Team Foundation Server 2015 Installation Guide

Benjamin Day
benday@benday.com

v1.0.0
August 7, 2015

Contents

Chapter 1: Install Windows Server 2012 R2

Introduction

The first step for installing Team Foundation Server 2015 (TFS2015) is to install Windows Server. In this guide, I'm going to be using Windows Server 2012 R2. I'm also assuming that you'll be installing TFS2015 in a single server configuration – aka. the TFS Application Tier and SQL Server will be installed on a single machine.

Install Windows Server 2012 R2

I'm assuming that you've got an Active Directory Domain already set up and configured and that we'll eventually be joining this new server to that domain.

- Either insert your **Windows Server 2012 R2 DVD** into the DVD drive or mount the **Windows Server 2012 R2 ISO image** into the DVD drive for your virtual machine.
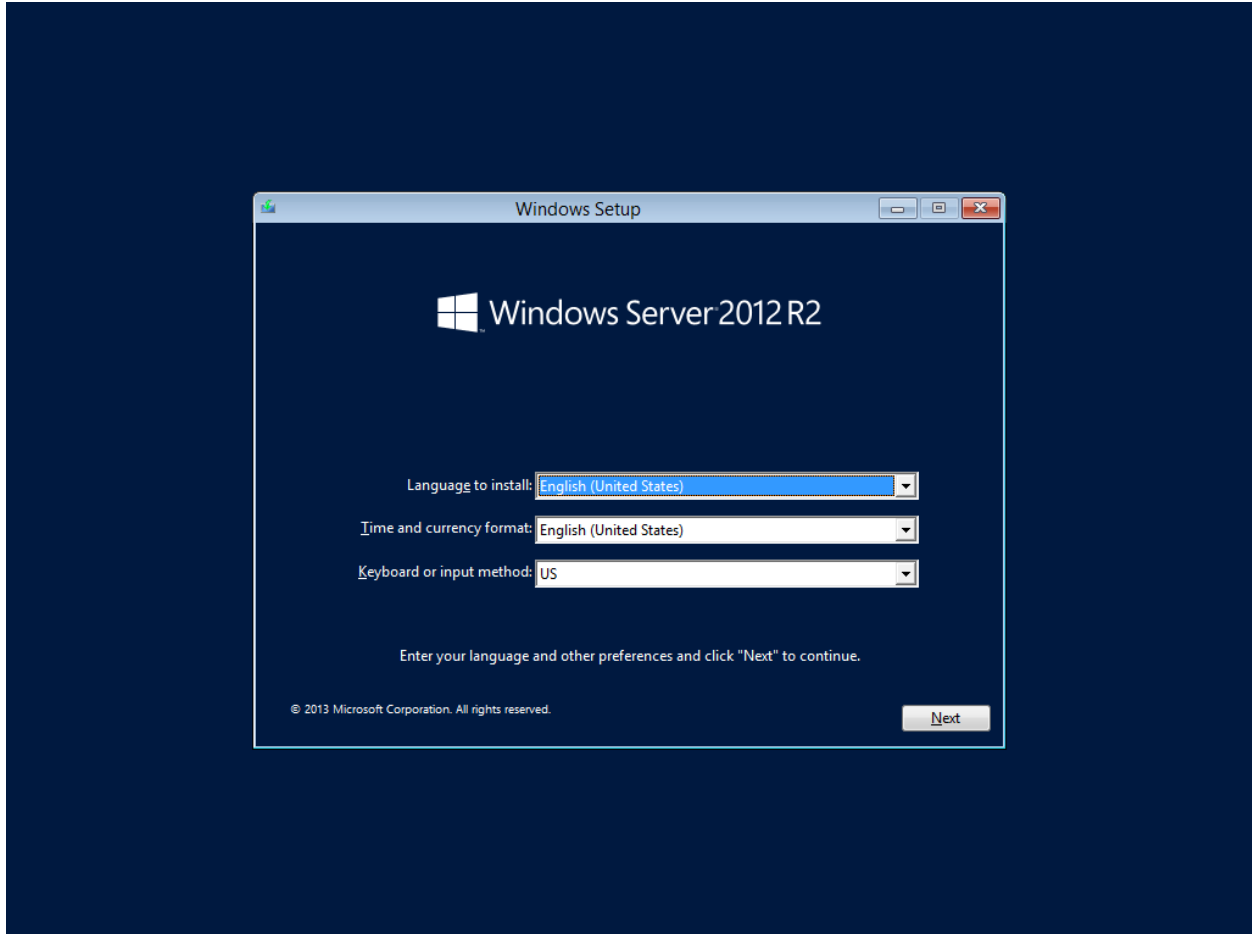- Start the machine

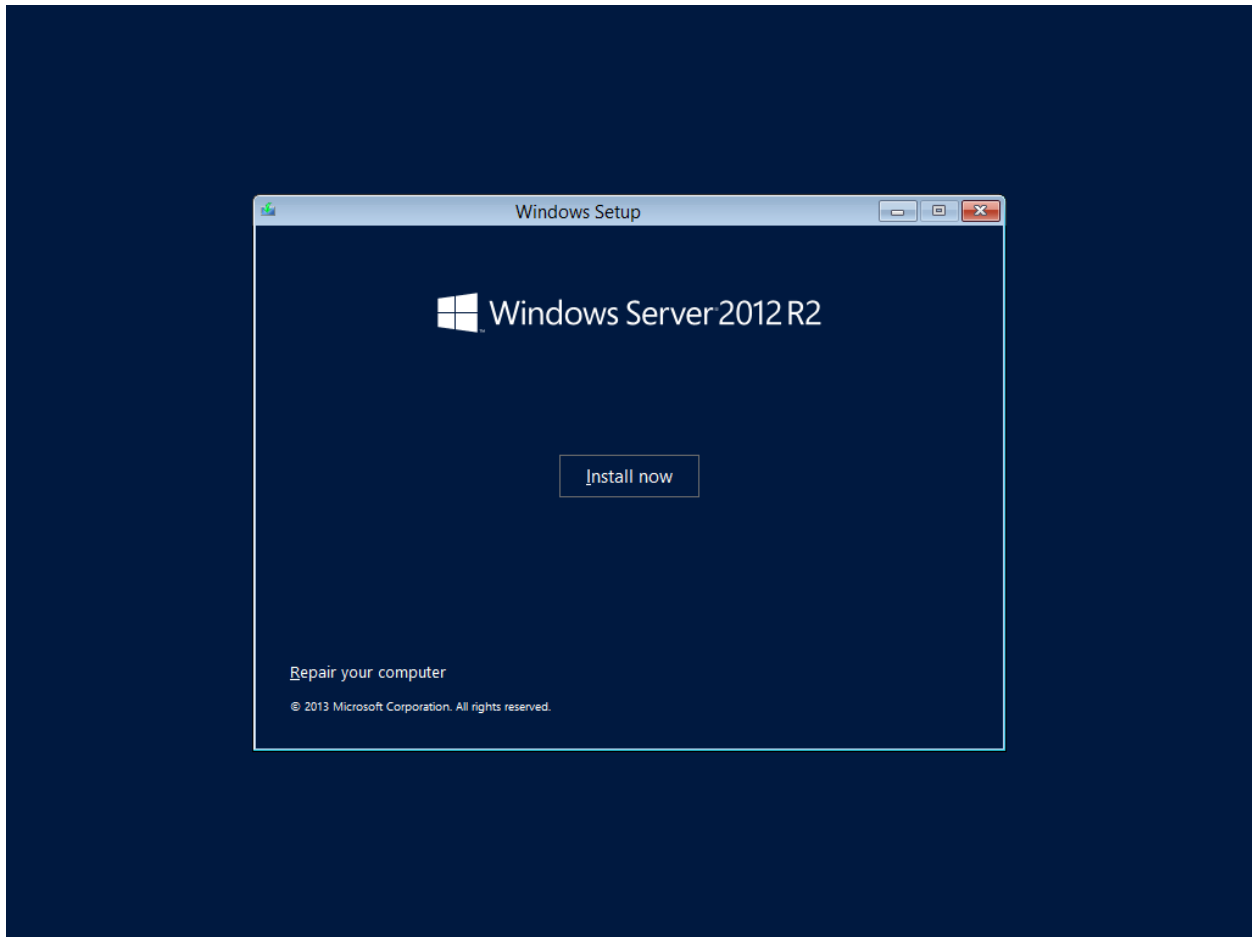You will see the **Press any key to boot from CD or DVD....** message appear.

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

- Press any key to boot from the DVD drive

You should see the Windows Setup welcome screen.
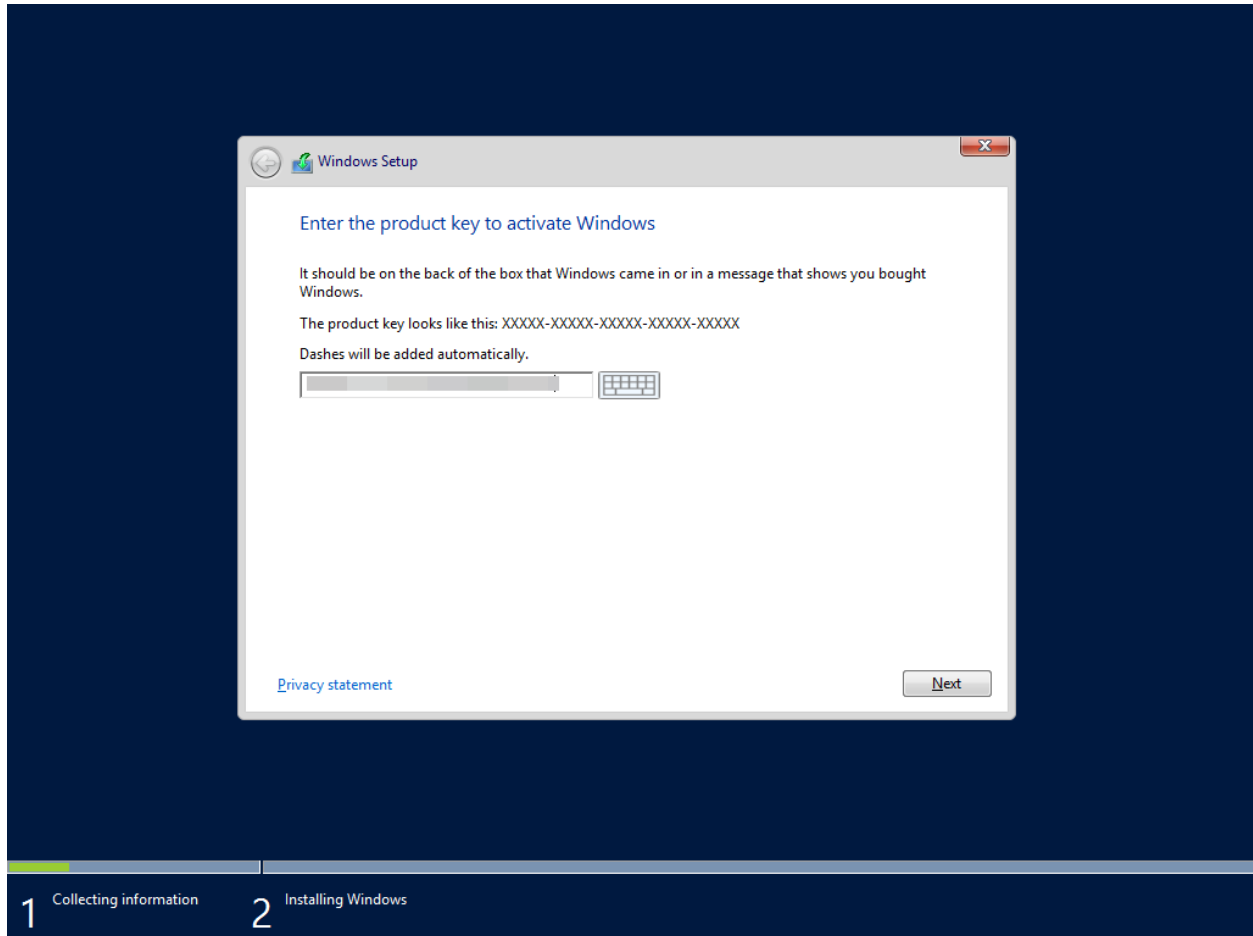

- Click **Next**

- Click the **Install now** button

You should see a screen saying that setup is starting.
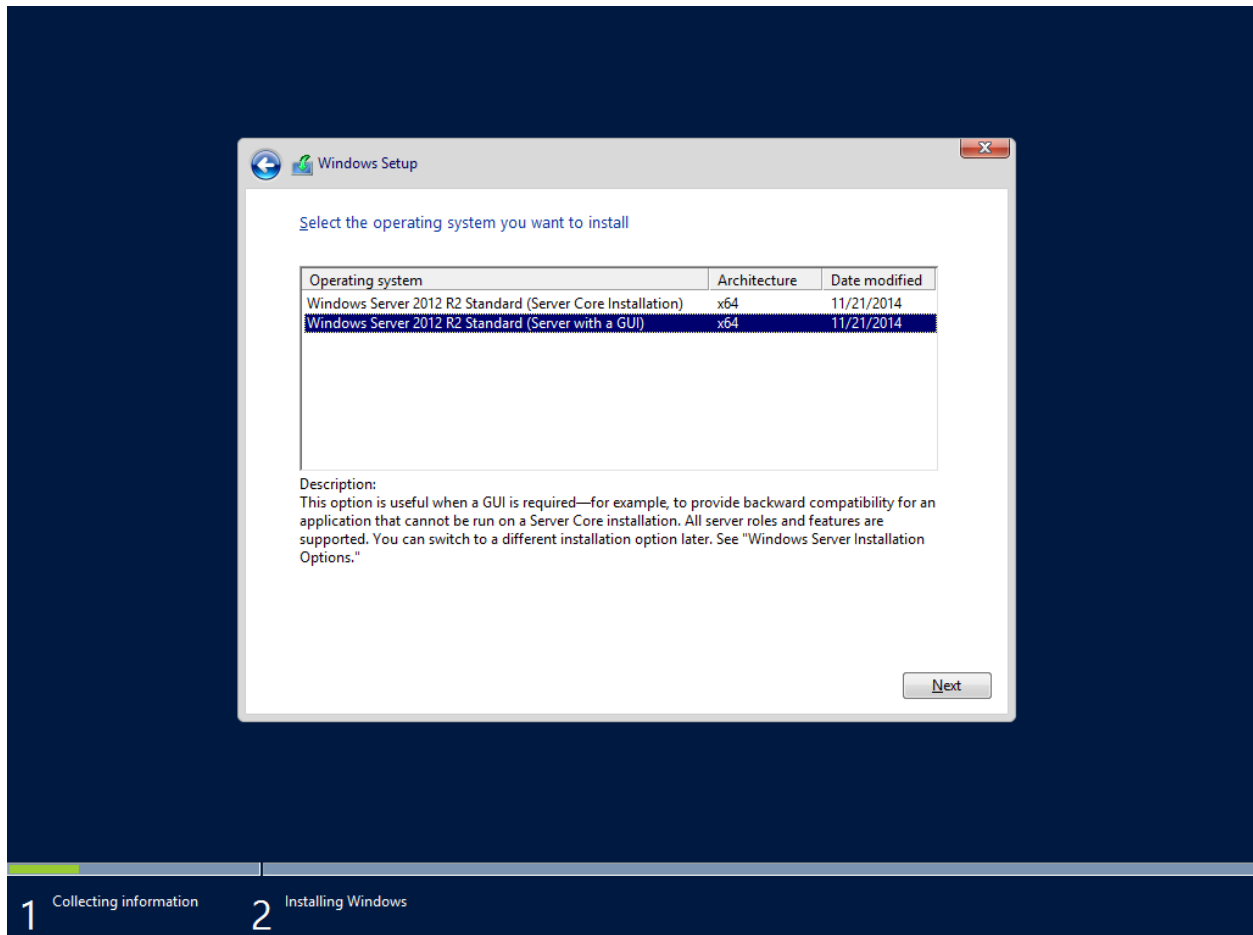
Setup is starting

You'll be prompted for a license key.

- Enter your license key
- Click the **Next** button

You'll be prompted to choose what version of Windows Server 2012 R2 that you'd like to install. This guide assumes that you'll be installing Windows Server 2012 R2 Standard and that you'll be installing the graphical user interface (GUI).
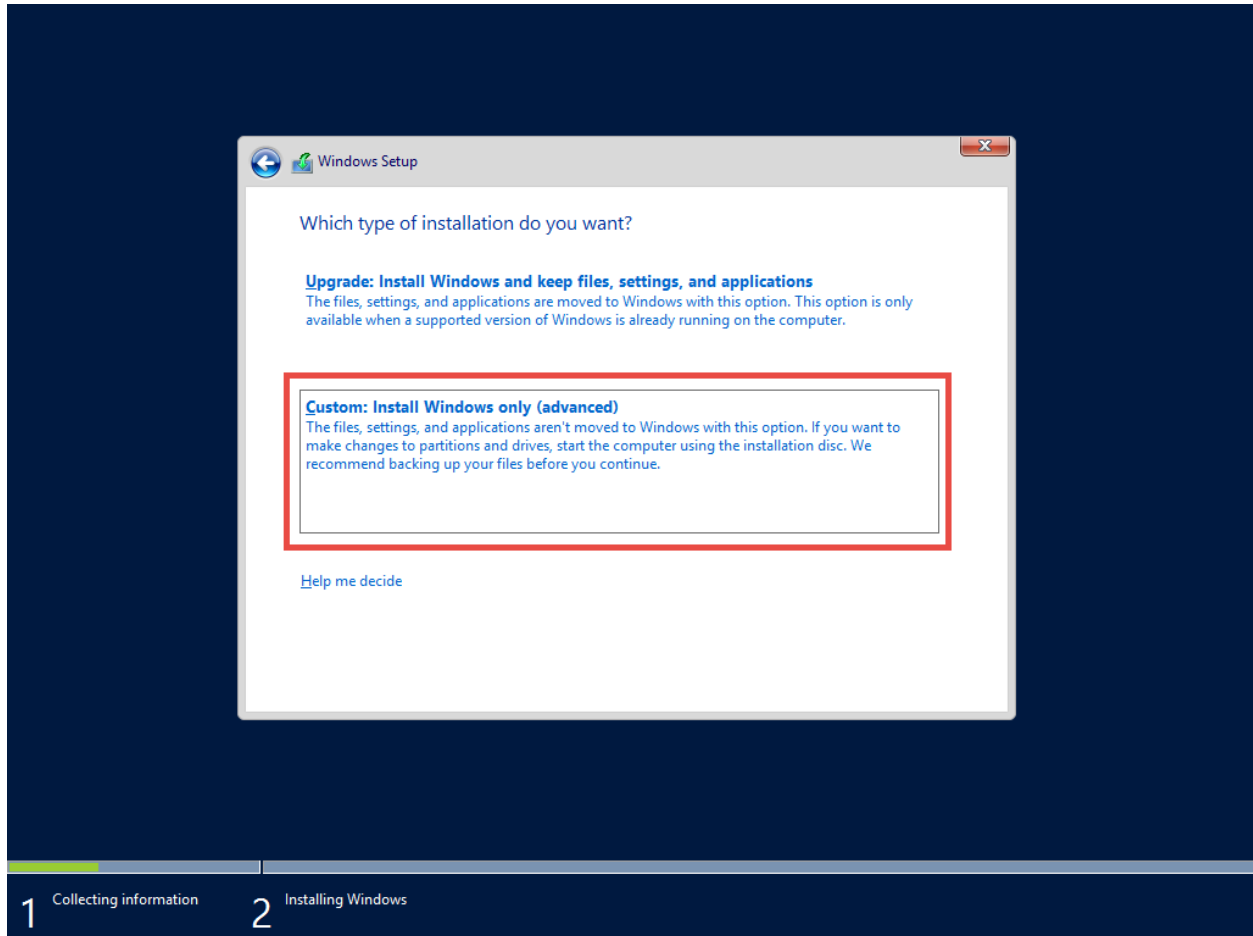

- Choose **Windows Server 2012 R2 Standard (Server with a GUI)**
- Click the **Next** button

You'll be shown the license terms.
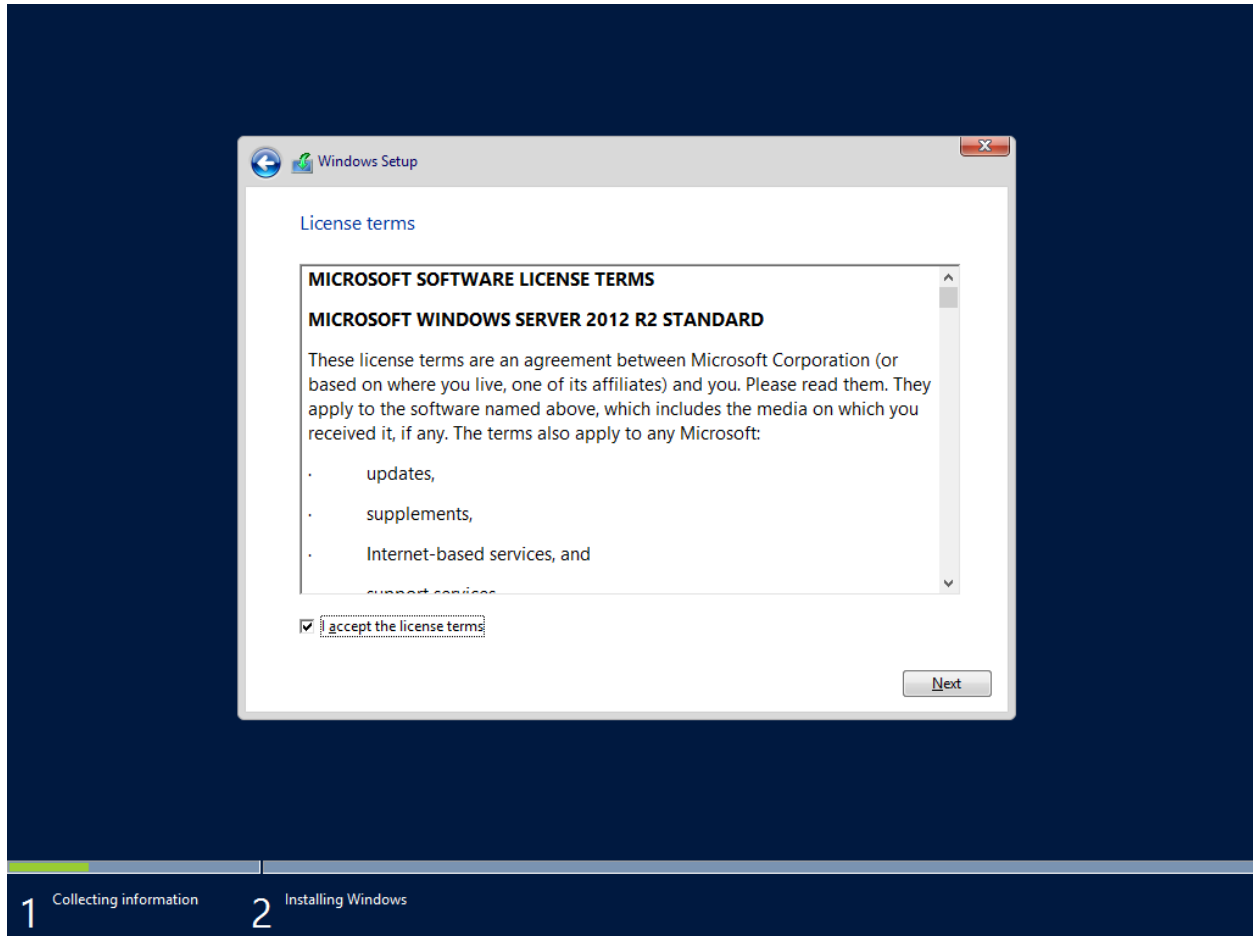
- Read the license terms in painstaking detail
- Check the **I accept the license terms** box
- Click the **Next** button

We'll be doing a new installation rather than an upgrade.

