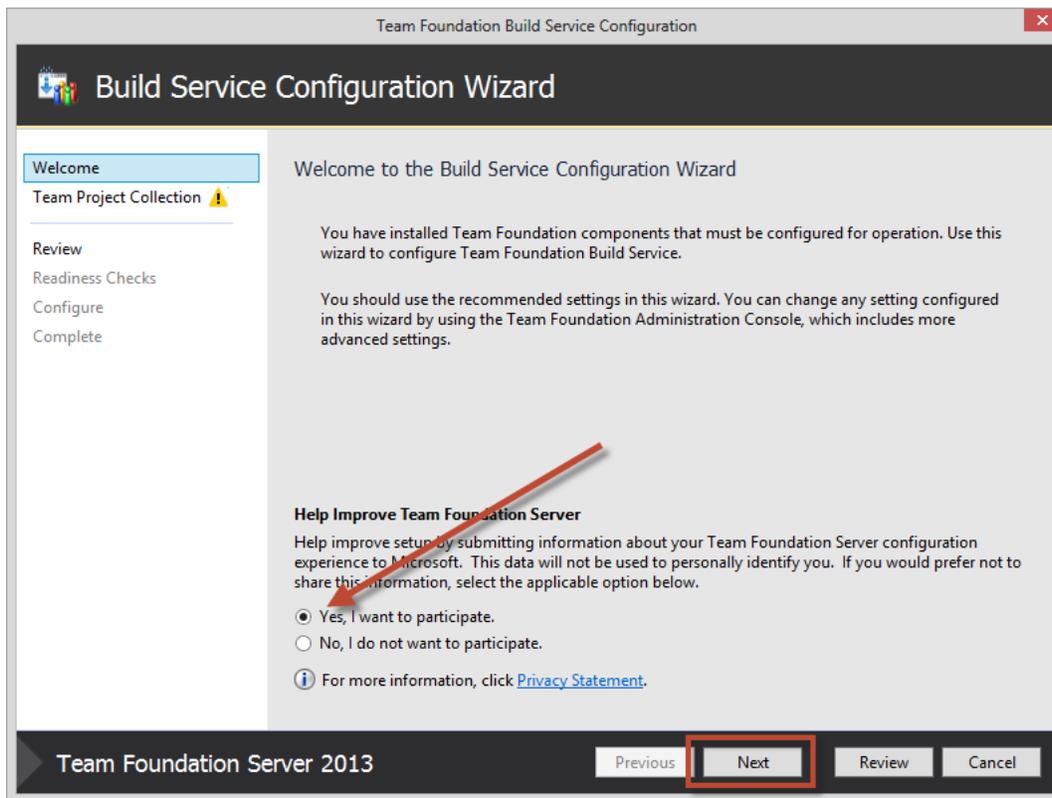
- Choose either **Install a Trial License** or **Enter the product key**
- If you chose to enter a product key, enter your product key
- Click the **Activate** button

You should now see the **Team Foundation Server Configuration Center** window.



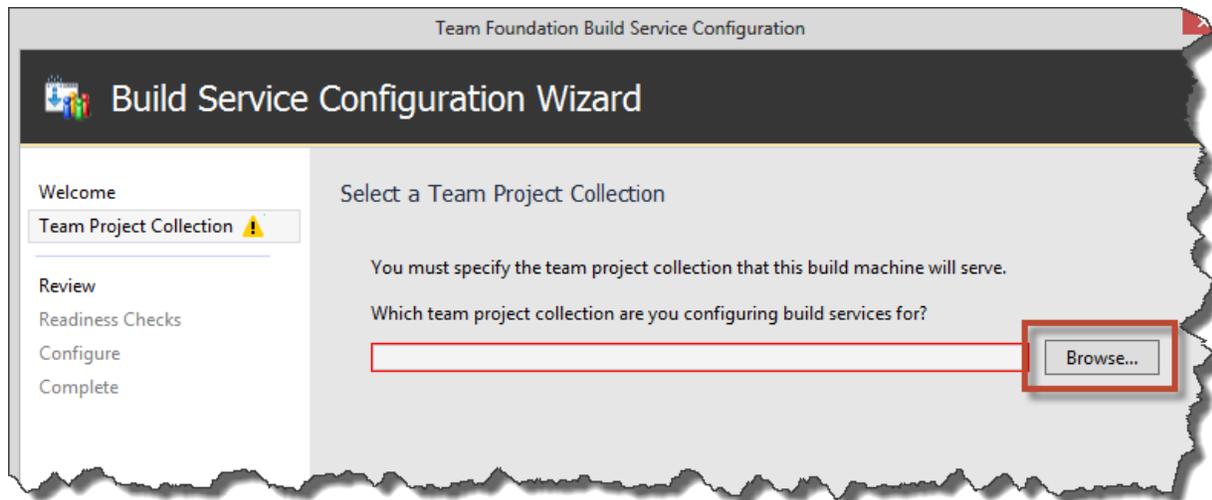
- From the left column, choose **Configure Team Foundation Build Service**
- Click the **Start Wizard** button

You should now see the **Build Service Configuration Wizard** screen.



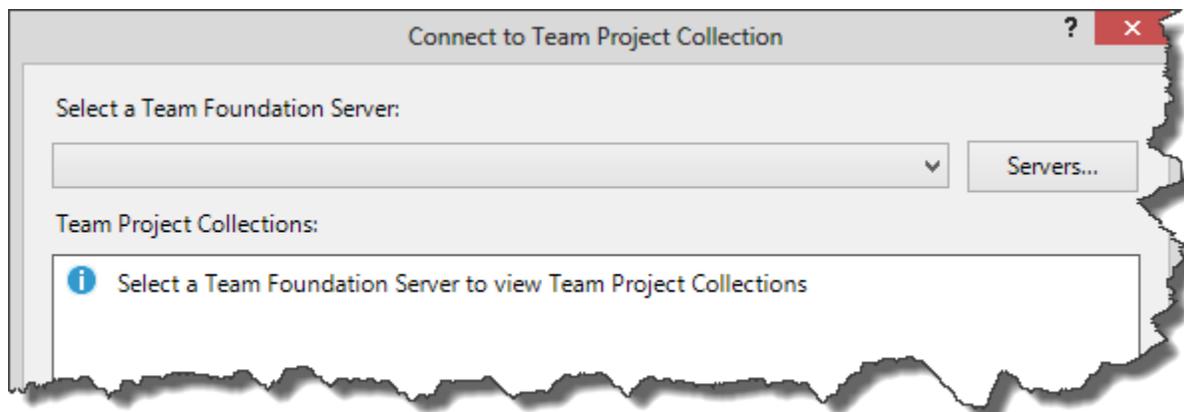
- Choose **Yes, I want to participate**
- Click the **Next** button

You'll now be prompted to choose the Team Project Collection (TPC) that you want to use with this build service. A build controller can talk to only one TPC. If you need build services for more than one TPC, you'll need more than one controller instance.



