



Lab - Creating a Virtual Install of Server 2016 Core Using VirtualBox

Unlike some previous releases of Windows Server, you cannot convert between Server 2016 Core and Server 2016 with Desktop Experience after installation. If you install Server Core and later decide to use Server 2016 with Desktop Experience, you should do a fresh installation (and vice versa).

Overview

In this lab, students will create an installation of Server 2016 Core using VirtualBox.

The Server Core installation installs the operating system in non-GUI with minimal footprint and helps to secure the server. The benefits of using core server are:

- Reduced attack surface
- Reduced maintenance
- Consume fewer hardware resources
- Increased stability due to fewer running applications

System requirements for creating a virtual install of Server 2016 using VirtualBox.

Windows Server 2016 is a 64-bit operating system. This lab will only work on 64-bit hardware.

You can get a free copy of VirtualBox by using this link [Download VirtualBox](#).

After downloading VirtualBox, browse to where you saved it, and double-click to start the installation. You can just accept the defaults by clicking **Next** through each screen.

If you already have VirtualBox downloaded and installed, you do not need to download and install it a second time.

This lab is very basic and has just two requirements:

- Installation of VirtualBox onto your local system.
- An ISO image of Server 2016 is readily accessible on your local network.

Download direct from Microsoft: [Server 2016 ISO image](#)

If you have a previous download of Server 2016, you do not need to download it again. You can use the same 2016 ISO image for Server 2016 time again.

Windows Server Evaluations

+ Windows Server 2016
Evaluations | **180 days**

+ Project Honolulu
Evaluations

- Microsoft Hyper-V Server 2016
Evaluations | **Unlimited**

- Start your evaluation

Please complete the form to continue:

* First name	<input type="text"/>
* Last name	<input type="text"/>
* Company name	<input type="text"/>
* Work email address	<input type="text"/>
* Work phone number	<input type="text"/>
* Country	Select one <input type="text"/>

* Indicates a required field

Continue

Next page.... select your language.

Windows Server Evaluations

+ Windows Server 2016
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- Start your evaluation

Please select your language:

English

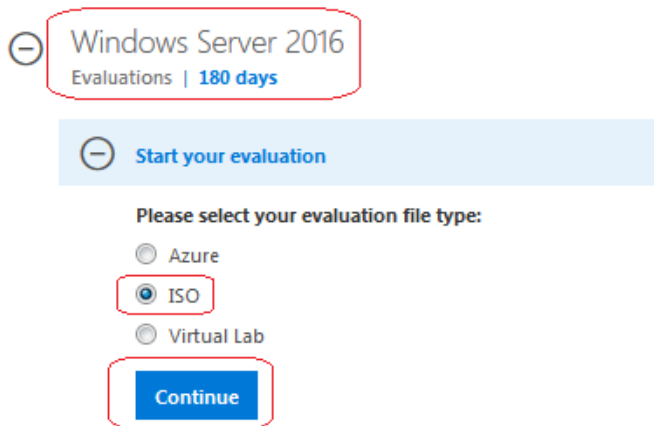
Back

Download



Select Windows Server 2016 180-day evaluation and your download type as ISO.

Windows Server Evaluations



Check yourself...

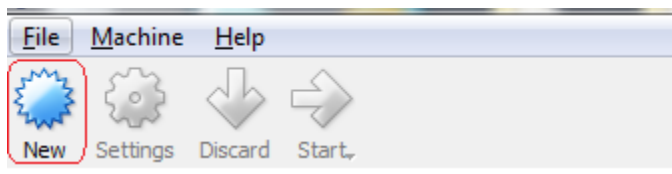
Server 2016 ISO ready for installation.

[Download VirtualBox](#) for Windows. The version may be updated, but it is still the same software. Act accordingly.

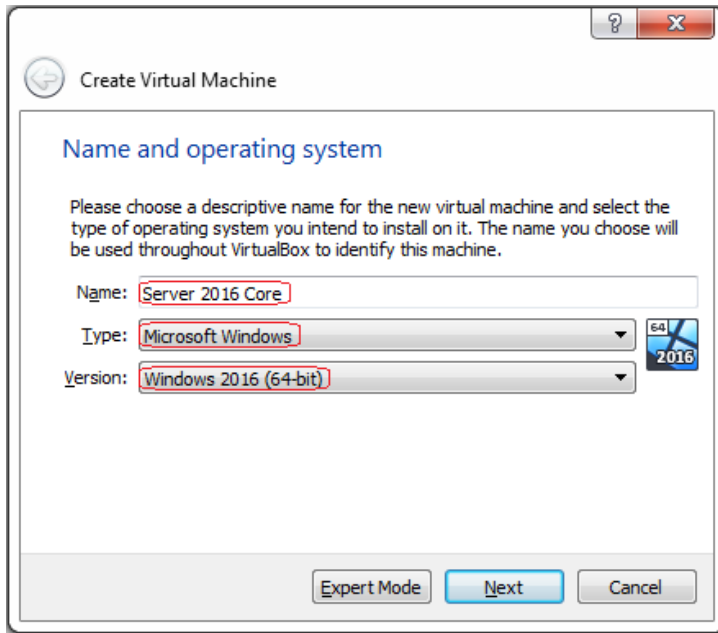
Install VirtualBox and follow the simple instructions given below to install Windows Server 2012 on VirtualBox. Install the virtual adapters if prompted.

