WINDOWS SERVER 2012 R2 INSTALLATION GUIDE

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Contents

Minimum Hard-Ware Components

Component	Minimum Requirement	Microsoft Recommended
Processor	1.4 GHz	2 GHz or faster
Memory	512 MB RAM	2 GB RAM or greater
Available Disk Space	32 GB	40 GB or greater
Optical Drive	DVD-ROM drive	DVD-ROM drive
Display	Super VGA (800x600) monitor	XGA (1024x768) monitor

Installation Guide

Step 1-

Install the windows server 2012 R2 Disc OR the ISO File

Step 2-

You will come to the starting Windows Setup Screen, click **next** on the bottom right

Step 3-

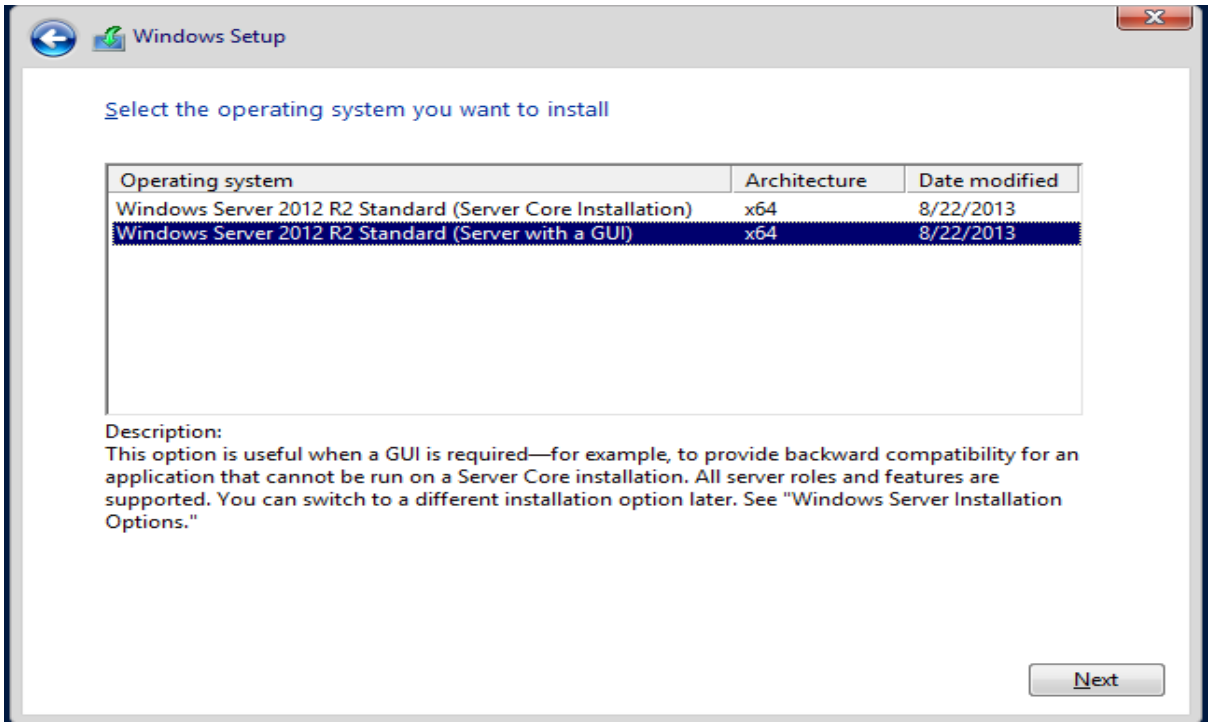
Press "**Install Now**" in the middle of the Windows Setup Screen

Step 4-

Enter Your Product Key in the box provided, it should be on the back of the box that Windows came in or in a message.

Step 5-

Next choose if you want to install R2 Standard- (**Server Core Installation**) or, R2 Standard-(**Server with GUI**) Gui is recommended over Server Core However you can choose either.

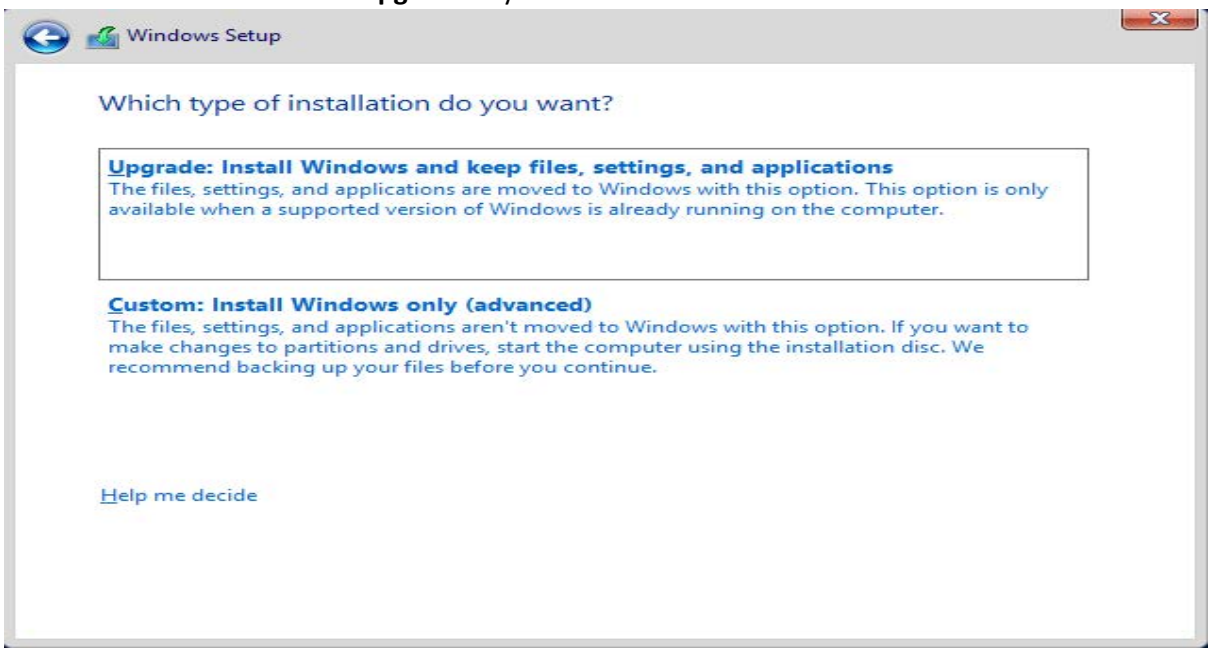


Step 6-

Accept the terms to your windows setup

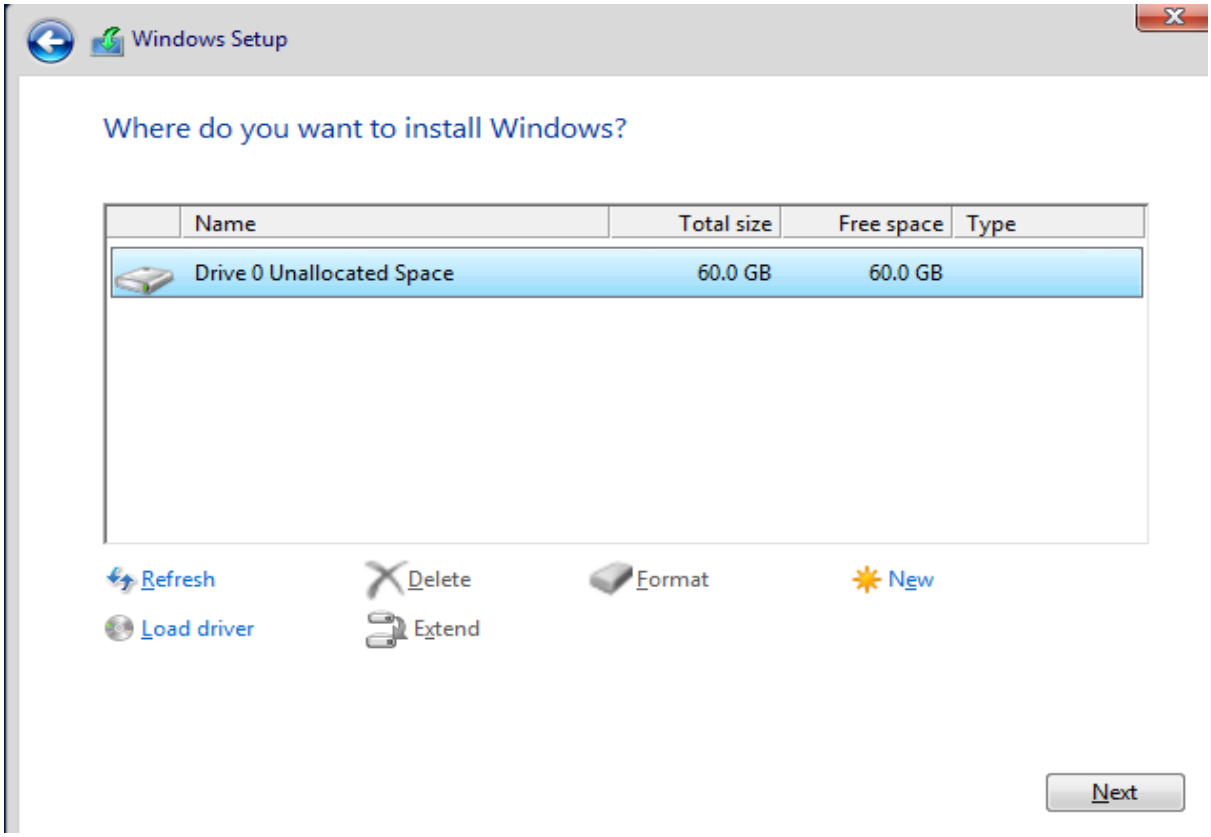
Step 7-

Select which type of installation you would like, either to **upgrade**: where you Install Windows & Keep files, settings and applications or **Custom**: where it Installs Windows only. If Blank Hard-drive choose **Custom** If not Choose **upgrade** so you don't lose files.