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

You should now see a dialog that lets you choose where you'd like to install windows. I'm assuming that we'll be installing on a new computer without any existing partitions on the disk.
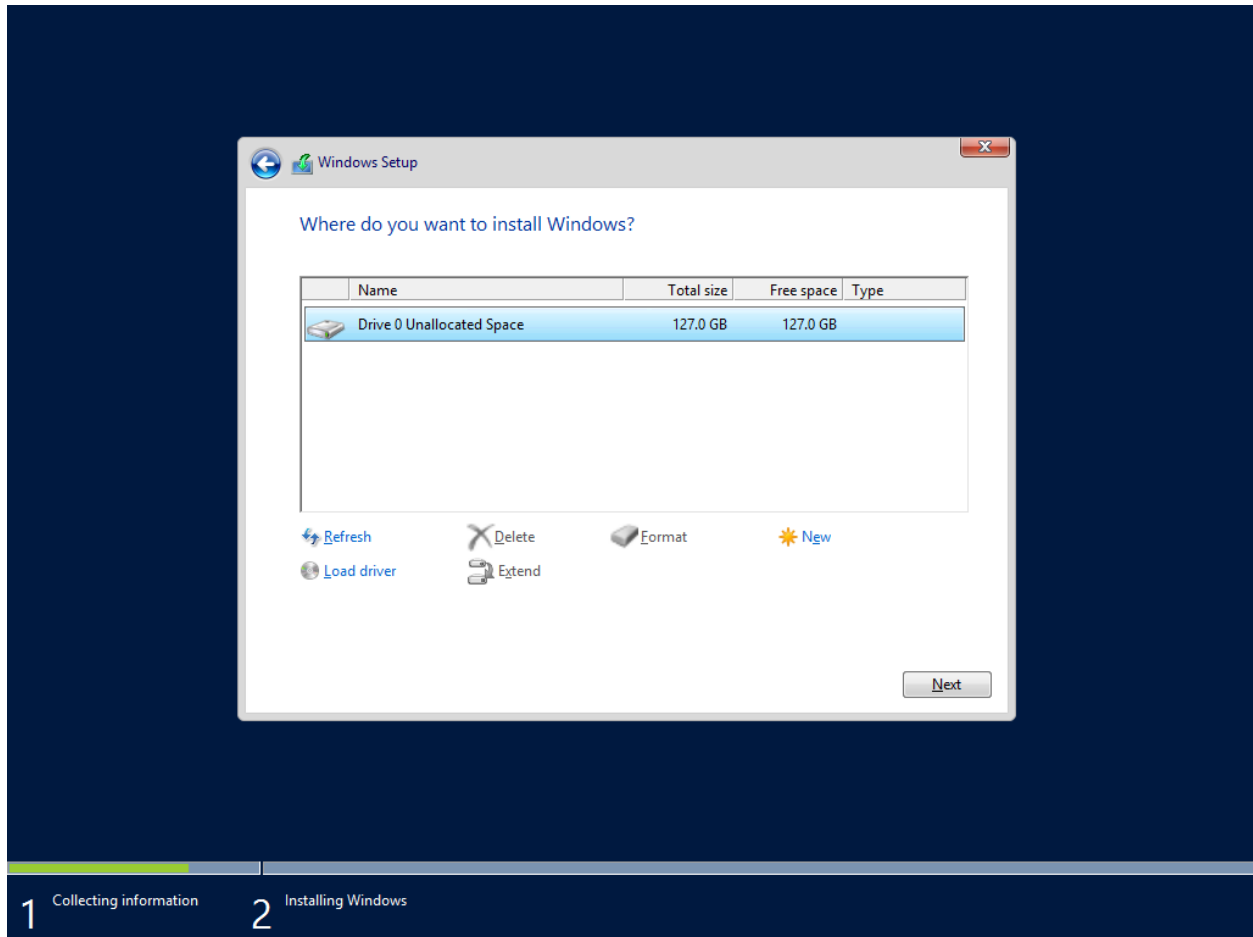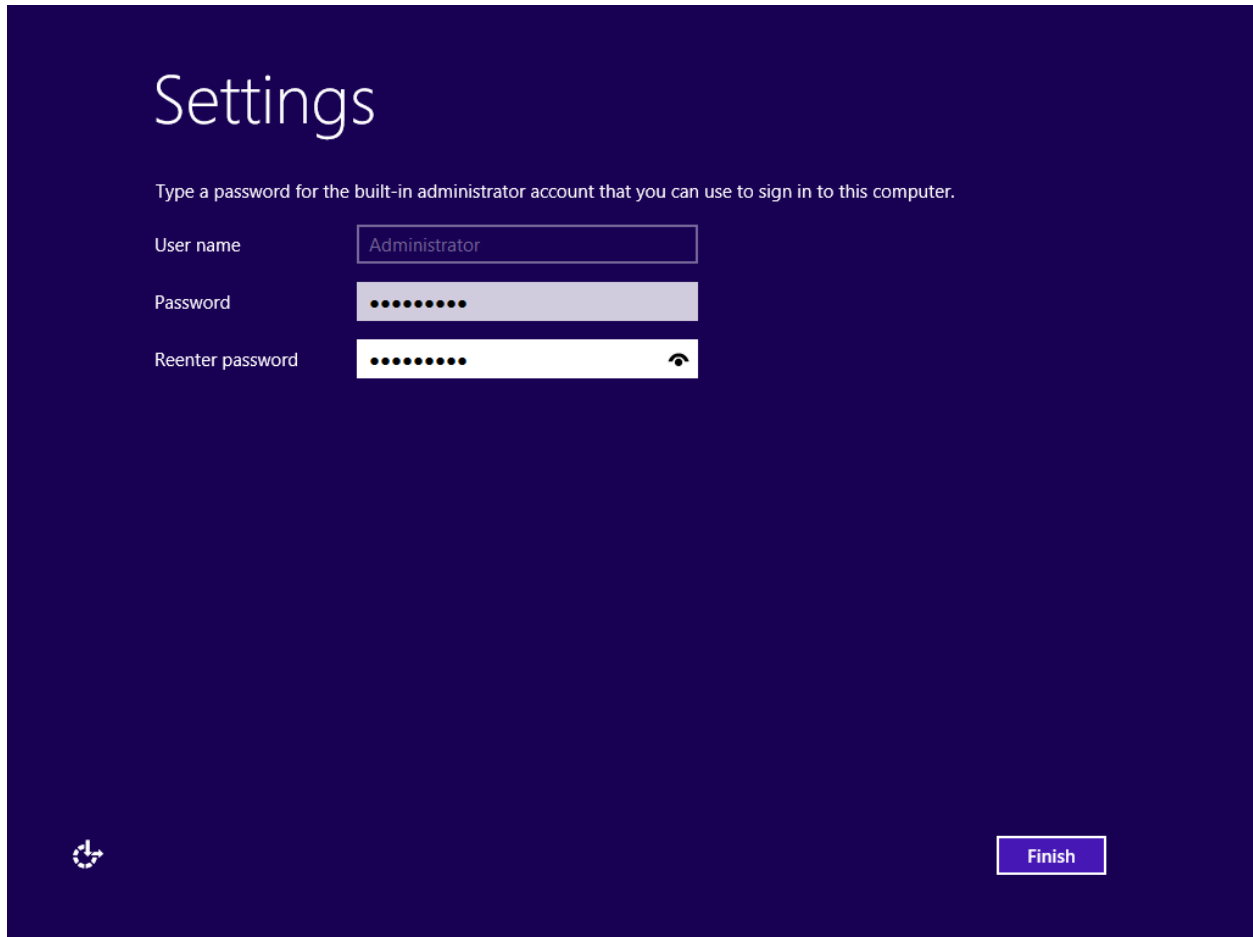

- Choose **Drive 0 Unallocated Space** or another appropriate partition or unallocated disk space
- Click **Next**

The installation should now be running.
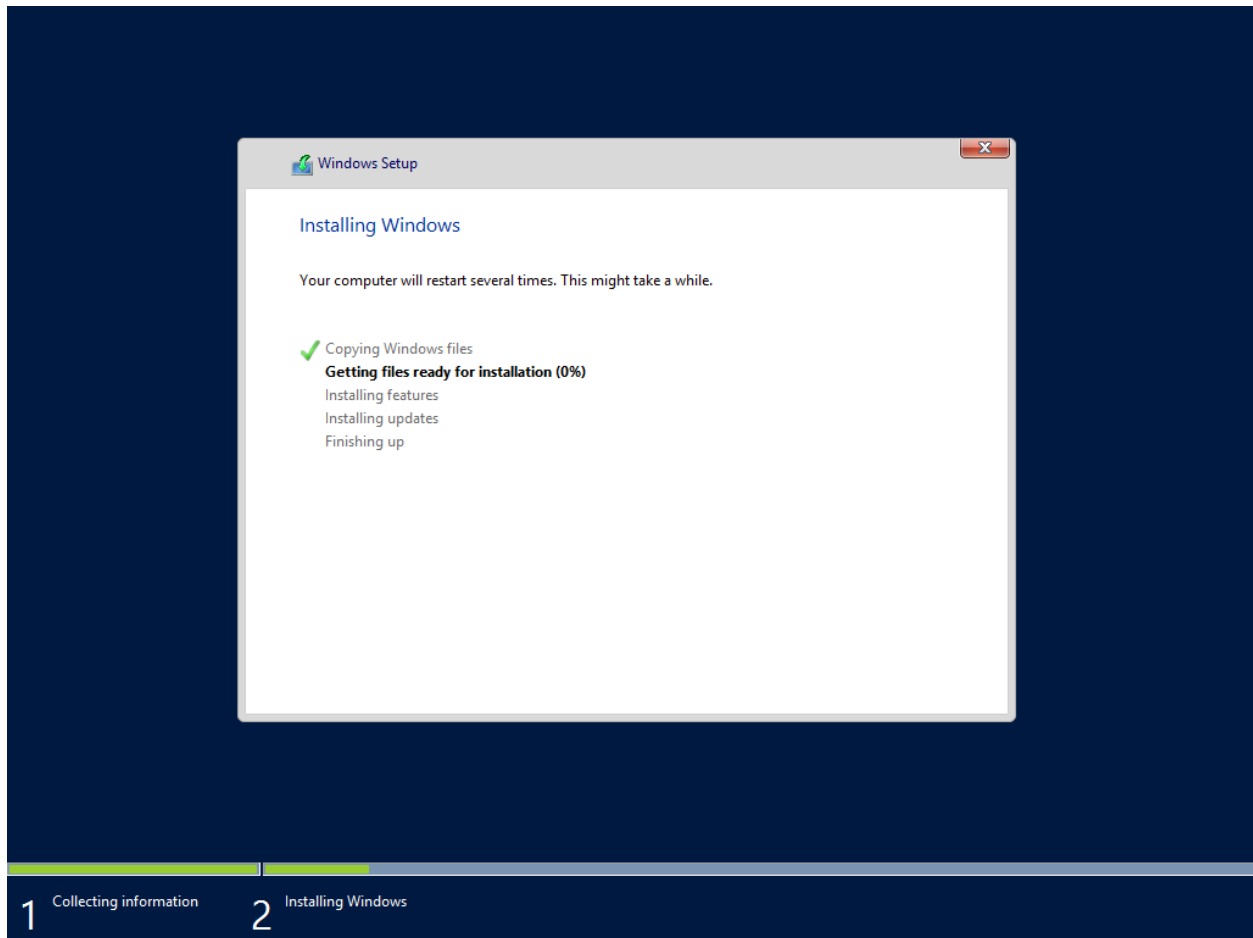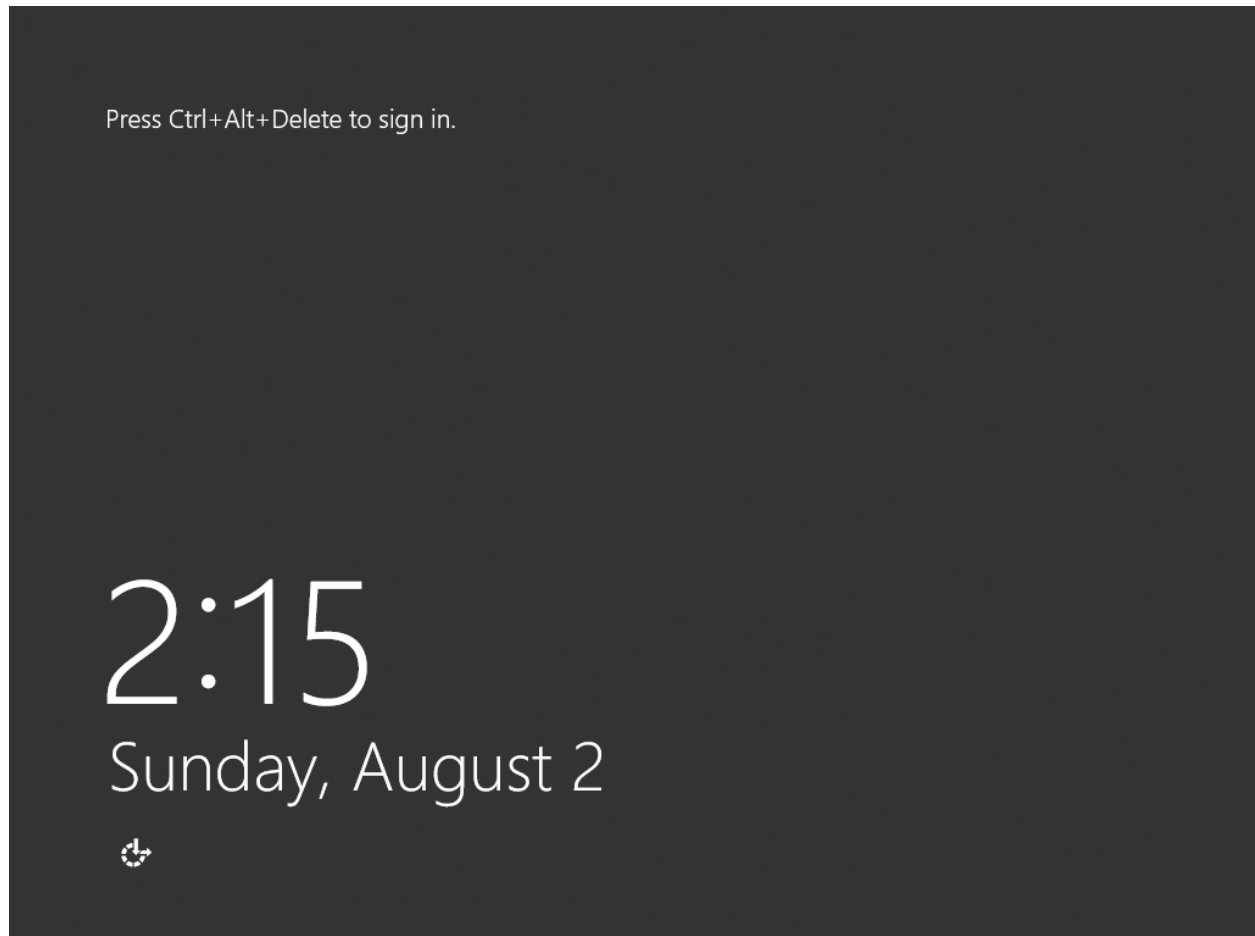
Your server will automatically reboot when the installation is complete and you'll be prompted to create an administrator password.

- Enter your password in the **Password** box
- Enter your password in the **Reenter password** box
- Click the **Finish** button

You should now see the lock screen for your new server.

- Type **CTRL-ALT-DEL** to open a login prompt

You should see the login prompt.
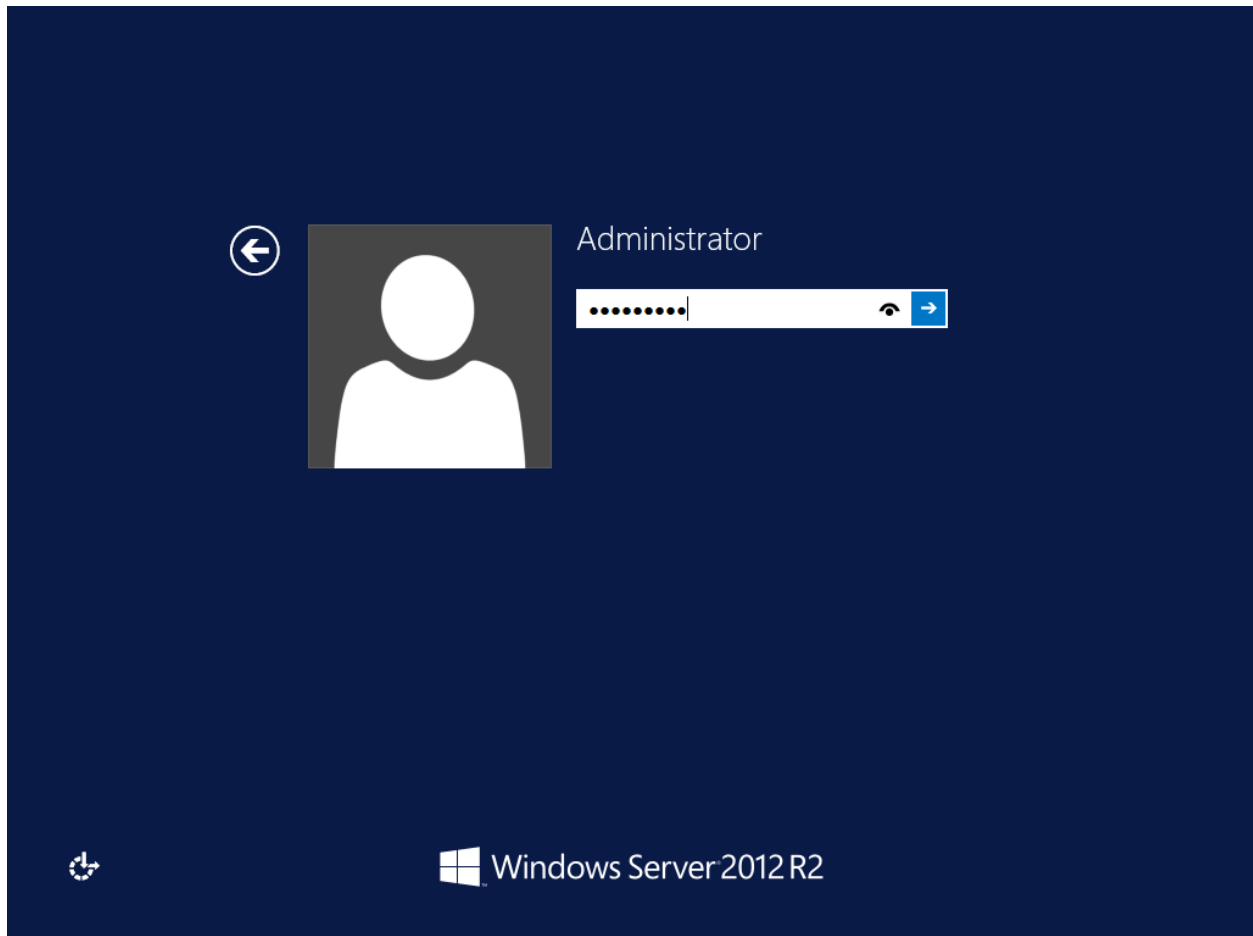
- Enter your **password** followed by **<ENTER>**

You should now be logged in and you should see the server manager dashboard. The next step is to run Windows Update to patch this server.
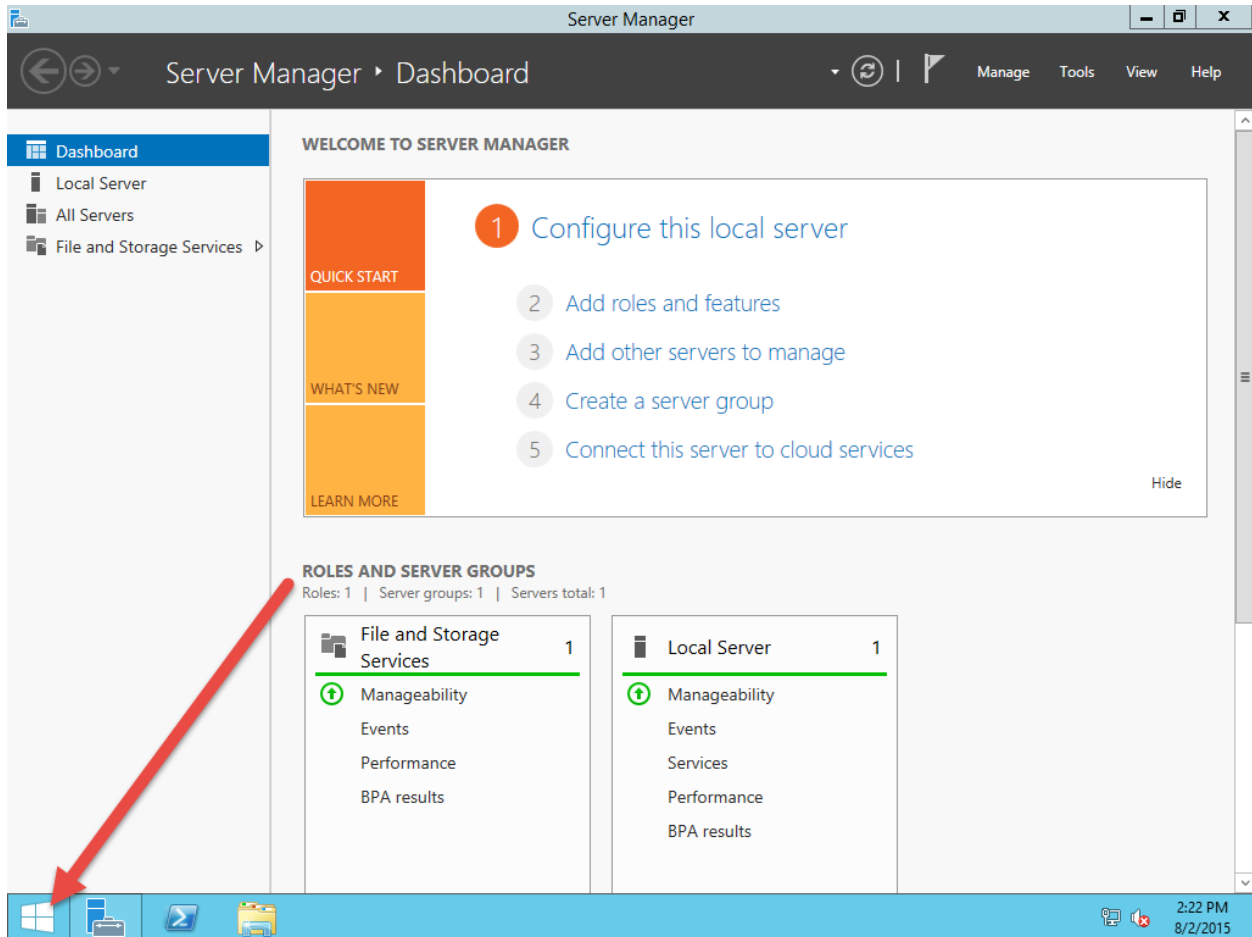
- Click the **Windows button** in the bottom left of the screen to navigate to the Start screen

You should now be at the Start screen. Next you'll search for Windows Update. When you search, you don't have to open any search boxes – you can just start typing.
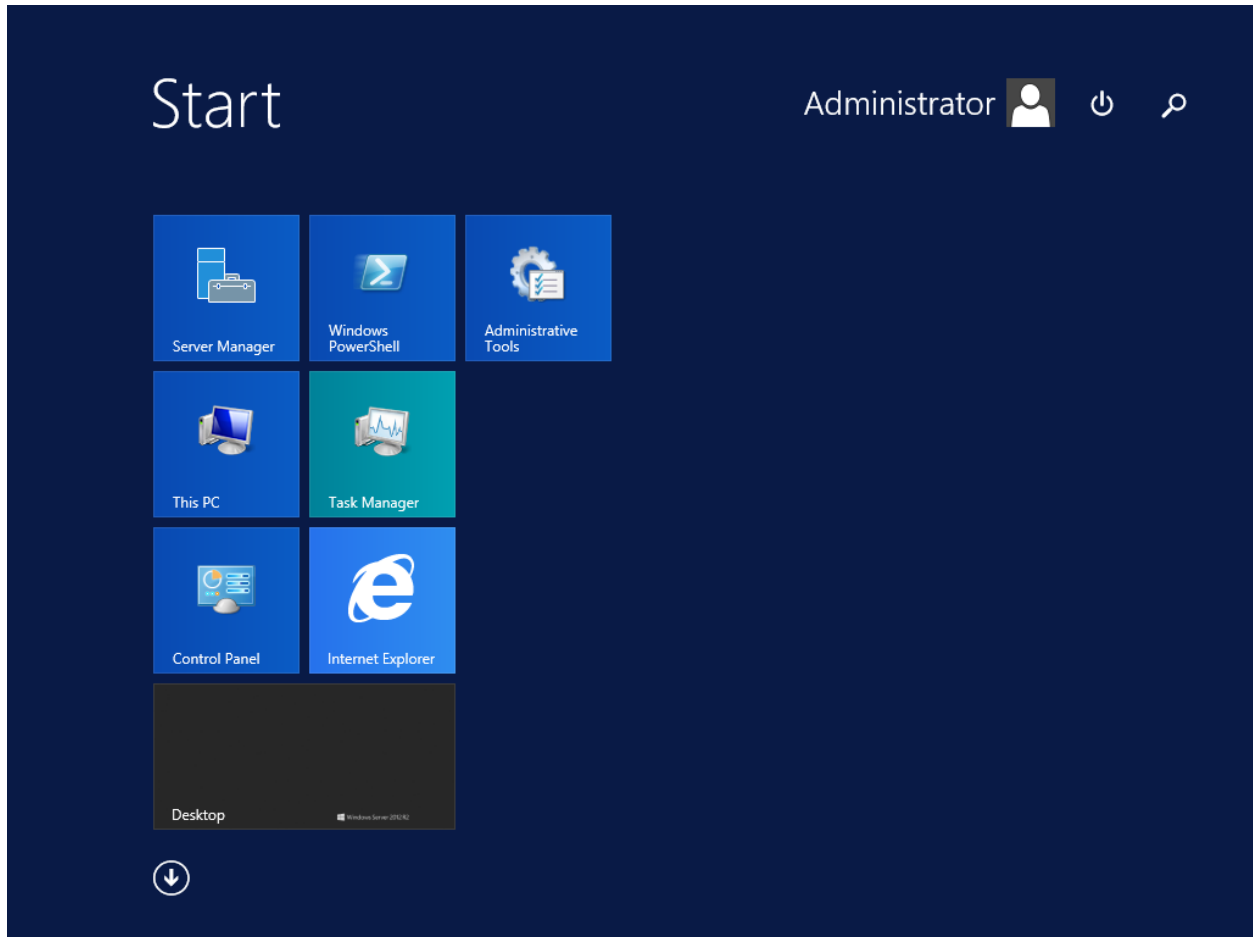
- Type **Windows Update**

The search panel should open and you should see the 'windows update' search as well as the search result. You should see the **Windows Update** icon in the search results.
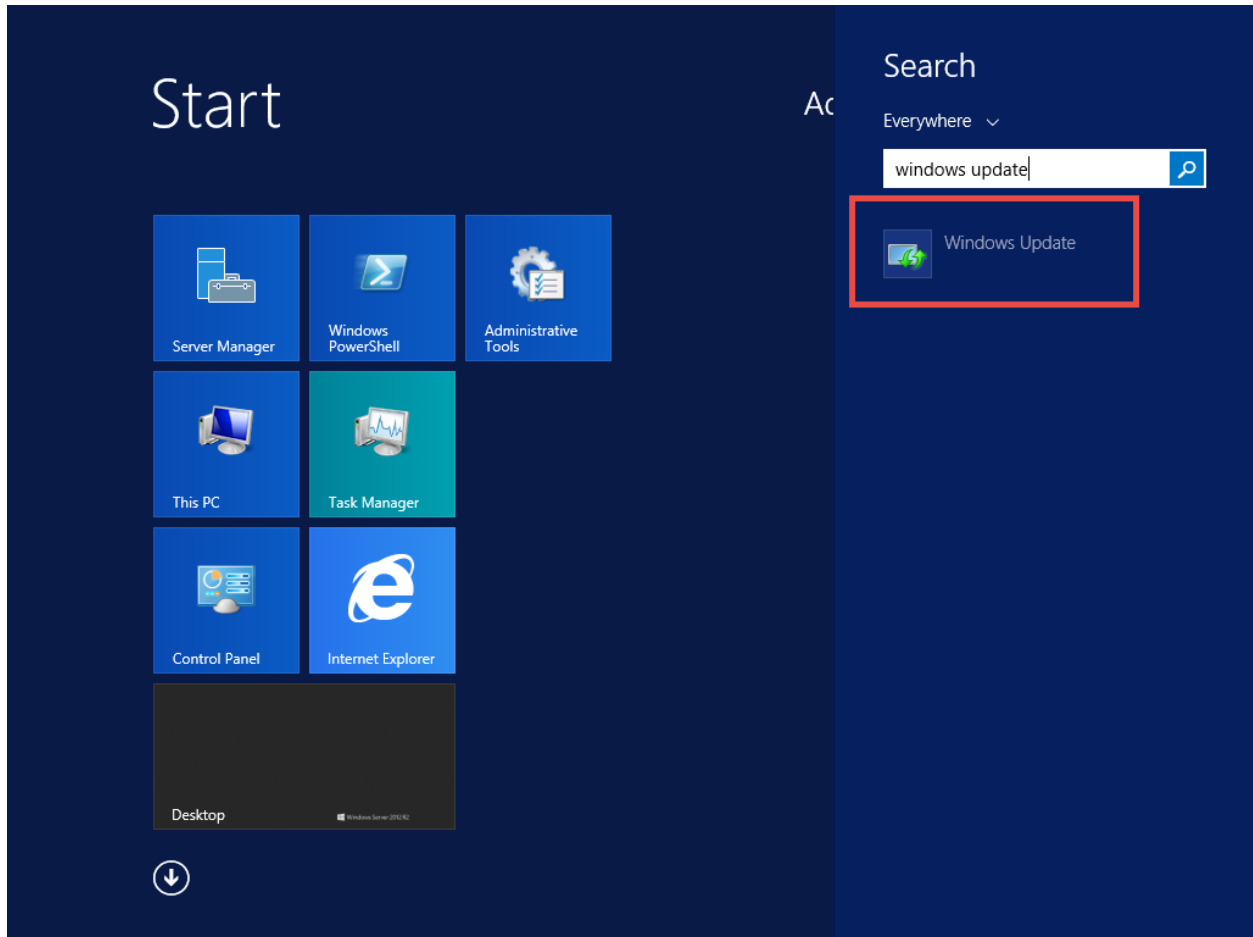
- Click **Windows Update**