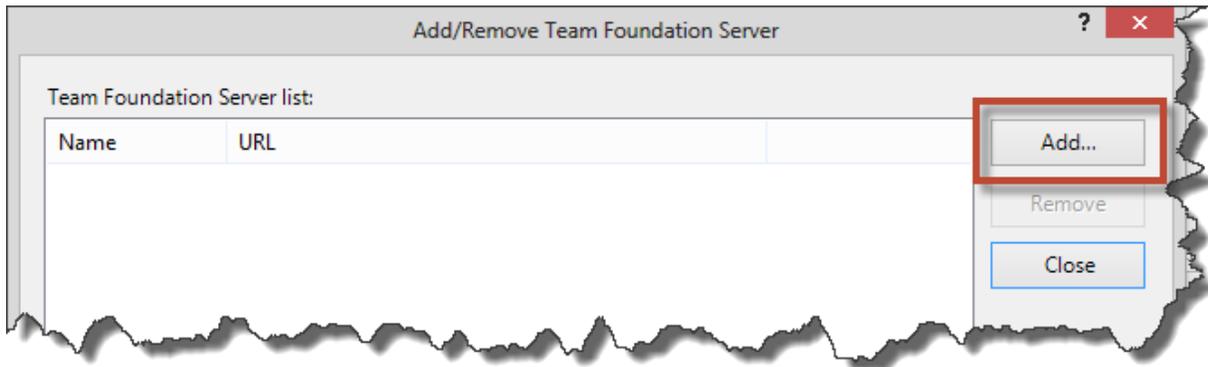
- Click the **Browse** button

You should now see the **Connect to Team Project Collection** dialog.



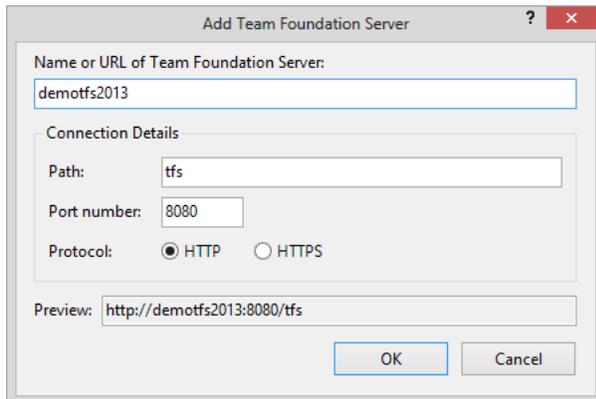
- Click the **Servers** button

You should see the **Add/Remove Team Foundation Server** dialog.



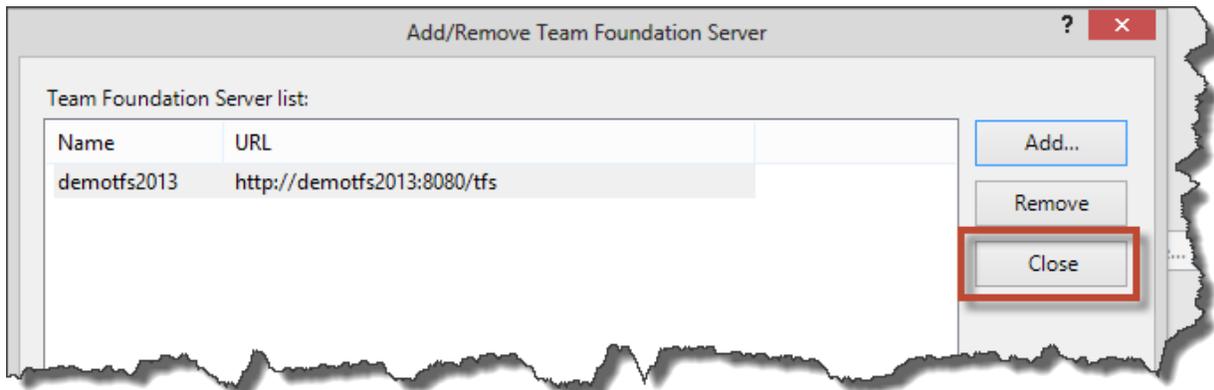
- Click the **Add** button

You should see the **Add Team Foundation Server** dialog.



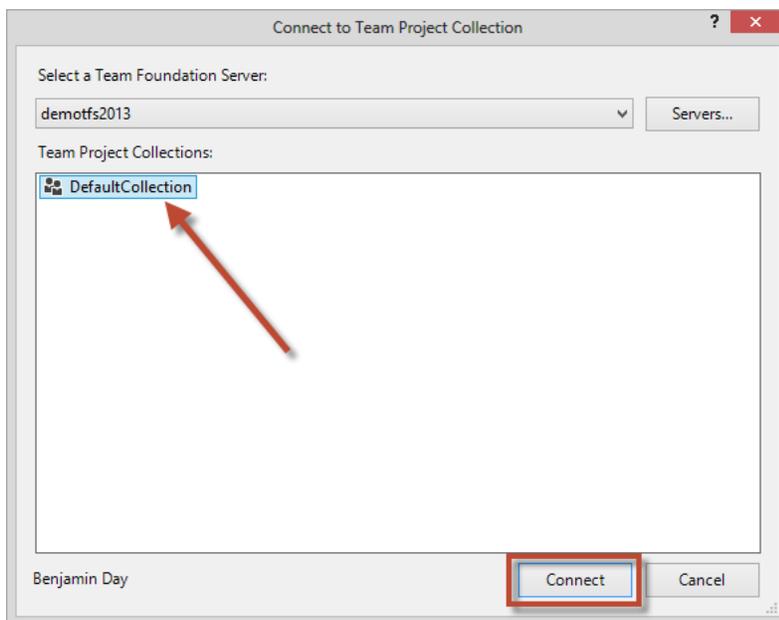
- Enter the name of your TFS app tier machine in the **Name or URL of Team Foundation Server** box
- (Optional) Adjust the Path, Port number, and/or Protocol options as required. (NOTE: if you installed TFS2013 using the steps provided in this guide, no changes are necessary.)
- Click the **OK** button

You should be back on the Add/Remove Team Foundation Server dialog and you should see the TFS machine that you just added on the previous step in the **Team Foundation Server list**.