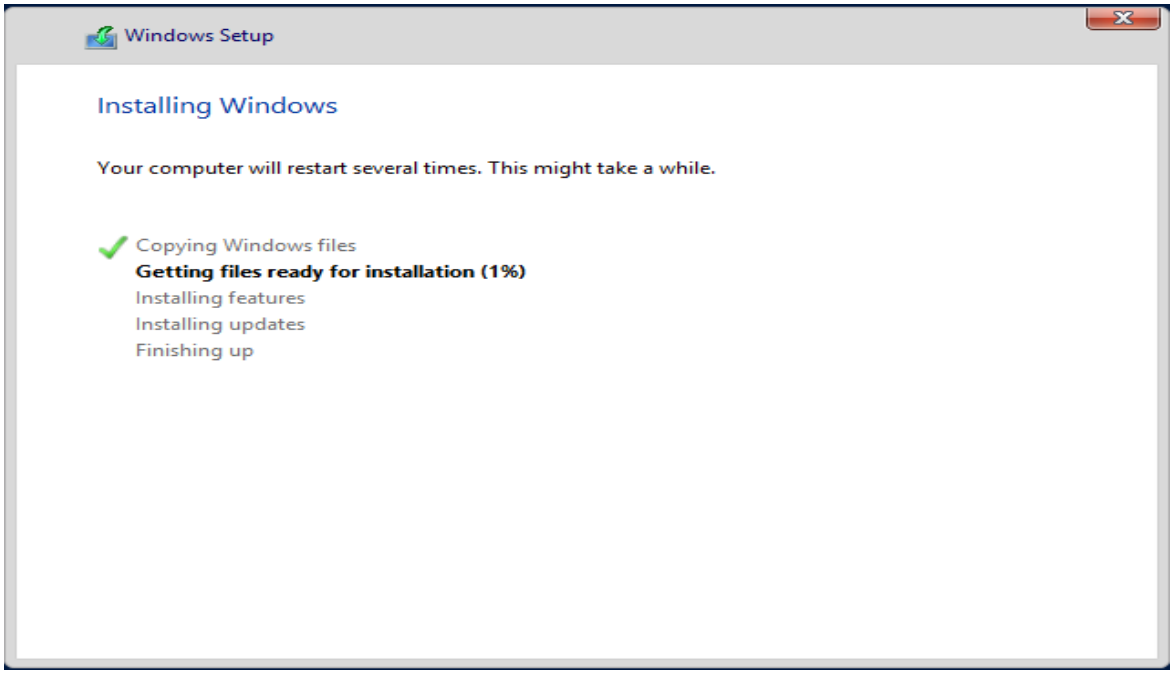
Step 8-

Choose what Drive you want to install **Windows Server R2 2012** into: Preferably the drive with the freest space.



Step 9-

Be prepared to wait a while as your Windows Server will now be installing.

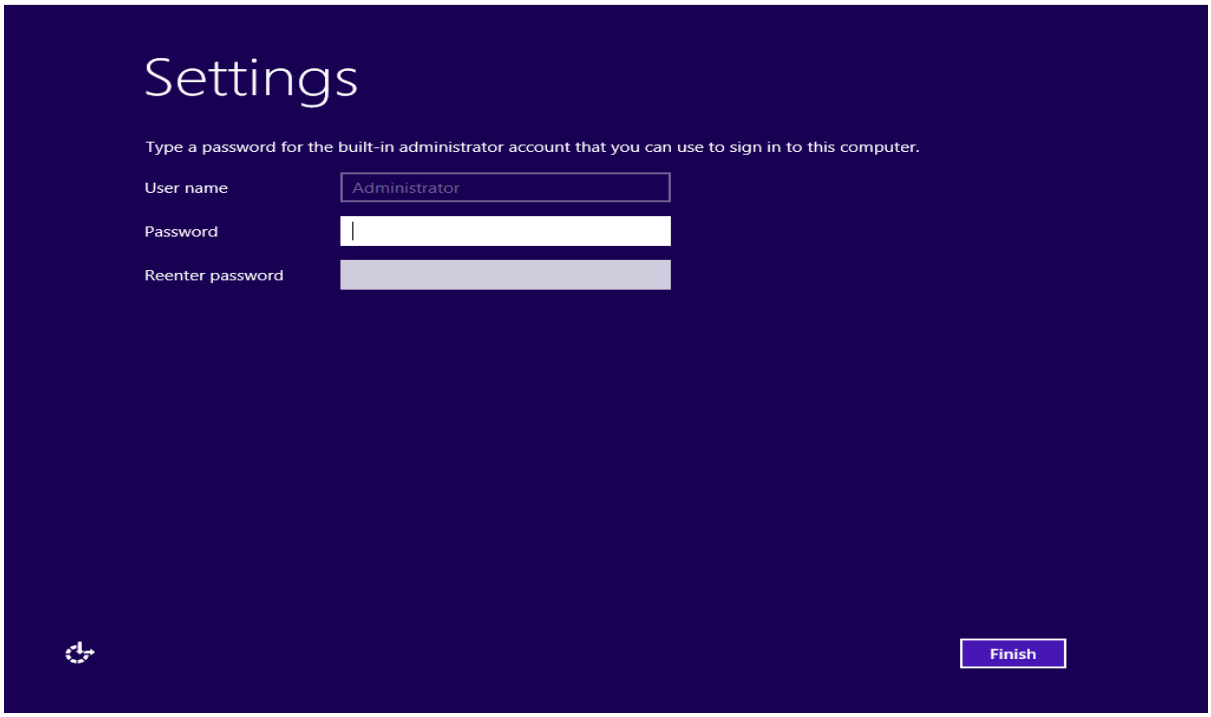


Step 10-

Don't worry if the screen goes black as windows is being configured.

Step 11-

Set your user name and password that you would like.

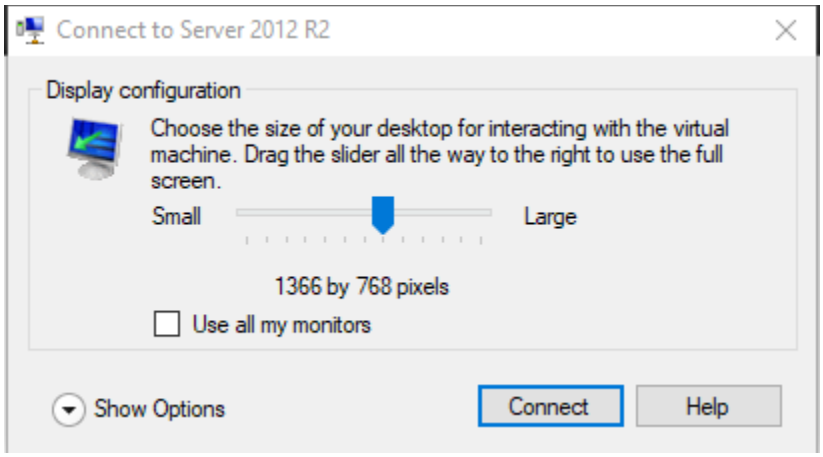


Step 12-

Sign in to your computer with the details you just entered in **Step 11**

Step 13-

Set your display configuration for your server

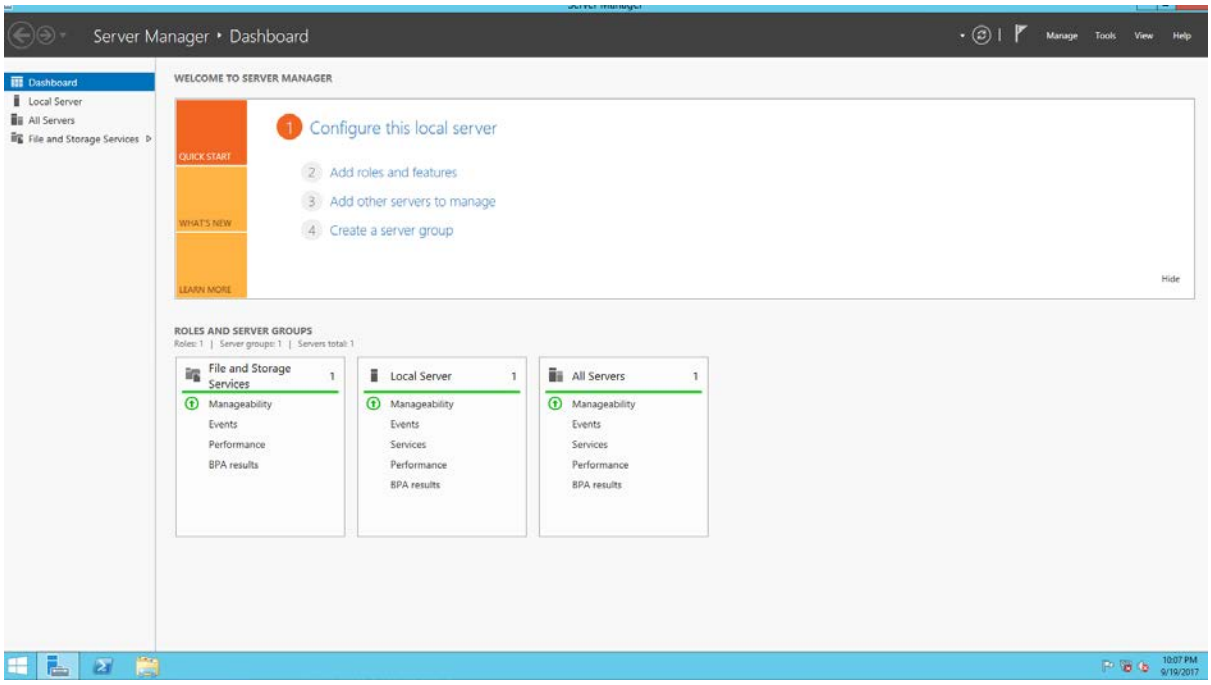


Step 14-

Server R2 will now reboot itself and prompt you to log in again-

Step 15-

Congratulations you should now be on the server manager page which means that you have a **Server R2 installed** but with no active configurations.



