

MSC Computer Science

Systems Management

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Task A

Server 1 and Server2 will be installed in the same manner.

Installing Server 1

Step 1:

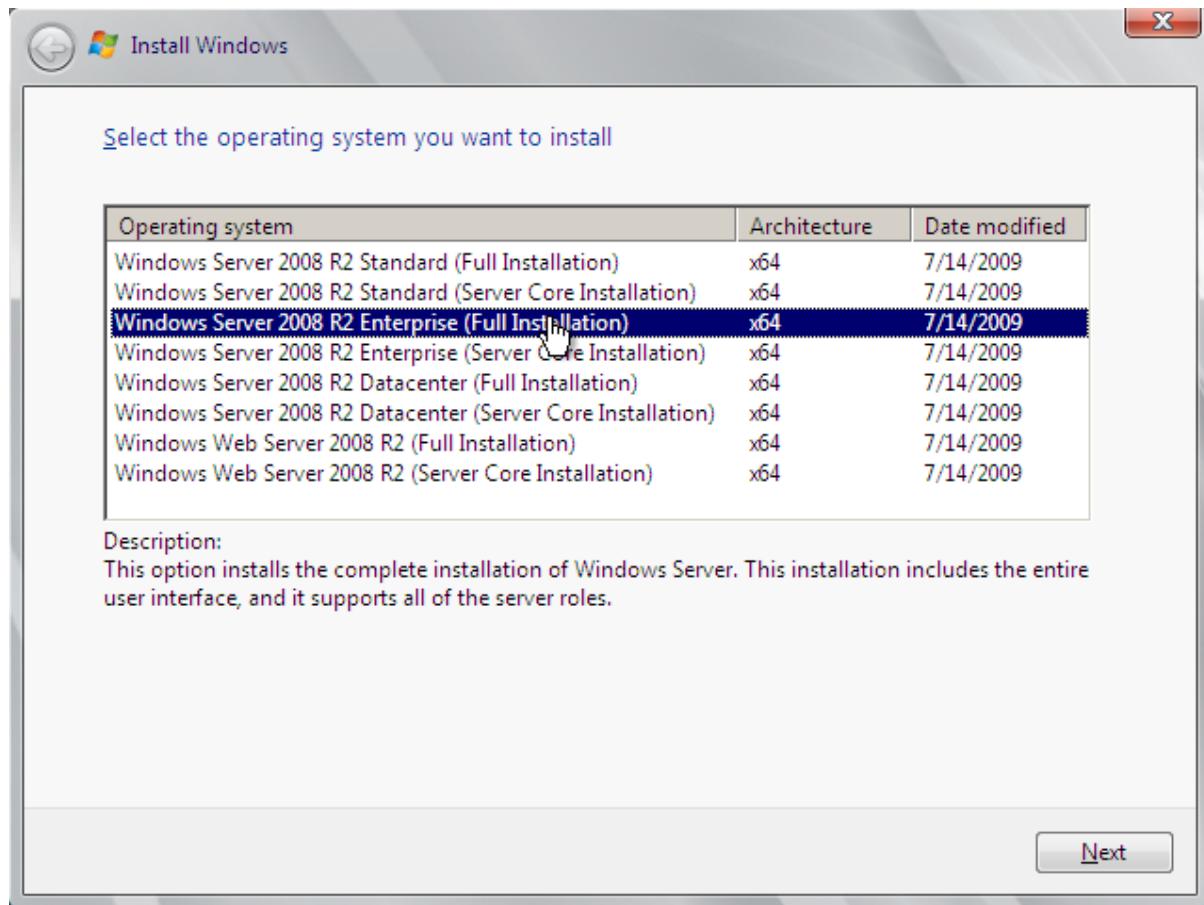
When starting the virtual machine for the first time, the installation wizard will automatically start.

Select the correct language, currency and keyboard settings for your country.