You should now see the Windows Update dialog. By default, Windows Update only gets patches for Windows itself but we want to enable patches for other products as well.
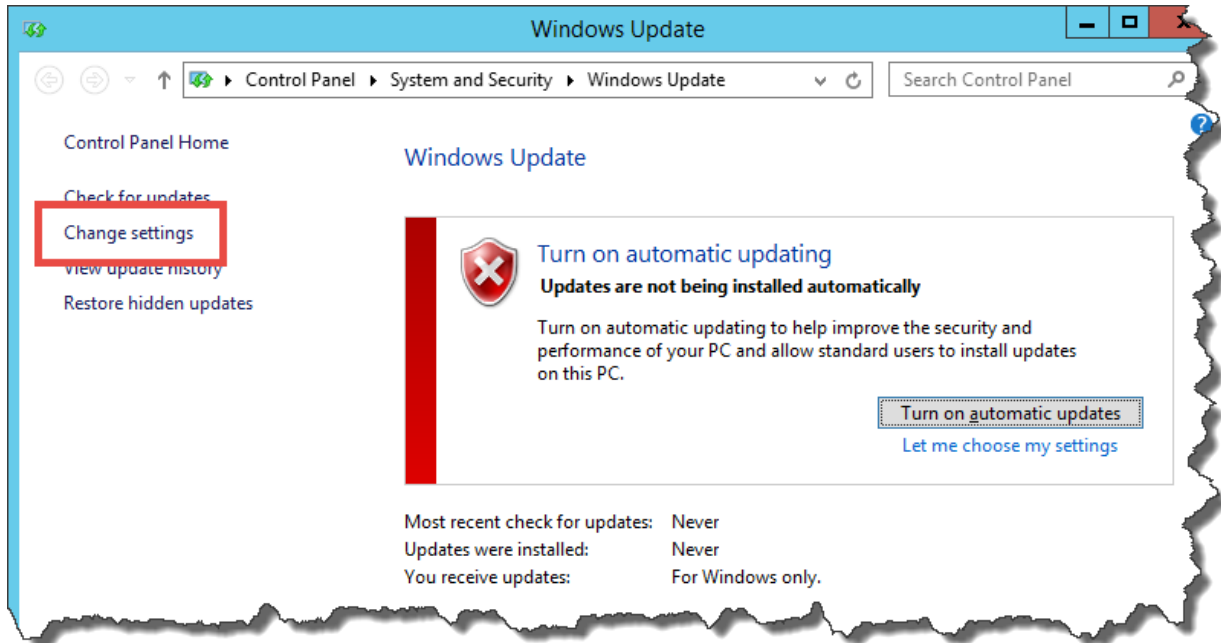
- In the left column, click the **Change settings** link

You should be on a dialog with the title **Choose your Windows Update settings**.
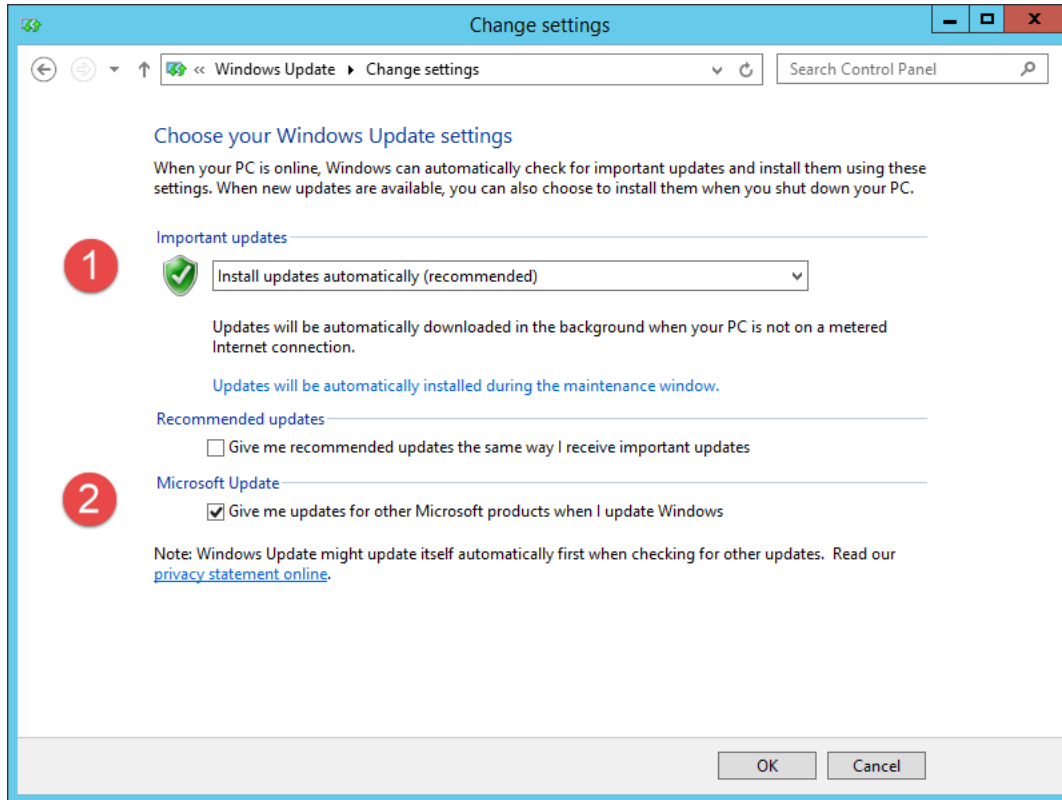
- Under Important updates, choose **Install updates automatically (recommended)** from the dropdown menu
- Under Microsoft Update, check **Give me updates for other Microsoft products when I update Windows**
- Click the **OK** button

Windows Update should now be checking for updates. You should also see that you receive updates for Windows and other products from Microsoft Update.
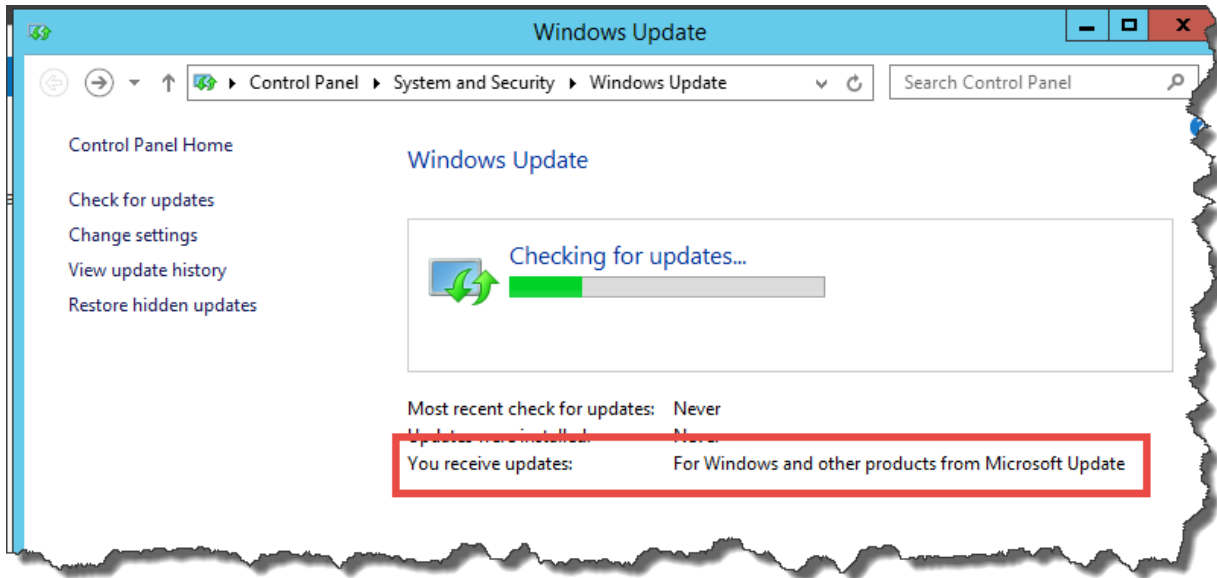
Windows Update will eventually find a ton of available updates. You'll almost definitely have both "important" and "optional" updates. We're going to install the optional updates in addition to the important updates. Basically, in order to make sure that there aren't any weird problems with your installation, you're going to be installing everything.

- Click the link for the optional updates. In the screenshot, it says **58 optional updates are available**

You should be on a screen that says **Select the updates you want to install** and you should be on the **Optional** tab. The important updates have already been selected for you. You want to select all the optional updates.
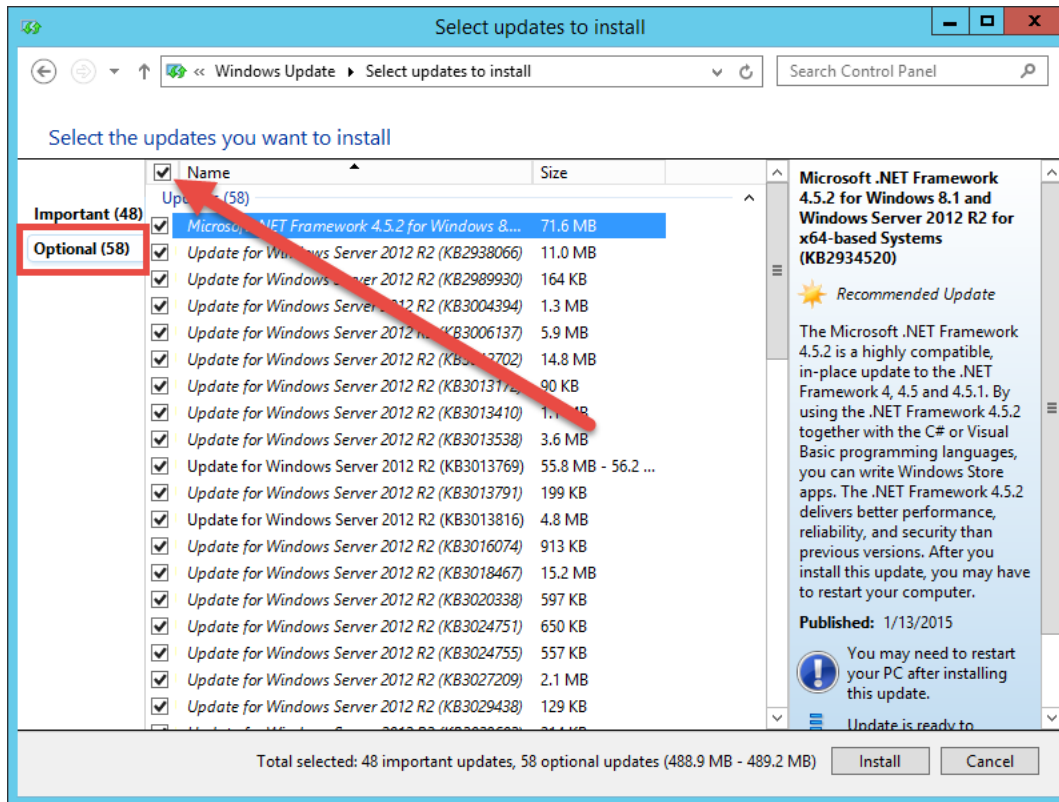
- Above all the checkboxes for the individual updates in the column header, there's a checkbox. It will be unchecked. **Check this checkbox** to select all the updates.
- Click the **Install** button to start the installation

The download should be started and eventually the updates will install.
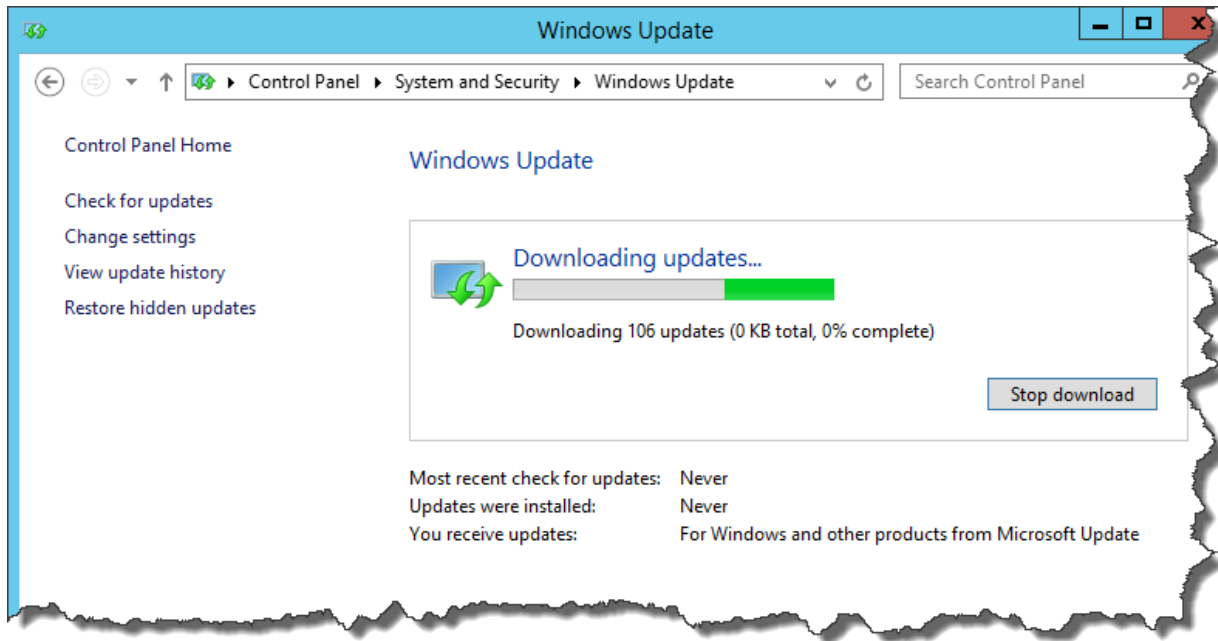
After a while, Windows Update should report that **the updates were installed.**
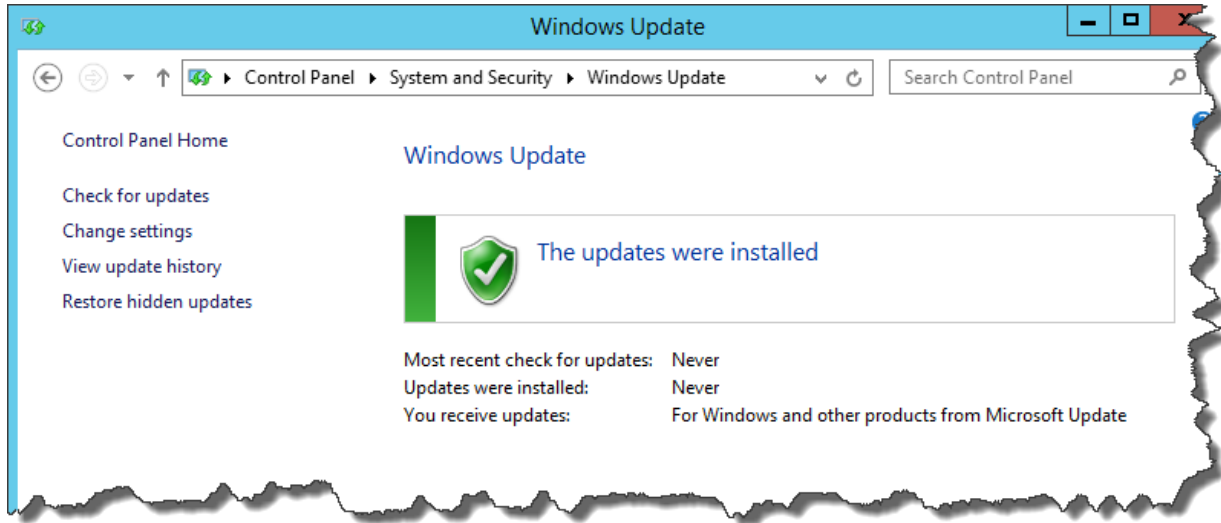
- Close this window

Windows is now installed and patched. Next up: let's disable a useless and annoying anti-feature in Windows called IE Enhanced Security.

(Optional) Turn off IE Enhanced Security Configuration

Ok. So if you're paranoid about the internet and making sure that your server doesn't accidentally get infected by a virus that comes in because of someone's hapless browsing habits, you'll probably want to skip this section.

If you don't wear a tinfoil hat every day to keep the illuminati's evil space rays from controlling your mind, then you're probably like me and find IE Enhanced Security to be a royal pain in the behind. At some point you're going to want to use the Internet Explorer web browser on this server and it'll be painful if IE Enhanced Security is turned on.
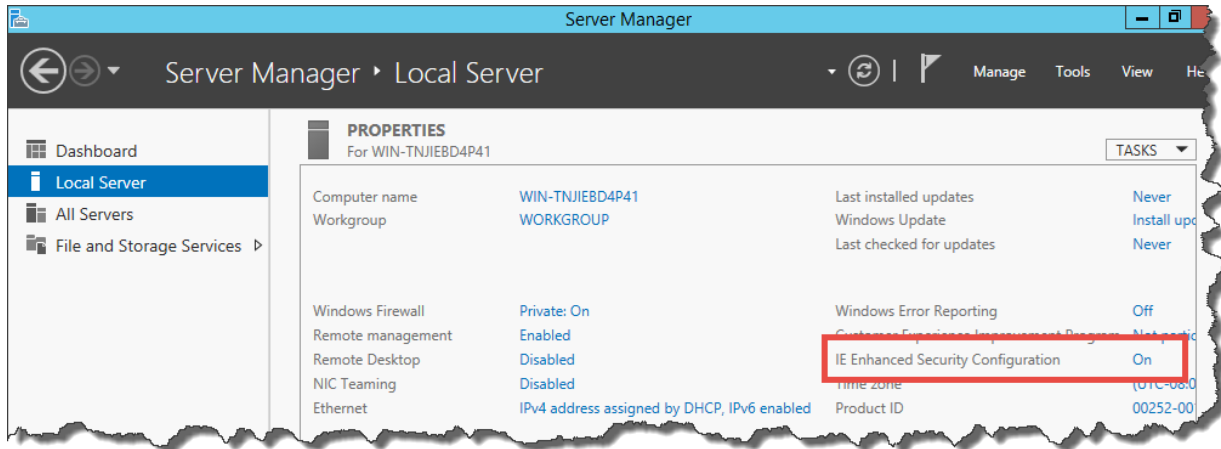
Let's turn it off.

You'll start this process by using **Server Manager**.
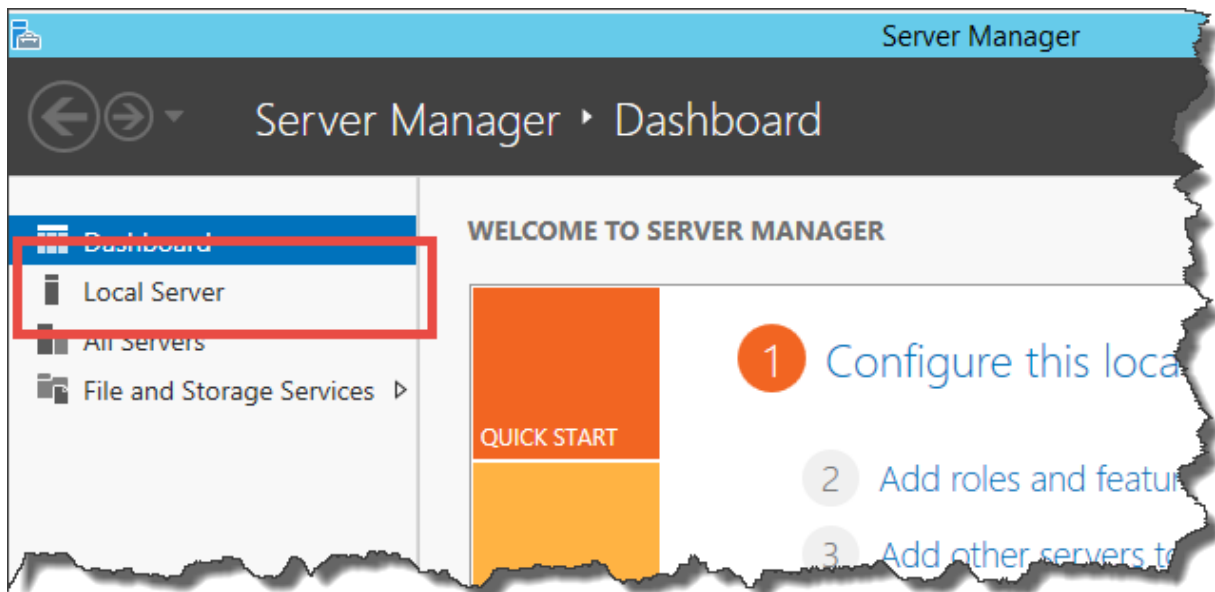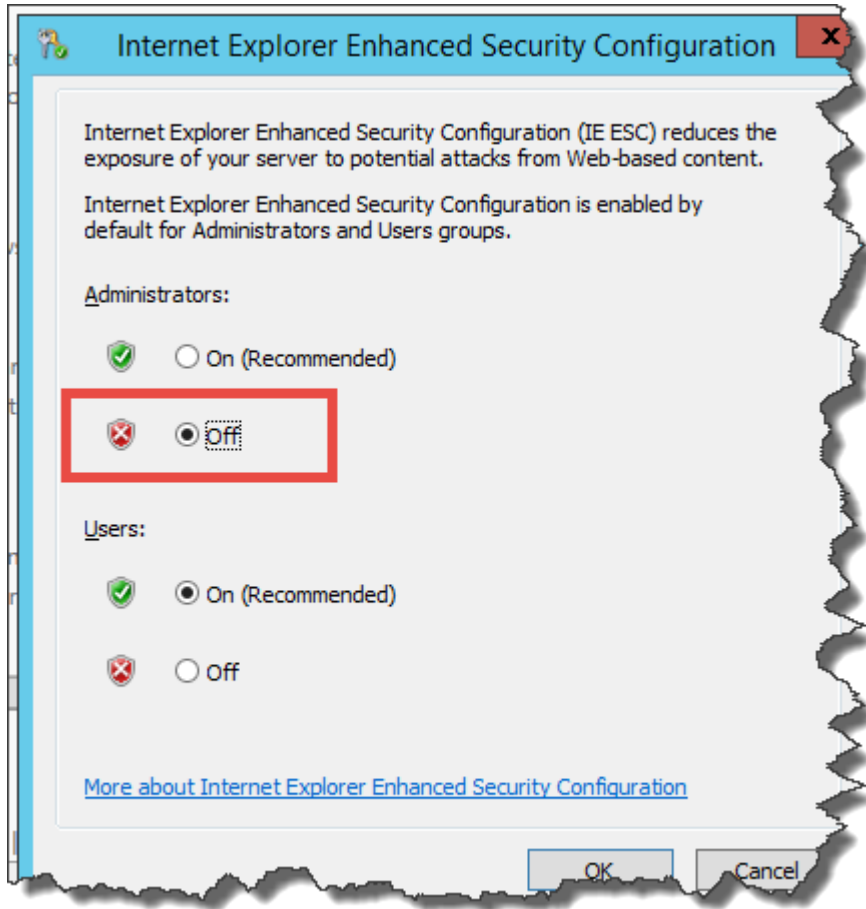

- In the left column of Server Manager, click **Local Server**

Towards the right side of the Server Manager window, you'll see an item that says **IE Enhanced Security Configuration**. It'll be set to **On**.

- Click the link that says **On**

You should now see the **Internet Explorer Enhanced Security Configuration** dialog.
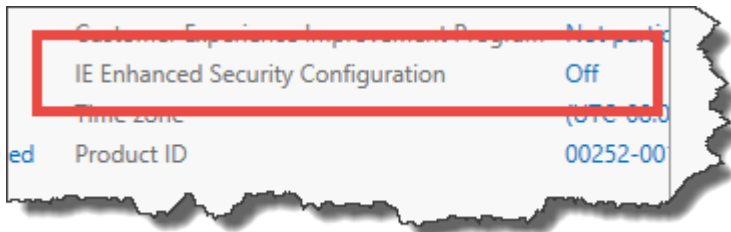

- Under Administrators, select the **Off** radio button
- (Optional) Under Users, select the **Off** radio button
- Click the **OK** button

You should now be back at the main page of the Server Manager.

- Click the **Refresh** button

IE Enhanced Security Configuration should now be set to Off.

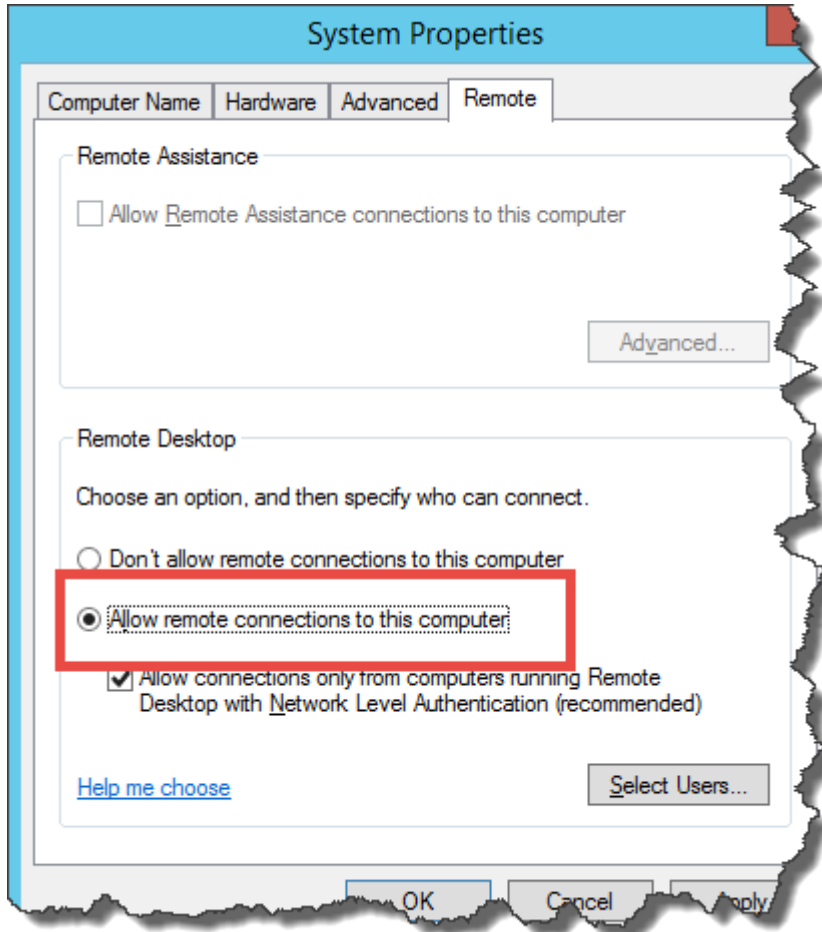## (Optional) Enable Remote Desktop

Are you lazy or maybe lazy-ish? Do you like convenience? Yah. Me, too. So that means that you'll probably want to enabled Remote Desktop. If you're a member of the Tinfoil Hat Patrol, you'll probably want to skip this section.

- Find **Remote Desktop** in Server Manager

- Click the **Disabled** link to the right of Remote Desktop

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

- In the Remote Desktop group, choose **Allow remote connections to this computer**
- Click the **OK** button

Remote Desktop is enabled.

## Join this Server to the Active Directory Domain

At the moment, you've got a stand-alone server with a wacky name that's not attached to anything. Workgroups? That's like the networking equivalent of having a stand-alone MP3 player that only syncs over USB. Who does that? What year is this?! 2005?! Not very useful. You'll now rename this computer and join it to your Active Directory domain so that it plays nicely with others.