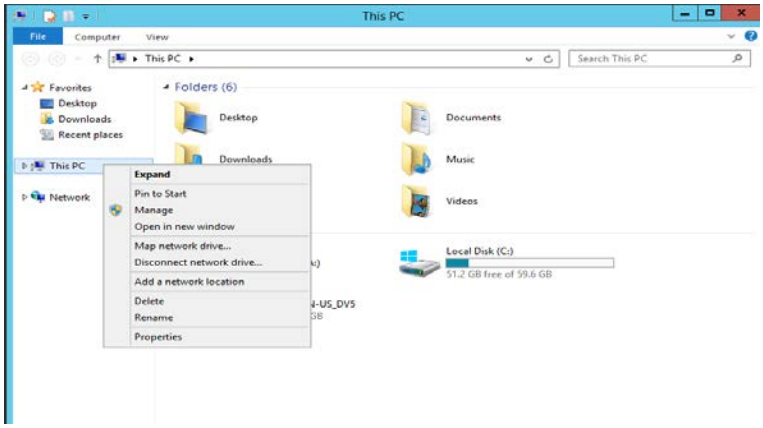
Changing Host Name on Windows Server 2012 R2

Step 1-

Press the windows button and navigate to "**My PC**"

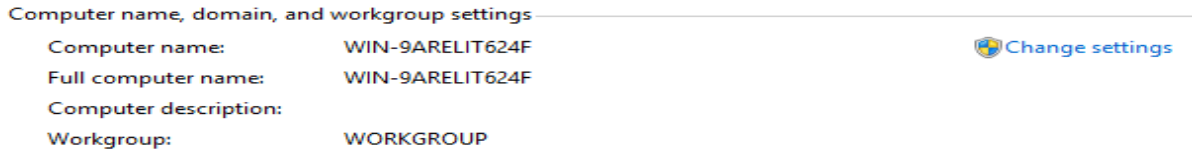
Step 2-

Right click on "My Pc" and click on the last option "properties"



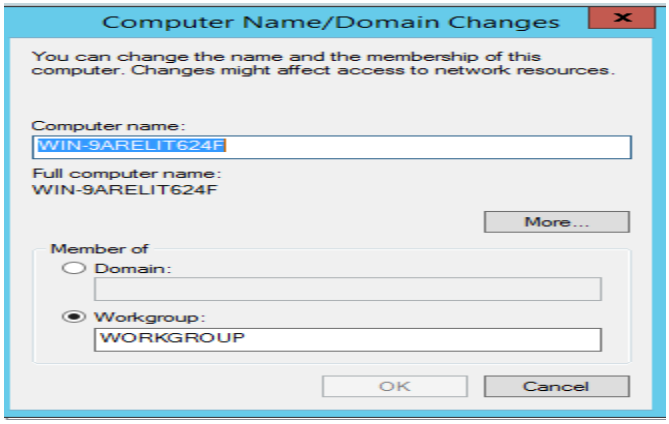
Step 3-

You will now be on the **System Information**, if you look towards the bottom right of your screen you will see "**Change Settings**" with a shield before the name.



Step 4-

You will now see that **System properties** is now open, click on "**change**" and then rename your **computer/host name**, you can also change if you want to be part of a **workgroup** or **Domain** by simply selecting either below your name change.



Step 5-

Next simply select "**ok**" and then restart your server.

Step 6-

When you have restarted you will notice that your computer/host name has now been changed and you're ready to set up your IP & DNS

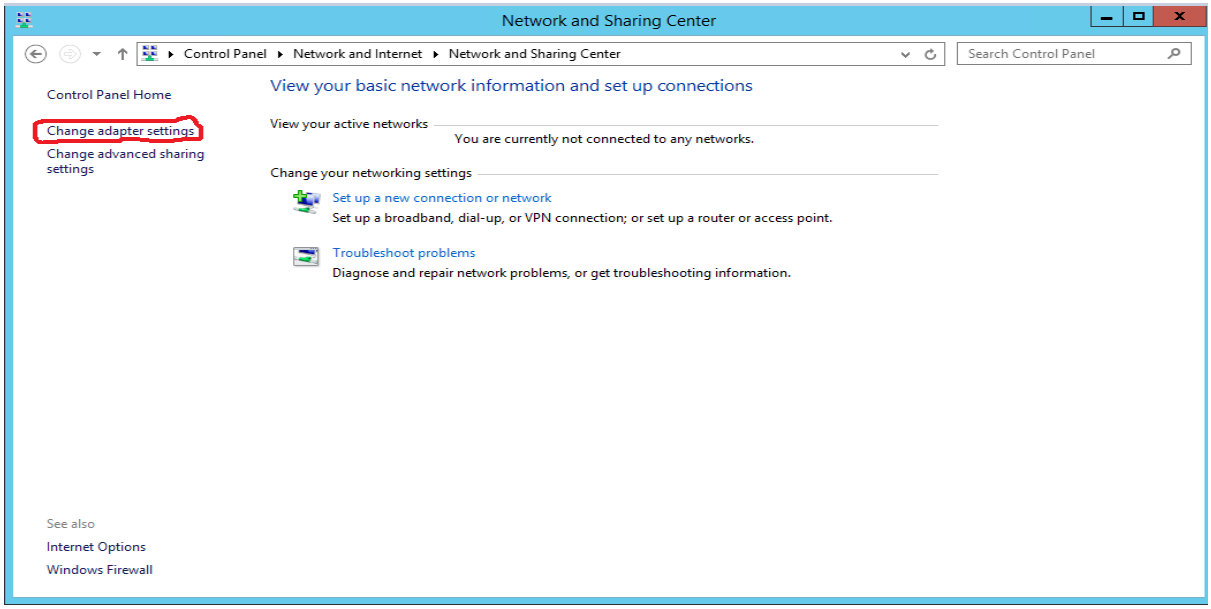
Setting Up IP Address and DNS Server for Windows Server R2

Step 1-

Click start or press the windows key on your keyboard, and go to **control panel** and click on **Network and Security.**

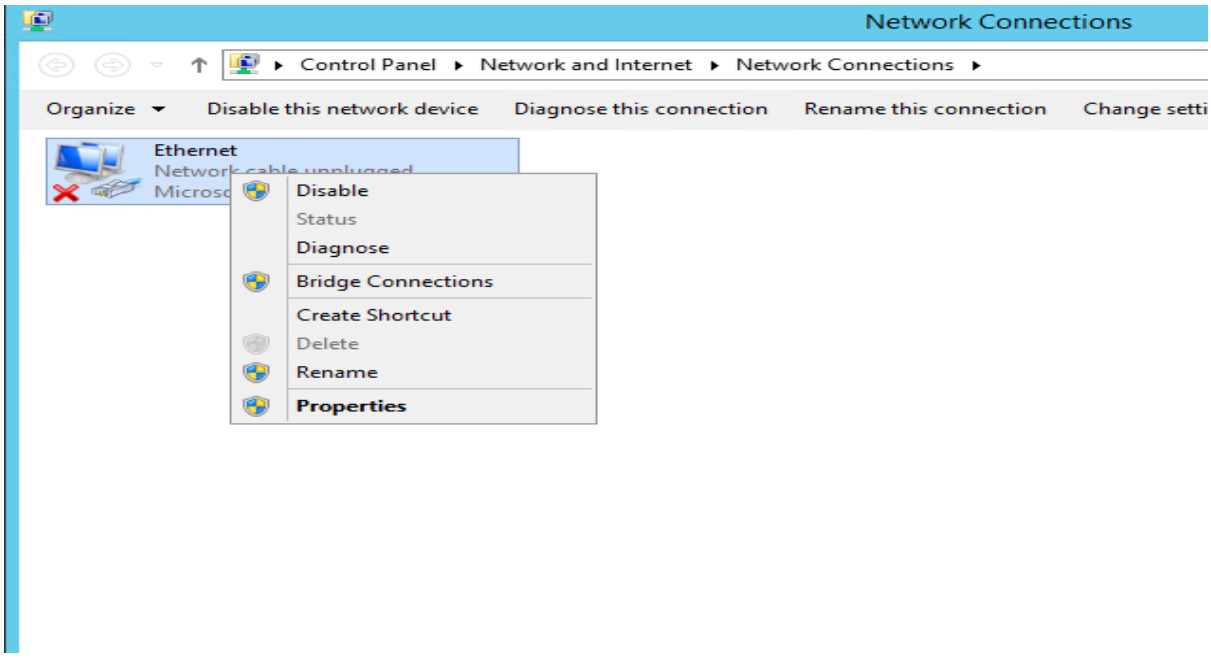
Step 2-

Click on **Network and Sharing Center**, then on the left hand side of your screen there is a button called **Change adapter Settings**, click on that.



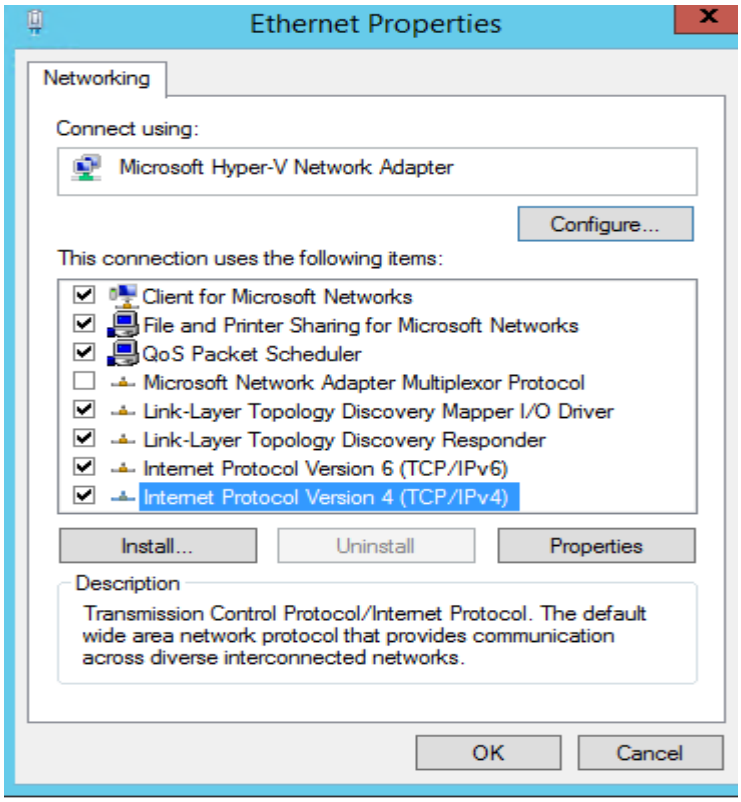
Step 3-

Next you right-click the network connection that you want to configure, and then click **Properties**.