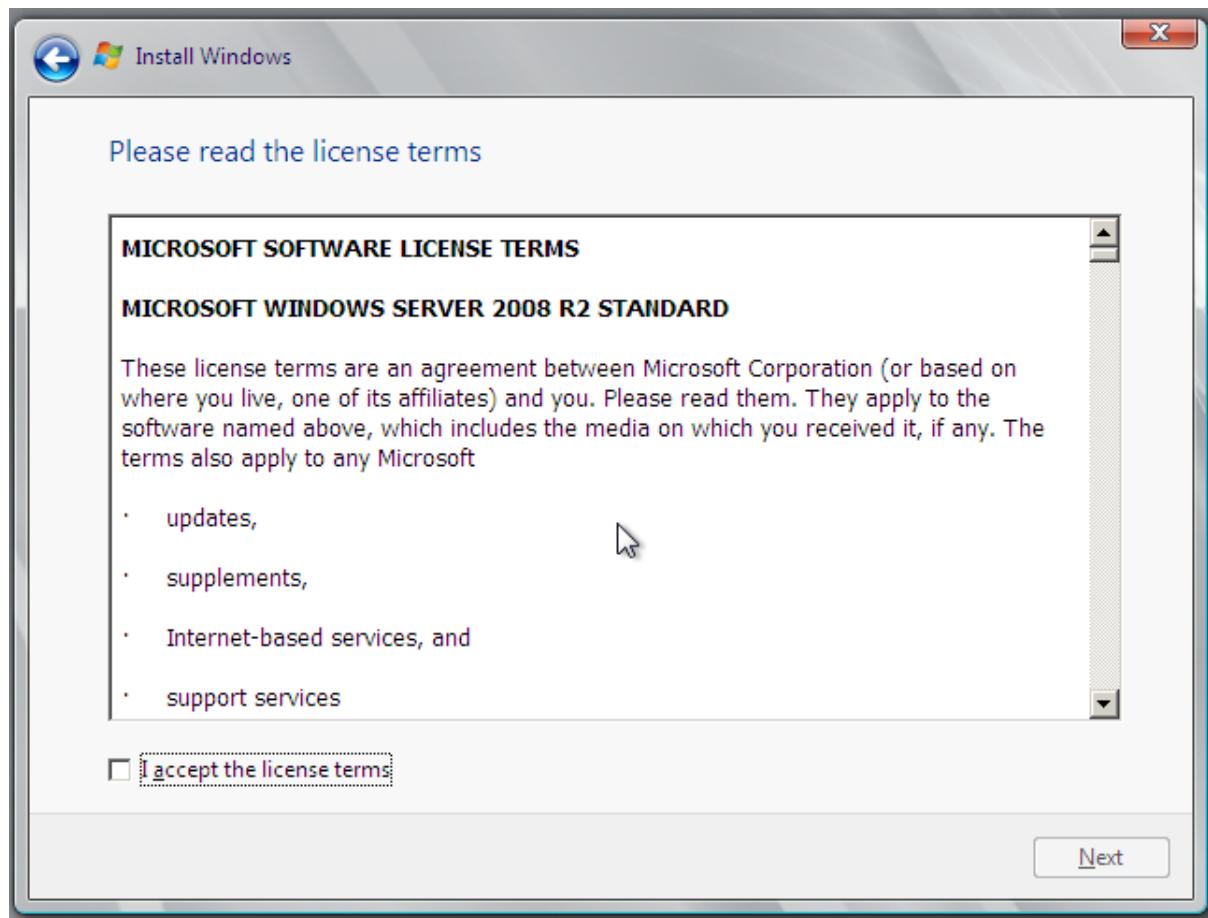
Step 2

Choose which version you wish to install. For Server1 and Server2, Windows Server 2008 R2 Enterprise(Full Installation) will be installed for the purposes of this assignment.