Begin the lab!

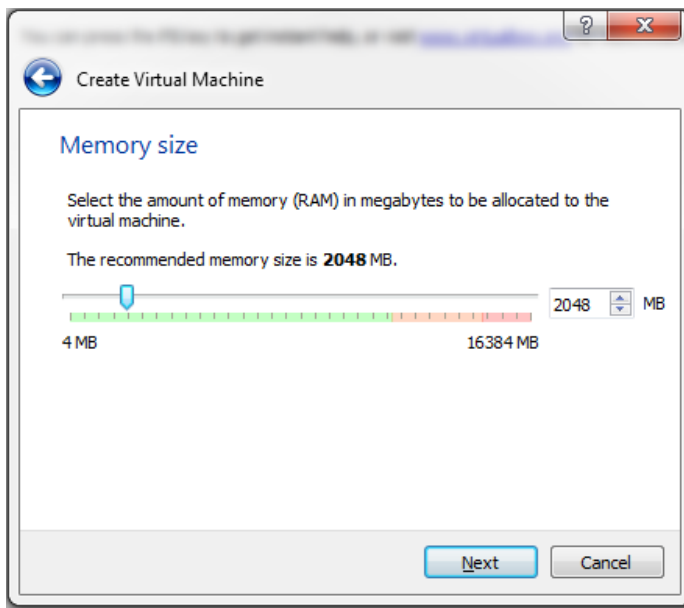
To begin creating a 2016 Core installation, open VirtualBox and from the upper left corner, click on the New button.



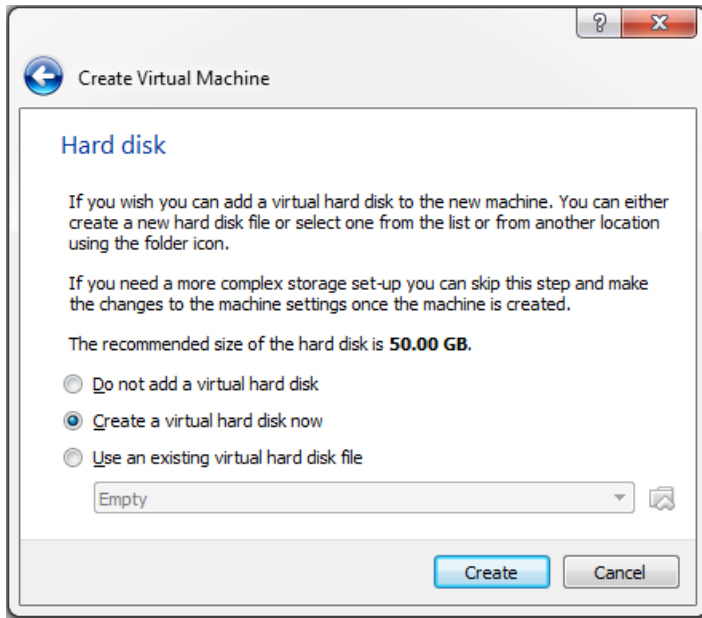
This starts the Create Virtual Machine Wizard.



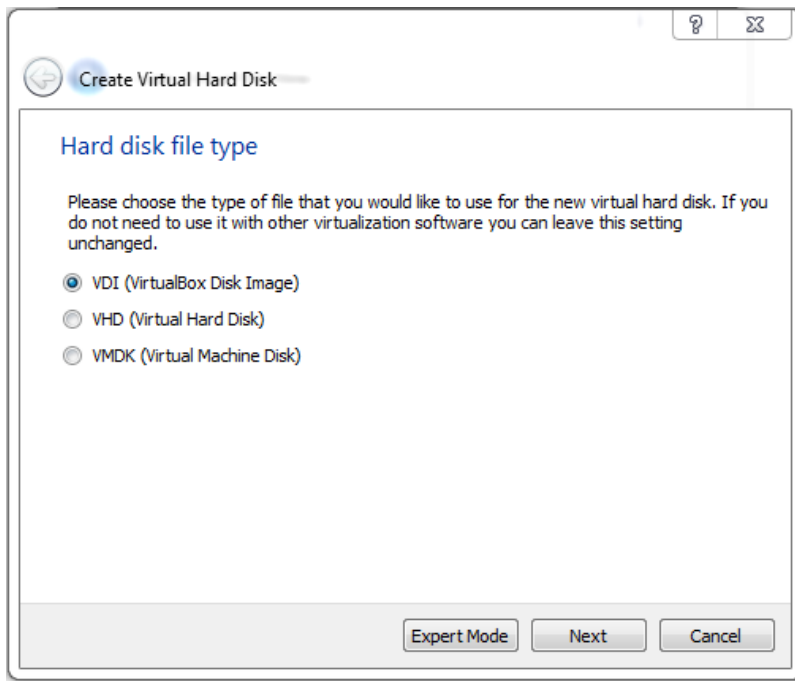
On the next window, accept the default of 2048 MB of RAM. Click next.