In Server Manager, you'll see **Computer name** and **Workgroup**.
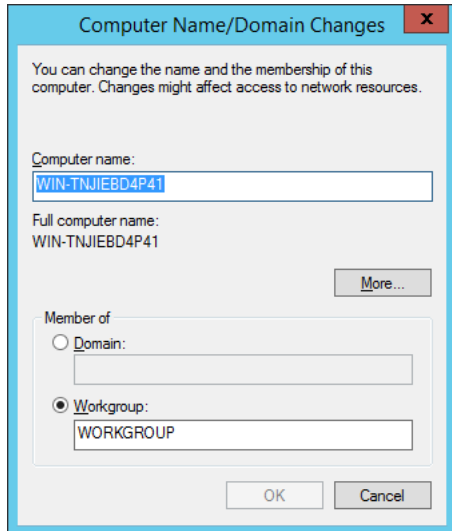

- Click on the computer name link

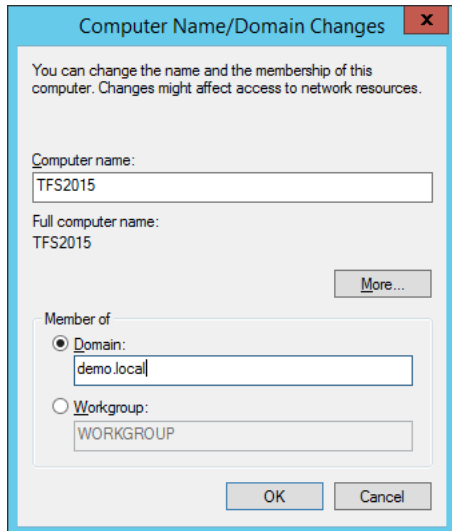You should now see the **System Properties** dialog.
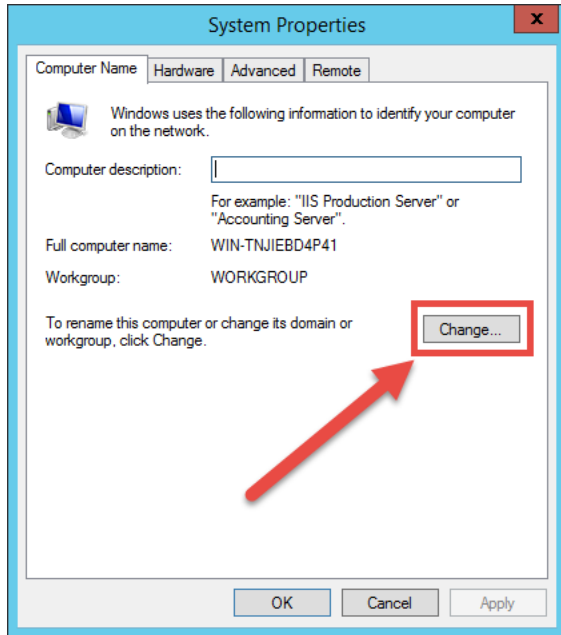
- Click the **Change...** button

You should now be on the **Computer Name/Domain Changes** dialog. The dialog should be showing you the current name of the computer and the workgroup membership.

You should now change the values to be what you want the server to be named and the Active Directory domain that it should be attached to.


- In the Computer name textbox, enter the desired name for this server
- Under **Member of** choose the **Domain** radio button
- In the **Domain** textbox, enter the name of the Active Directory domain
- Click the **OK** button

You'll be prompted for the username and password for a domain administrator for the target domain.
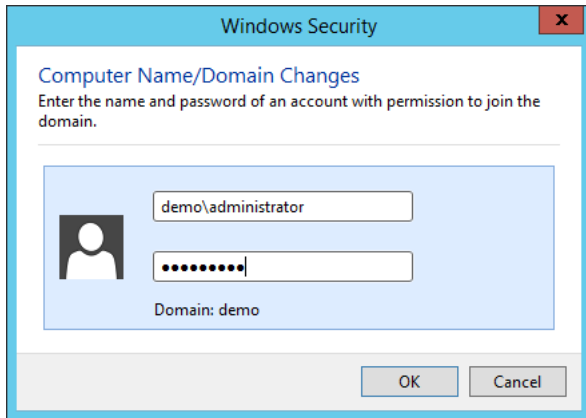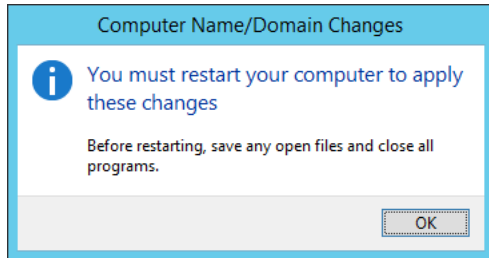

- Enter the username and password
- Click **OK**

You should see a dialog welcoming you to the new domain.
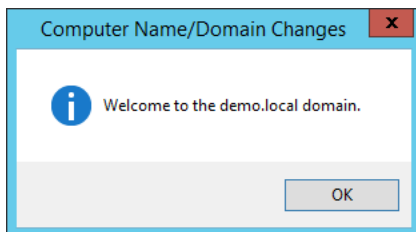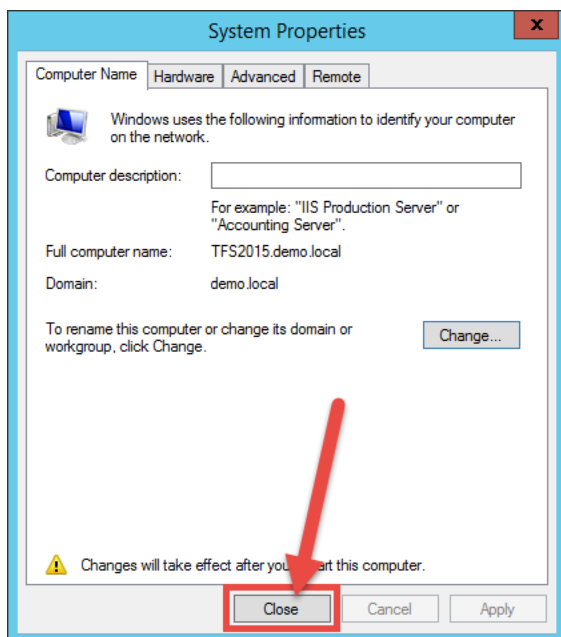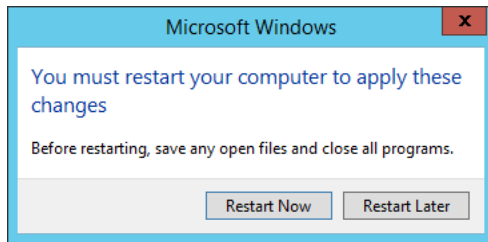

- Click **OK**

You'll be notified that you'll need to reboot this server.

- Click the **OK** button

- Click the **Close** button

- Click the **Restart Now** button

The server will restart and return you to the lock screen.

The server has been installed and joined to the domain.

Chapter 2:   Install Pre-requisites for SQL Server 2014 and Team Foundation Server 2015

Before you can install SQL Server or Team Foundation Server, you'll need to enable their pre-requisite roles and features in Windows Server.

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

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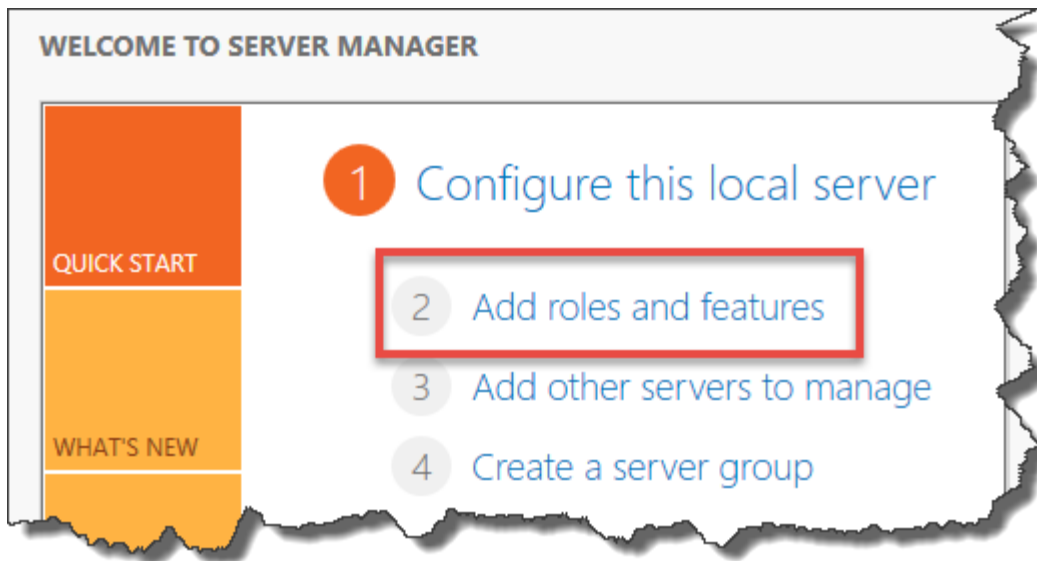

- In Server Manager, click **Add roles and features**
- On the **Before you begin** page of the wizard, click **Next**
- On the **Select installation type** page, choose **Role-based or feature-based installation** and click **Next**
- On the **Select destination server** page
  - o Choose **Select a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

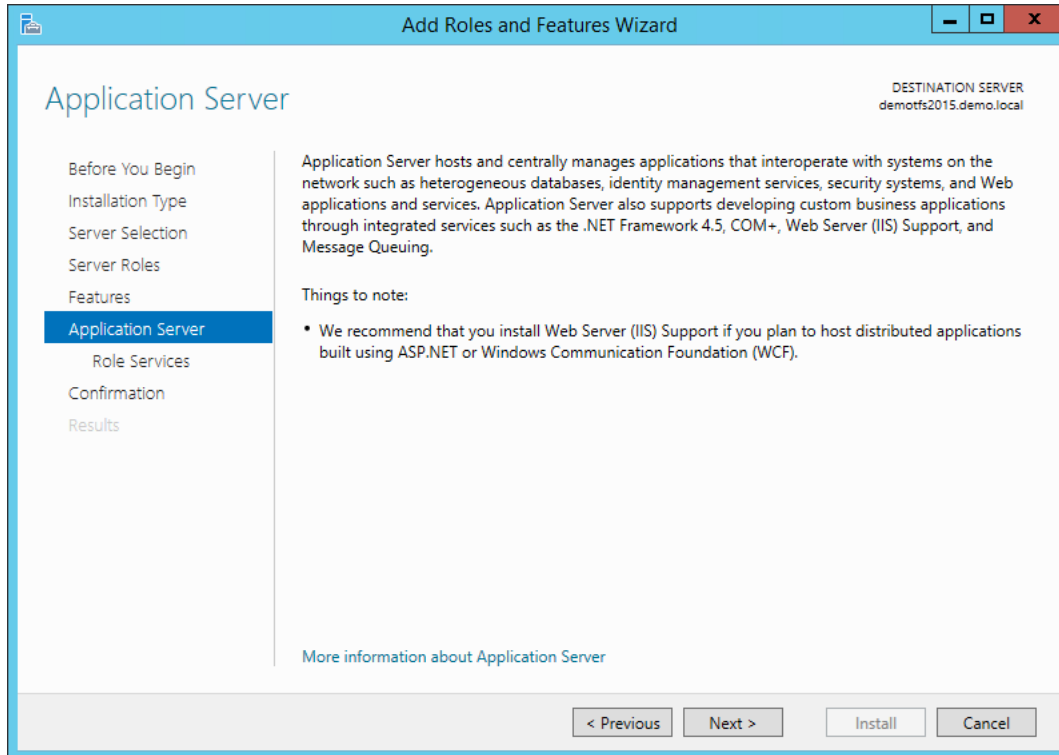You should now be on the **Select server roles** page of the wizard.
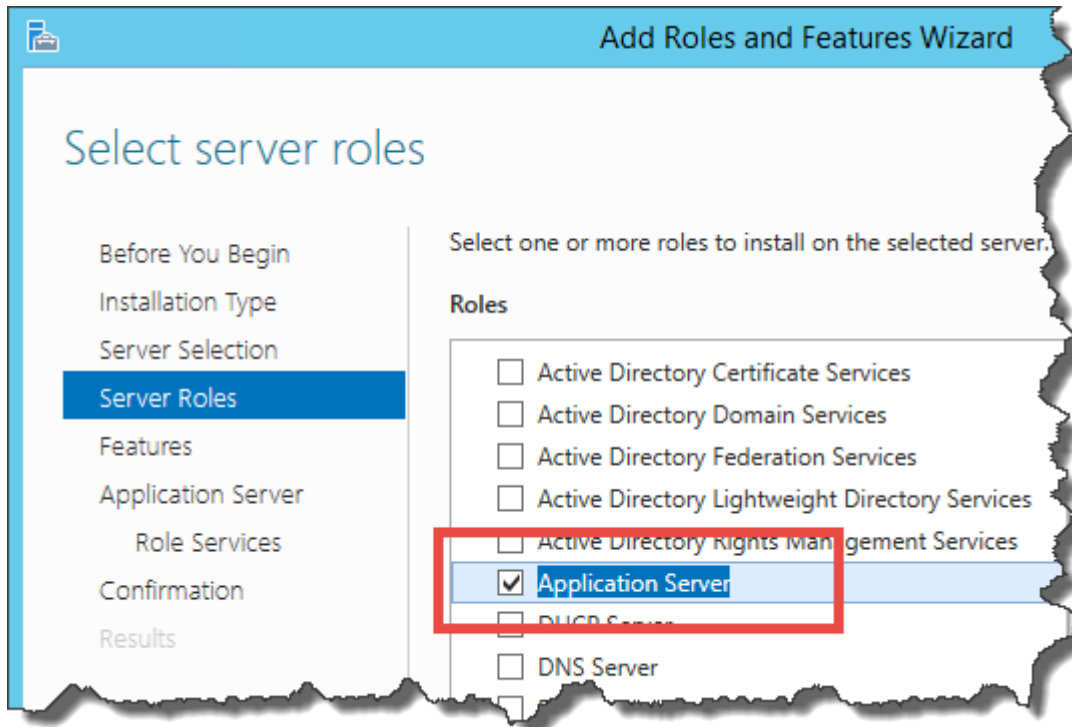
- Check **Application Server**
- Click **Next**

You should now be on the **Select features** page.
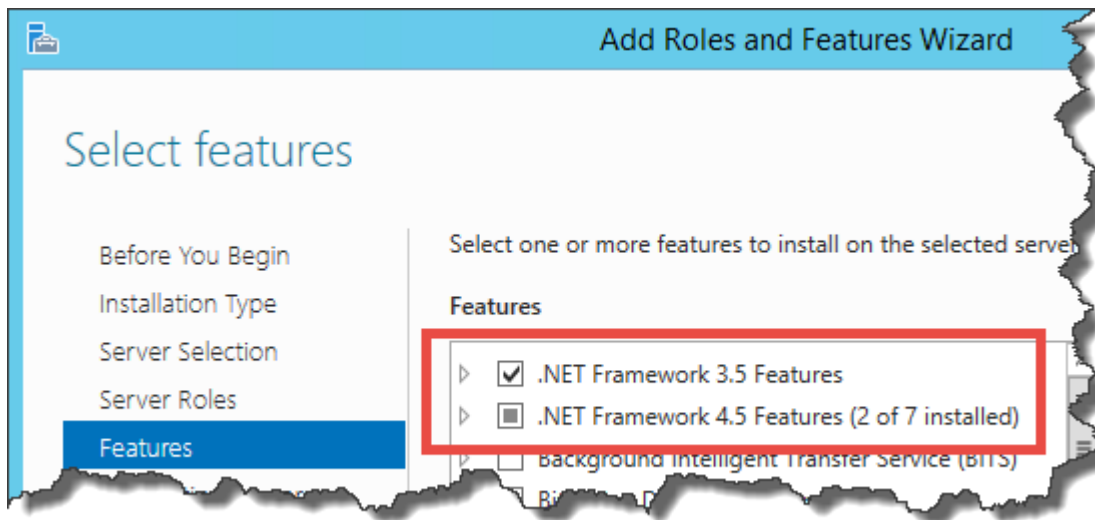
- Verify that **.NET Framework 3.5 Features** is checked
- Verify that **.NET Framework 4.5 Features** is checked
- Click **Next**

You'll probably see a message about the Application Server role.

- Click **Next**

You should now see the **Select role services** page of the wizard. We're going to install **Web Server (IIS) Support** because TFS2015 is going to need it.
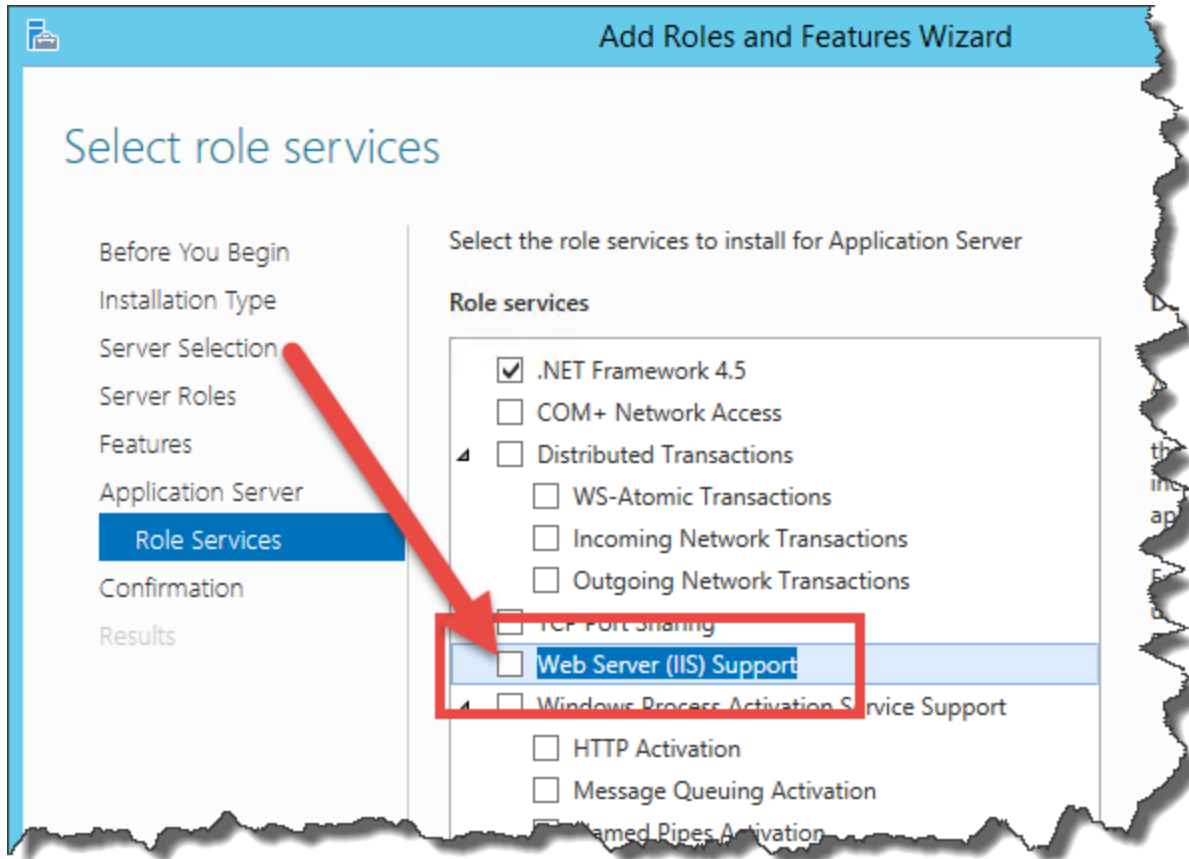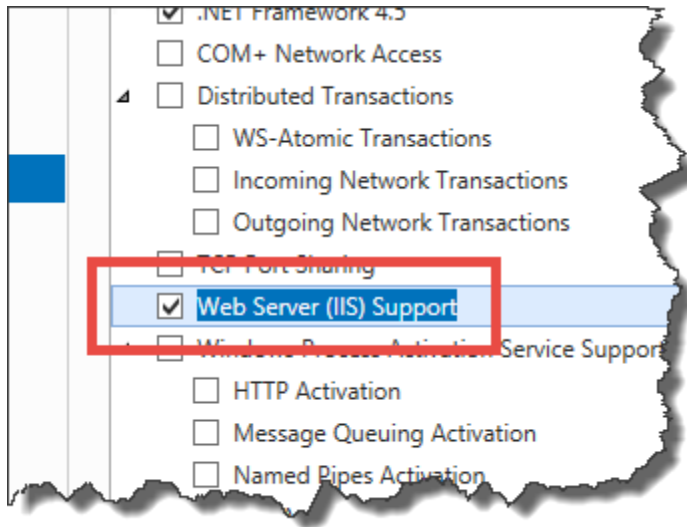

- Click the checkbox for **Web Server (IIS) Support**

You'll see a new dialog for the **Add Roles and Features Wizard** asking you to approve the selection of a bunch of IIS-related features.
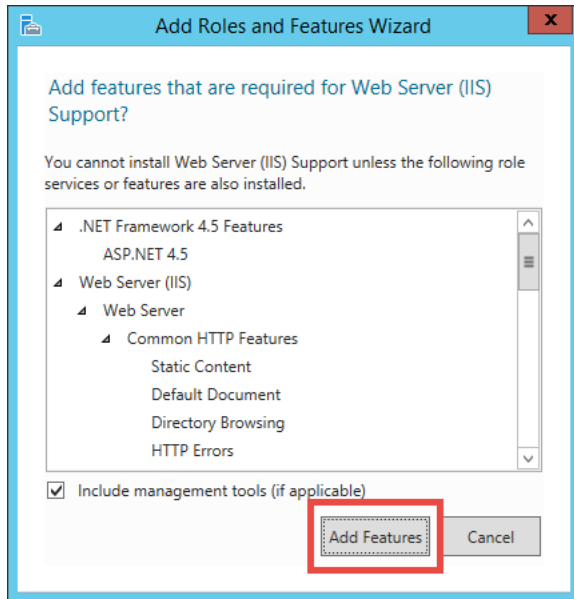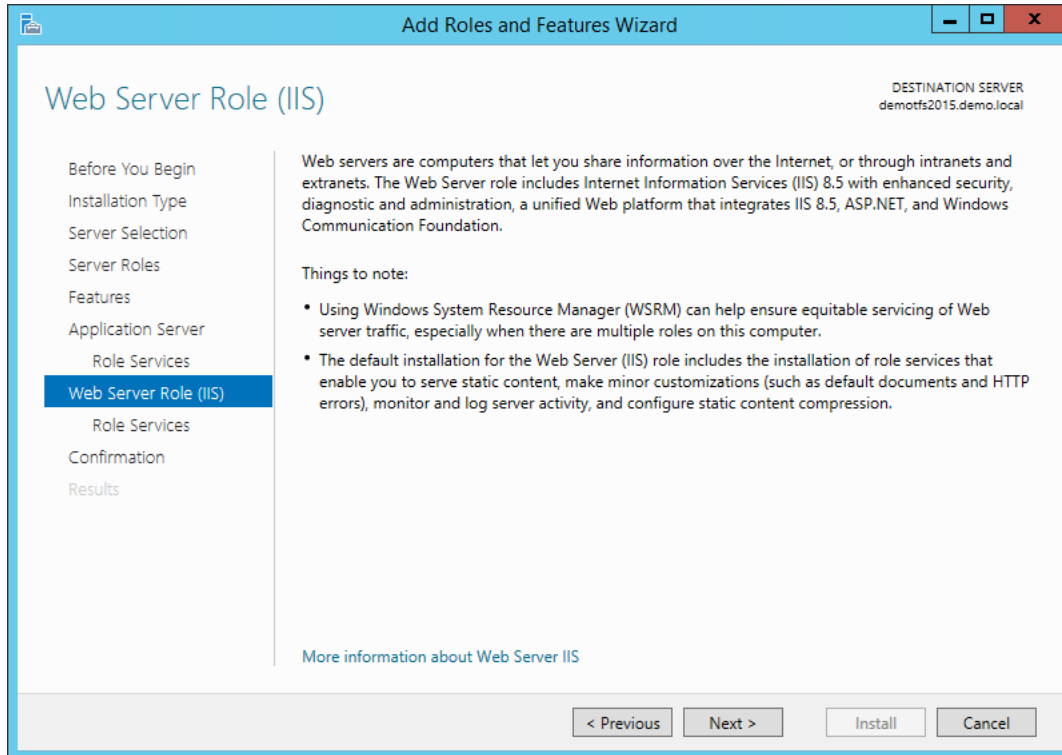

- Click the **Add Features** button

You should be back on the previous screen and **Web Server (IIS) Support** should be checked.

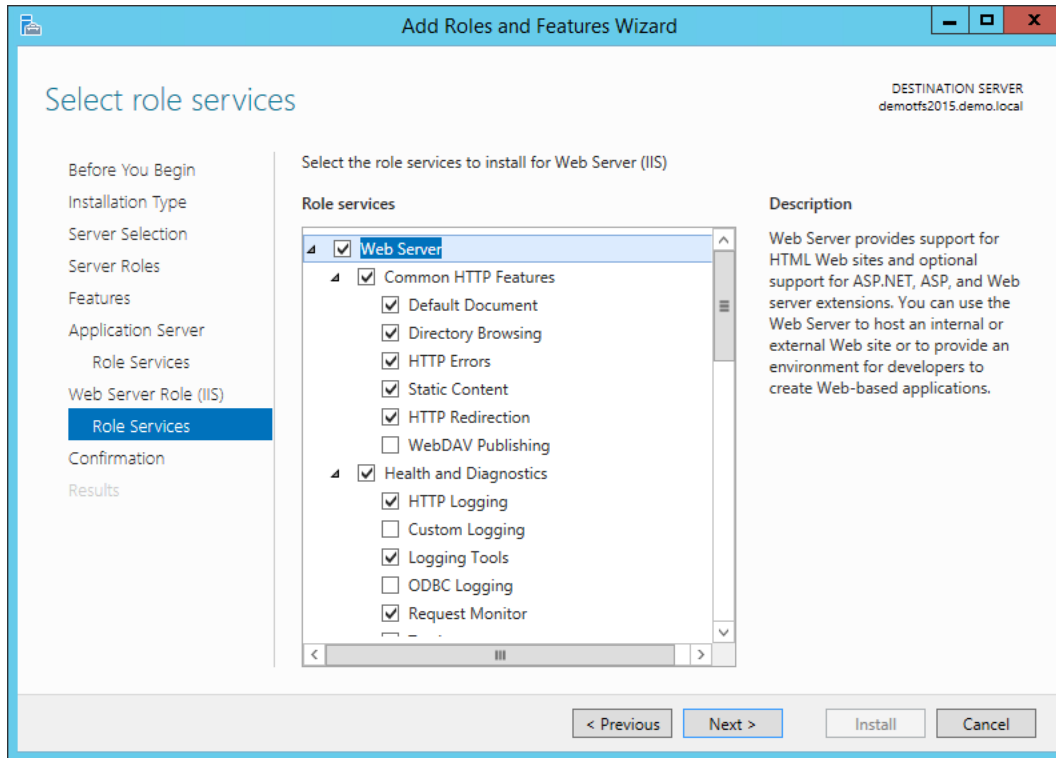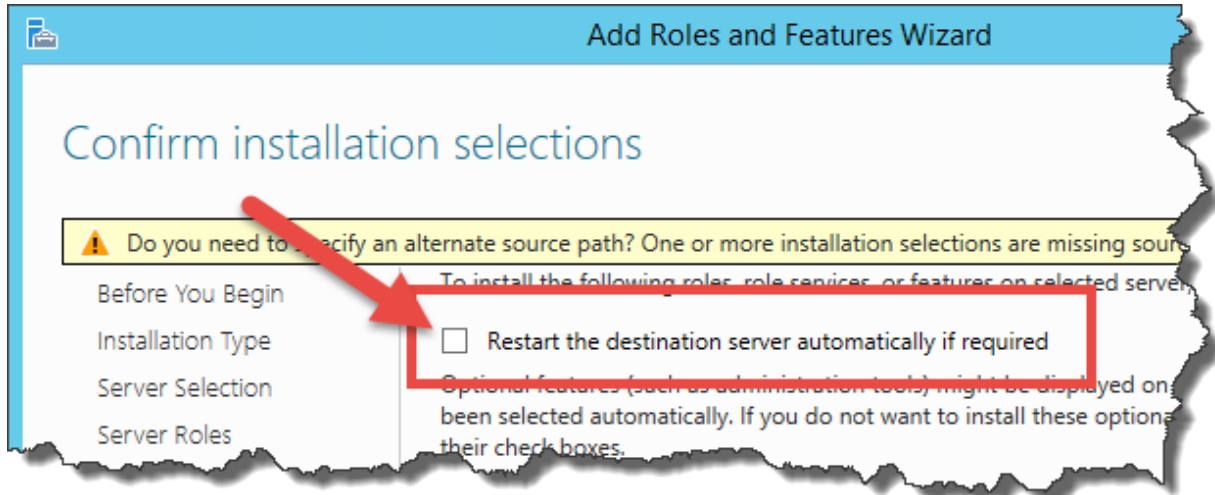- Click **Next**

- Click **Next**

You should now be on the **Role Services** page for the Web Server Role (IIS) features. Don't modify any of the options.