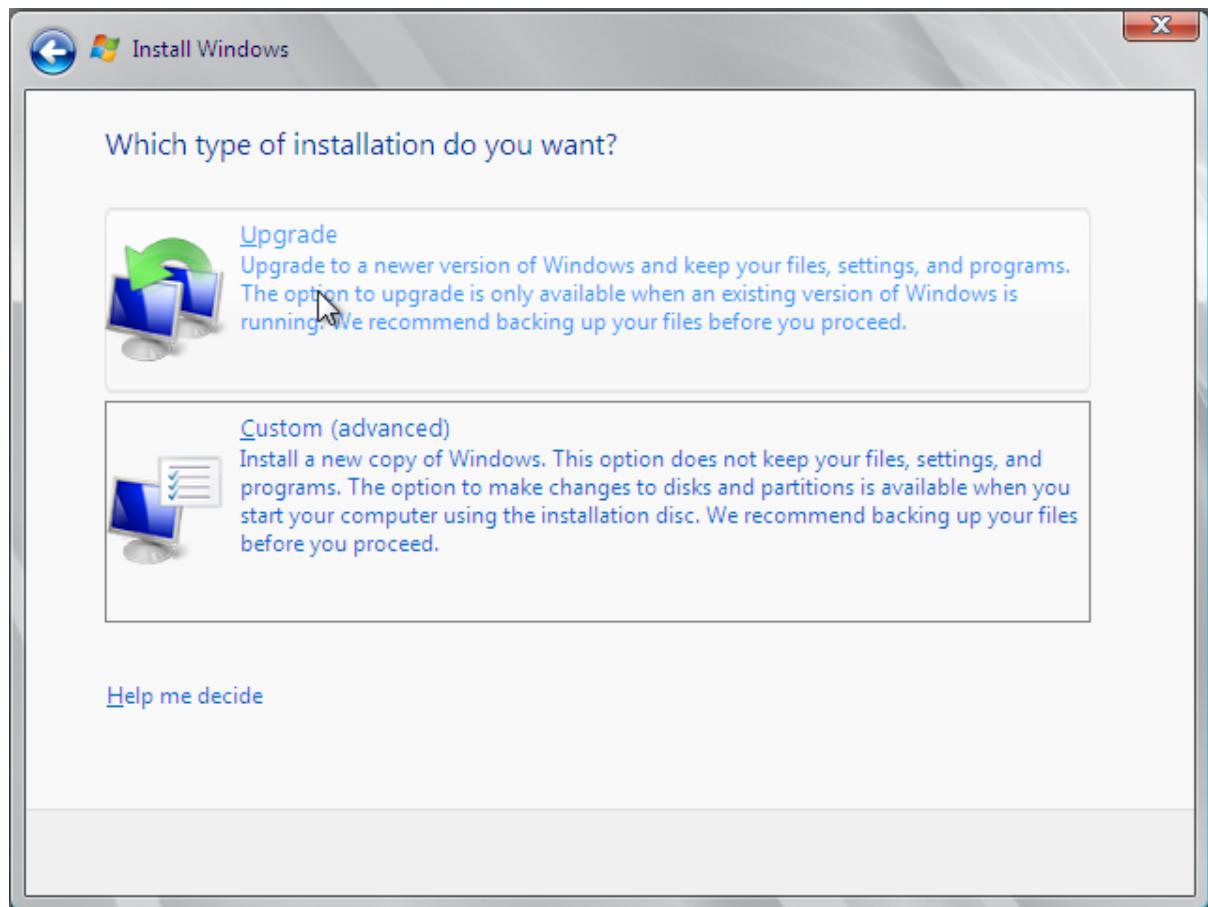
Step 3

Agree to the licensing terms and conditions.