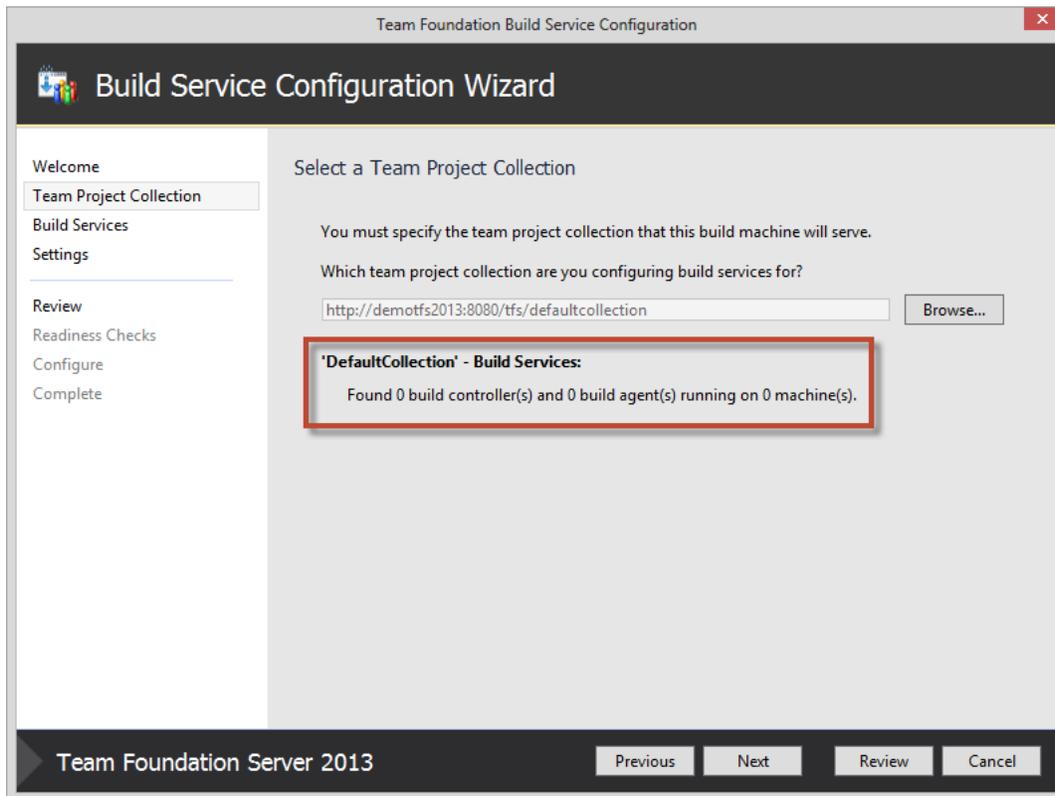
- Click the **Close** button

You should be back on the Connect to Team Project Collection dialog. Your TFS machine should be selected in the **Select a Team Foundation Server** drop down list and you should see the list of Team Project Collection(s) for your TFS instance. (NOTE: out of the box, the TPC that gets created is named DefaultCollection.)



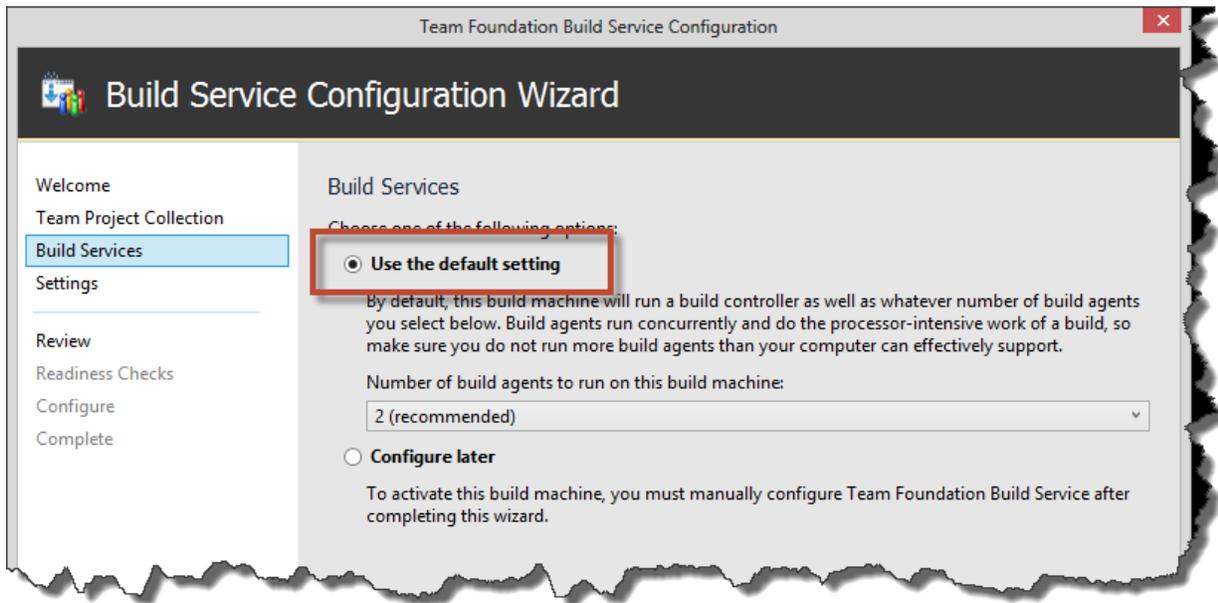
- Choose the TPC that you want to use with this build server. (Example: DefaultCollection)
- Click the **Connect** button

You should be back on the **Select a Team Project Collection** page and the screen probably says that it “found 0 build controller(s) and 0 build agent(s) running on 0 machine(s).”



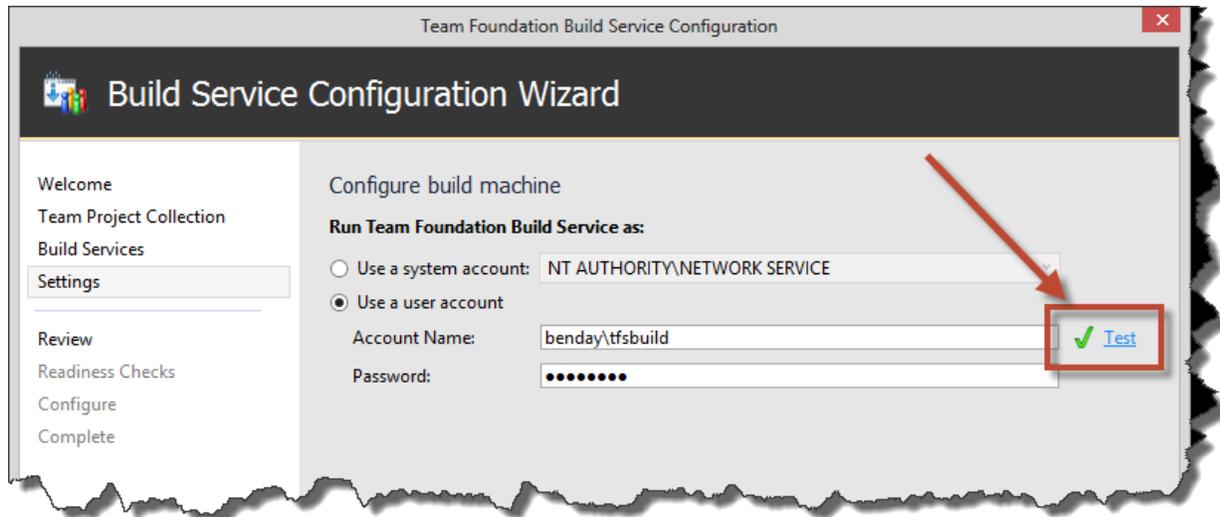
- Click **Next**

The **Build Services** screen allows you to configure the build Controller and also how many Agent instances to run on this build machine.