- Click **Next**

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

- Click the checkbox for **Restart the destination server automatically if required**

You'll be prompted to approve automatic restarts.
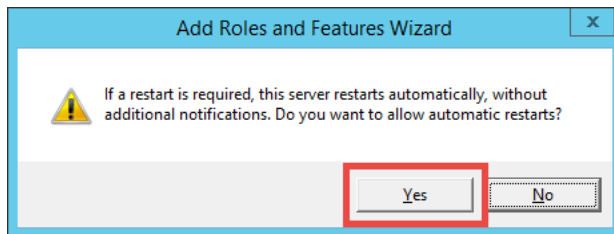

- Click **Yes**

You should now be on the **Confirm installation selections** page and **Restart the destination server automatically if required** should be checked.
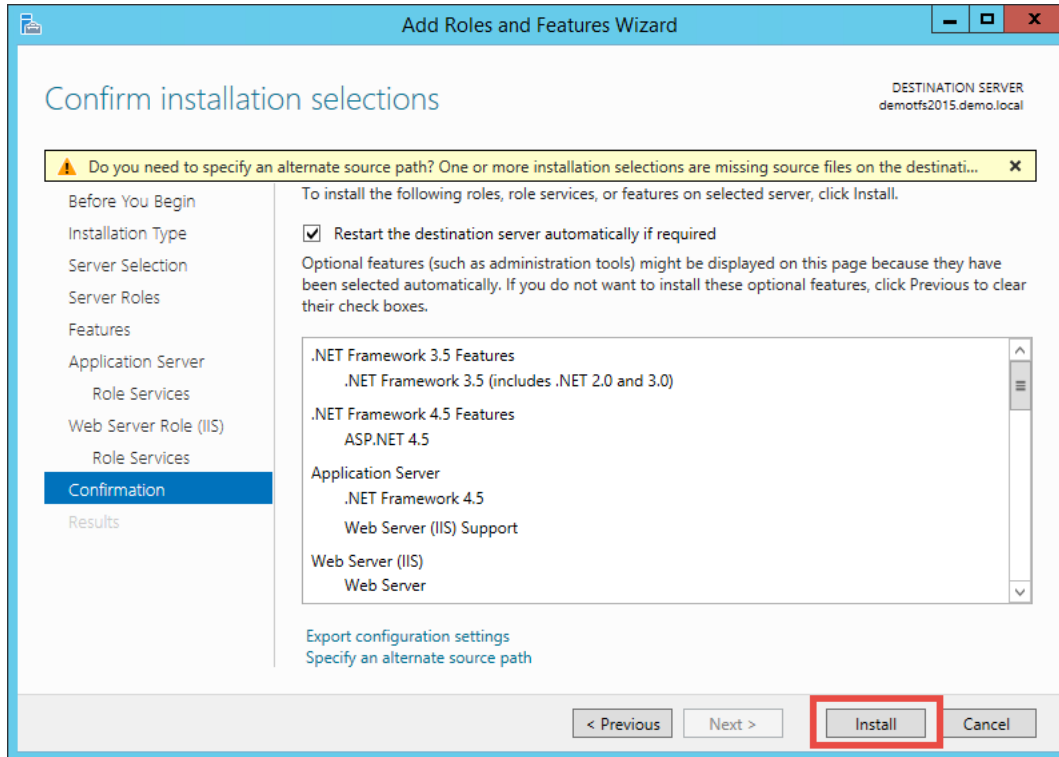
- Check **Restart the destination server automatically if required**
- Click **Install**

The features should now be installing.

Eventually, the feature installation should finish.

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

Chapter 3:   Install SQL Server 2014

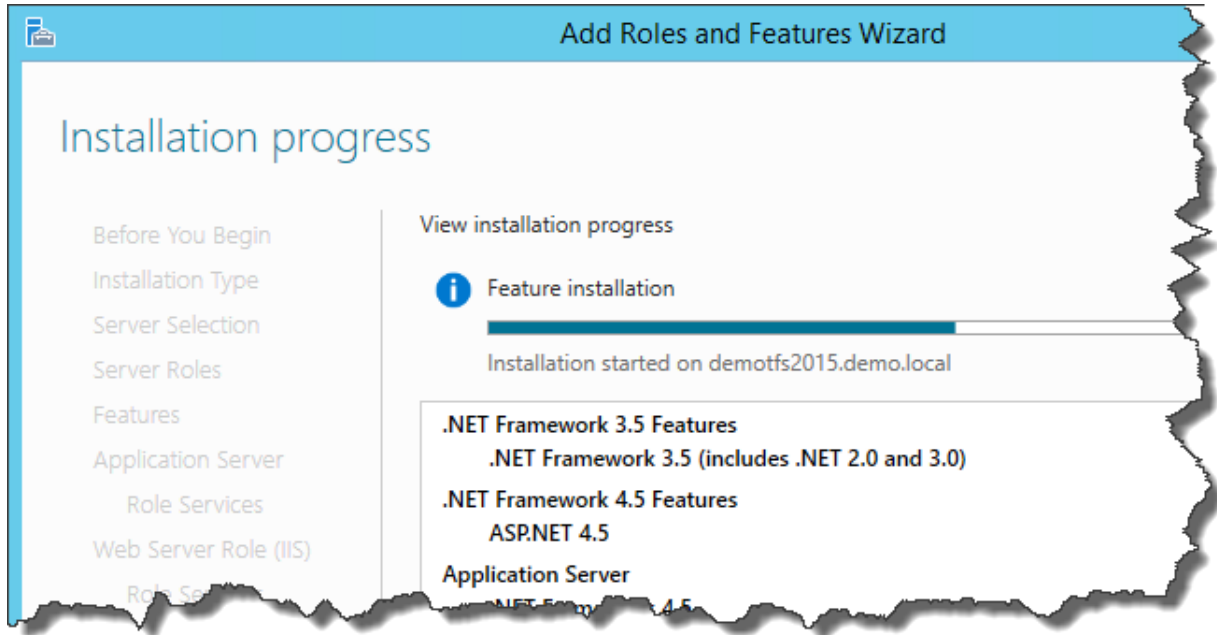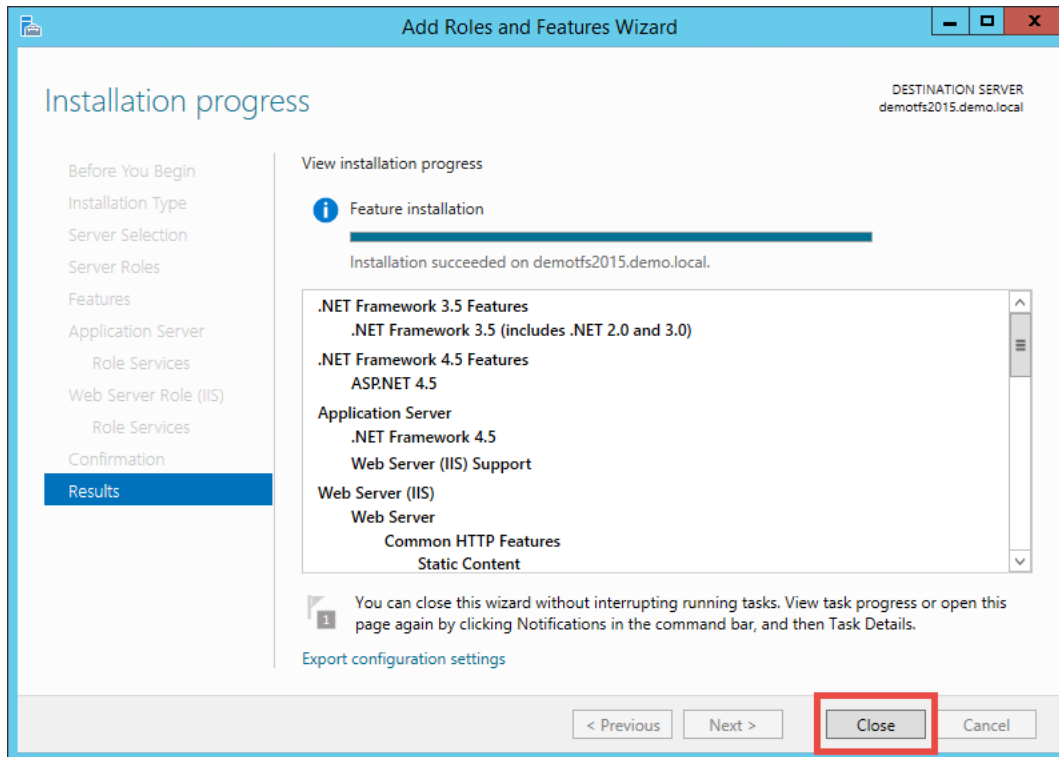This chapter will walk you through the process of installing SQL Server 2014 for use with TFS.

- Log on to the server using an account that is a member of the **Adminstrators** group
- Insert the SQL Server 2014 DVD or mount the appropriate ISO image
- Open the DVD drive using **Windows Explorer** (**explorer.exe)**
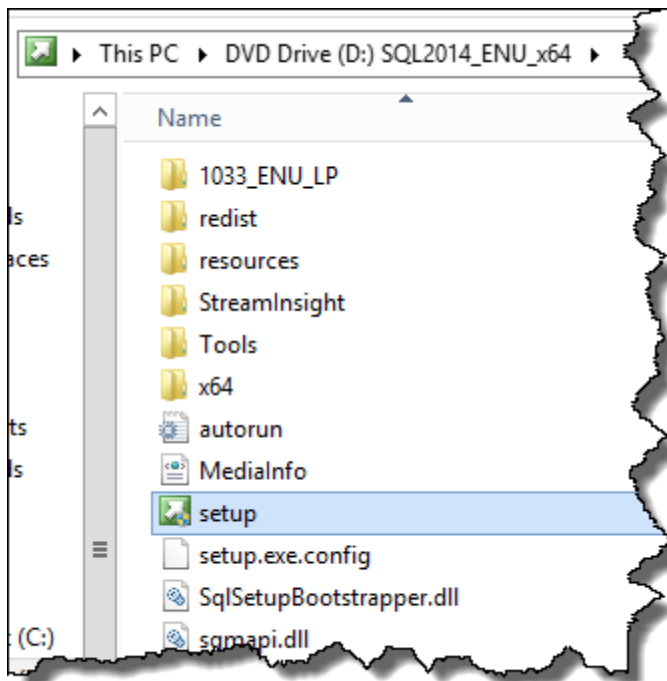
- Run the SQL Server setup program
- Click **Yes** on any User Account Control dialogs that appear

You should now see the SQL Server Installation Center window.
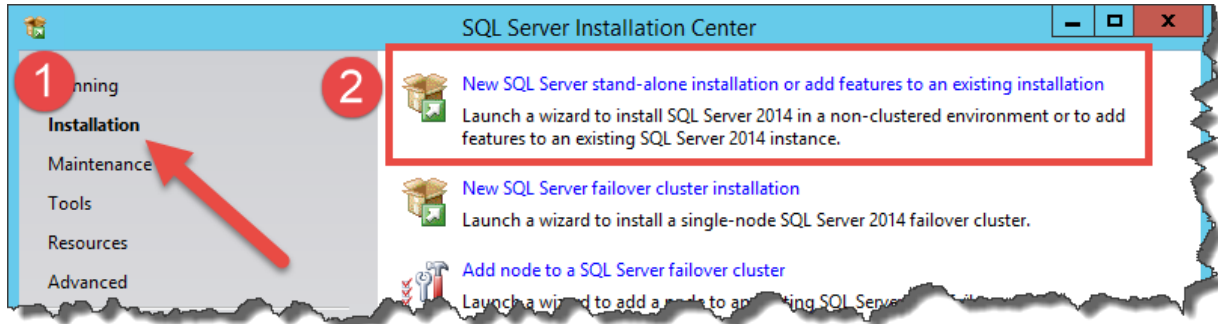
- In the left panel, click **Installation**
- In the right panel, click **New SQL Server stand-alone installation or add features to an existing installation**

You might now be prompted for a license key.
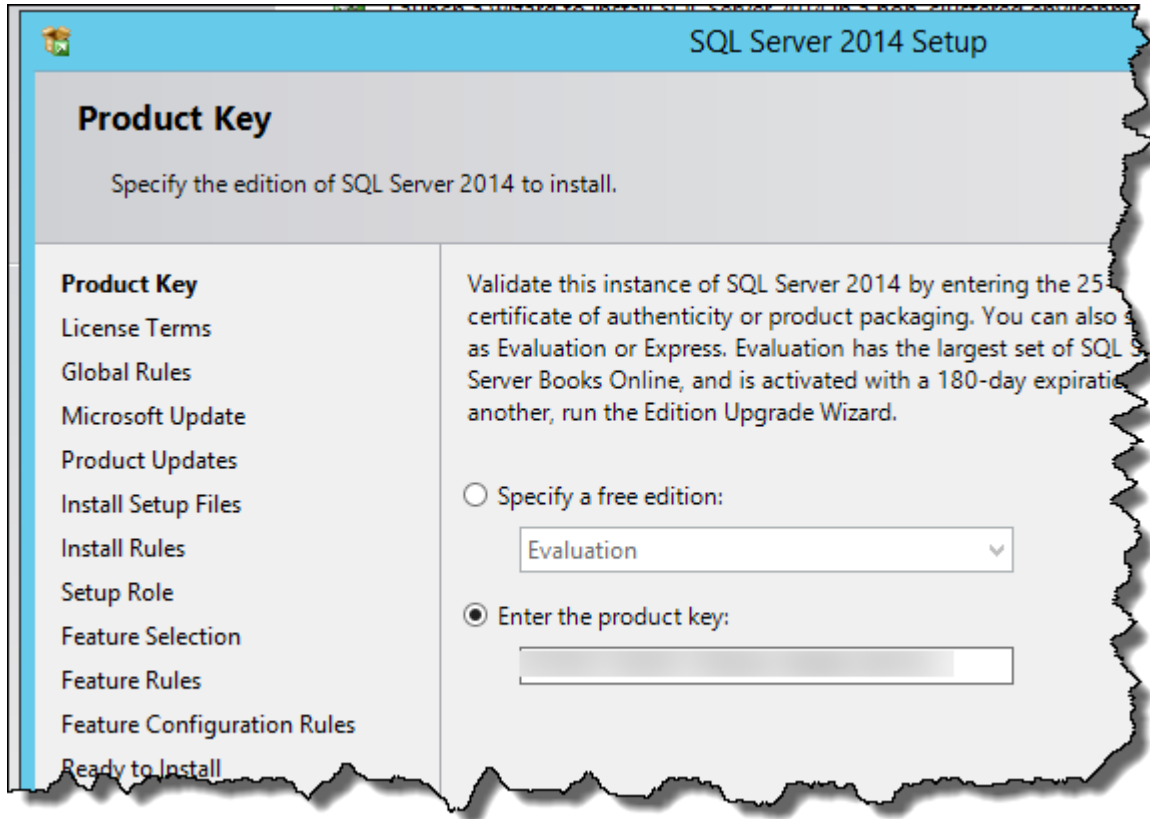
- Enter a license key
- Click **Next**
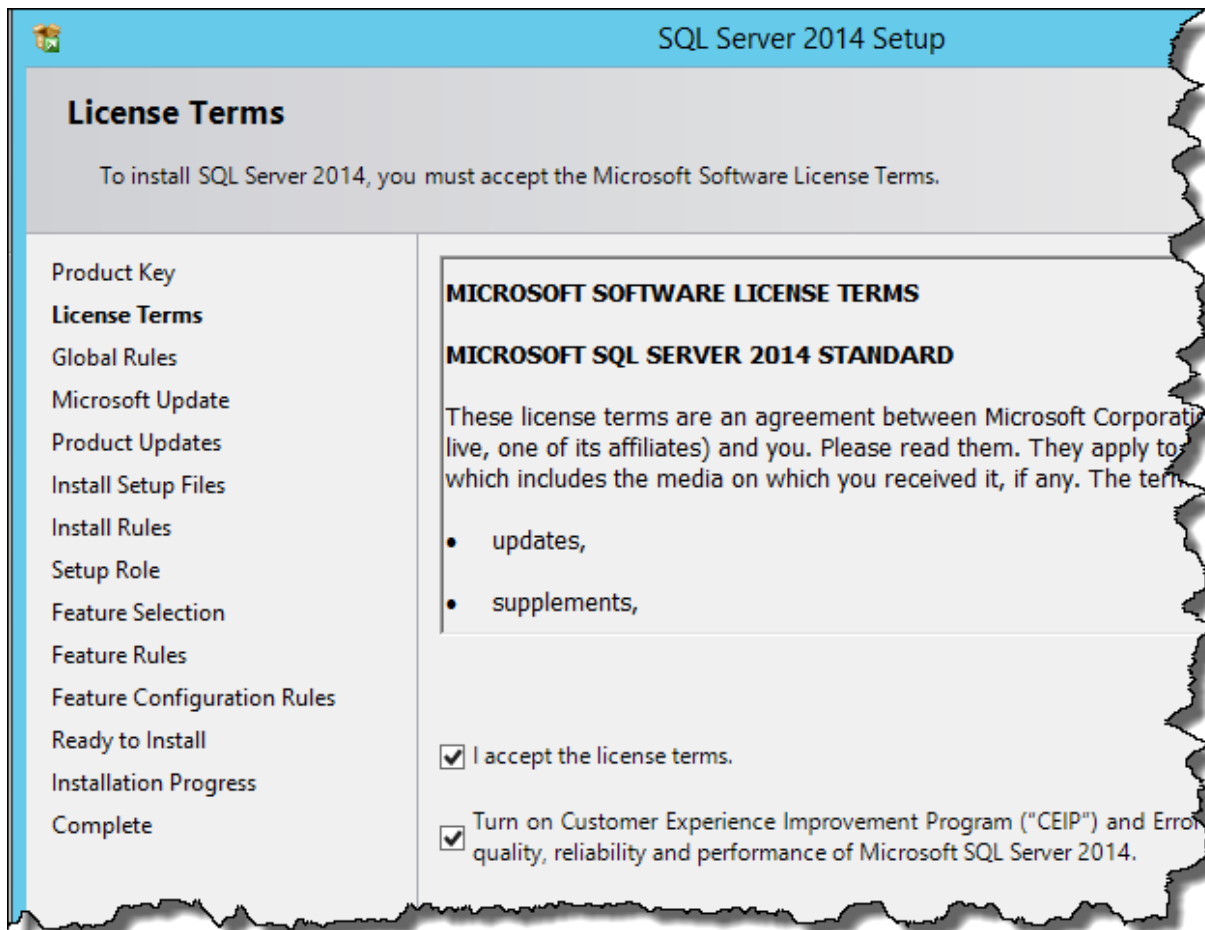
- Check **I accept the license terms**
- Check **Turn on Customer Experience Improvement Program…**
- Click **Next**
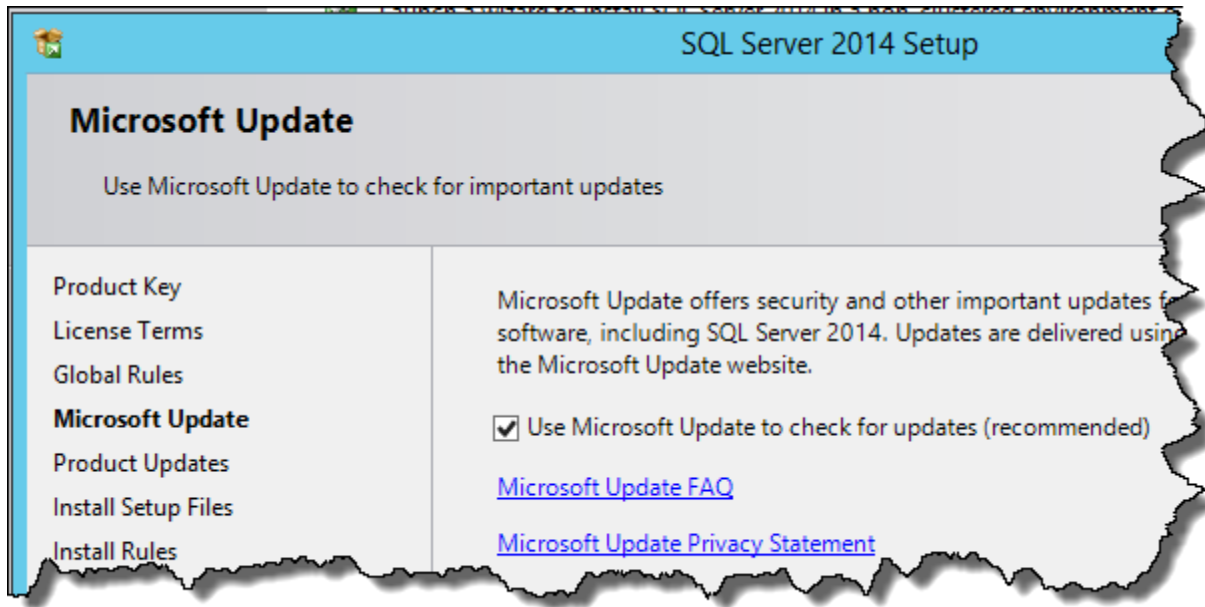
- Check **Use Microsoft Update to check for updates**
- Click **Next**

Verify that none of the install rule checks have failed.
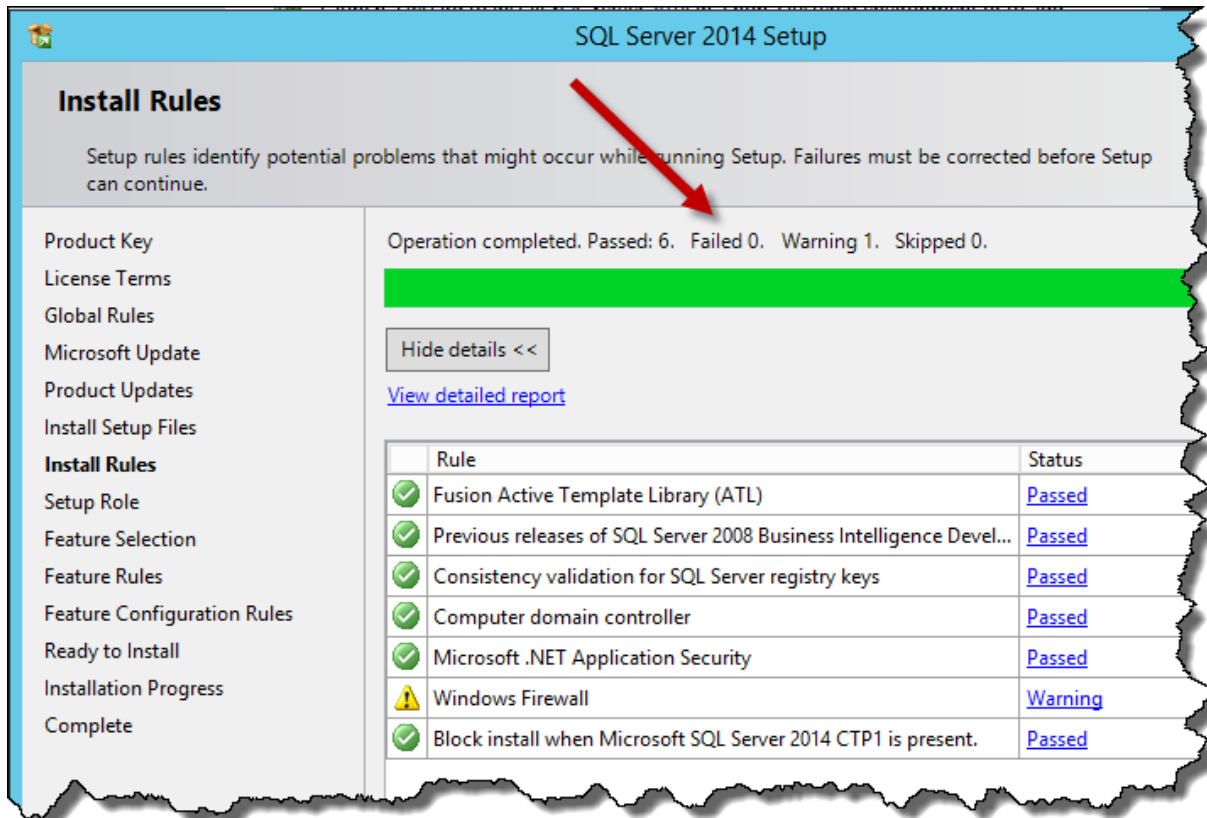
- Verify that there are 0 failures
- Click **Next**

You'll now be prompted to choose which type of installation you want to do.
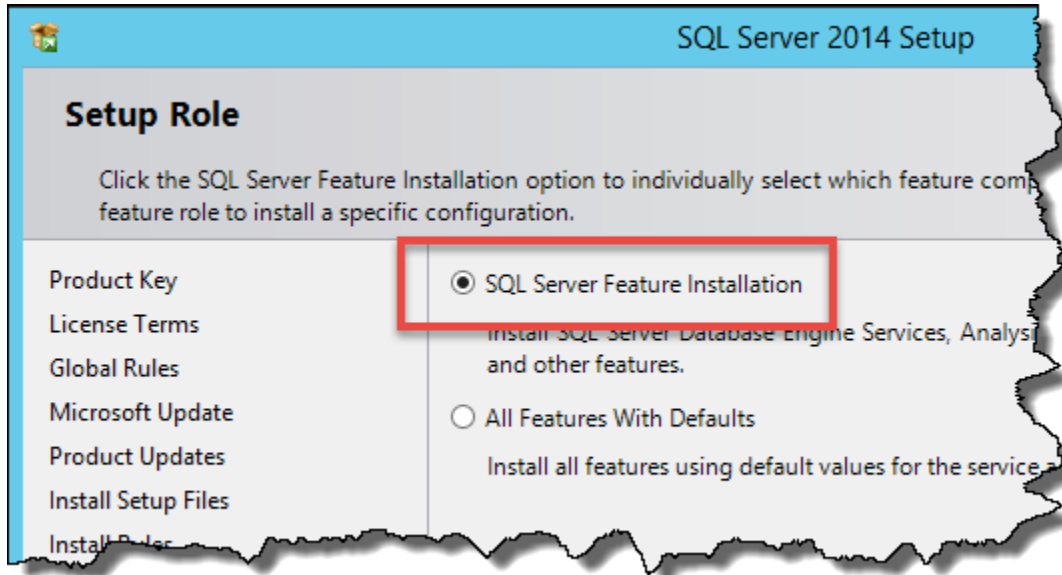
- Choose **SQL Server Feature Installation**
- Click **Next**

You should now be on the **Feature Selection** page.
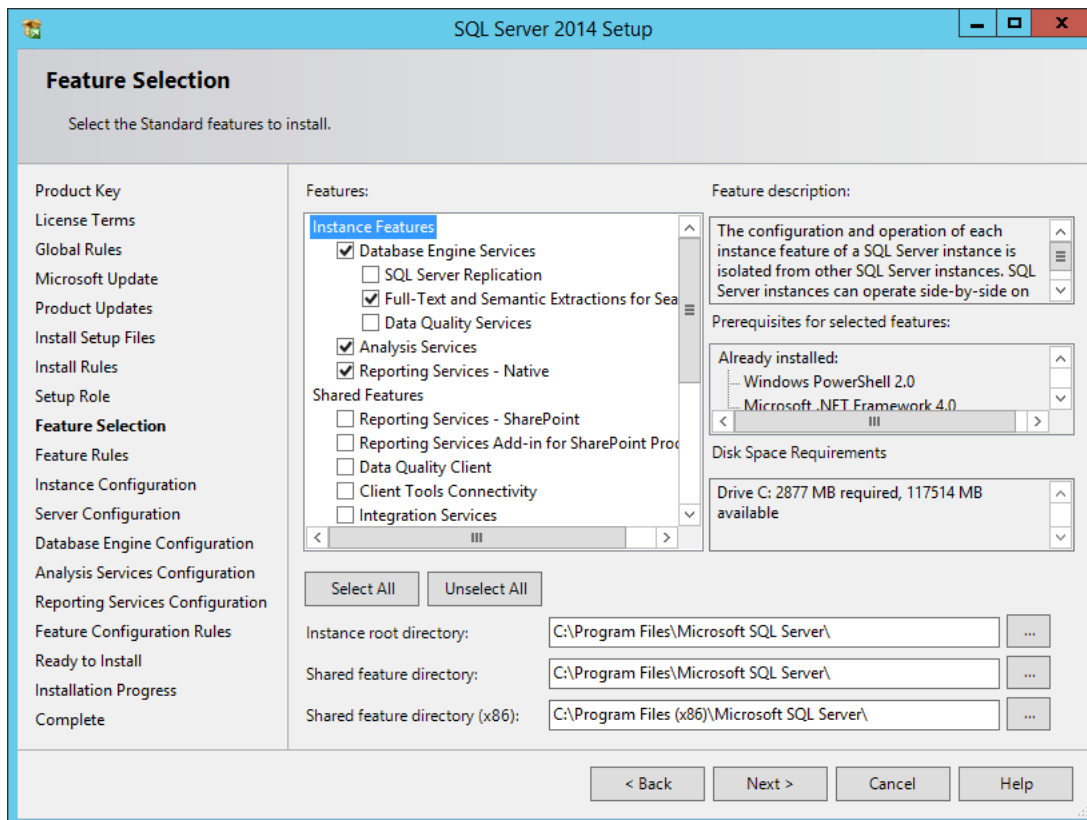
- Under **Instance Features** check
  - **Database Engine Services**
  - **Full-text and Semantic Extractions for Search**
  - **Analysis Services**
  - **Reporting Services – Native**
- (Optional) Under **Shared Features** check
  - **Management Tools – Complete**
- Click **Next**

If you get this failure, something went wrong when you installed the .NET Framework 3.5 features. Make sure that you installed the pre-requisites properly.