Step 4

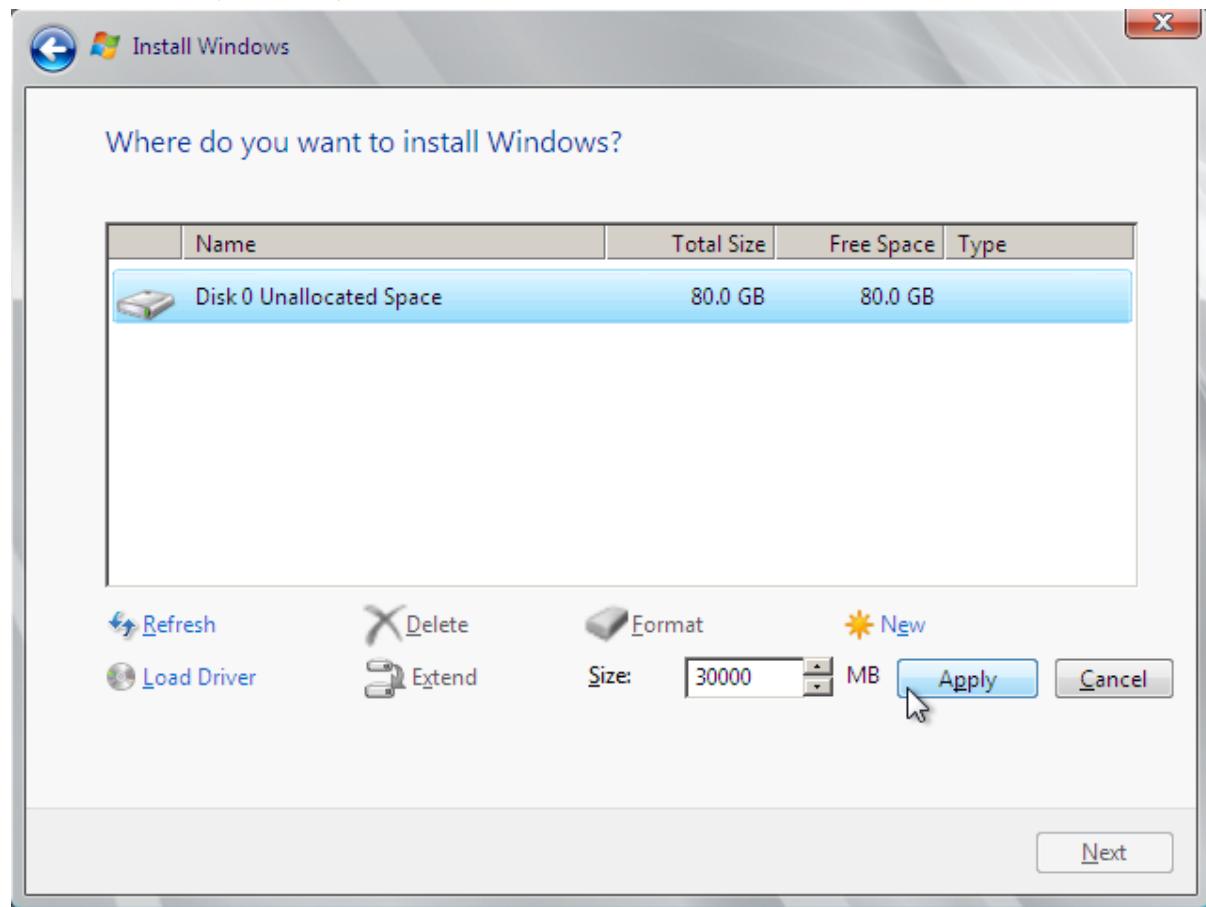
Choose custom installation to create the disk partitions.



Step 5

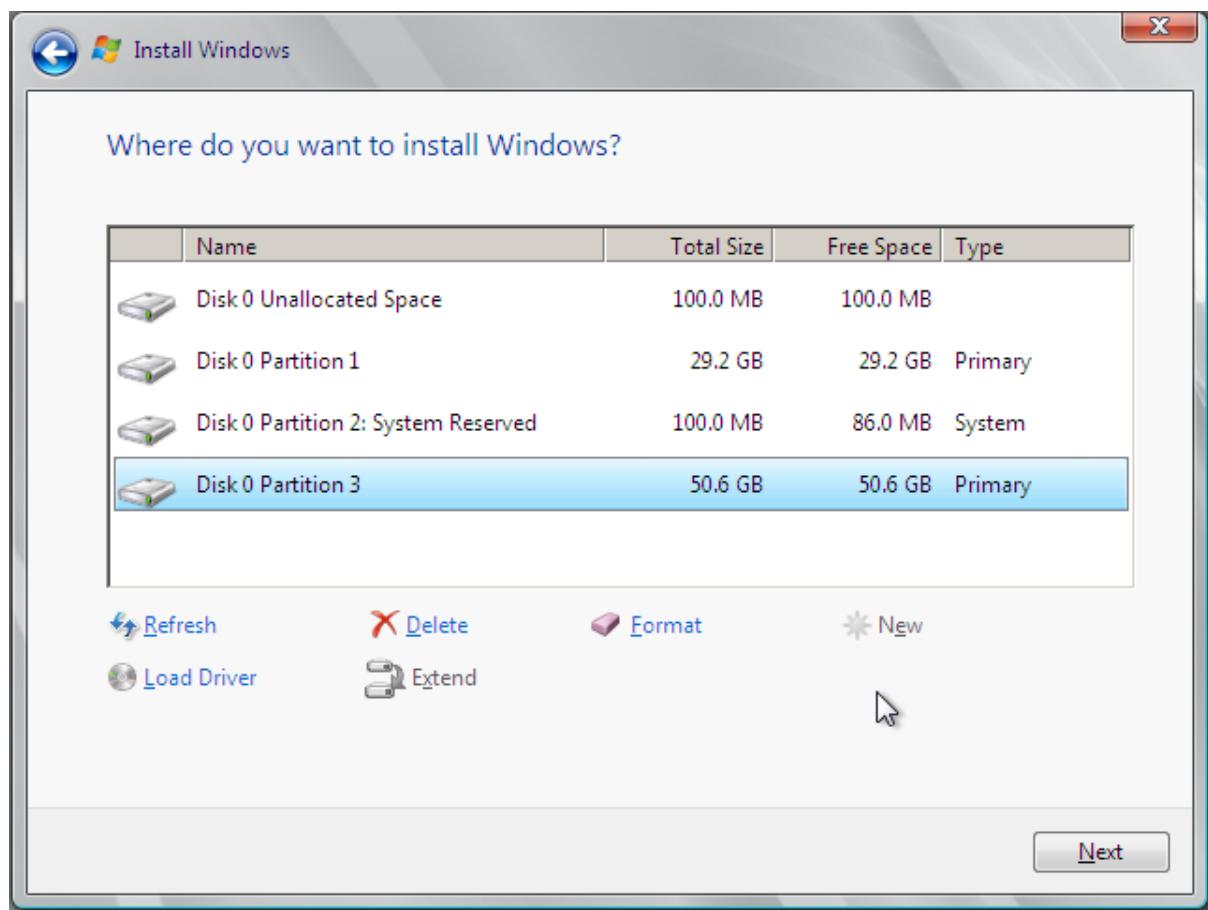
In the size box select the size of the partition then click new. For the purpose of the assignment we are creating a 30GB system partition with another 50GB partition for storage space. This is to be