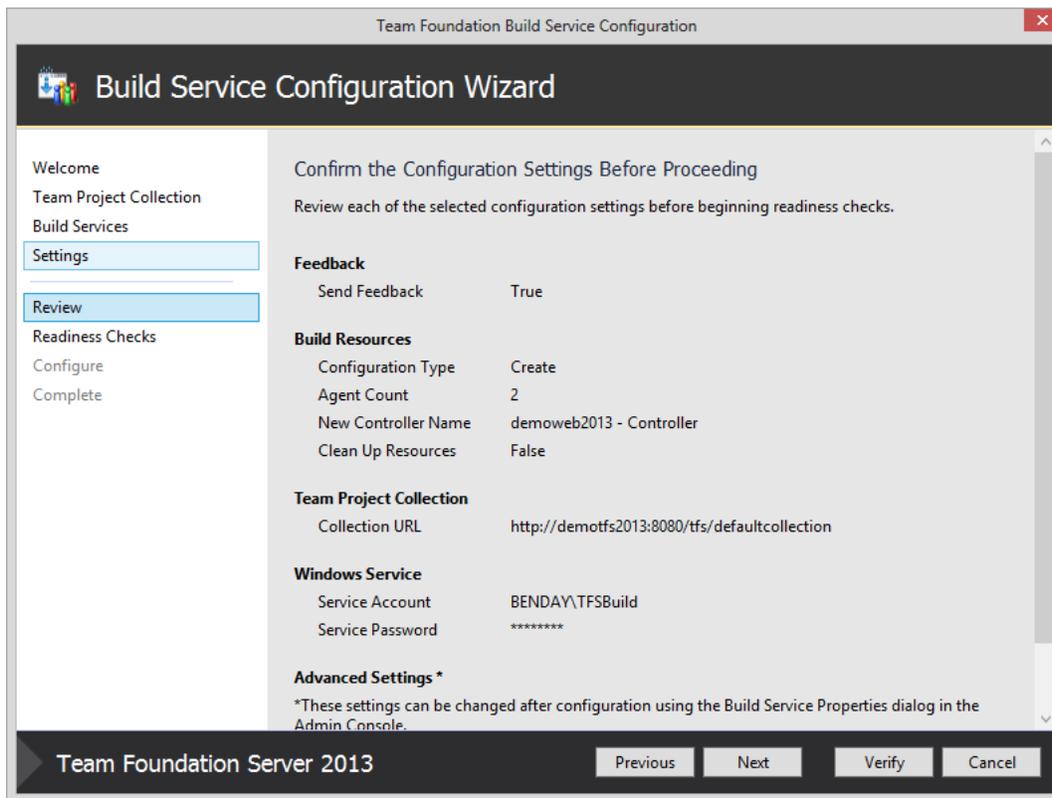
- Choose **Use the default setting**
- On the **Number of build agents to run on this build machine** drop down, choose the option that ends with **(recommended)**
- Click the **Next** button

The Configure build machine page allows you to specify the user account that the build service will run as. This can be pretty much any account that you want but my recommendation is to create a separate account in Active Directory that is just for running the build service. Typically, this account is named TFSBuild.



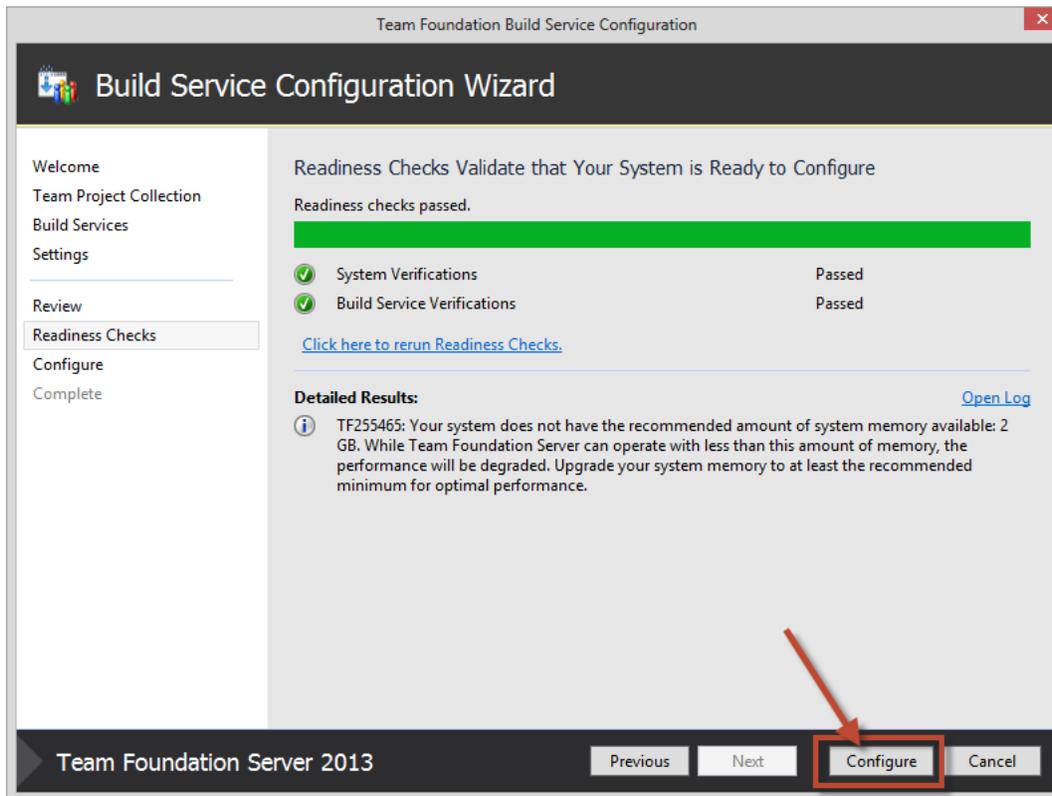
- Choose **Use a user account**
- In the **Account Name** box, enter the fully-qualified username for the service (example: *domain_name\tfsbuild*)
- In the **Password** box, enter the password for the service account
- Click the **Test** link to verify the username and password
- Click the **Next** button

You should now be on the **Confirm the Configuration Settings Before Proceeding** page.