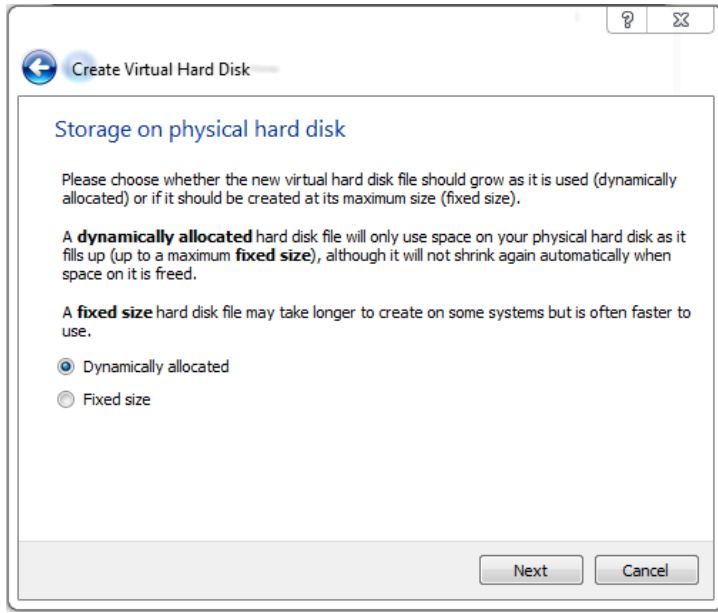
On the next screen, accept the default to create a virtual hard disk now. Click create.



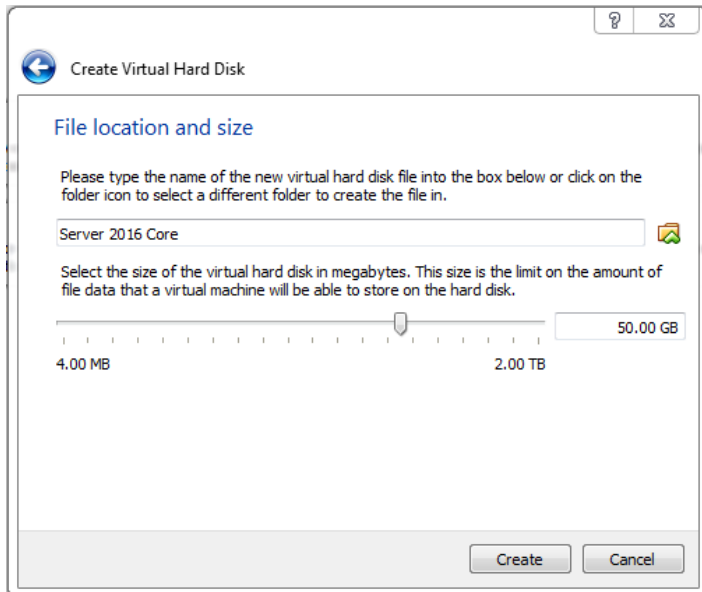
Accept the default for the hard disk type as VDI. Click next.



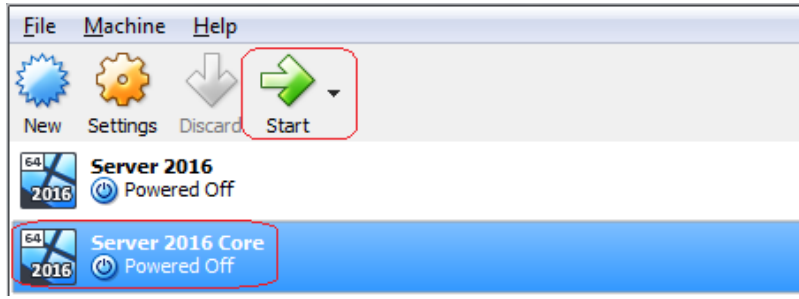
On the next screen, accept the default for the storage on the physical hard disk to be dynamically allocated.



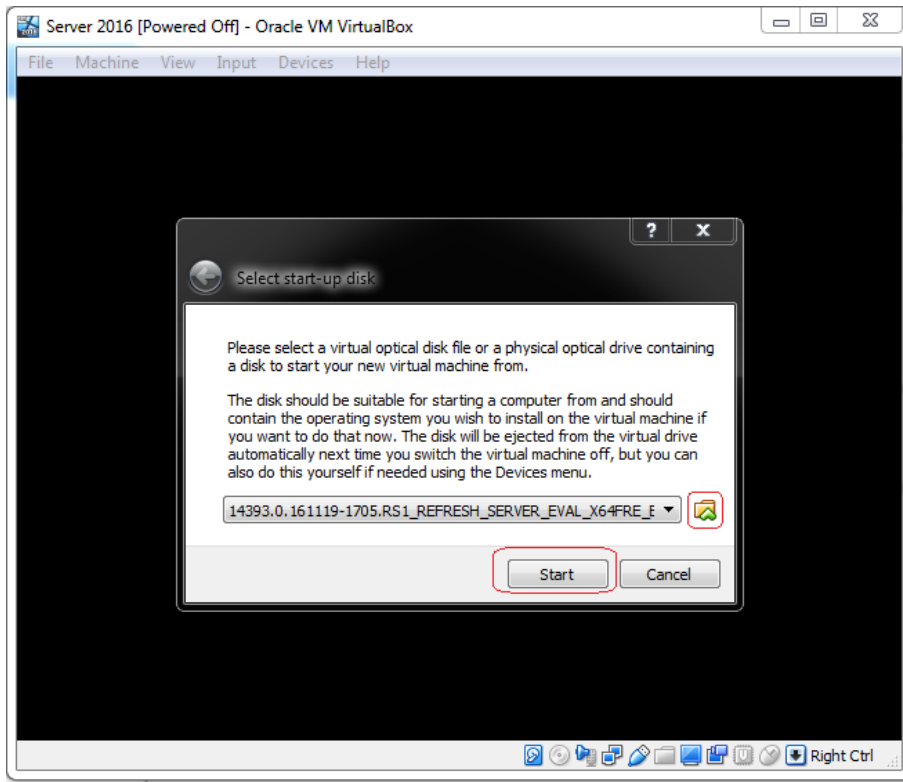
On the next screen, accept the default for the file location and size of 50 GB. Click create.