done on SERVER1, SERVER2, and MS-CORE.



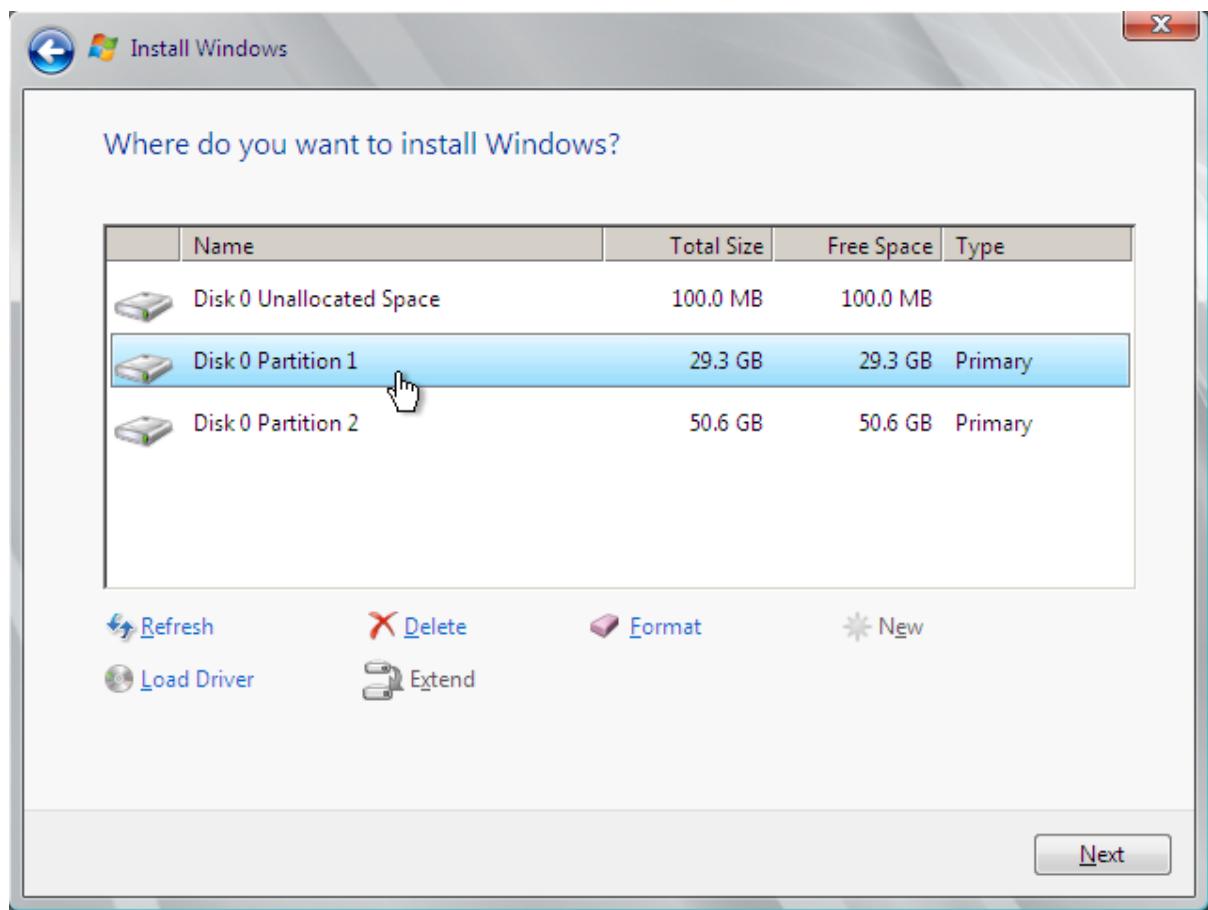
Step 6

Repeat the previous step to create the 50GB partition.