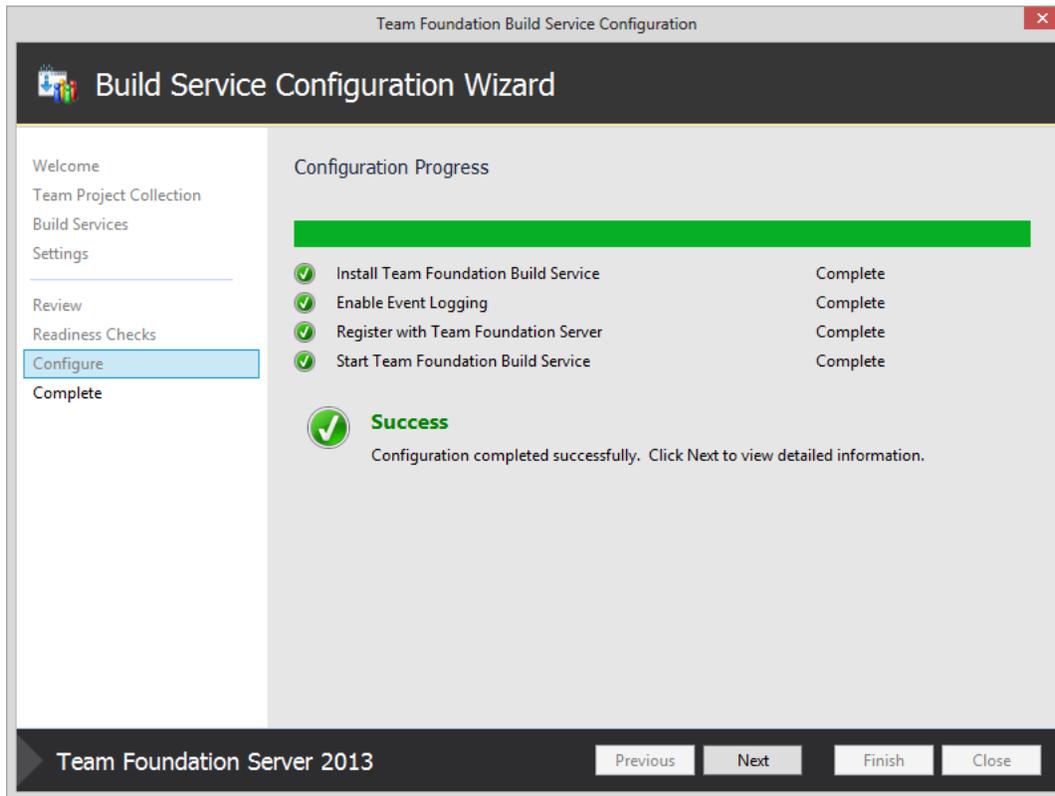
- Click the **Next** button

The installer will run some checks to verify that everything is ready to be configured. All these checks should pass.



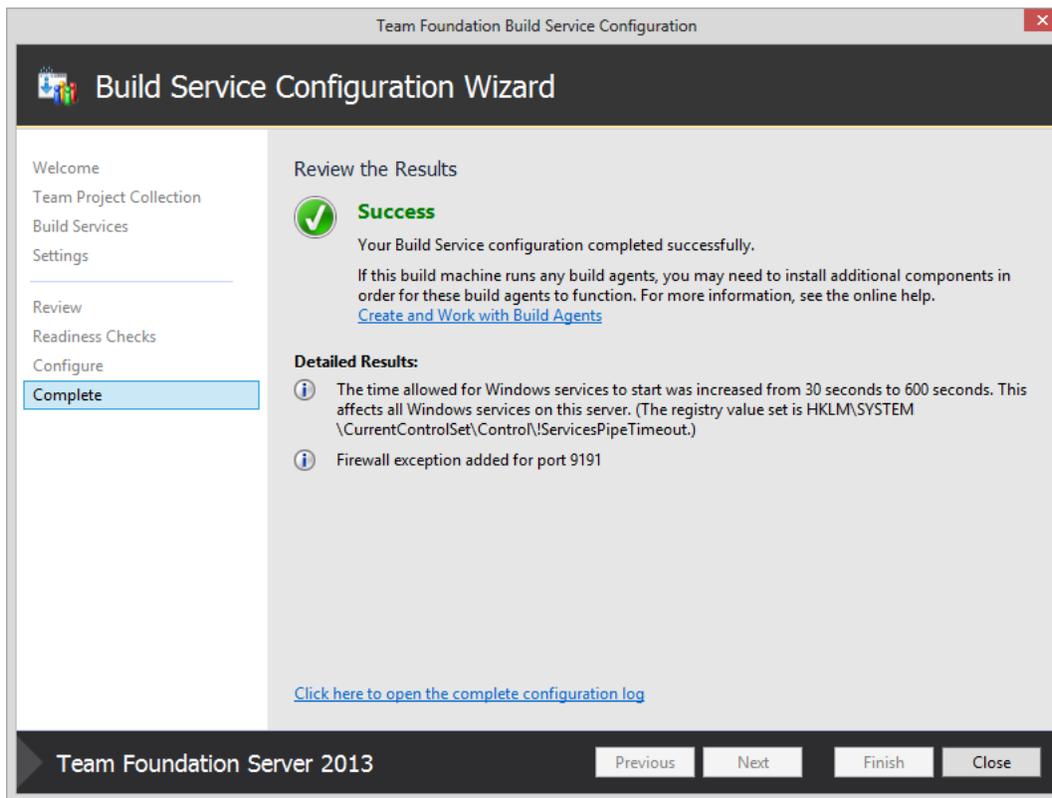
- Click the **Configure** button

The configuration should run and quickly complete with the message of **Success**.



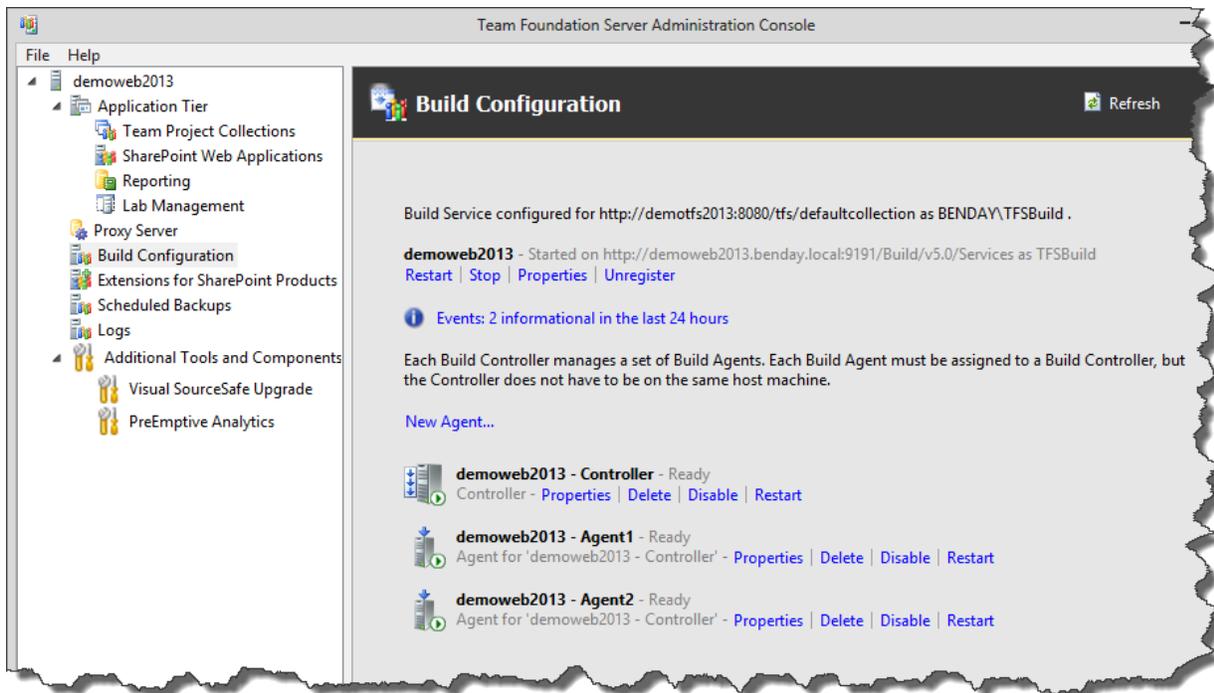
- Click the **Next** button

The **Review the Results** page should also say Success.



- Click the **Close** button on this page
- Click the **Close** button on the next page

You should now see the **Build Configuration** page on the **Team Foundation Server Administration Console**. This page should be showing you the Controller and Agent(s) that you just created.