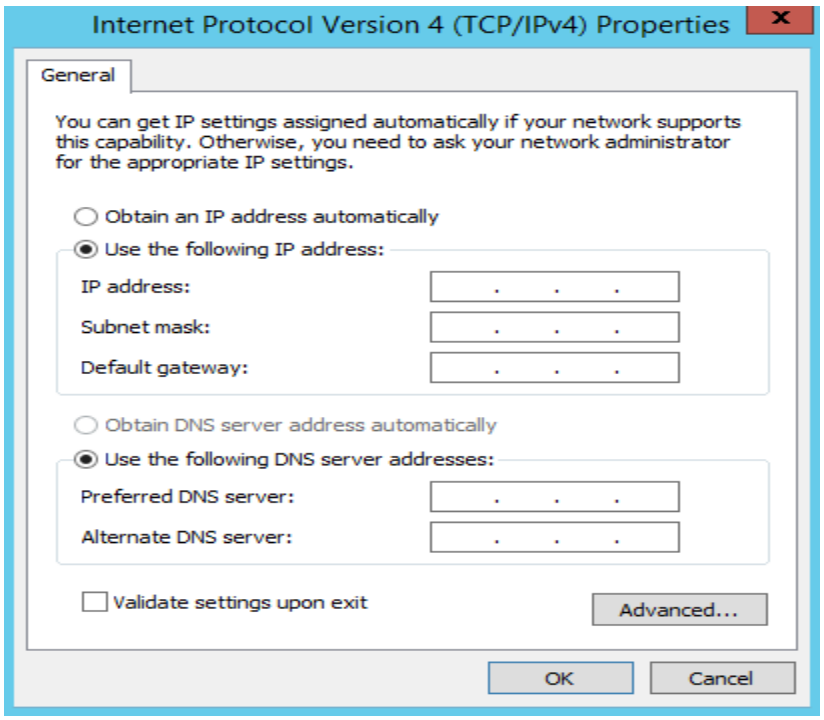
Step 4-

Select **Internet Protocol Version 4 (TCP/IPv4)**, and then click **Properties**. The **Internet Protocol Version 4 (TCP/IPv4) Properties** Dialog Box will now open.



Step 5-

In **Internet Protocol Version 4 (TCP/IPv4) Properties**, on the **General** tab, click **Use the following IP address**. Then put in the **IP address** that you want to use.



Step 6-

Press Tab after putting in your IP address this will automatically set your Subnet Mask

Step 7-

In **Default gateway**, type the IP address of your default gateway, (Your default gateway is your IP address but you change the last digit to a 1.

Step 8-

In **Preferred DNS server**, type the IP address of your DNS server. If you plan to use the local computer as the preferred DNS server, then put in the IP address of your computer.

Step 9-

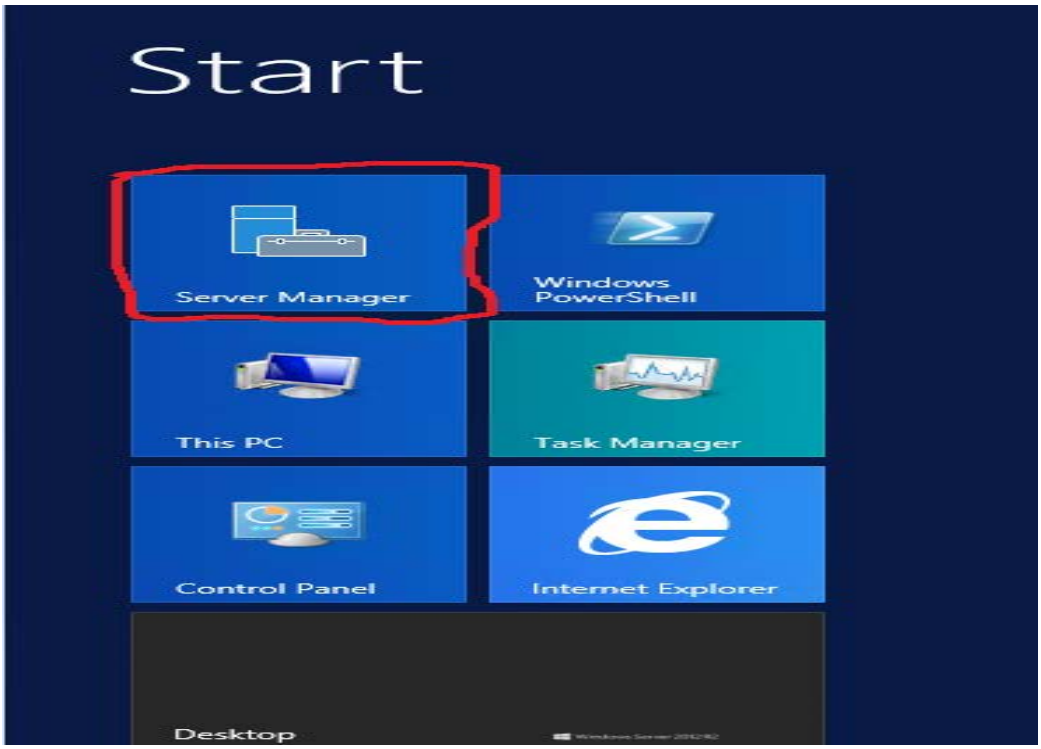
In **Alternate DNS Server**, type the IP address of your alternate DNS server, if any. If you plan to use the local computer as an alternate refer to **Step 8**.

Step 10-

Once you have put in your IP address and DNS (If you're planning on using one) Press OK and then close **Ethernet Properties.**

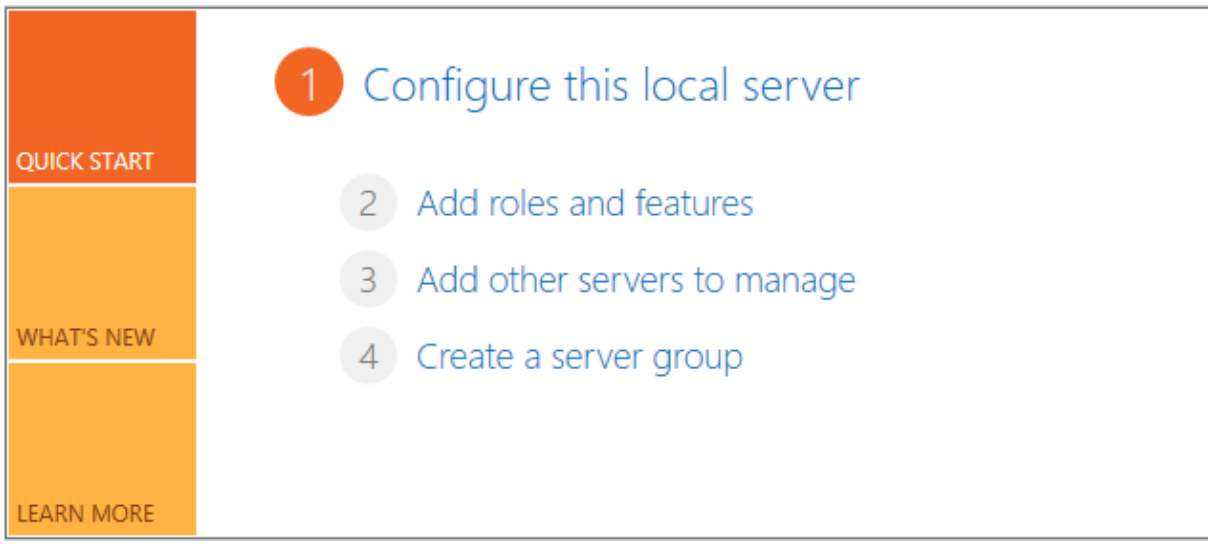
Set Up Active Directory for Windows Server & DNS Server 2012 R2

Go to your **Server Manager**, you can get there by pressing your Windows key or Clicking start and clicking on **Server Manager-**



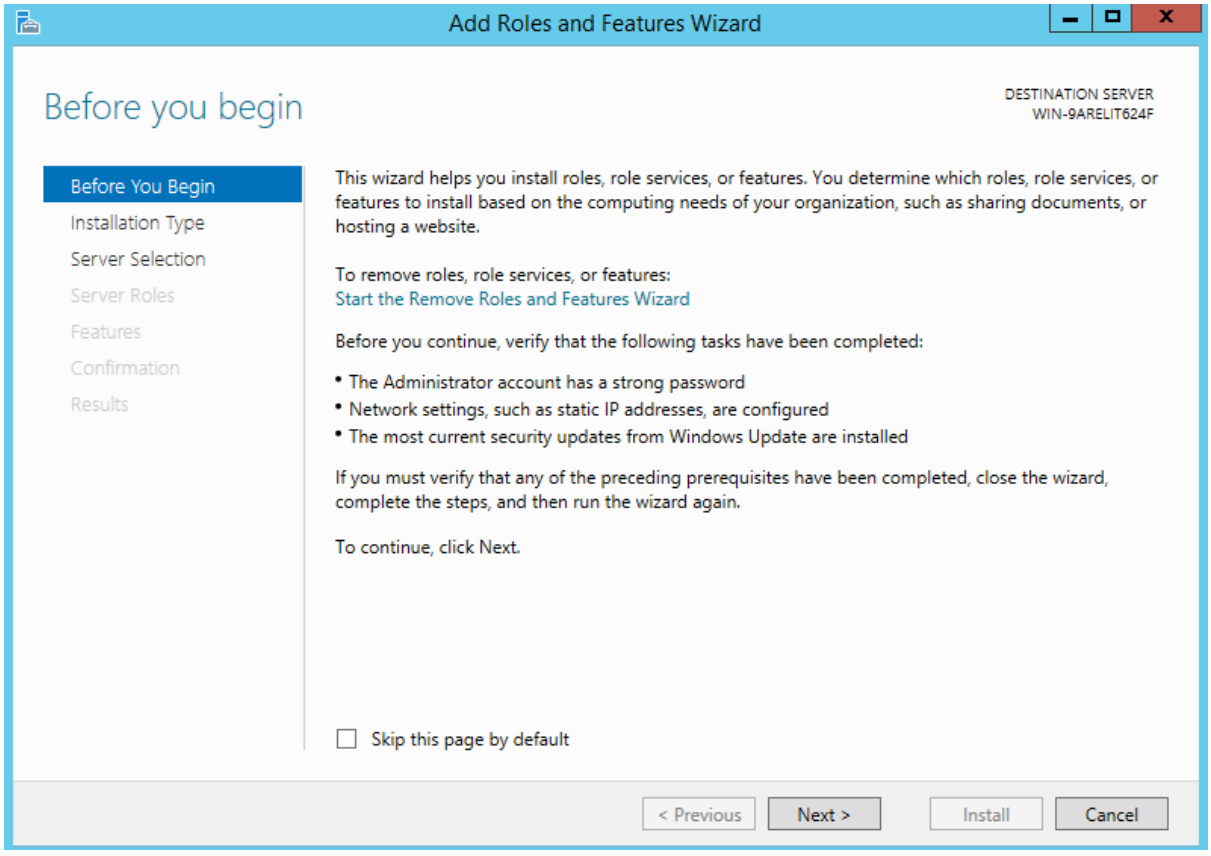
Step 1-

In the middle of your **Server Manager Page** inside of configure this local server, click on **Add roles and features.**