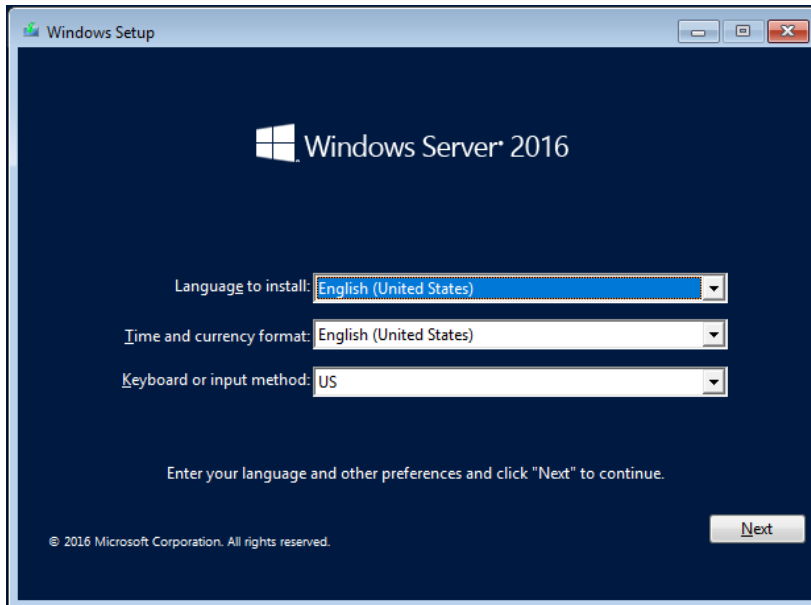
From the left window pane, ensure your disk for Server 2012 Full Install is highlighted and from the grey taskbar, click on the start arrow.



From the select Start-up Disk screen, click on the folder browse button and browse to the download location for your ISO image of Server 2016. Double-click the ISO image and click the Start button.

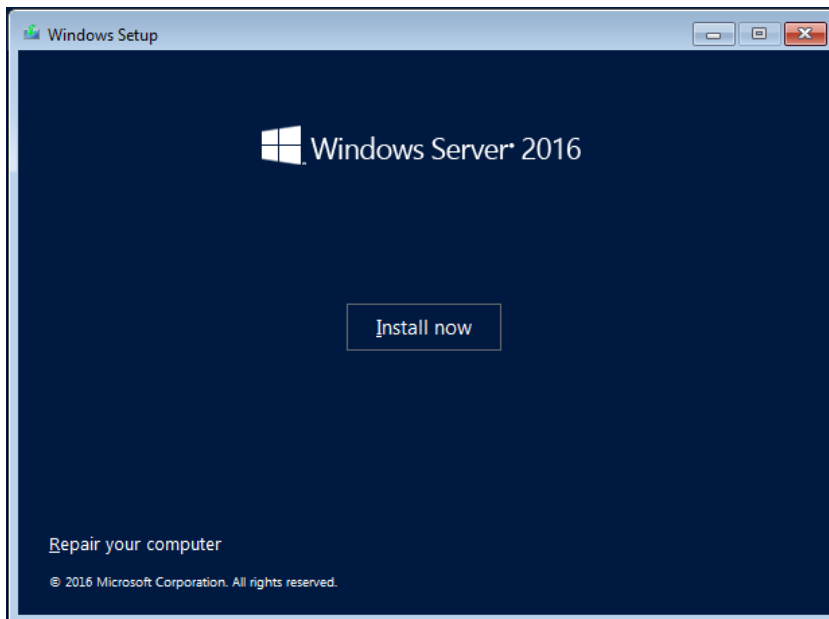


VirtualBox begins the install.