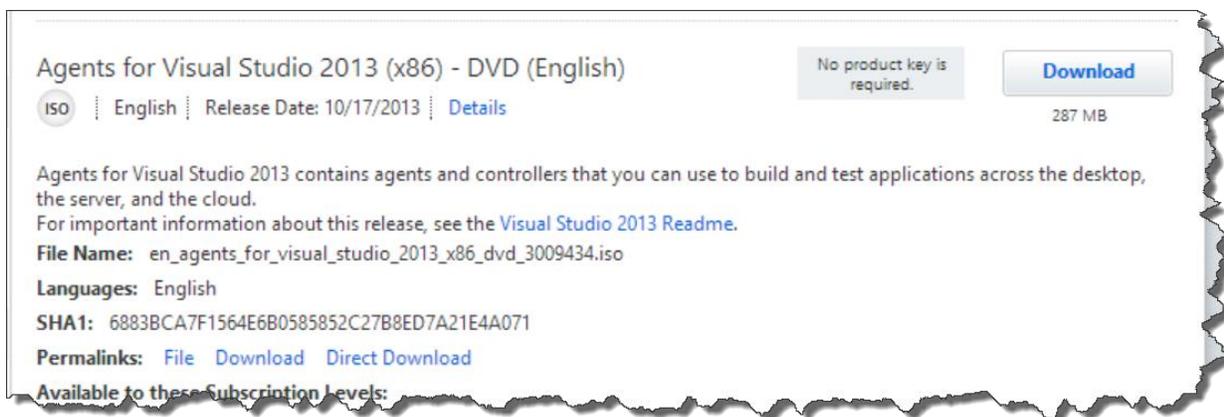
Team Foundation Server Build has been configured.

Chapter 8: Install TFS2013 Test Controller for Automated Testing

There are two types of Controllers and Agents in the Team Foundation Server (TFS) world: Build and Test. The Build Controller and Build Agent are for doing TFS automated builds. The Test Controller and Test Agent services are for supporting automated testing. The test controller can be configured to support either Manual Test (aka. QA) activities or be configured for Load & Performance Test activities (aka. used as a Load Test Rig). A single instance of the Controller cannot be used for both QA and for Load Testing.

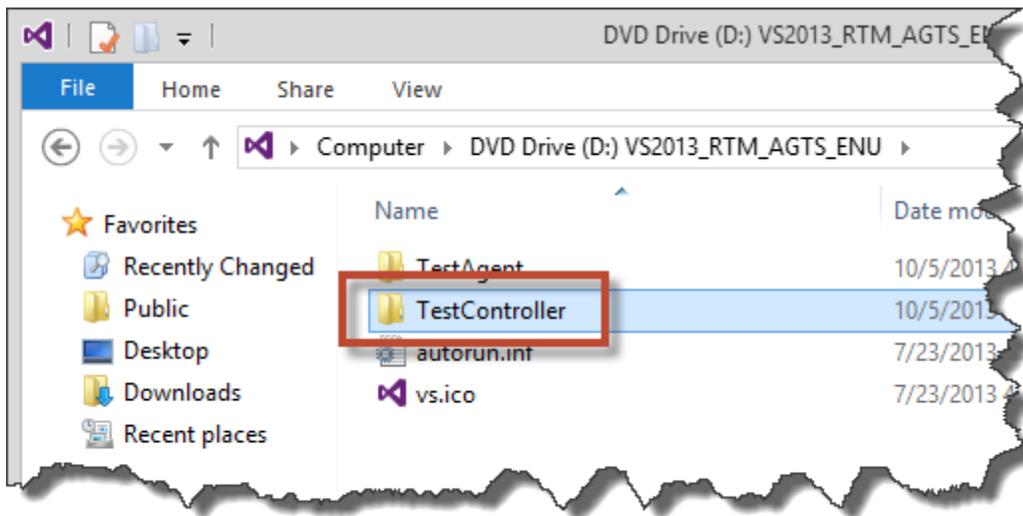
This chapter will walk you through installing the Controller service for the purposes of Manual / QA testing. (NOTE: installing the Agent service for QA testing is typically remotely done via Microsoft Test Manager (MTM) rather than by running an installer program. When told to use a machine as part of a test environment, MTM will 'automagically' install the test agent on that machine.)

The Agents are found on a different DVD / download from Microsoft than Visual Studio 2013 or Team Foundation Server 2013. If you're getting your software from MSDN, the screenshot below shows you the information for the Agents for Visual Studio 2013 ISO.



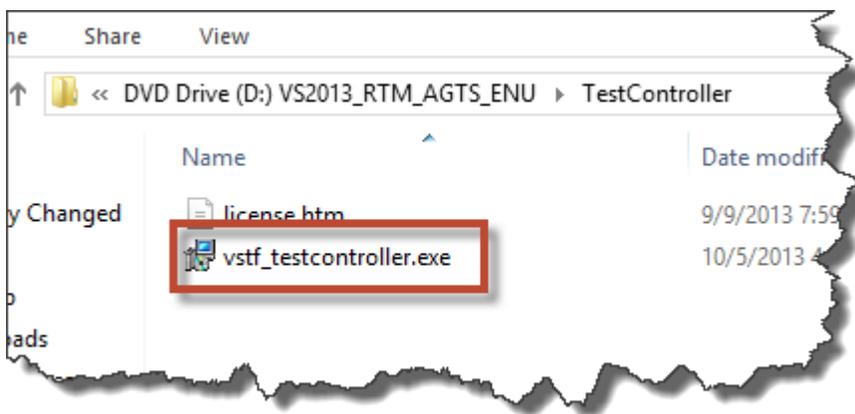
- Log into the machine where you want to install the QA Test Controller service as an Administrator.
- Insert the Agents DVD into the DVD drive or mount the Agents ISO
- Using Windows Explorer (explorer.exe) navigate to the DVD drive

The Agents ISO has two folders: TestAgent and TestController.



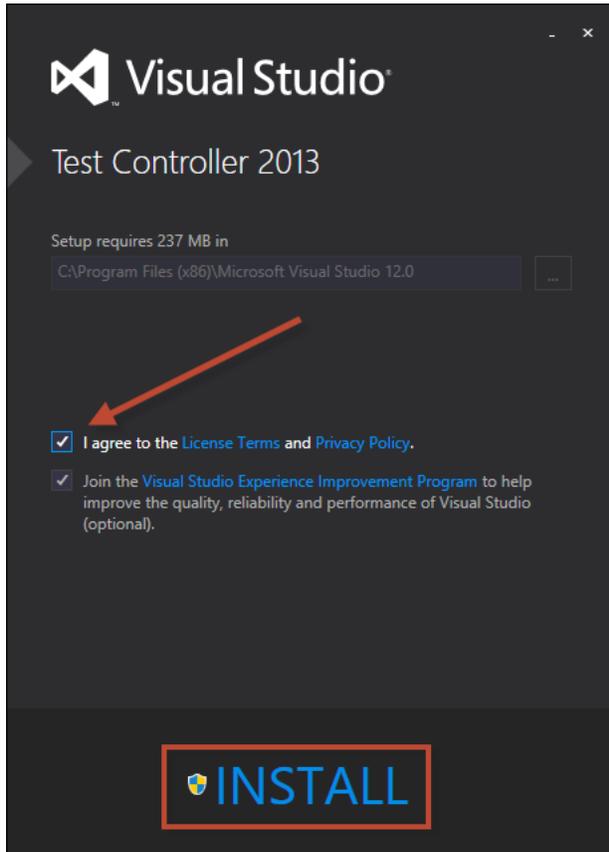
- Double-click the **TestController** folder

In the TestController folder, you should see the installer file for the controller – **vstf_testcontroller.exe**.