Step 2-

A new screen will pop up this is how you Add Roles and Features Wizard

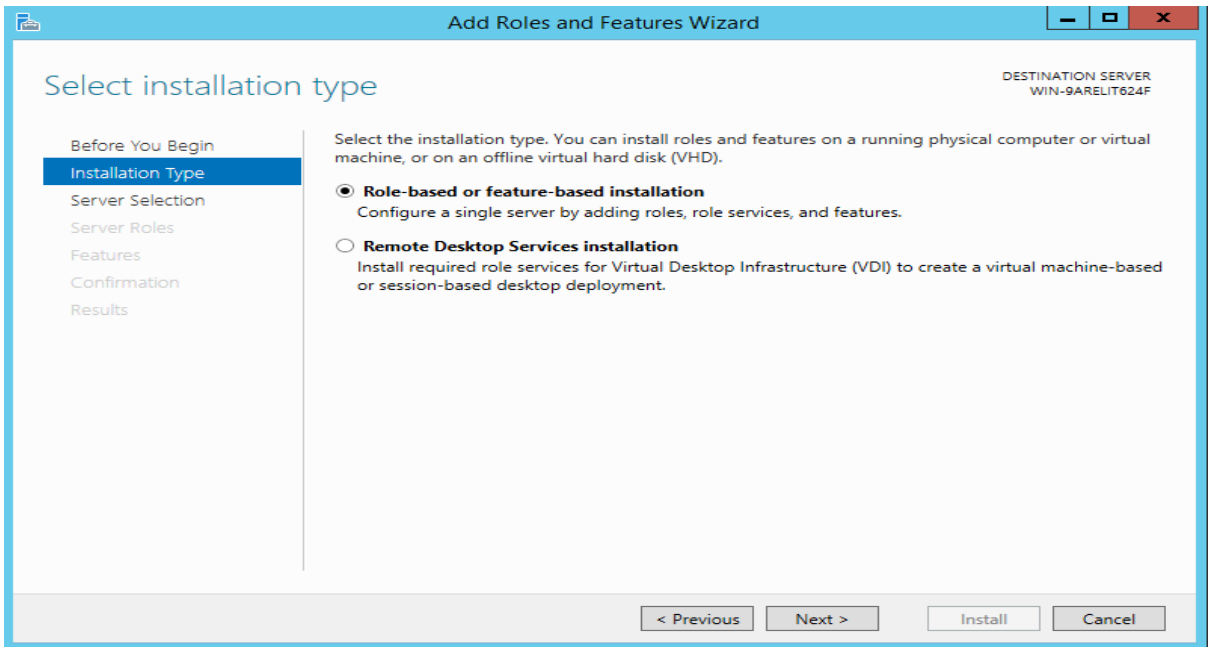


Step 3-

In this **window, Tick Skip** this page by **default & click next**

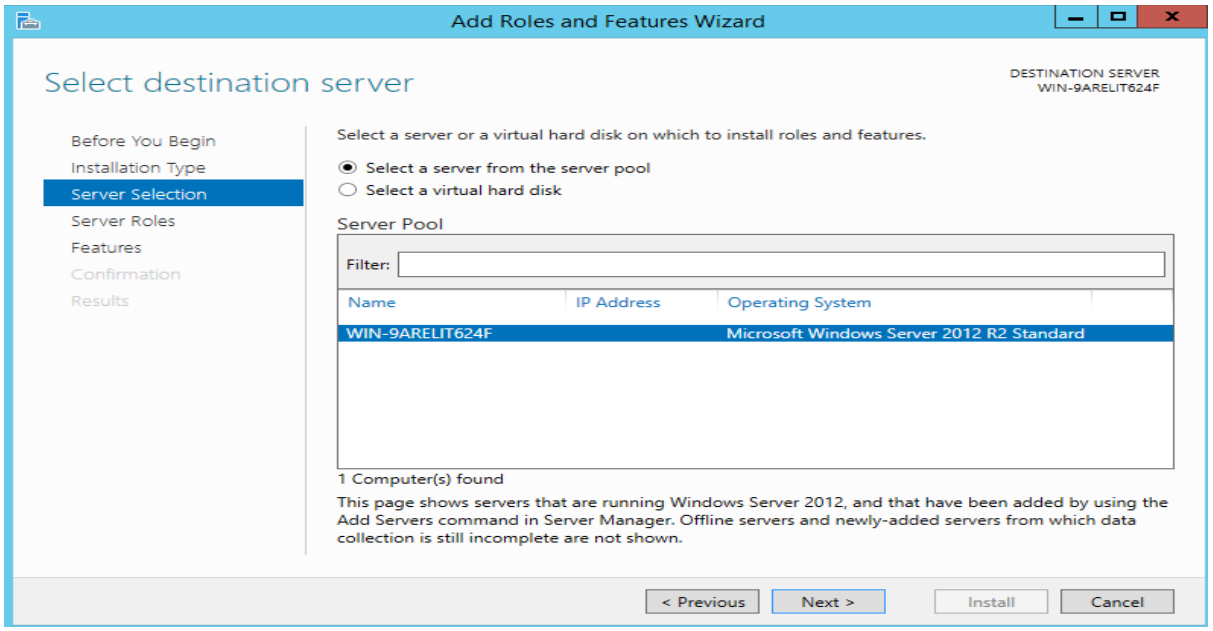
Step 4-

In this window we have to select **which server to install roles**, depending on if you're making a **Remote Desktop** or not click which options suits what you're going to be doing with your server.



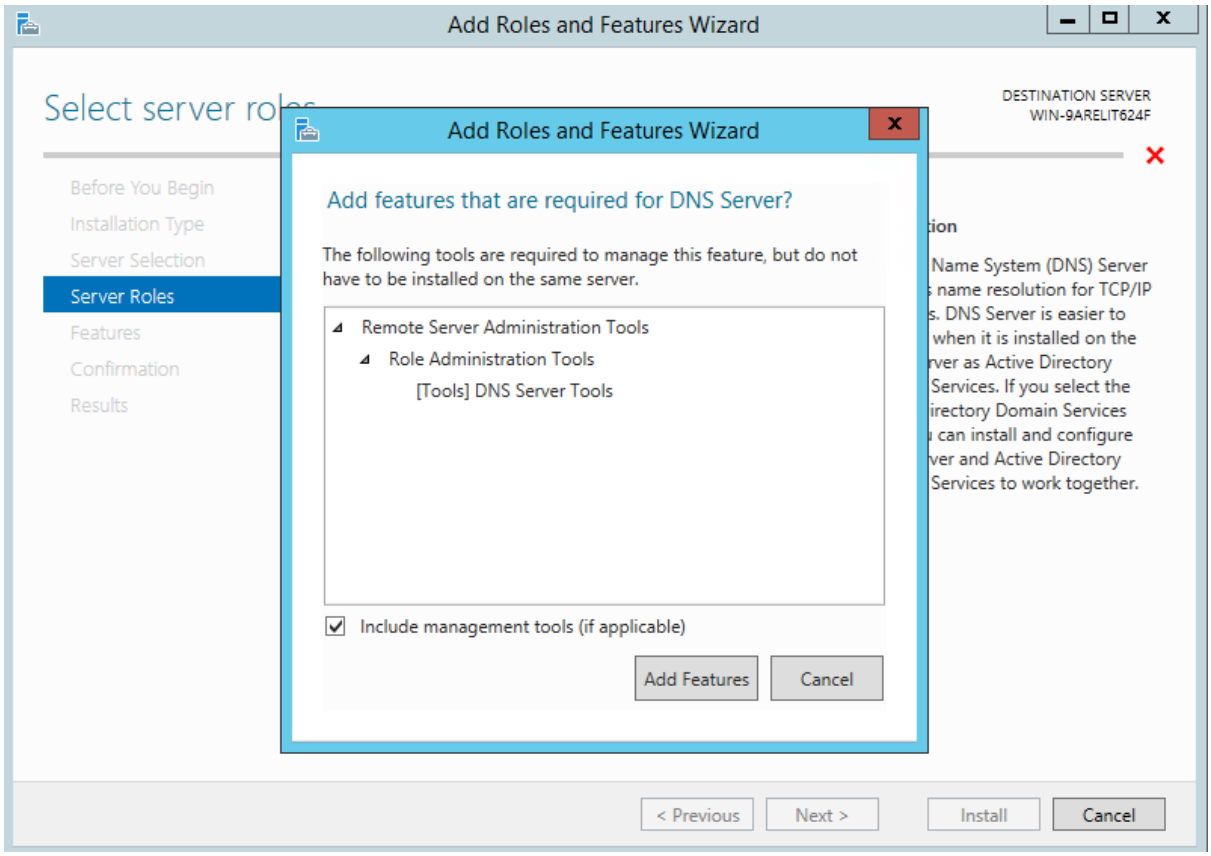
Step 5-

After you have clicked next it will bring you to your **server selection page**, you will see below your computer name and IP Address if you follow the steps earlier.