✅	SQL Server Analysis Services Server Mode and Edition Check	Passed
❌	Microsoft .NET Framework 3.5 Service Pack 1 is required	Failed

Rule Check Result

❌ Rule "Microsoft .NET Framework 3.5 Service Pack 1 is required" failed.
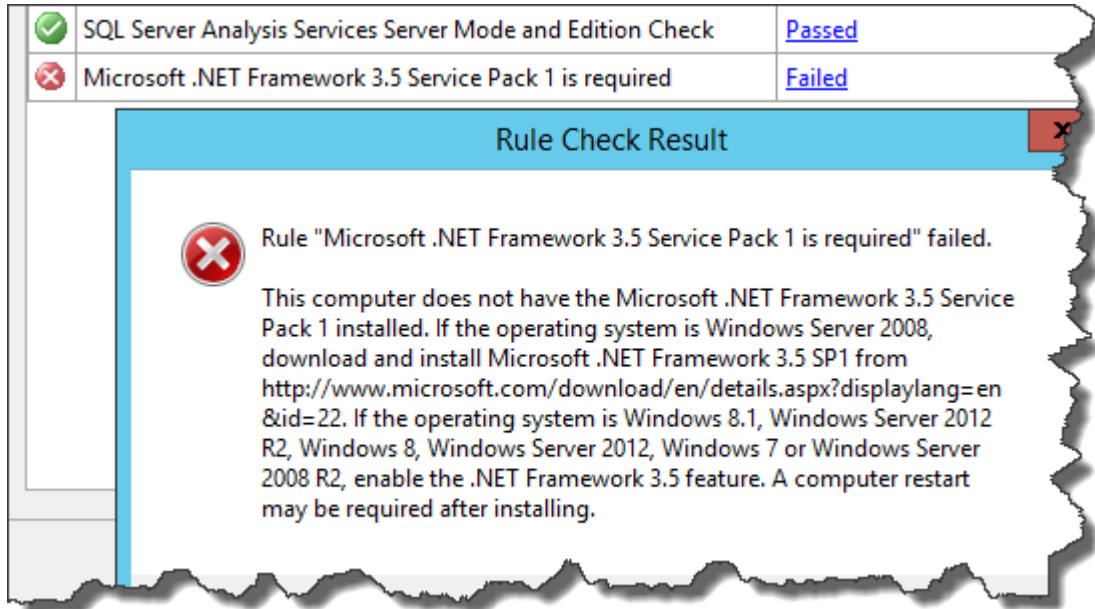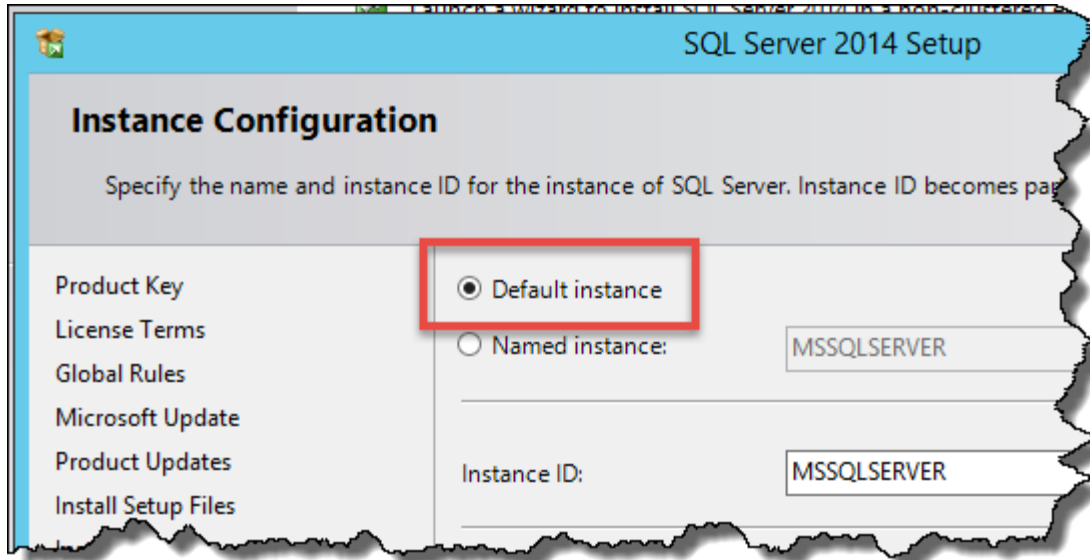
This computer does not have the Microsoft .NET Framework 3.5 Service Pack 1 installed. If the operating system is Windows Server 2008, download and install Microsoft .NET Framework 3.5 SP1 from http://www.microsoft.com/download/en/details.aspx?displaylang=en &id=22. If the operating system is Windows 8.1, Windows Server 2012 R2, Windows 8, Windows Server 2012, Windows 7 or Windows Server 2008 R2, enable the .NET Framework 3.5 feature. A computer restart may be required after installing.
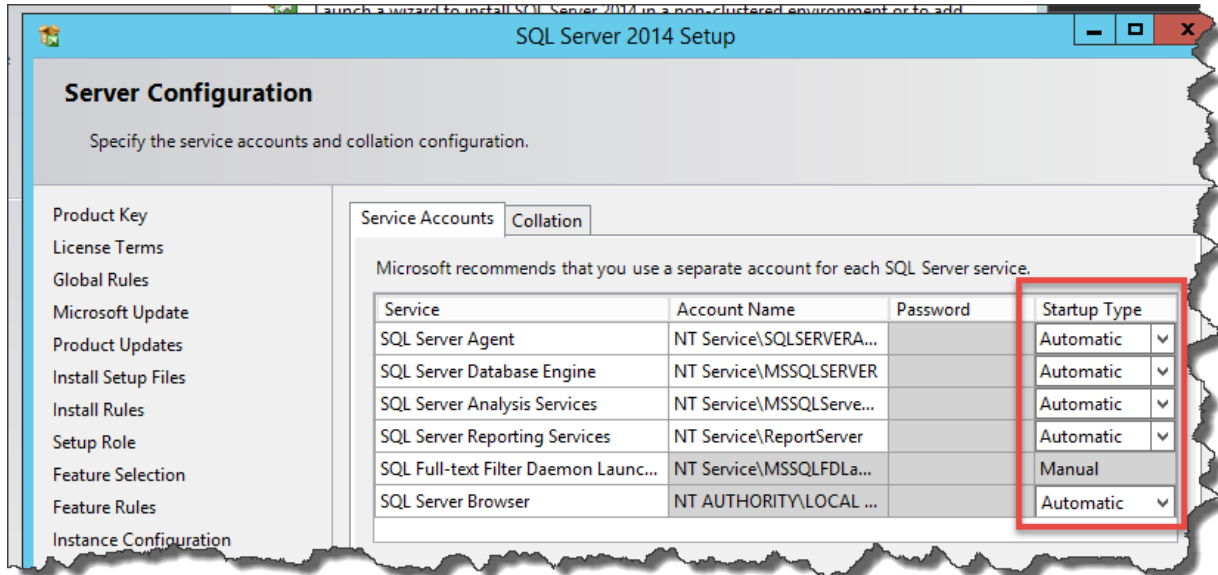
You should now be on the Instance Configuration page.
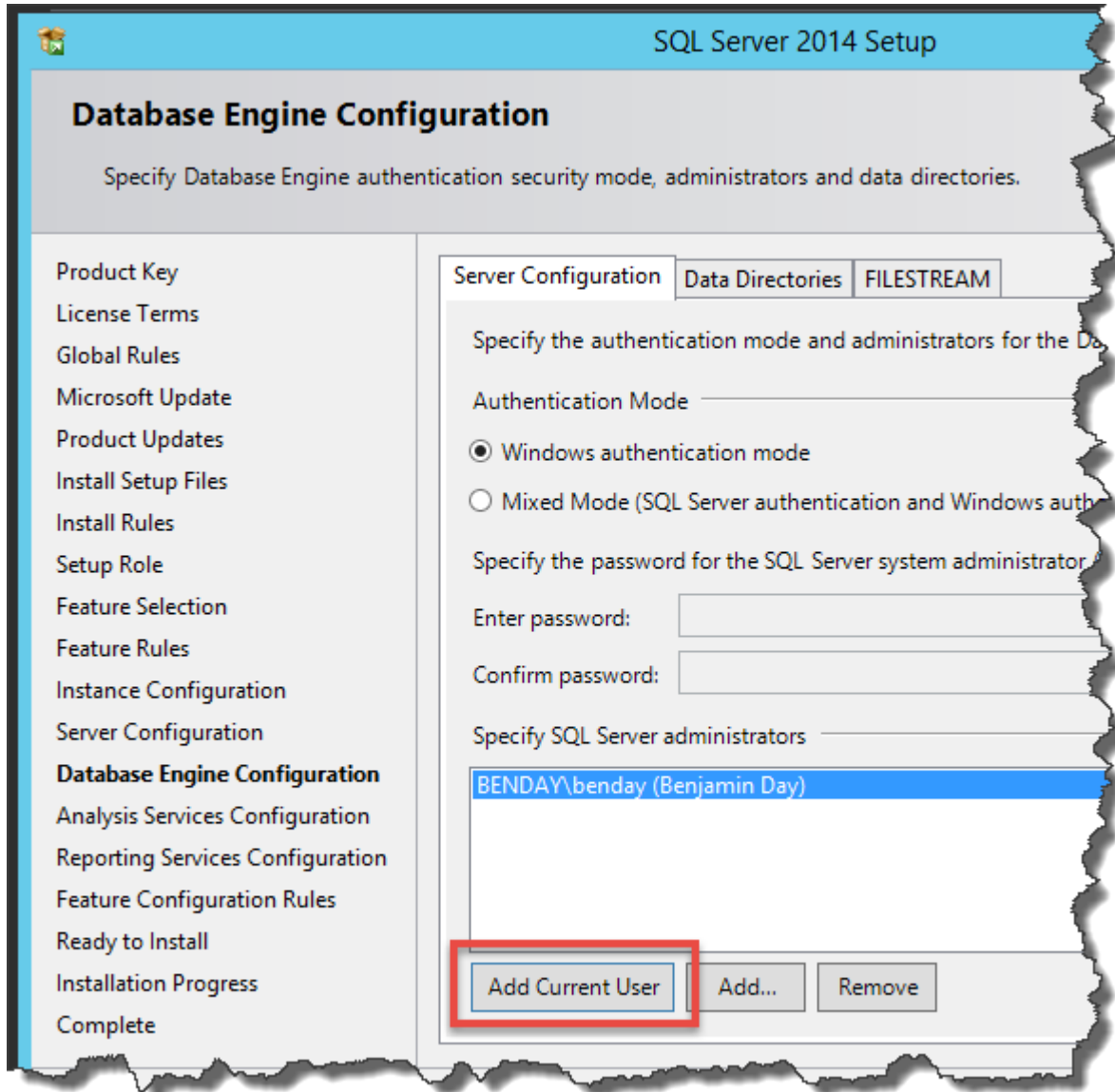

- Choose **Default instance**
- Click **Next**

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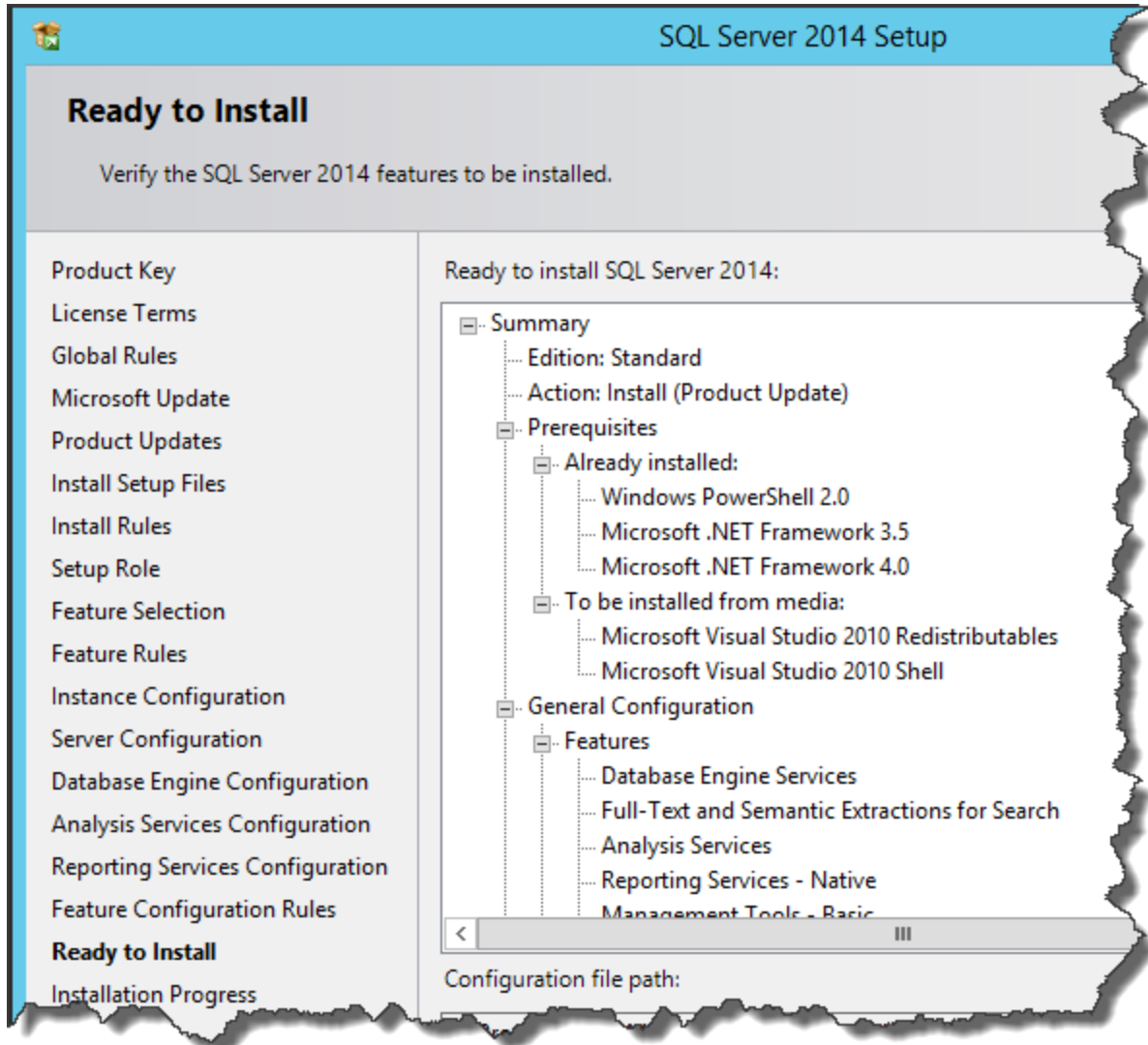- Click **Next**
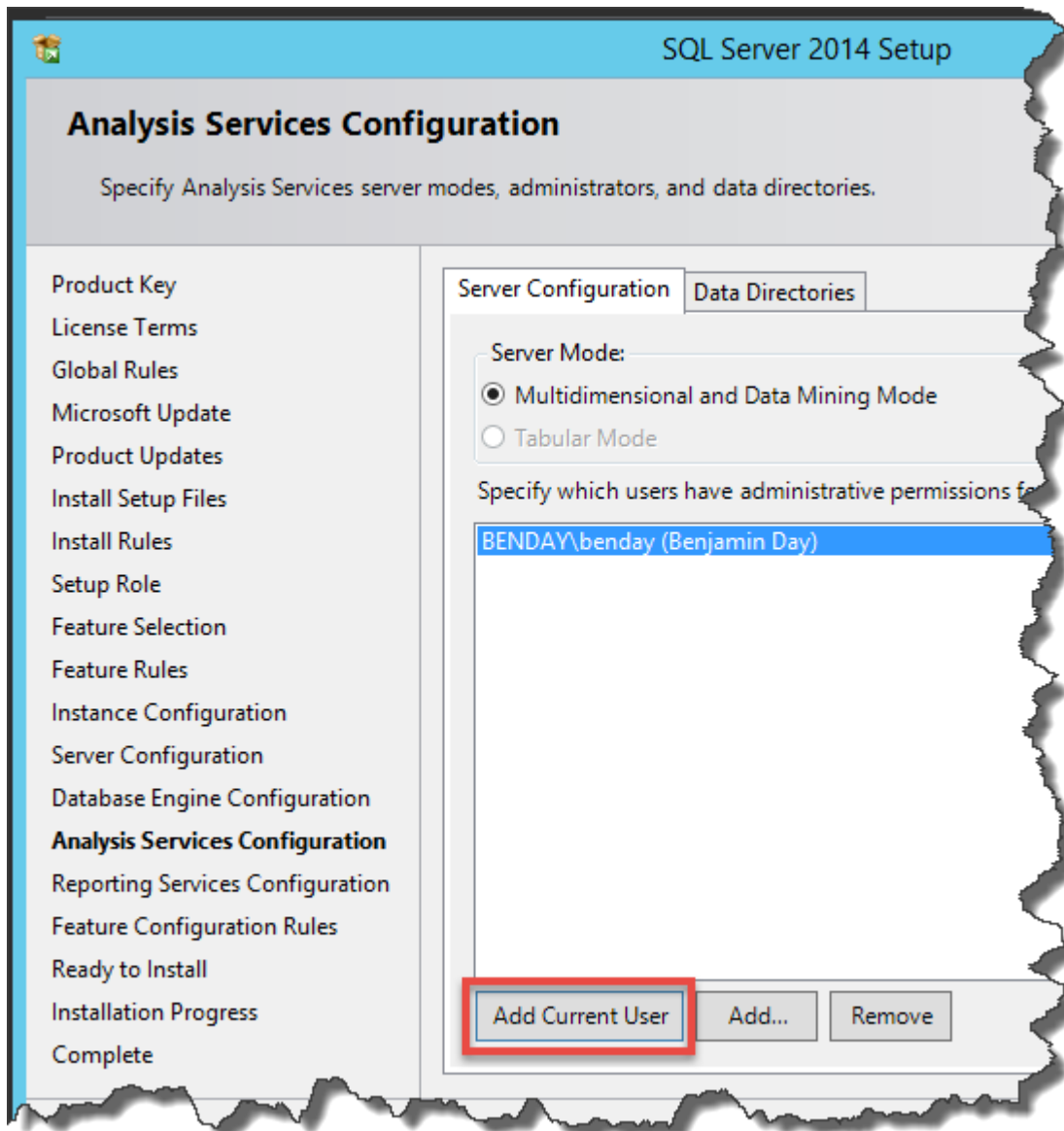
- Click the **Add Current User** button to add the current user as an Analysis Server administrator
- (Optional) Click the **Add...** button and add the **Domain Admins** group to the Analysis Services administrators
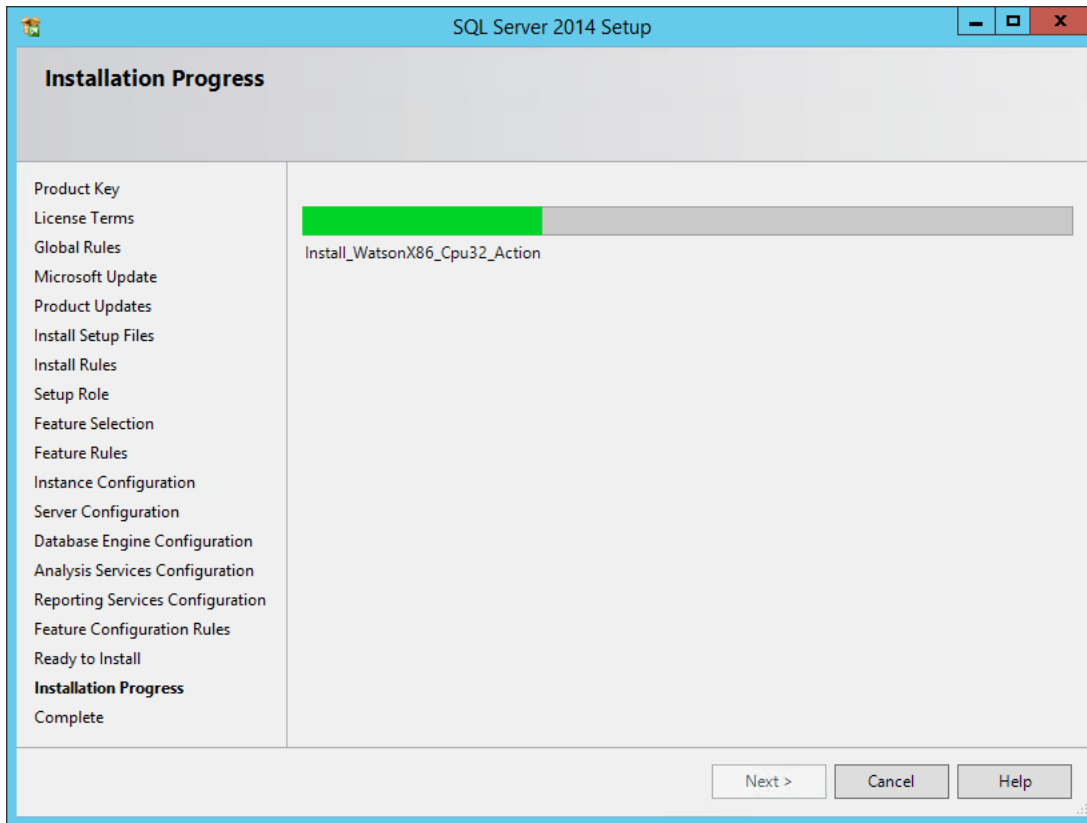- Click **Next**
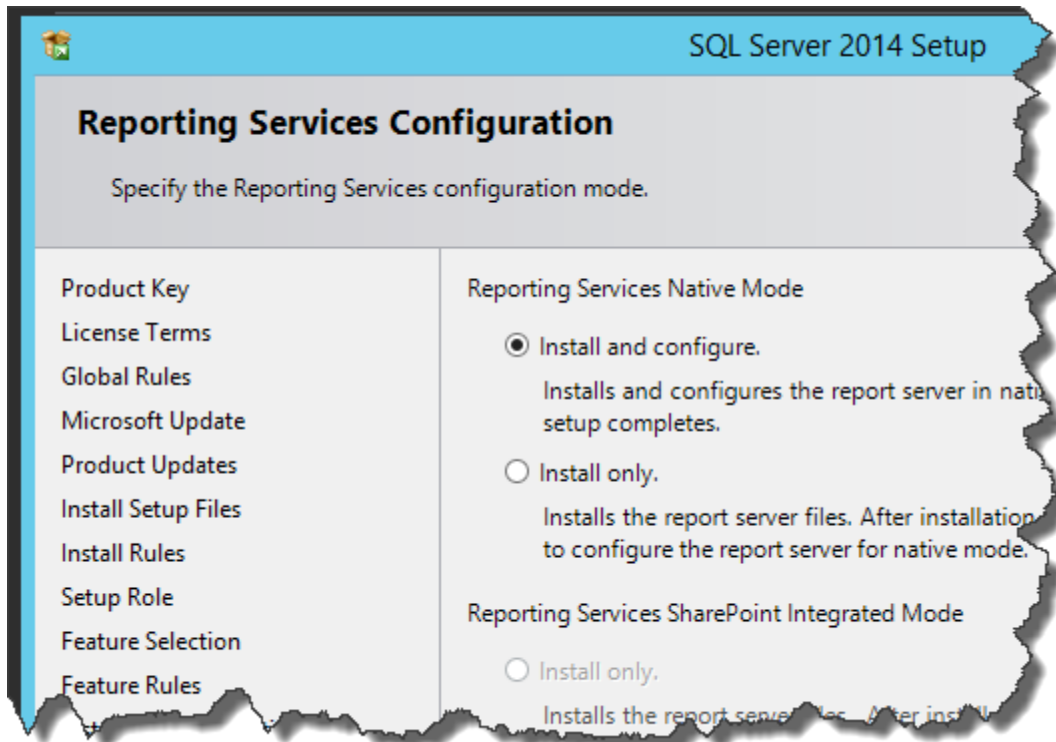
- Choose **Install and configure**
- Click **Next**

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

- Click **Install**

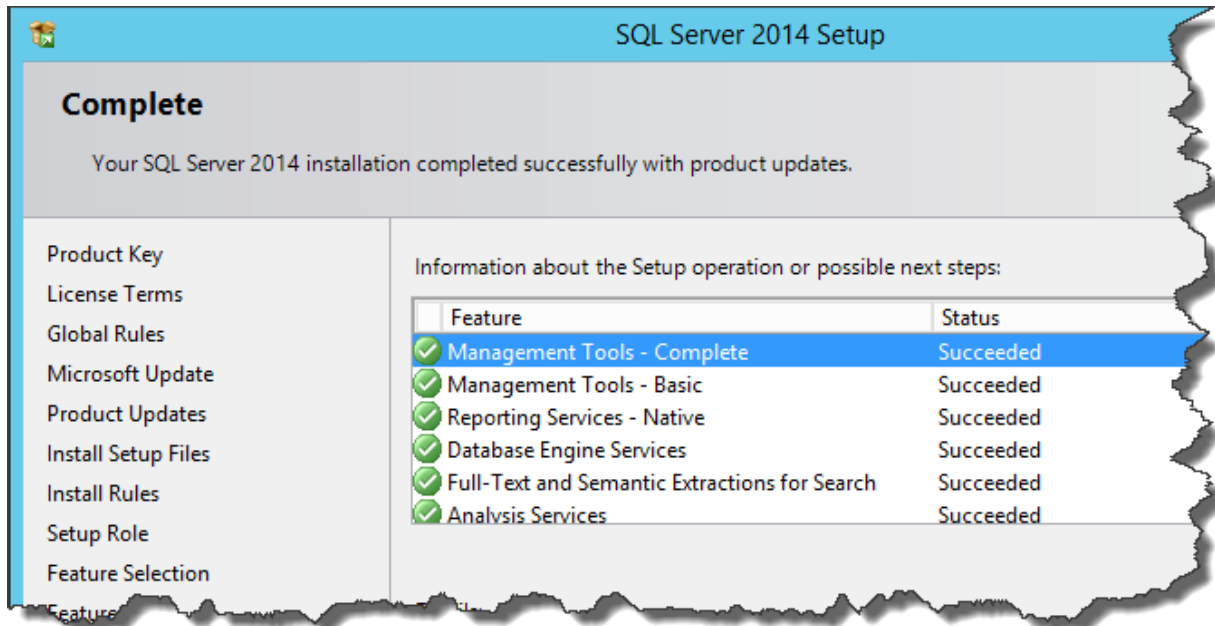The installer should now be running.