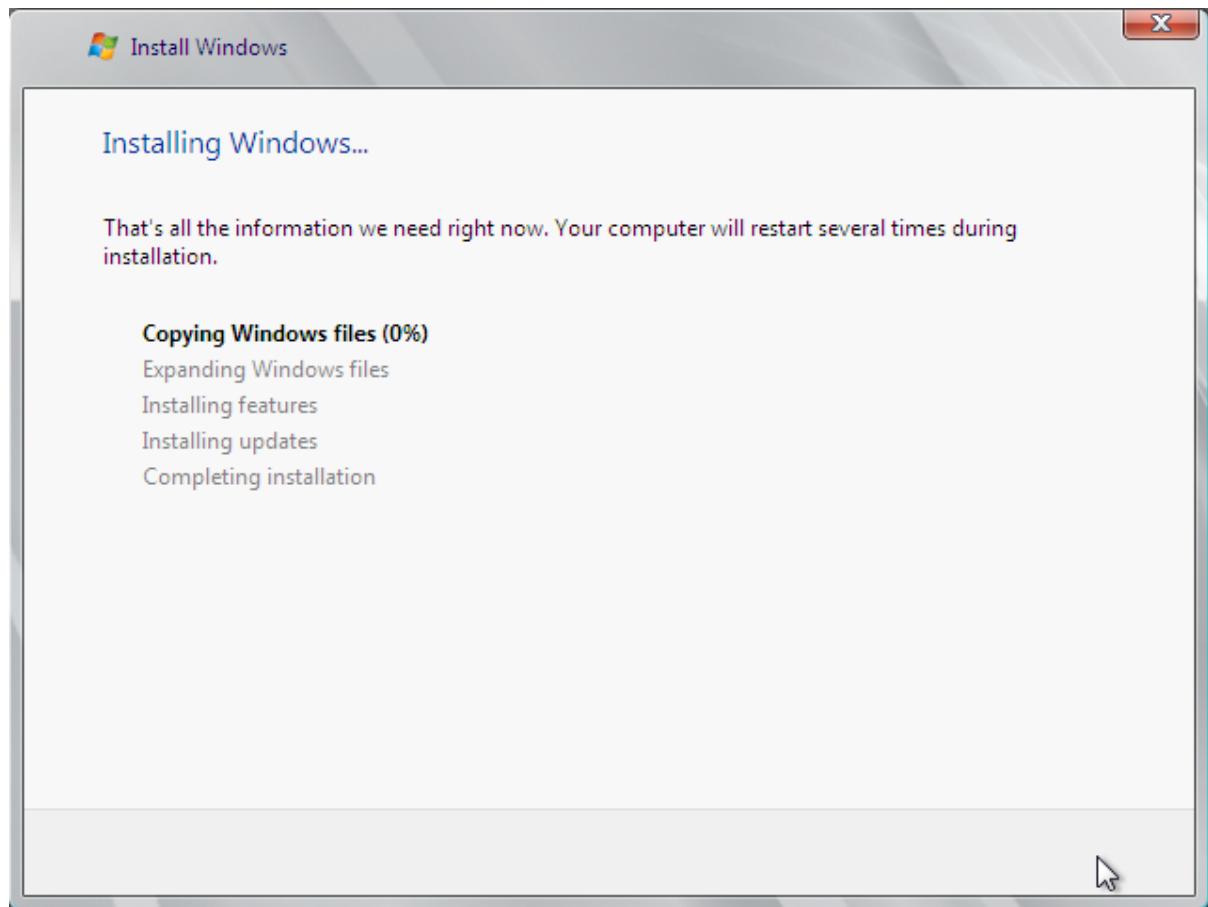
Step 7

Delete the 100MB system partition. After doing the click next to complete the installation.



Step 8

After clicking next in step 7, the installation will run. Do not power off or shut down your computer during this installation. Your computer may restart several times during the installation.



Step 9