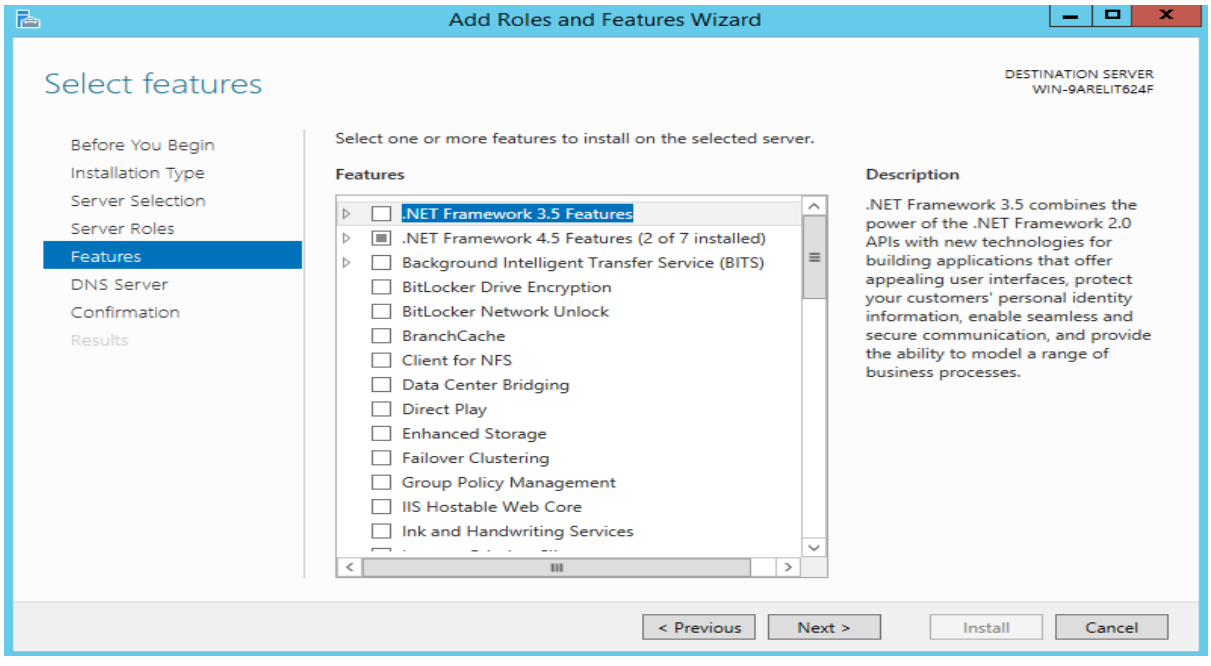
Step 6-

Select **DNS Server** and that alone, click next



Step 7-

Click on **add Features** it will then direct you to the **Features window,** click next as we don't need any of these features.



Step 8-

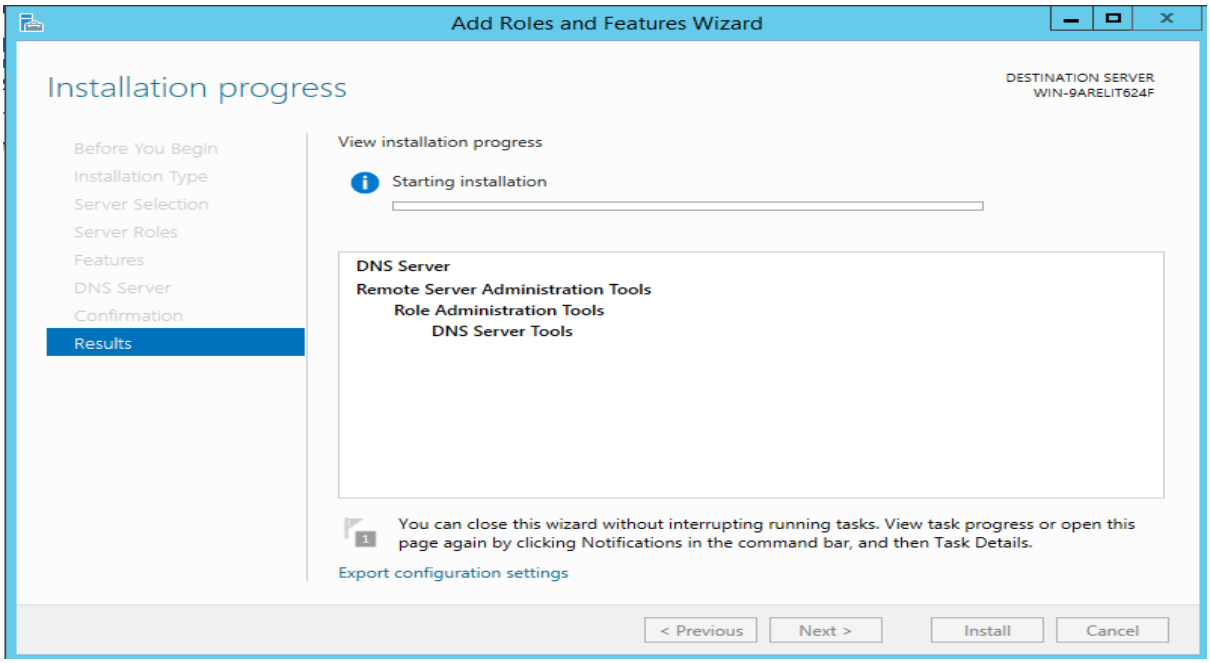
Click on Next to continue with Active Directory / DNS Install

Step 9-

Click on the **Install button** on the bottom right of your **Confirm installation Selections**

Step 10-

Do not worry if this takes a while to install, that's normal.

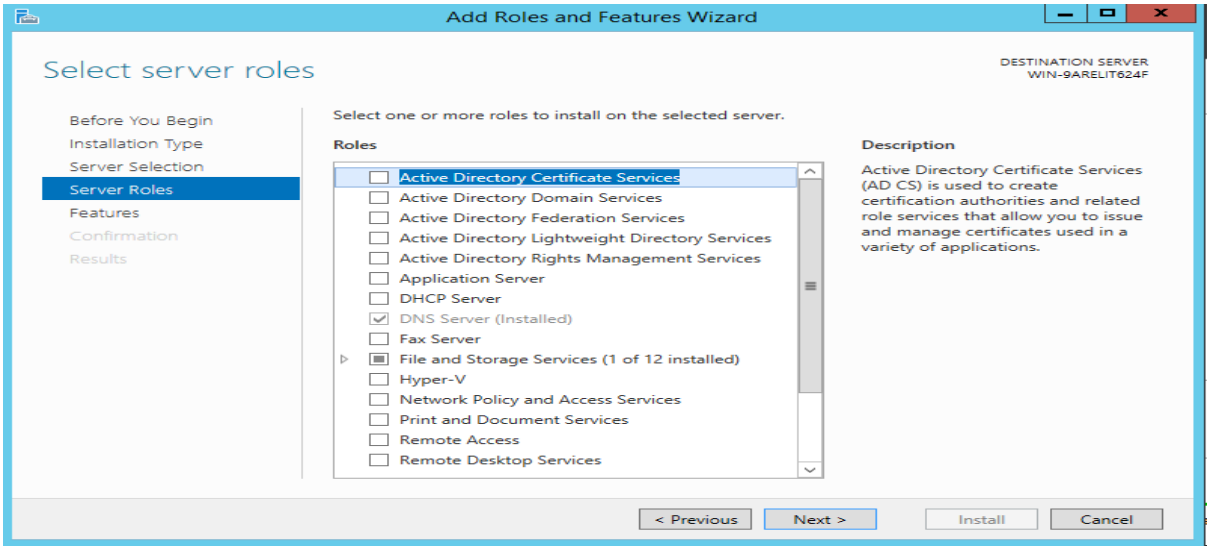


Step 11-

Once the installation simply press **close**, and your DNS server is now installed.

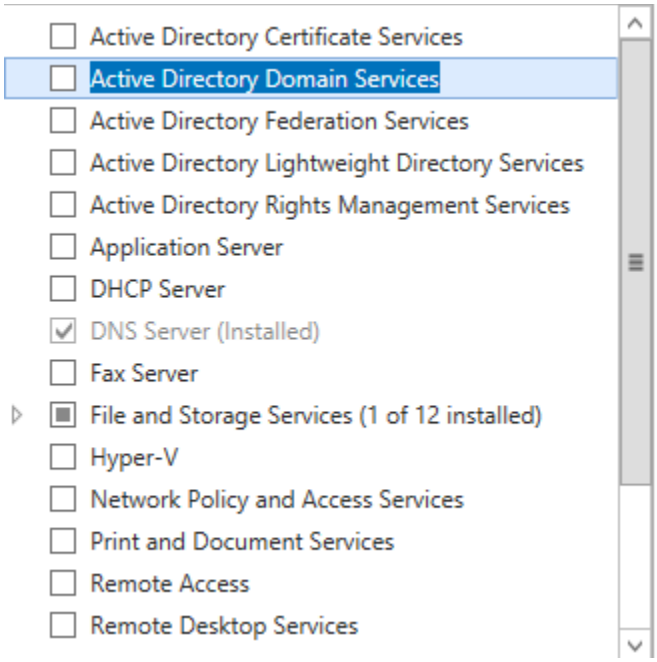
Step 12-

Go back and do **steps 1-5** this will bring you back to this page



Step 13-

Select **Active Directory Domain Services**, which is second from the top and select next.