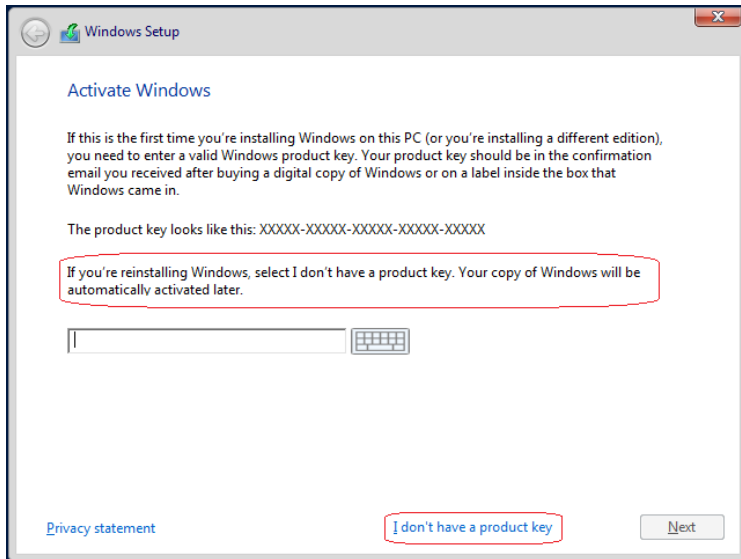


Click on **Next** to start the Windows Server 2016 installation.

Click on **Install now**



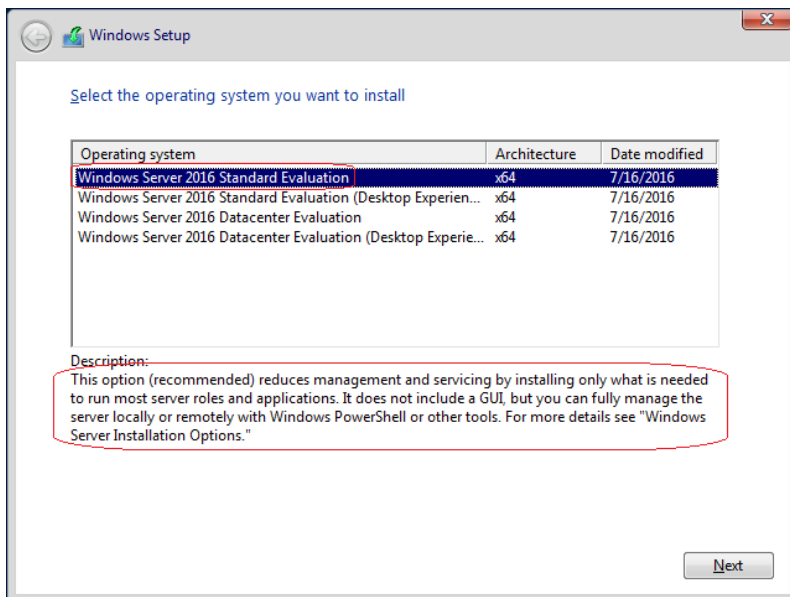
On the next screen, click, 'I don't have a product key' to start your 180-day evaluation of Server 2016.



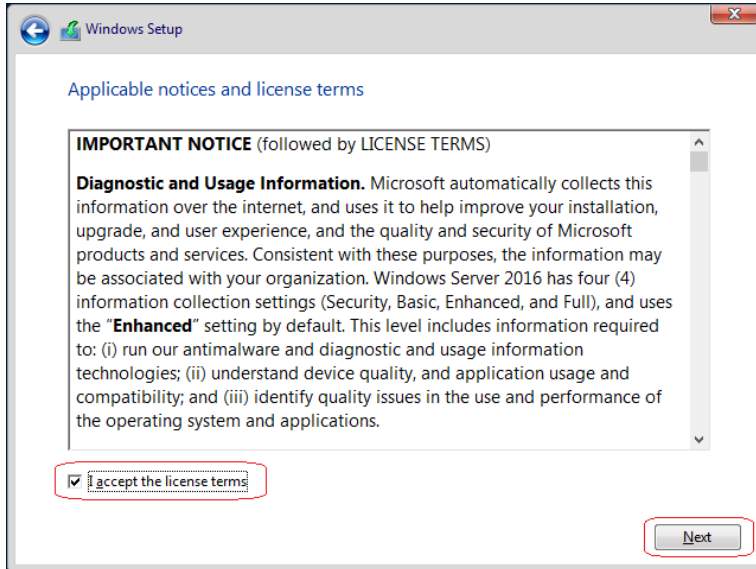
Select the operating system that you wish to install.

Regardless if you install the Server 2016 Datacenter or the 2016 Standard version, you want the installing package that does not include the Desktop Experience. Otherwise, you end up with Server 2016 with GUI.

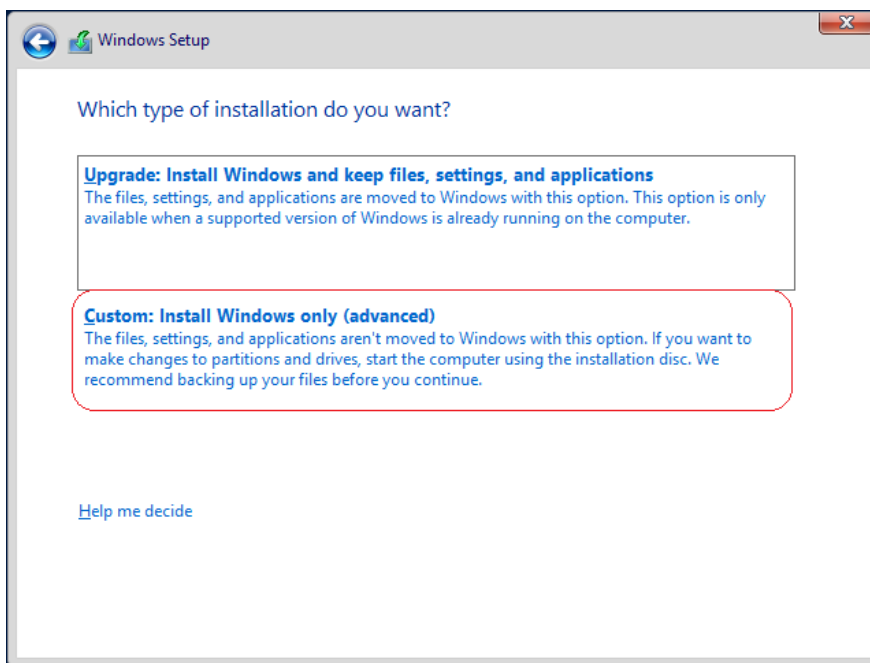
Datacenter can handle more RAM and CPU options, but they are identical operating systems. Students may use either for their labs.