Eventually, the installer should finish.

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

You should now be back on the **SQL Server Installation Center**.

- Click the close button to exit the installer

SQL Server 2014 is now installed.

- (Recommended) Re-run **Windows Update** and install any available updates

## Chapter 4:   Install Team Foundation Server 2015

Introduction

Now that Windows and SQL Server are installed, you're ready to install Team Foundation Server 2015 (TFS2015). You'll probably want to create three domain accounts for use by the various pieces of TFS: TFS Service (*domain*\tfsservice), TFS Reports (*domain*\tfsreports), and TFS Build (*domain*\tfsbuild).

- If you're installing this on a Hyper-V virtual machine with dynamic memory enabled, change the **minimum amount of RAM to 2GB** (at least temporarily) to allow Team Foundation Server 2015 to install along with SQL Server.
- Gather the username and passwords for the 3 TFS service accounts (see above)
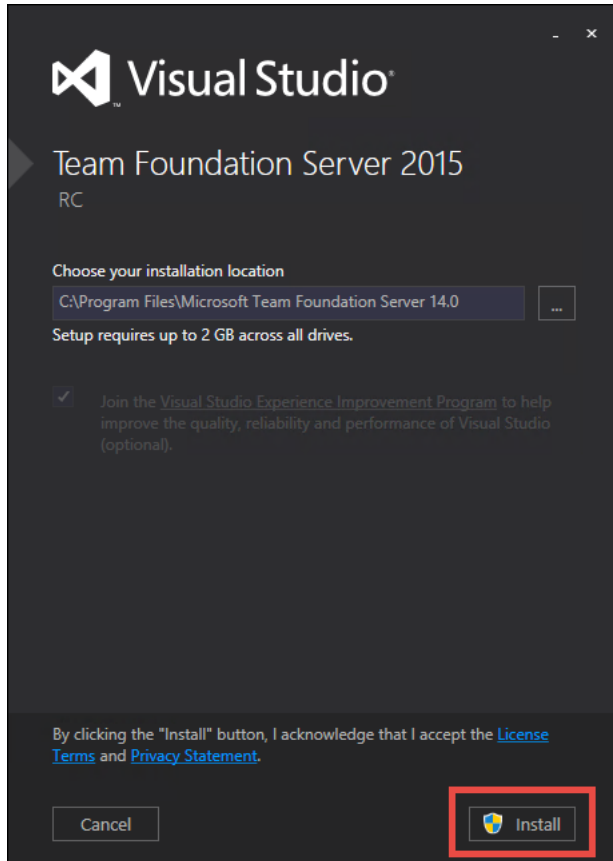- Log on to the server using a user account with Administrator privileges

Run the Installer

- Mount the TFS2015 ISO image or insert a TFS2015 installer DVD
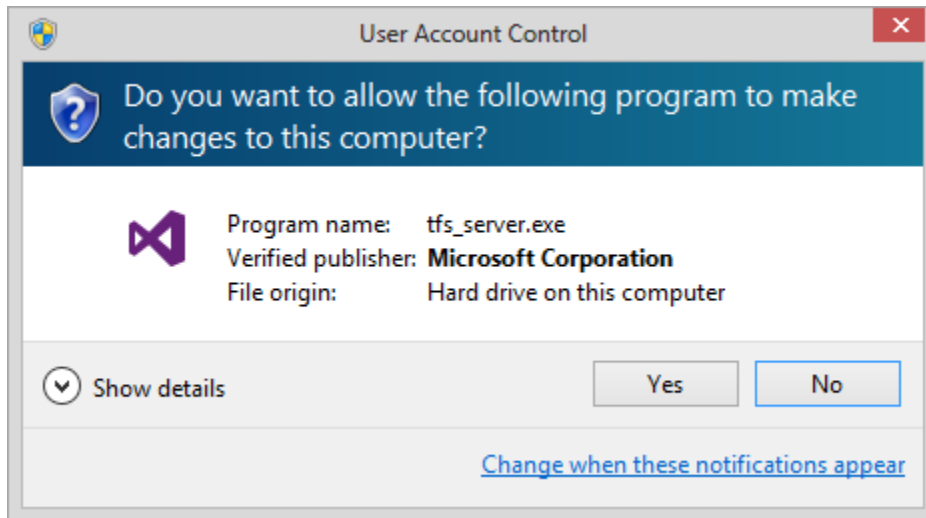- Using Windows Explorer (explorer.exe), navigate to the installer directory
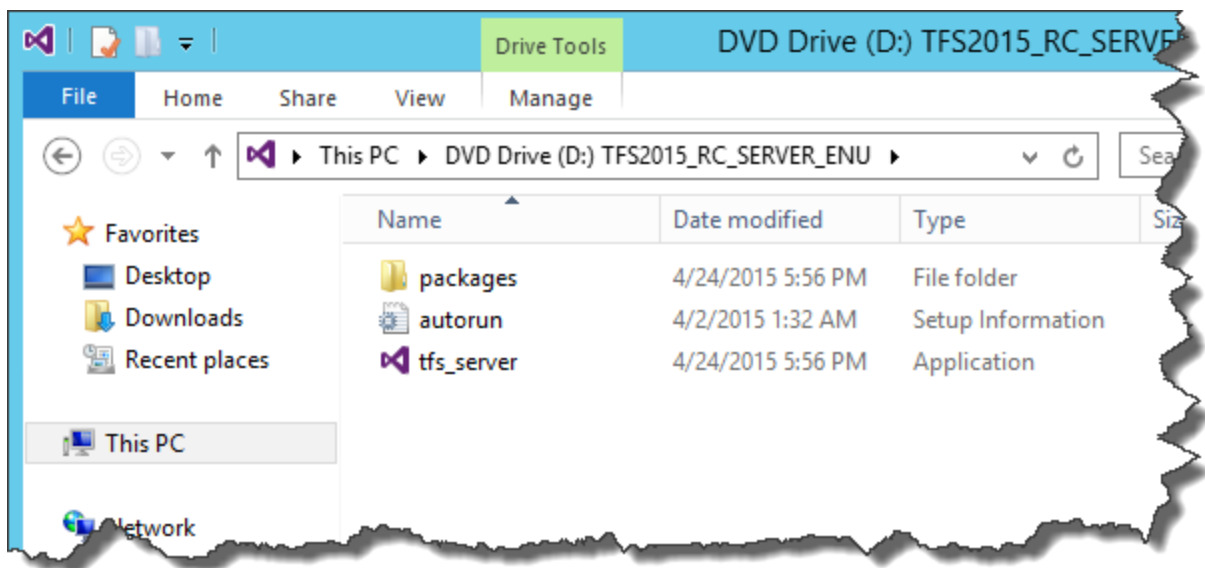
- Run **tfs_server.exe**

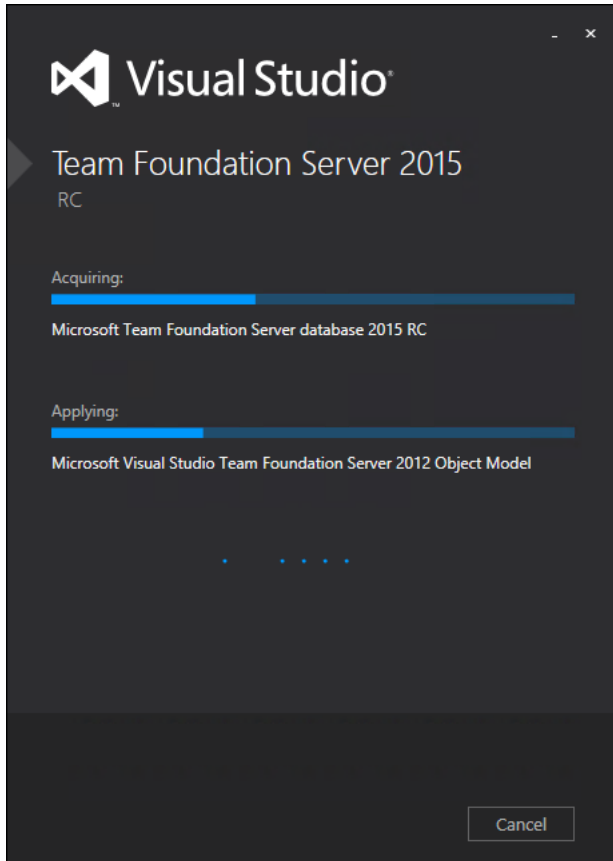You should see the **Team Foundation Server Setup** dialog.

- Click **Install**
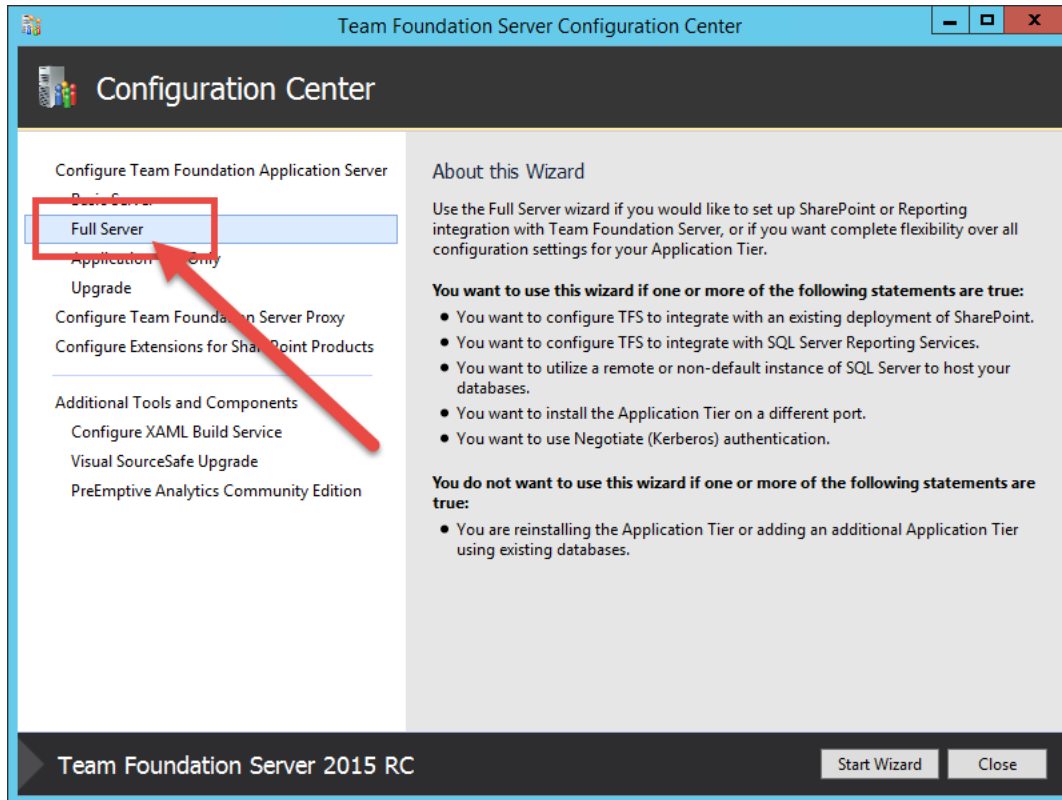
You'll see a User Account Control dialog.

- Click **Yes**

The installer will run and copy files to your disk and install some component pieces.
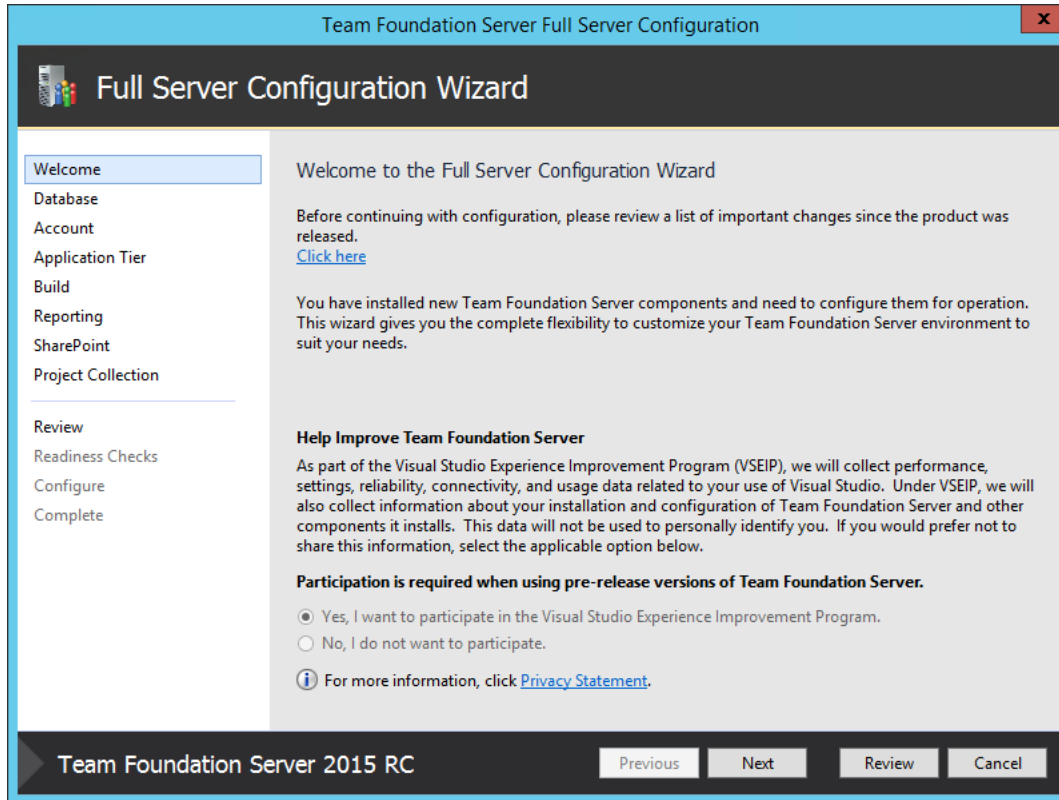
You should now see the **Team Foundation Server Configuration Center**. You'll be doing a **Standard Single Server** configuration.

- Choose **Full Server** from the left panel
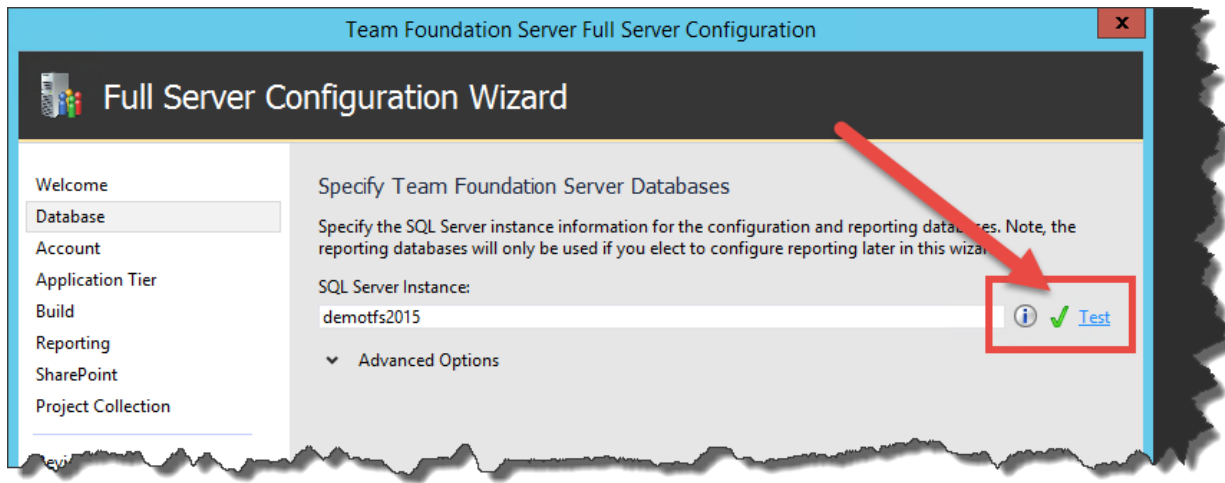- Click **Start Wizard**

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

- Click **Next**

## SQL Server Database Information

You should now be on a page that prompts you for the name of the SQL Server instance to use.

- Enter the name of the **SQL Server Instance**
- Click the **Test** link to verify that you can connect
- Click **Next**
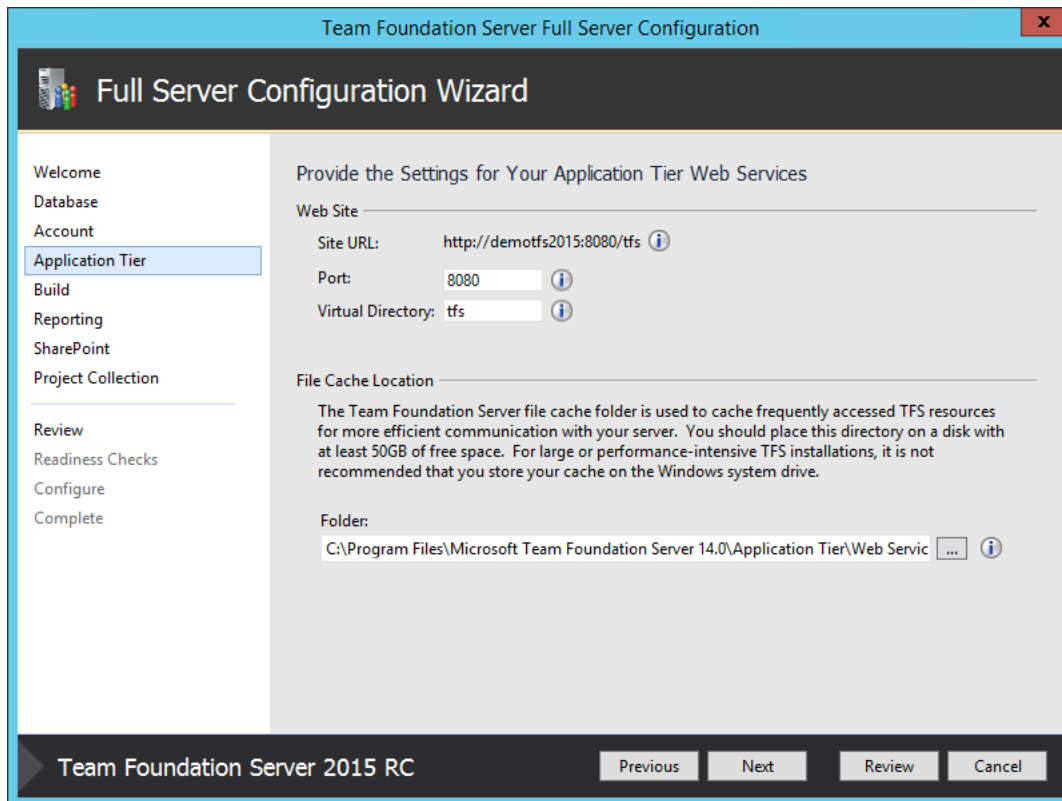
TFS Service Account

You'll be prompted for the service account that TFS will run as. The default is to use a system account such as NT AUTHORITY\NETWORK SERVICE. In order to make your life easier later, for permissions management reasons my recommendation is run TFS as a domain user such as **TFS Service**.
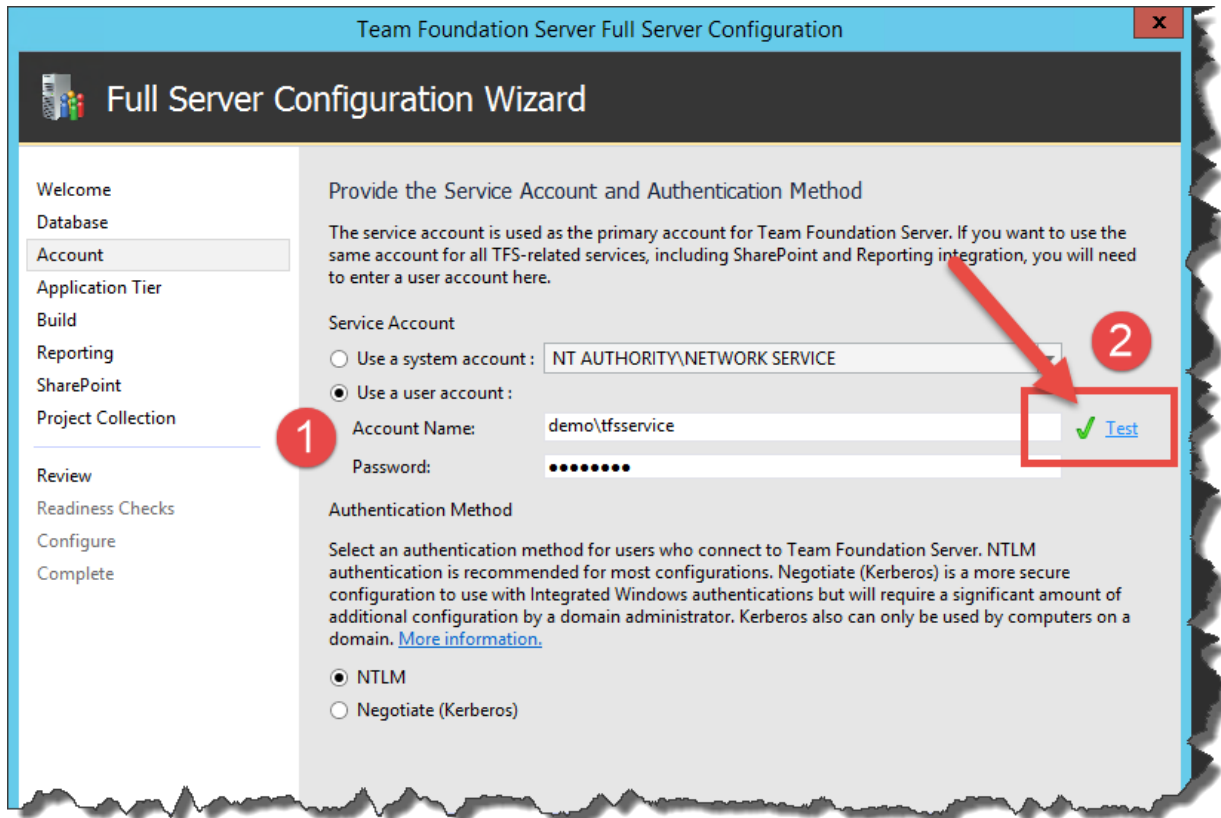
- Select **Use a user account**
- In the **Account Name** textbox, enter the user name for the TFS service user
- In the **Password** textbox, enter the password for the TFS service user
- Click the **Test** link to verify the login information
- Click **Next**

## TFS Service Network Port & Virtual Directory Name

You should now see the **Provide the Settings for Your Application Tier Web Services** page. Don't make any changes.