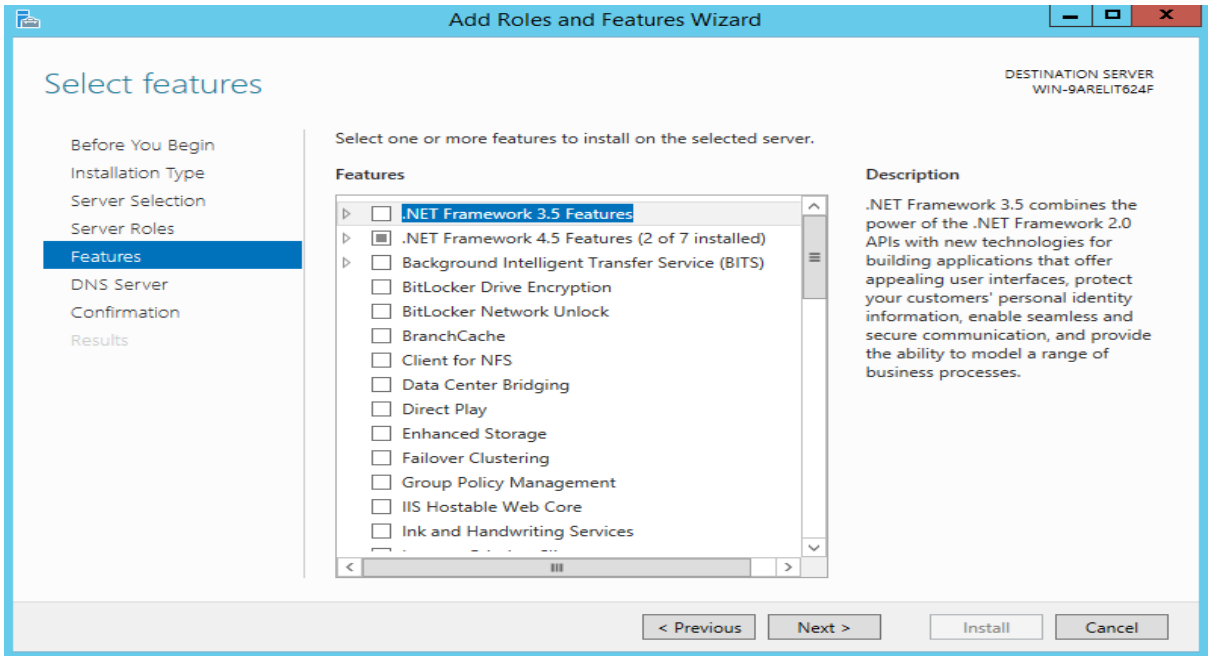


Step 14-

On the next menu click on **Add Features,** the same as **Step 6**

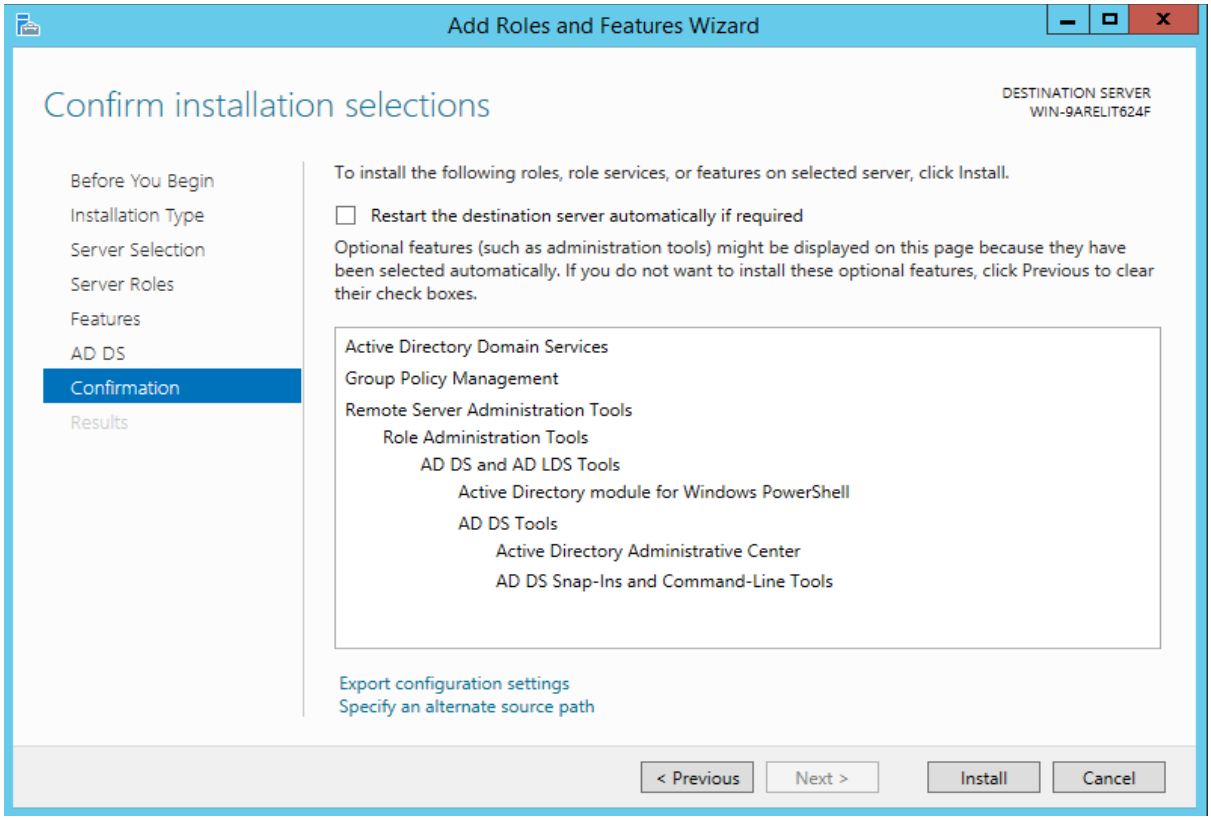
Step 15-

You will now be back on this page again, like the DNS, select Next



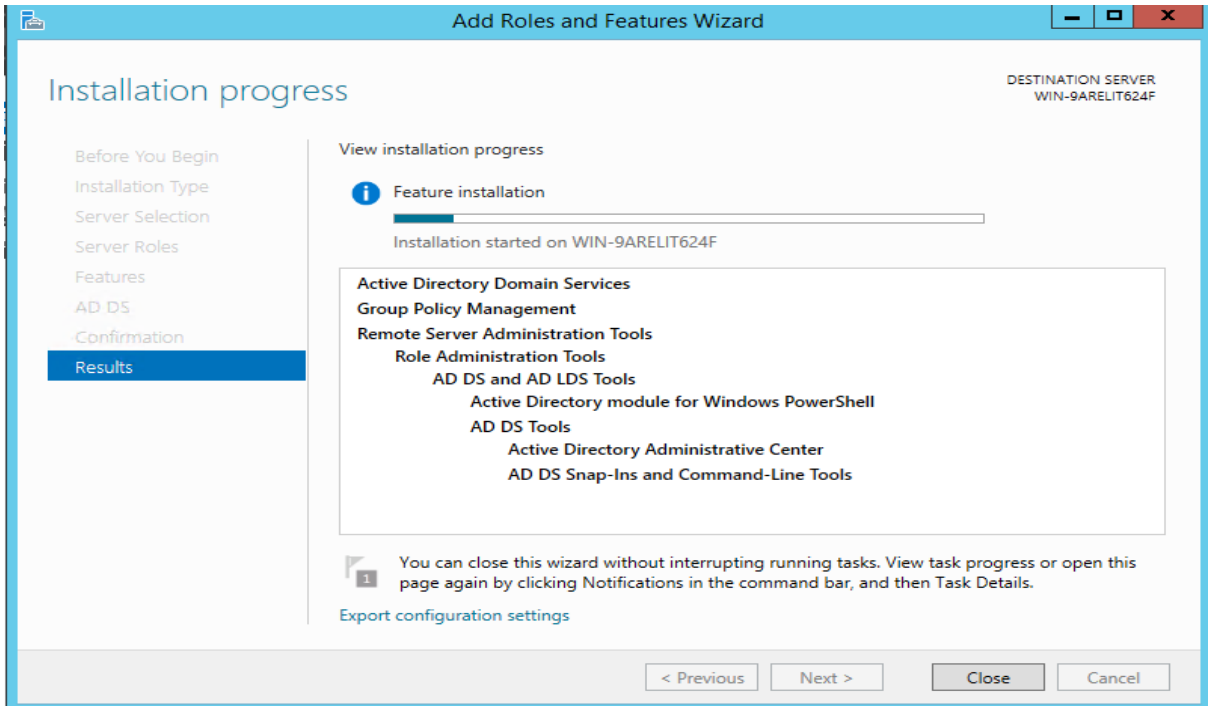
Step 16-

Click **Next**, Then **Next again** and you will be on the **Confirm Installation Page,**



Step 17-

Click on the **Install button** on the bottom right of your **Confirm installation Selections,** Do not worry if this takes a while to install, that's normal.

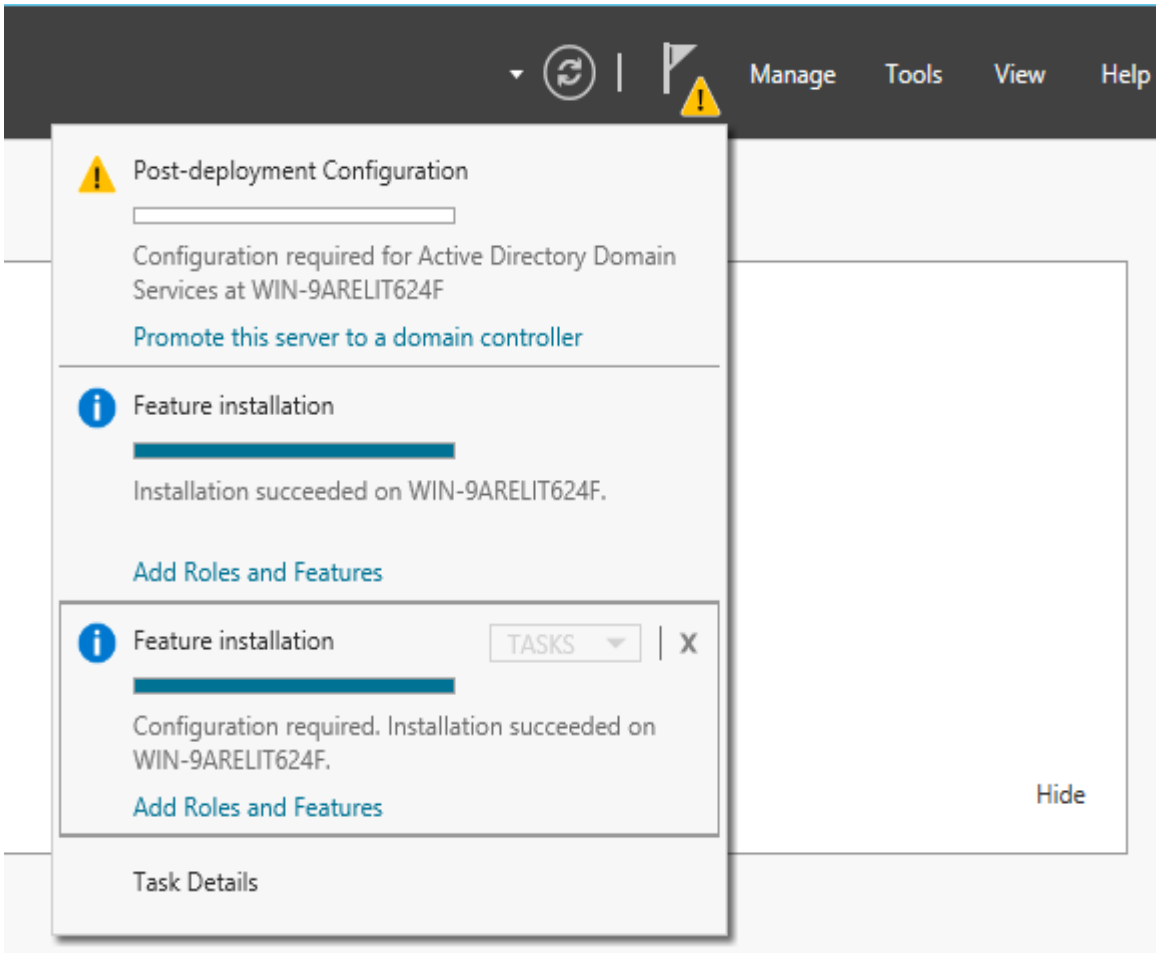


Step 18-

When your **Active Directory Domain Services** installation finishes we will begin the DC setup, so that your **ADDS** is in full swing.