After the installation has completed it will prompt you to create a logon password. Installation has now completed. Repeat these steps to install SERVER2.



Installing Server2

To install Server2 follow the same steps for installing Server1.

Installing MS-CORE

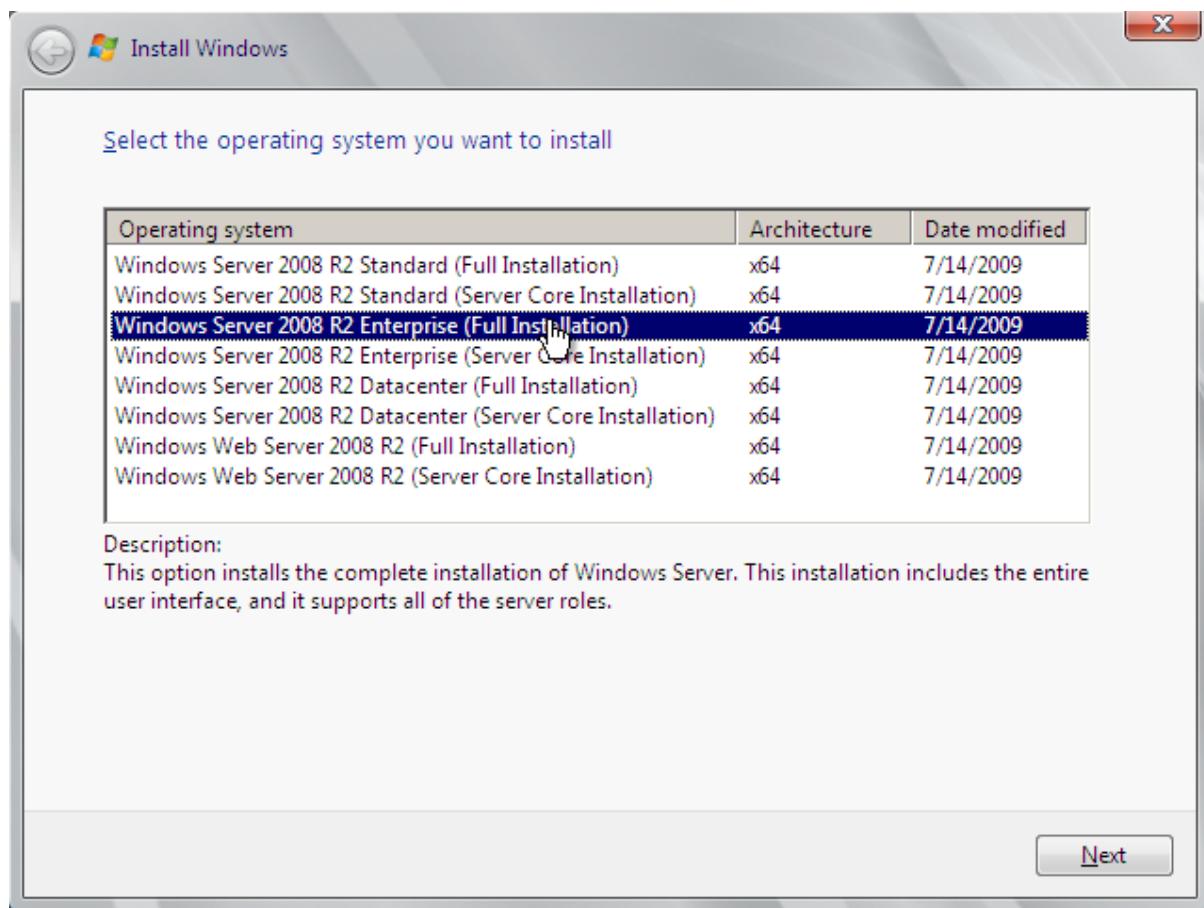
Step 1

Choose your relevant language, currency and keyboard settings suitable for your country.