- Click **Next**

TFS Build Service Account

You should now see the **Provide your default build service settings** page. I'd recommend running the build server as a user account rather than a system account. If you don't intend to use this machine as a build server, you'll probably want to make sure that the service doesn't start automatically.
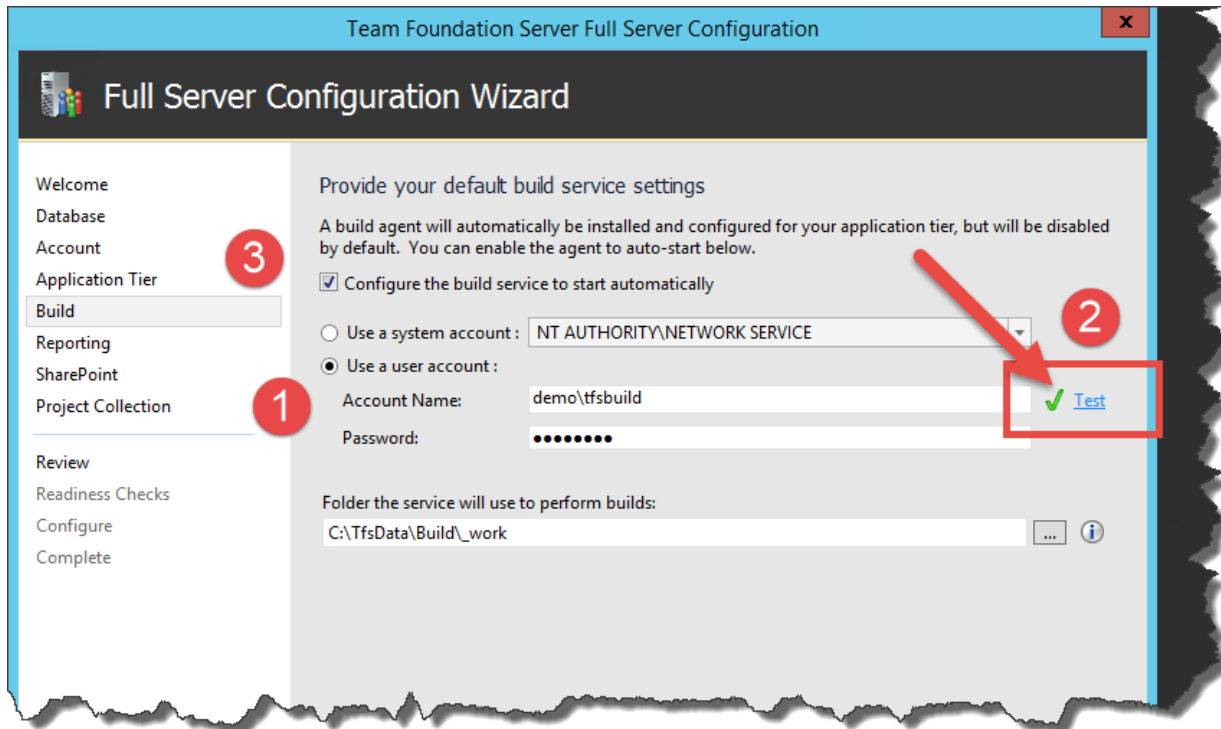
- Select **Use a user account**
- In the **Account Name** textbox, enter the user name for the TFS build user
- In the **Password** textbox, enter the password for the TFS build user
- Click the **Test** link to verify the login information
- If you intend to use this machine as a build server, check **Configure the build service to start automatically**. Otherwise, make sure this option is unchecked.
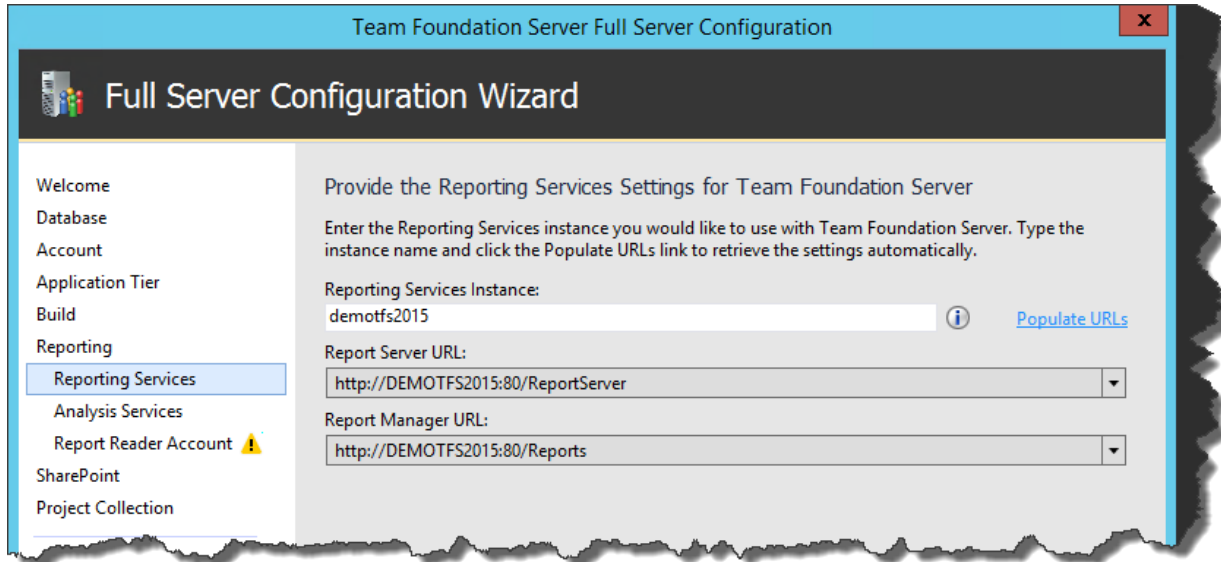- Click **Next**

(Optional) Configure Reporting

Next you'll be on the page for configuring TFS's SQL Server Report Services and SQL Server Analysis Services features. If you don't want to use reporting, then make sure that **Configure Reporting for use with Team Foundation Server** is unchecked and then skip to the next section of the guide.
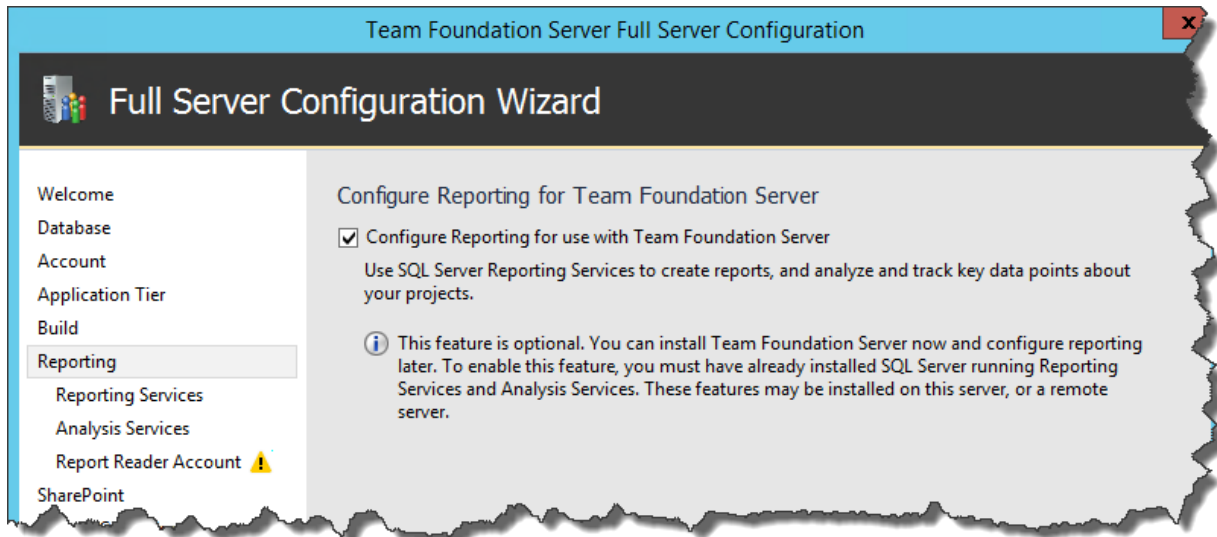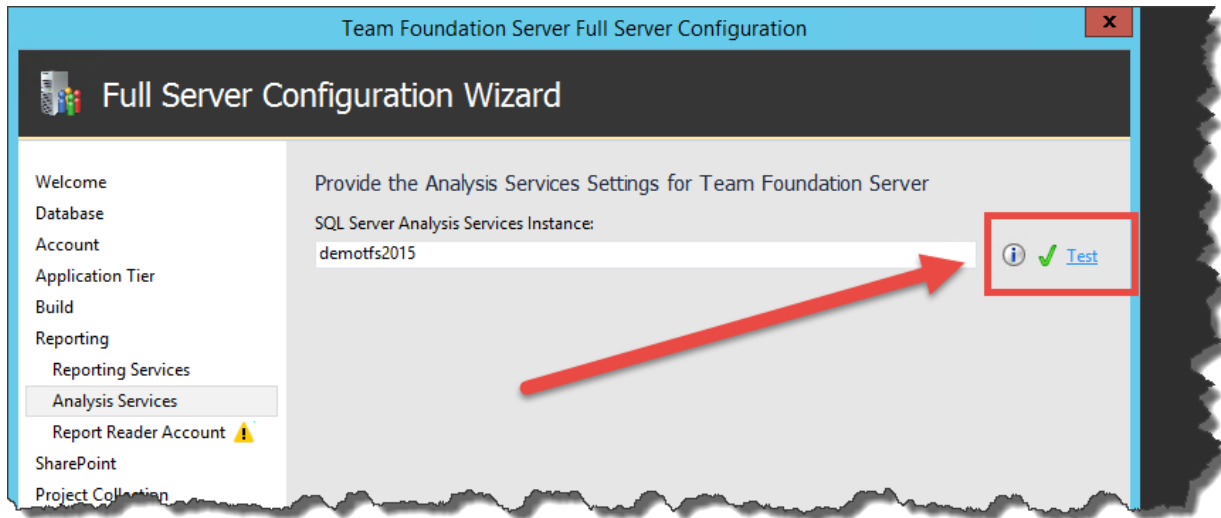

- (Optional) Check **Configure Reporting for use with Team Foundation Server**
- Click **Next**

You'll now be prompted for SQL Server Reporting Services URLs.

- Enter the name of the **Reporting Services Instance**
- Click **Next**

You should now be on the Analysis Services settings page.

- Enter the name of the **SQL Server Analysis Services Instance**
- Click the **Test** link to verify that you can connect
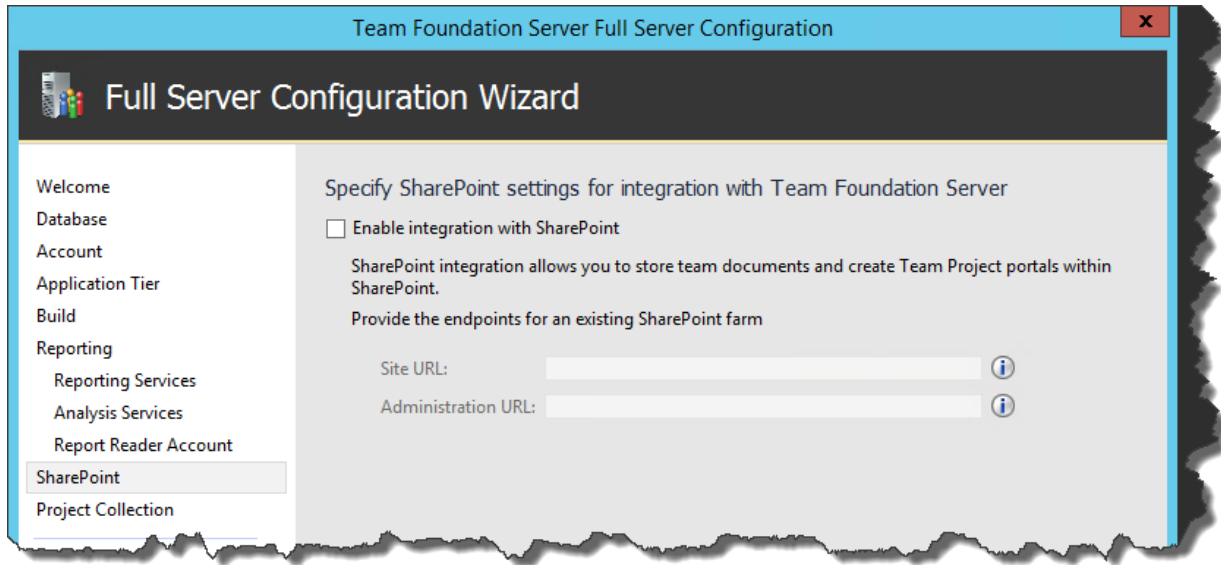- Click **Next**

You should now be on the **Provide the Account that Reports will Run as** page. By default, the reports will run as the same service account as Team Foundation Server. It's recommended to run this as a separate user account.
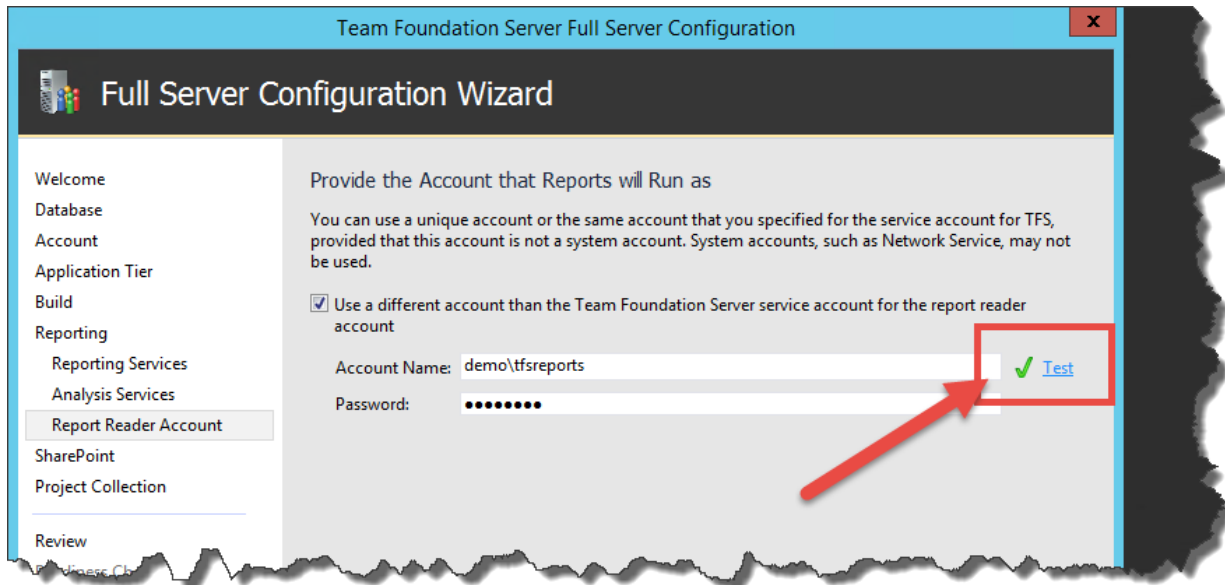
- Check **Use a different account than the Team Foundation Server service account…** checkbox
- Type the user account into the **Account Name** text box
- Type the password into the **Password** text box
- Click the **Test** link to verify the username and password
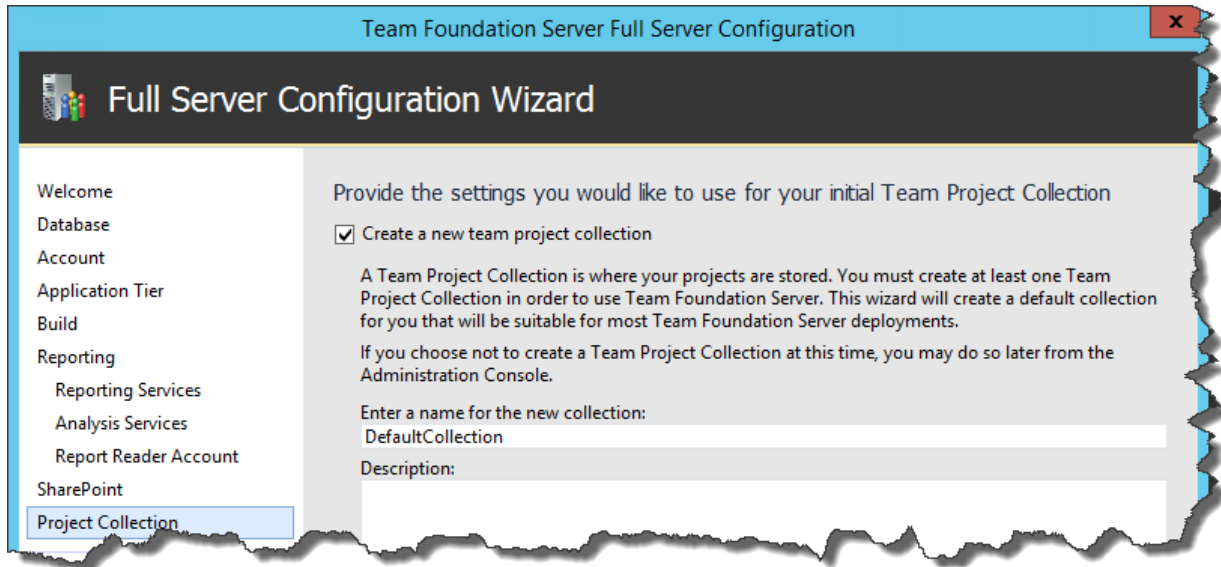- Click **Next**

SharePoint Settings

This guide assumes that you won't be installing the integration between TFS and SharePoint. This can always be configured later on if you need it.

- Uncheck **Enable integration with SharePoint**
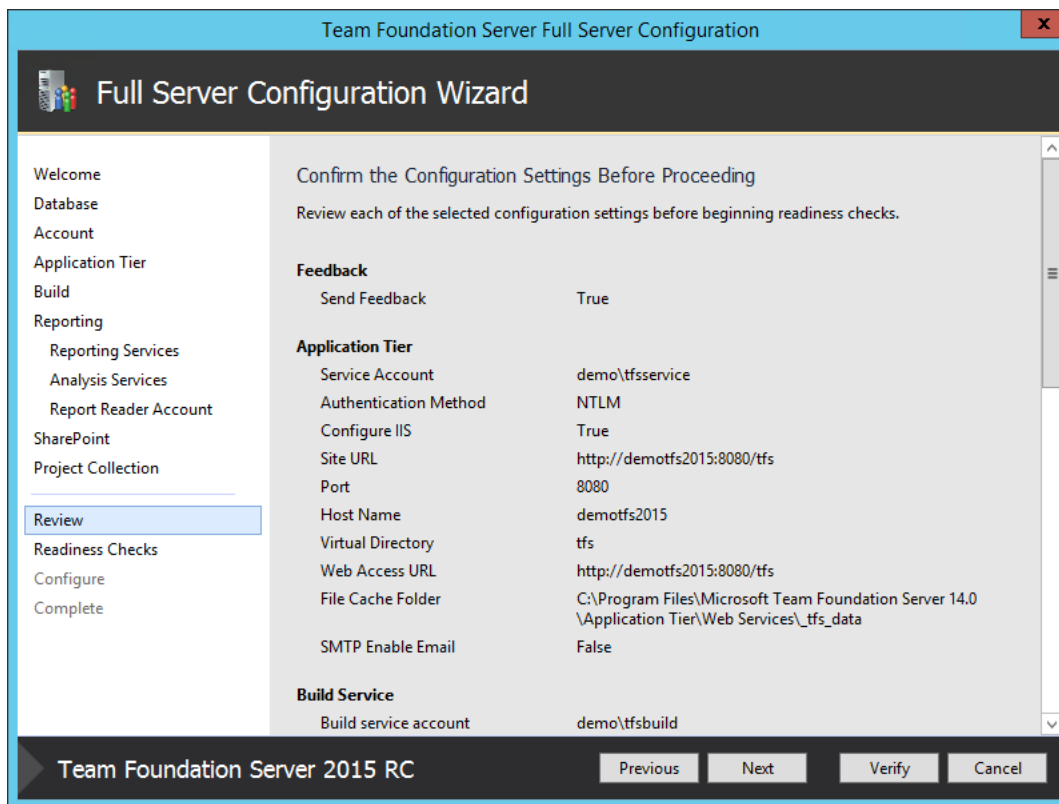- Click **Next**

Team Project Collection Settings

You should now be on the Team Project Collections Settings page. Since this is a new instance of Team Foundation Server, you'll definitely want to create a new Team Project Collection.

- Check **Create a new team project collection**
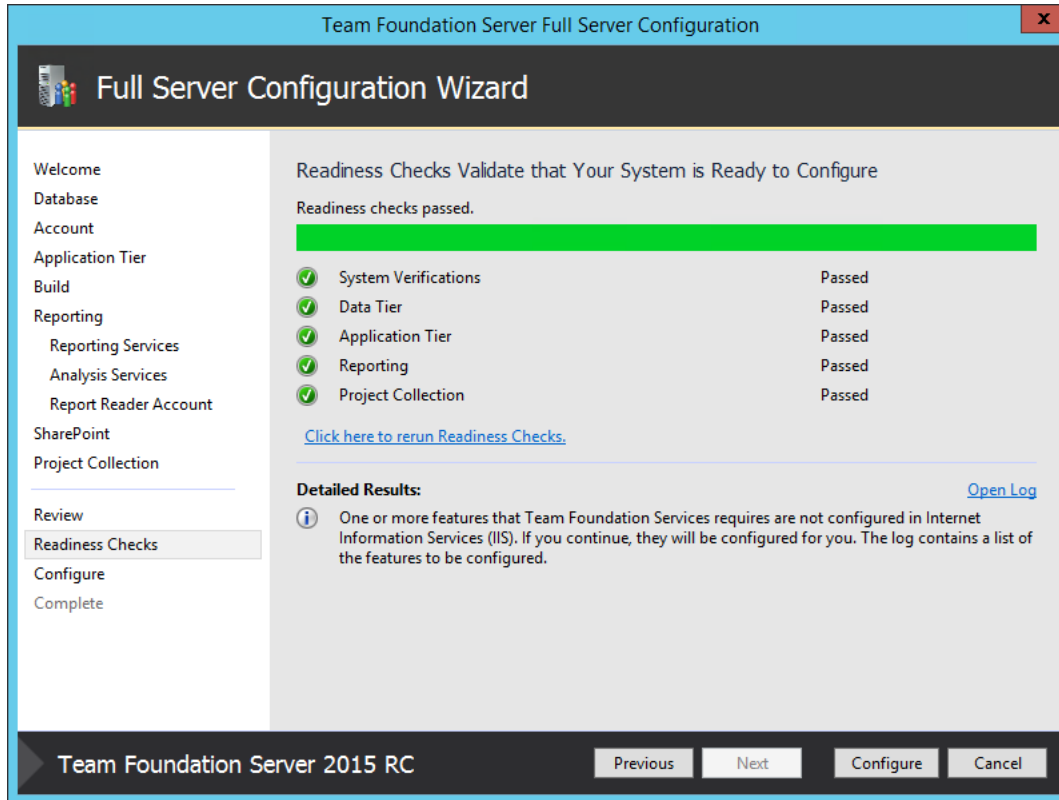- Click **Next**

Review, Verifications, & Run the Install

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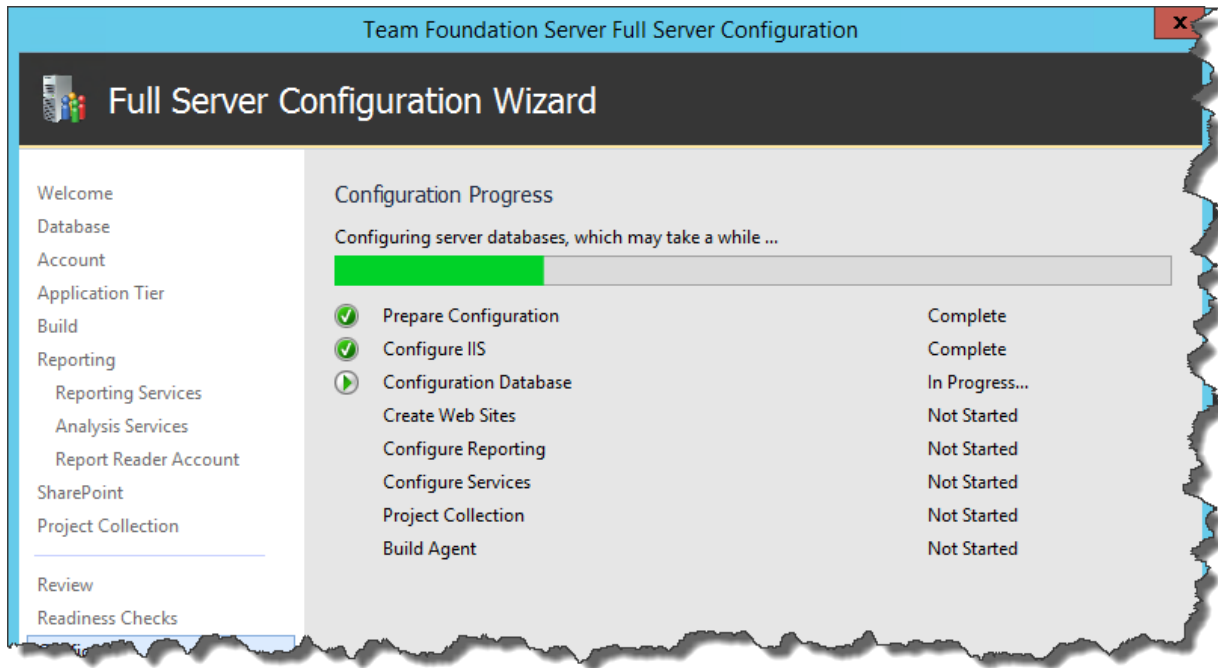

- Click **Next**

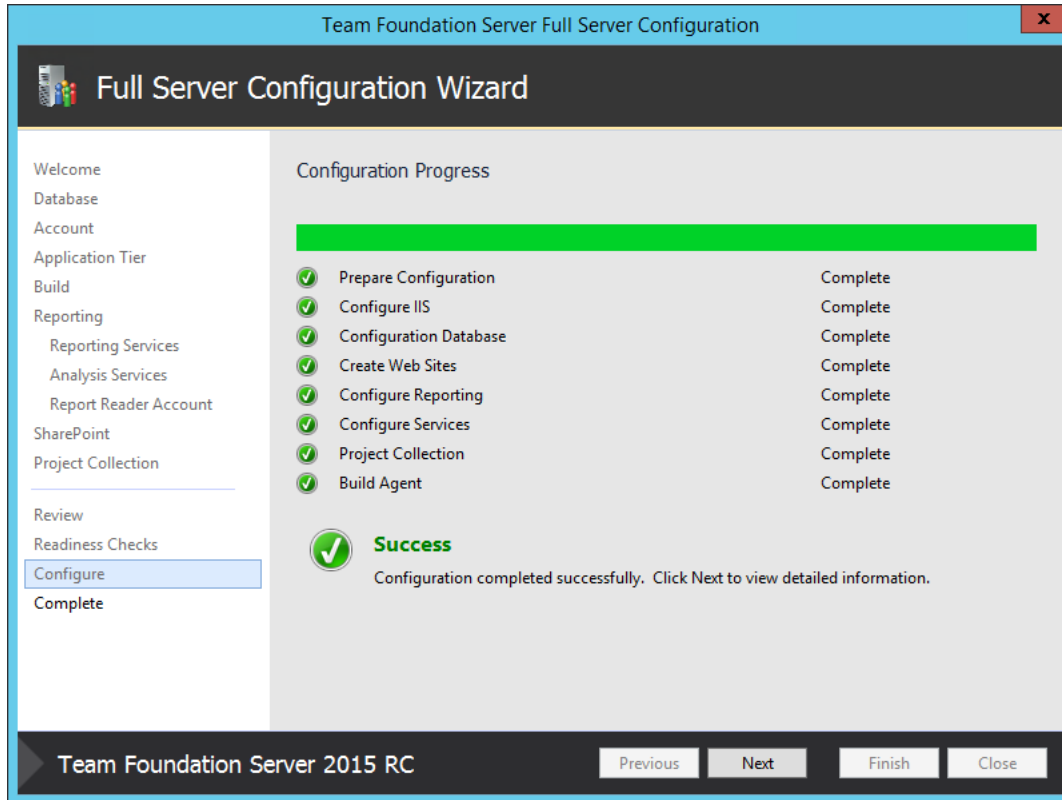The installer will run some verification tests. They should all pass.

- Click **Configure**

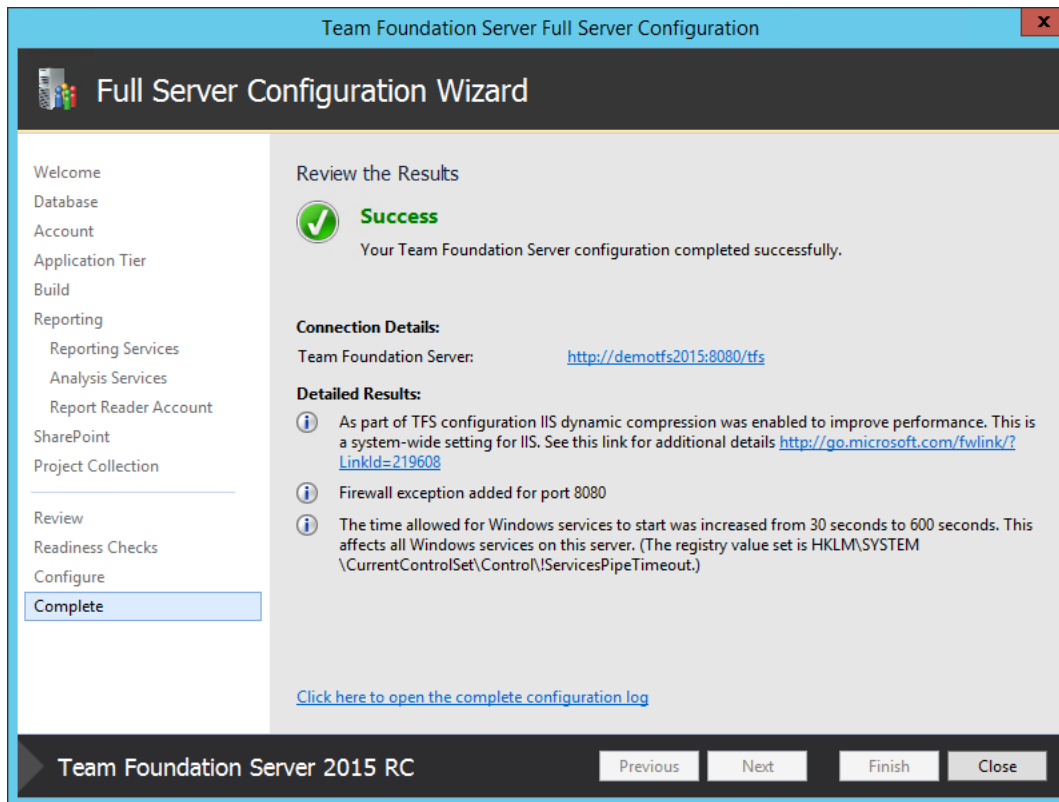The configuration of TFS should now be running.

The configuration process should eventually complete and should hopefully succeed.

- Click **Next**

You should now be on the final page of the wizard where it shows you the URL for the new TFS instance.

- Click the **Close** button on the **Full Server Configuration Wizard** dialog
- Click the **Close** button on the **Configuration Center** dialog

TFS2015 has been successfully installed.