Step 19-

Click the **flag** on the top right hand side of your **server manager window**



Step 20-

Click "**Promote this server to a domain controller**" below the yellow triangle & "**Post-Deployment Configuration**

Step 21-

Congratulations your **active directory role** is now installed on your server.

Power Shell Commands-

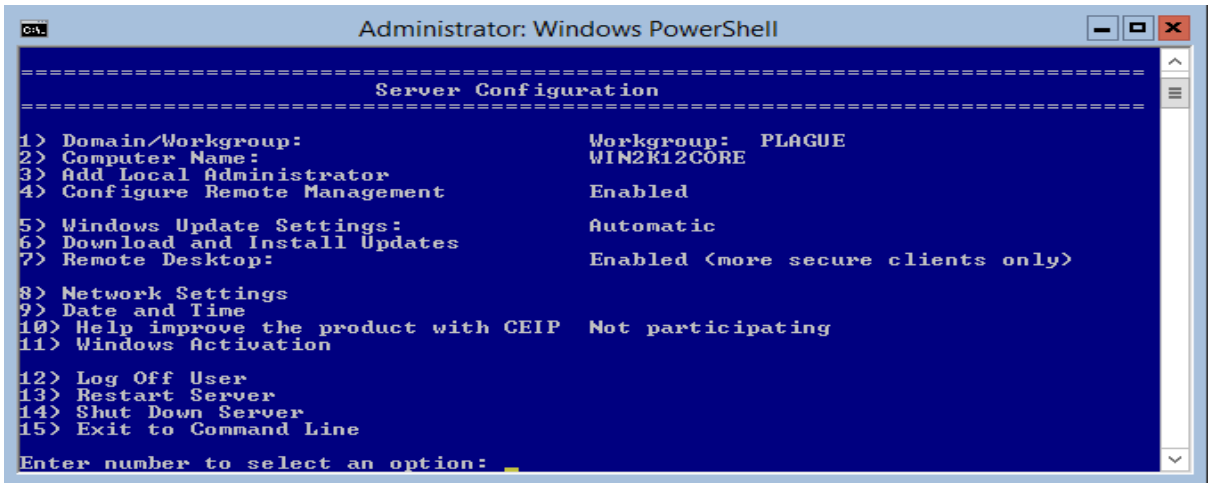
To open a new **Windows PowerShell** command window, on the taskbar, click **Windows PowerShell.**

Step 2-

At the **Windows PowerShell** command prompt, type "Help", then press ENTER to see a list of available help topics

Step 3-

Here is an example of a **PowerShell script** which shows you your **server information**:



If you put in the commands below, and test some from the command line I have provided below you will get the hang of these commands quickly, and be able to put them to use in your server.

```
PS C:\Users\Administrator> Get-CimInstace Win31_OperatingSystem | Select-Object Caption, InstallDate, ServicePackMajorVe
rsion, OSArchitecture, BootDevice, CSName | FL
```

```
Caption                 : Microsoft Windows 8.1 Pro
InstallDate             : 11/14/2014 10:40:36 PM
ServicePackMajorVersion : 0
OSArchitecture          : 64-bit
BootDevice              : \Device\HarddiskVolume1
BuildNumber             : 9600
```

Power Shell Commands-

Command alias	Cmdlet name	Description of command
%	ForEach-Object	Performs an operation against each item in a collection of input objects.
?	Where-Object	Selects objects from a collection based on their property values.
ac	Add-Content	Appends content, such as words or data, to a file.
asnp	Add-PSSnapIn	Adds one or more Windows PowerShell snap-ins to the current session.
cat	Get-Content	Gets the contents of a file.
cd	Set-Location	Sets the current working location to a specified location.
chdir	Set-Location	Sets the current working location to a specified location.
clc	Clear-Content	Deletes the contents of an item, but does not delete the item.
clear	Clear-Host	Clears the display in the host program.
clhy	Clear-History	Deletes entries from the command history.
cli	Clear-Item	Deletes the contents of an item, but does not delete the item.
clp	Clear-ItemProperty	Deletes the value of a property but does not delete the property.
cls	Clear-Host	Clears the display in the host program.
clv	Clear-Variable	Deletes the value of a variable.
cnsn	Connect-PSSession	Reconnects to disconnected sessions
compare	Compare-Object	Compares two sets of objects.
copy	Copy-Item	Copies an item from one location to another.
cp	Copy-Item	Copies an item from one location to another.
cpi	Copy-Item	Copies an item from one location to another.
cpp	Copy-ItemProperty	Copies a property and value from a specified location to another location.
curl	Invoke-WebRequest	Gets content from a webpage on the Internet.
cvpa	Convert-Path	Converts a path from a Windows PowerShell path to a
dbp	Disable-PSBreakpoint	Disables the breakpoints in the current console.
del	Remove-Item	Deletes files and folders.
diff	Compare-Object	Compares two sets of objects.
dir	Get-ChildItem	Gets the files and folders in a file system drive.
dnsn	Disconnect-PSSession	Disconnects from a session.
ebp	Enable-PSBreakpoint	Enables the breakpoints in the current console.
echo	Write-Output	Sends the specified objects to the next command in the pipeline. If the command is the last command in the pipeline, the objects are displayed in the console.
epal	Export-Alias	Exports information about currently defined aliases to a file.
epcsv	Export-Csv	Converts objects into a series of comma-separated (CSV) strings and saves the strings in a CSV file.
epsn	Export-PSSession	Imports commands from another session and saves them in a Windows PowerShell module.
erase	Remove-Item	Deletes files and folders.
etsn	Enter-PSSession	Starts an interactive session with a remote computer.
exsn	Exit-PSSession	Ends an interactive session with a remote computer.
fc	Format-Custom	Uses a customized view to format the output.
fl	Format-List	Formats the output as a list of properties in which each property appears on a new line.
foreach	ForEach-Object	Performs an operation against each item in a collection of input objects.
ft	Format-Table	Formats the output as a table.
fw	Format-Wide	Formats objects as a wide table that displays only one property of each object.
gal	Get-Alias	Gets the aliases for the current session.
gbp	Get-PSBreakpoint	Gets the breakpoints that are set in the current session.
gc	Get-Content	Gets the contents of a file.
gci	Get-ChildItem	Gets the files and folders in a file system drive.
gcm	Get-Command	Gets all commands.
gcs	Get-PSCallStack	Displays the current call stack.

rm	Remove-Item	Deletes files and folders.
rmdir	Remove-Item	Deletes files and folders.
rmo	Remove-Module	Removes modules from the current session.
rni	Rename-Item	Renames an item in a Windows PowerShell provider namespace.
rnp	Rename-ItemProperty	Renames a property of an item.
rp	Remove-ItemProperty	Deletes the property and its value from an item.
rsn	Remove-PSSession	Closes one or more Windows PowerShell sessions (PSSessions).
rsnp	Remove-PSSnapin	Removes Windows PowerShell snap-ins from the current session.
rujb	Resume-Job	Restarts a suspended job
rv	Remove-Variable	Deletes a variable and its value.
rvpa	Resolve-Path	Resolves the wildcard characters in a path, and displays the path contents.
rwmi	Remove-WMIObject	Deletes an instance of an existing Windows Management Instrumentation (WMI) class.
sajb	Start-Job	Starts a Windows PowerShell background job.
sal	Set-Alias	Creates or changes an alias (alternate name) for a cmdlet or other command element in the current Windows PowerShell session.
saps	Start-Process	Starts one or more processes on the local computer.
sasv	Start-Service	Starts one or more stopped services.
sbp	Set-PSBreakpoint	Sets a breakpoint on a line, command, or variable.
sc	Set-Content	Replaces the contents of a file with contents that you specify.
select	Select-Object	Selects objects or object properties.
set	Set-Variable	Sets the value of a variable. Creates the variable if one with the requested name does not exist.
shcm	Show-Command	Creates Windows PowerShell commands in a graphical command window.
si	Set-Item	Changes the value of an item to the valu
gdr	Get-PSDrive	Gets drives in the current session.
ghy	Get-History	Gets a list of the commands entered during the current session.
gi	Get-Item	Gets files and folders.
gjb	Get-Job	Gets Windows PowerShell background jobs that are running in the current session.
gl	Get-Location	Gets information about the current working location or a location stack.
gm	Get-Member	Gets the properties and methods of objects.
gmo	Get-Module	Gets the modules that have been imported or that can be imported into the current session.
gp	Get-ItemProperty	Gets the properties of a specified item.
gps	Get-Process	Gets the processes that are running on the local computer or a remote computer.
group	Group-Object	Groups objects that contain the same value for specified properties.
gsn	Get-PSSession	Gets the Windows PowerShell sessions on local and remote computers.
gsnp	Get-PSSnapIn	Gets the Windows PowerShell snap-ins on the computer.
gsv	Get-Service	Gets the services on a local or remote computer.
gu	Get-Unique	Returns unique items from a sorted list.
gv	Get-Variable	Gets the variables in the current console.
gwmi	Get-WmiObject	Gets instances of Windows Management Instrumentation (WMI) classes or information about the available classes.
h	Get-History	Gets a list of the commands entered during the current session.
history	Get-History	Gets a list of the commands entered during the current session.
icm	Invoke-Command	Runs commands on local and remote computers.
iex	Invoke-Expression	Runs commands or expressions on the local computer.
ihy	Invoke-History	Runs commands from the session history.
ii	Invoke-Item	Performs the default action on the specified item.

These are the most useful **shell commands** for **windows server 2012**