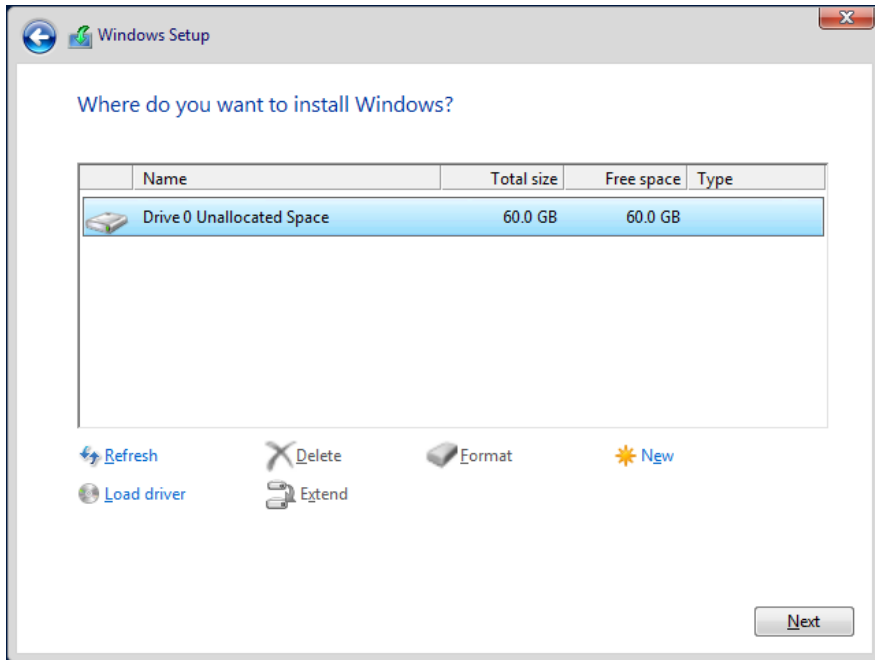
Accept the license agreement.



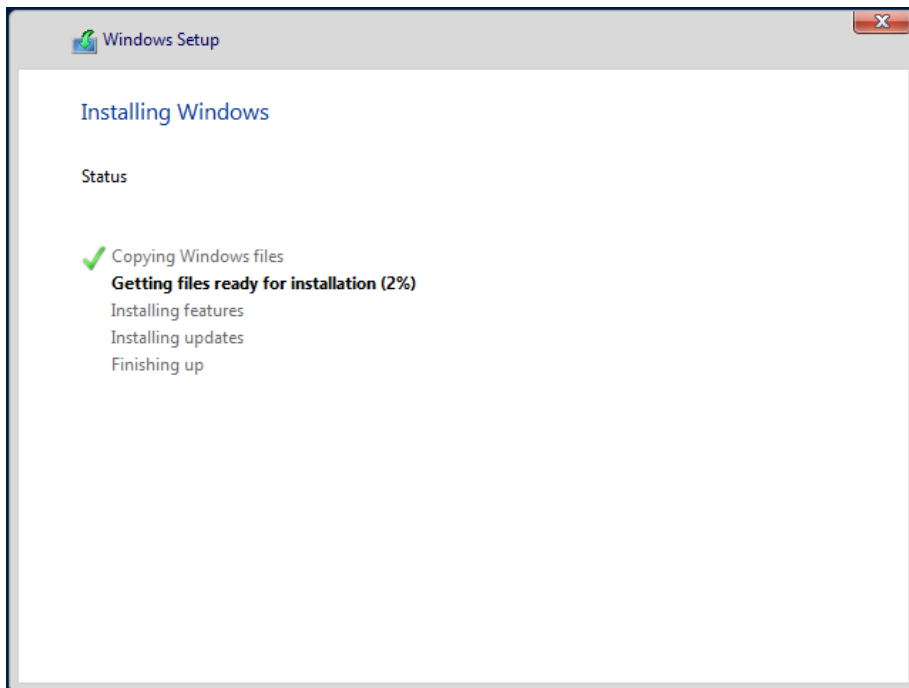
Select **Custom Install Windows only (advanced)**.



Nothing to do here but click **Next**.