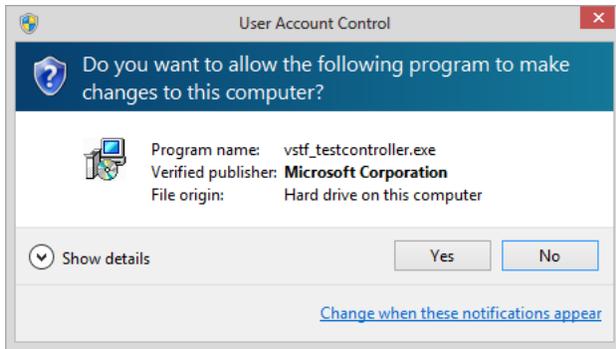


- Double-click on **vstf_testcontroller.exe** to start the installer

You should see the **Test Controller 2013** page.

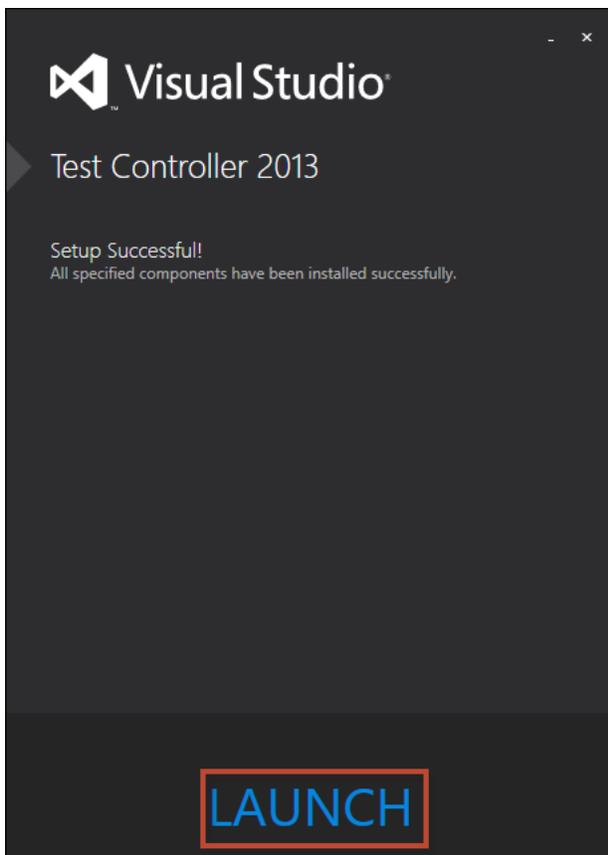


- Check the **I agree to the License Terms and Privacy Policy** checkbox
- Click the **Install** button



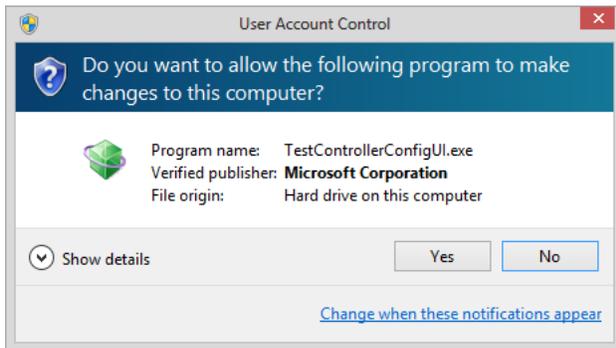
- Click **Yes**

The installer will run and eventually end at a screen that should say "**Setup Successful**".



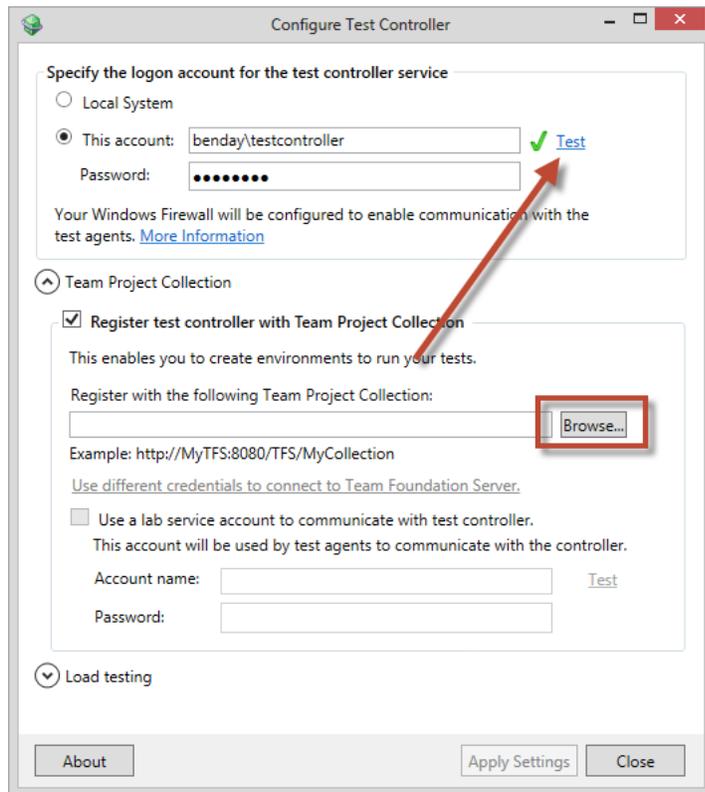
- Click the **Launch** button

You should see a UAC prompt for TestControllerConfigUI.exe.



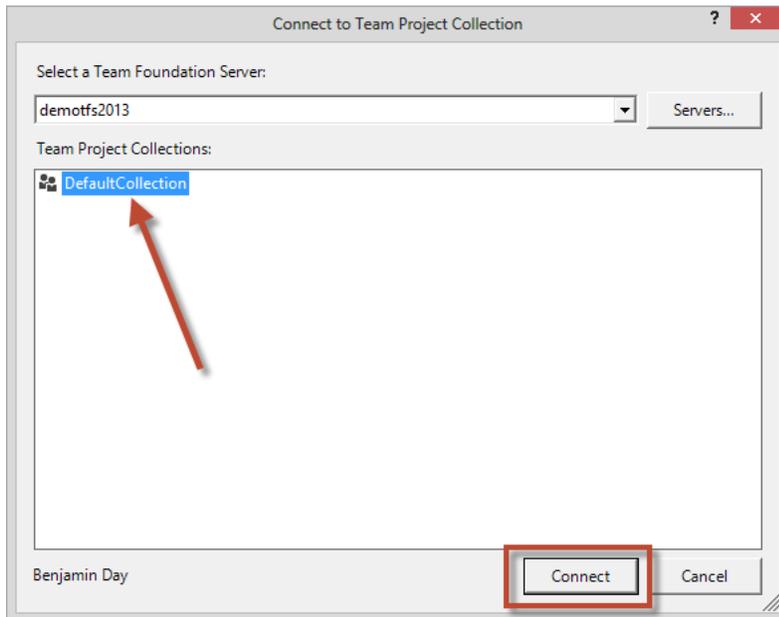
- Click the **Yes** button

You should now see the Configure Test Controller window. The user account that you use for the service account needs to be a member of the Administrators group on this machine.