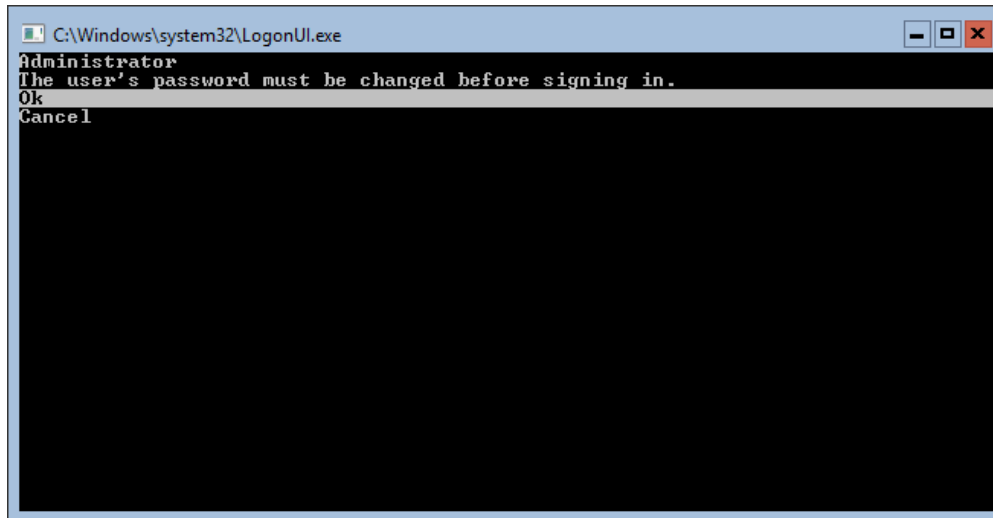


Server 2016 begins the file copy process. Take a break while the installation finishes.

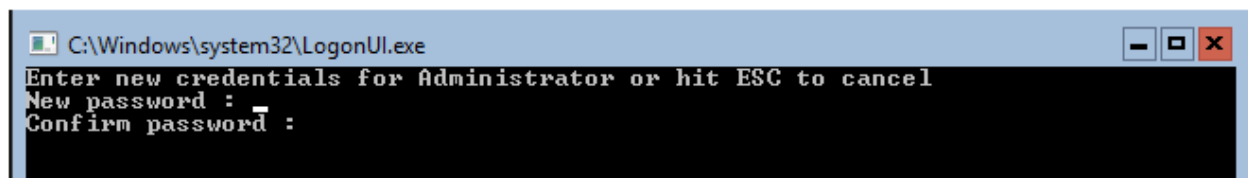


The installation restarts.

At the next screen, hit enter to accept the changing of the administrator's password.



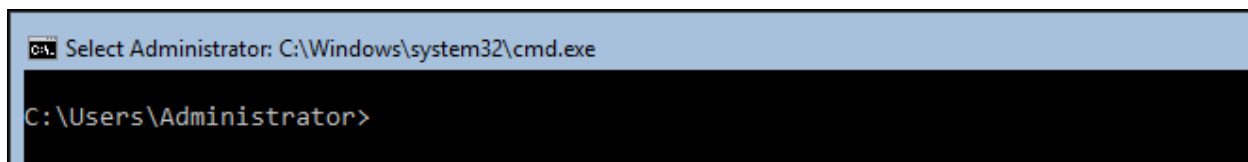
Type in your new administrator password. Hit the tab key to move the confirm password line.



Your password change is confirmed. Hit enter.



You are now at the command prompt for Server 2016 Core.



Since we're doing the Core installation, all you get is a command line window which you use to configure the server via commands and/or scripts including PowerShell. To start your initial server configuration, type "Sconfig" command to start the server configuration.

```
C:\> Administrator: C:\Windows\system32\cmd.exe  
  
C:\Users\Administrator>sconfig
```

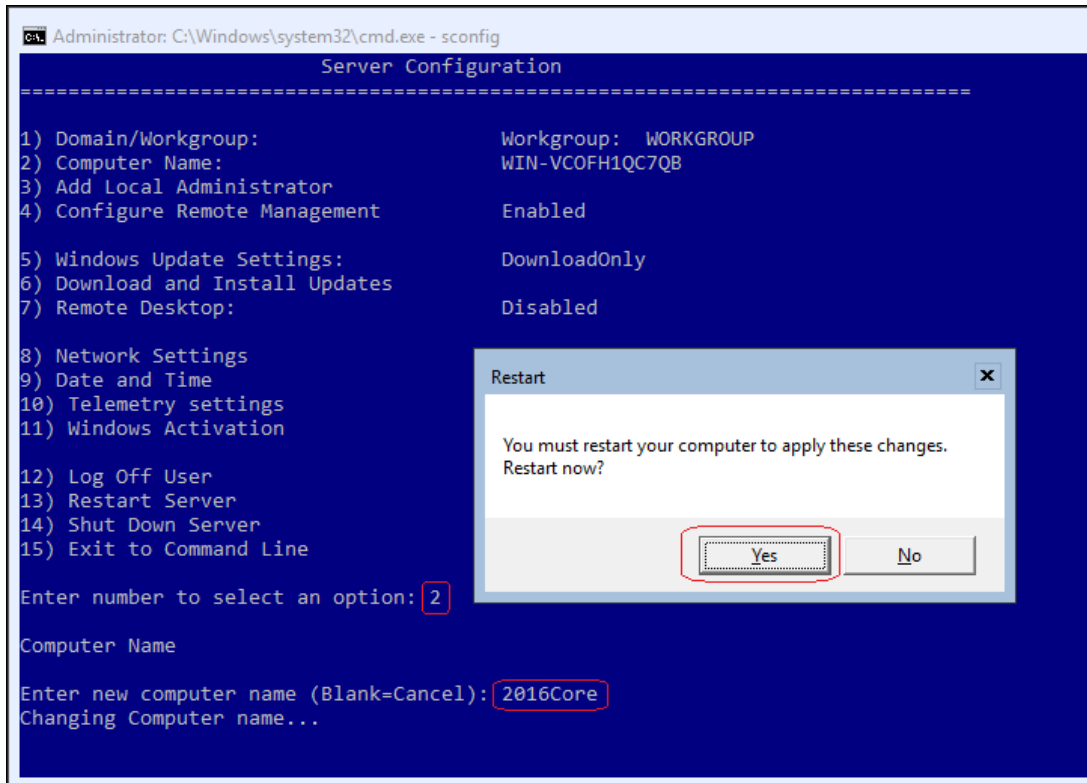
You are greeted with the default parameters and options that you can change.

```
Administrator: C:\Windows\system32\cmd.exe - sconfig  
Microsoft (R) Windows Script Host Version 5.812  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Inspecting system...  
  
===== Server Configuration =====  
=====
```

1) Domain/Workgroup:	Workgroup: WORKGROUP
2) Computer Name:	WIN-VCOFH1QC7QB
3) Add Local Administrator	
4) Configure Remote Management	Enabled
5) Windows Update Settings:	DownloadOnly
6) Download and Install Updates	
7) Remote Desktop:	Disabled
8) Network Settings	
9) Date and Time	
10) Telemetry settings	Enhanced
11) Windows Activation	
12) Log Off User	
13) Restart Server	
14) Shut Down Server	
15) Exit to Command Line	

```
Enter number to select an option:
```

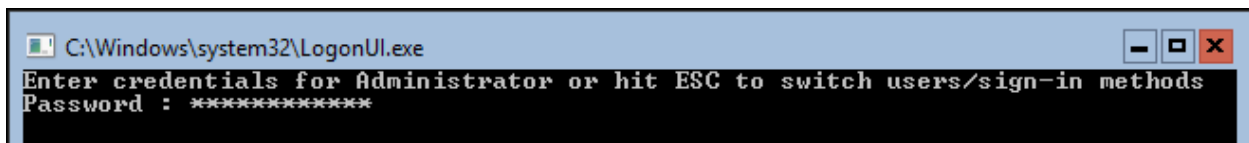
To change the Computer name, choose option 2. Once submitted, a restart will be required.



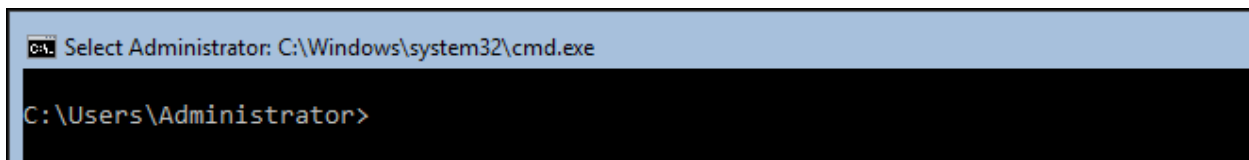
Use your VM to send a Ctrl+Alt+Delete message to the prompt.



Type in your administrator password.



You are now back at the command prompt.



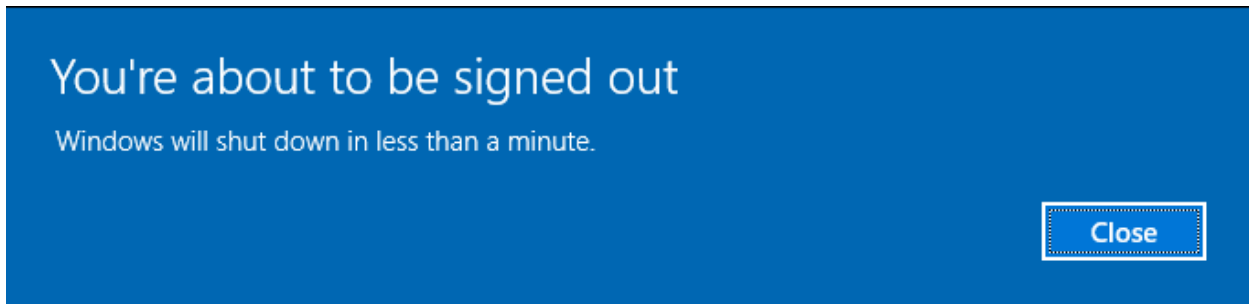


Additional configuration of your Server to include configuring the network adapter and joining the domain will be completed in Section 3 of the course.

To gracefully power off your Server Core installation, at the prompt, type shutdown -s.

```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\Administrator>shutdown -s
```

On the next screen, press the Close button.



We will configure the network settings and join the Server 2016 Core to the domain in Section 3 of the course.

End of the lab!