- Under **Specify the logon account for the test controller service**, choose **This account** radio button
- In the **This account** textbox, enter the username for the username that you'd like to use for the test controller service. (Example: *domainname\testcontroller*)
- In the **Password** textbox, enter the password for the service account
- Click the **Test** link to verify the credentials
- Check the **Register test controller with Team Project Collection** checkbox
- Click the **Browse** button to choose the Team Project Collection for this controller

You should see the **Connect to Team Project Collection** dialog.



- Choose your TFS server name from the **Select a Team Foundation Server** drop down
- Choose your Team Project Collection from the **Team Project Collections** list
- Click the **Connect** button

You should now be back on the **Configure Test Controller** dialog and you should see the URL for the Team Project Collection that you just chose in the **Register with the following Team Project Collection** textbox.

Configure Test Controller

Specify the logon account for the test controller service

Local System

This account: benday\testcontroller [Test](#)

Password: ●●●●●●

Your Windows Firewall will be configured to enable communication with the test agents. [More Information](#)

Team Project Collection

Register test controller with Team Project Collection

This enables you to create environments to run your tests.

Register with the following Team Project Collection:

http://demotfs2013:8080/tfs/defaultcollection [Browse...](#)

Example: http://MyTFS:8080/TFS/MyCollection

[Use different credentials to connect to Team Foundation Server.](#)

Use a lab service account to communicate with test controller.

This account will be used by test agents to communicate with the controller.

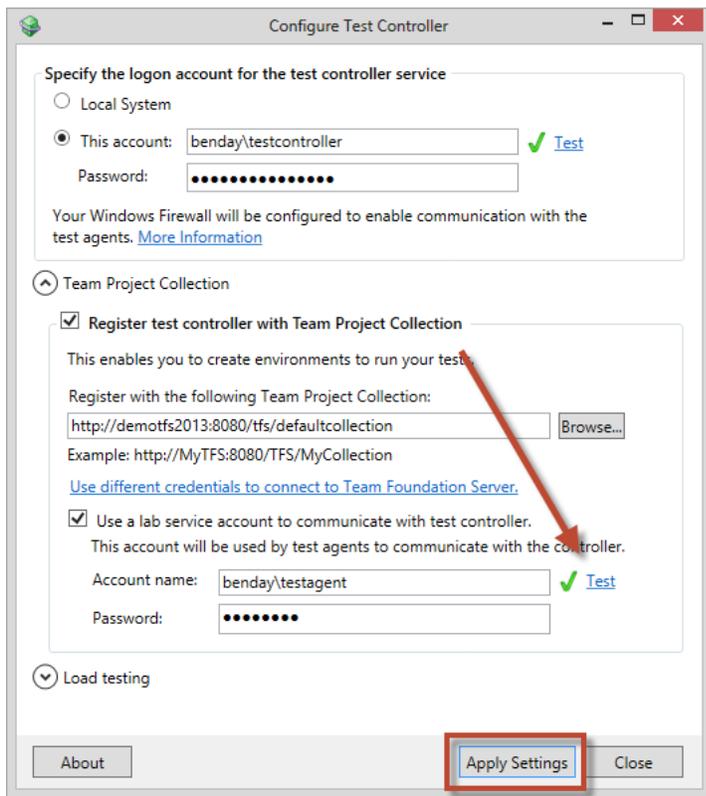
Account name: [Test](#)

Password:

Load testing

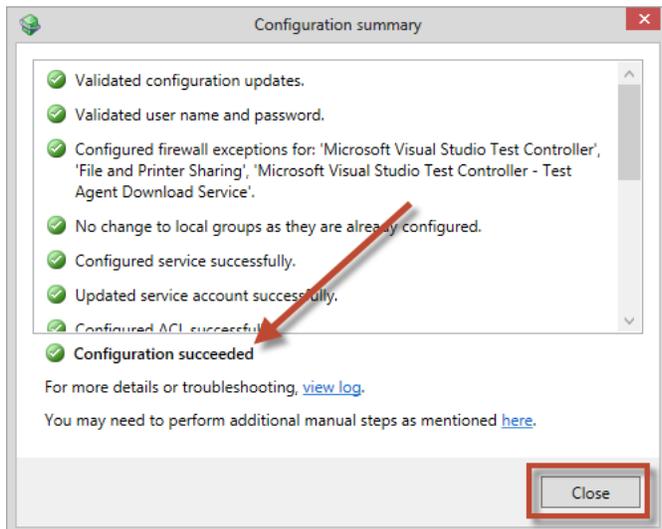
[About](#) [Apply Settings](#) [Close](#)

Now you'll enter the information for how the test agents and test controllers will talk.



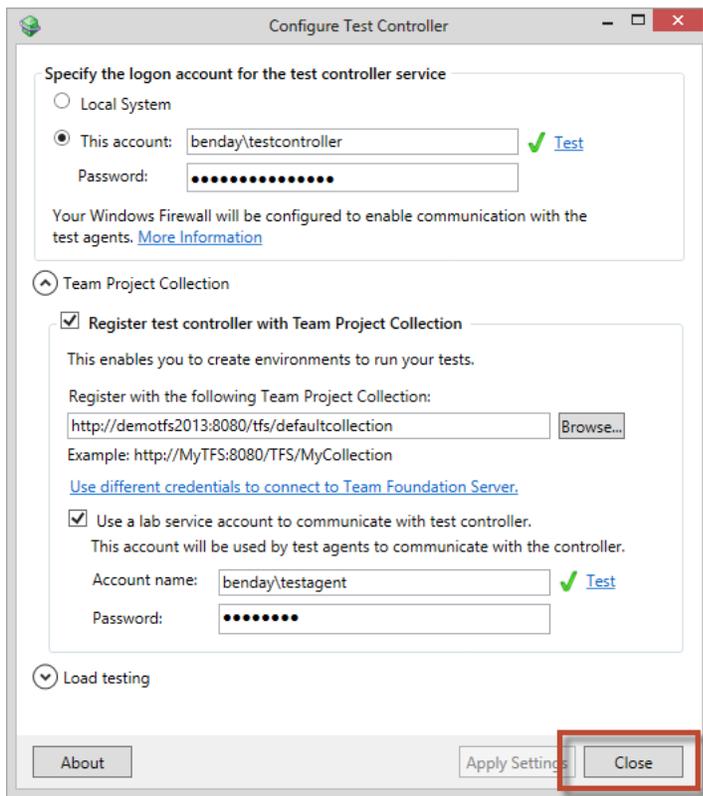
- Check the **Use a lab service account to communicate with test controller** checkbox
- In the **Account name** box, enter the username for this account. (Example: *domainname*\testagent)
- In the **Password** box, enter the password for this account
- Click the **Test** link to verify the credentials
- Click the **Apply Settings** button

You should see the **Configuration summary** dialog. It will run and eventually complete with the message **Configuration succeeded**.



- Click the **Close** button

You should be back on the **Configure Test Controller** dialog.



- Click the **Close** button

The test controller has been successfully configured.