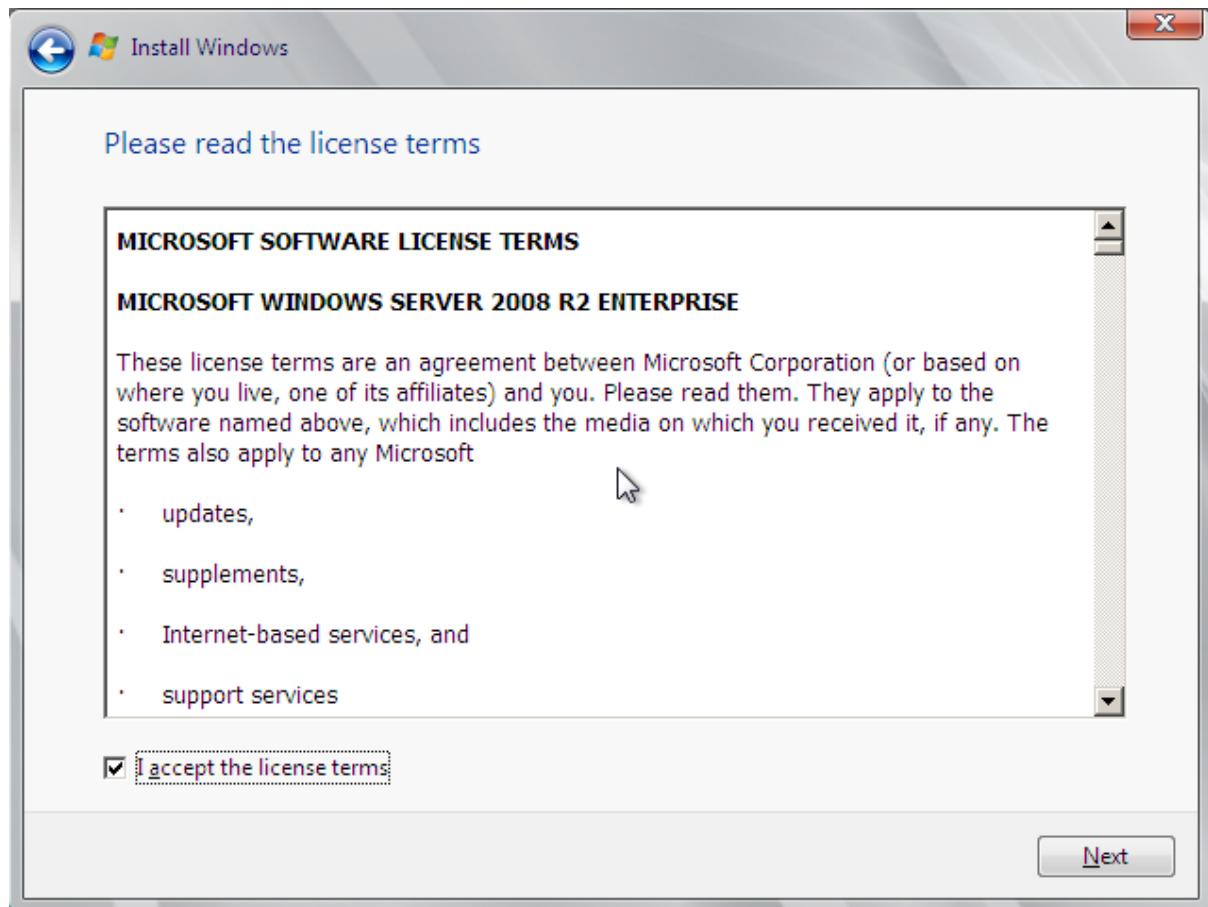
Step 2

Choose which version you wish to install. For the purposes of this assignment, Windows Server 2008 R2 Standard (Server Core installation) must be chosen.



Step 3

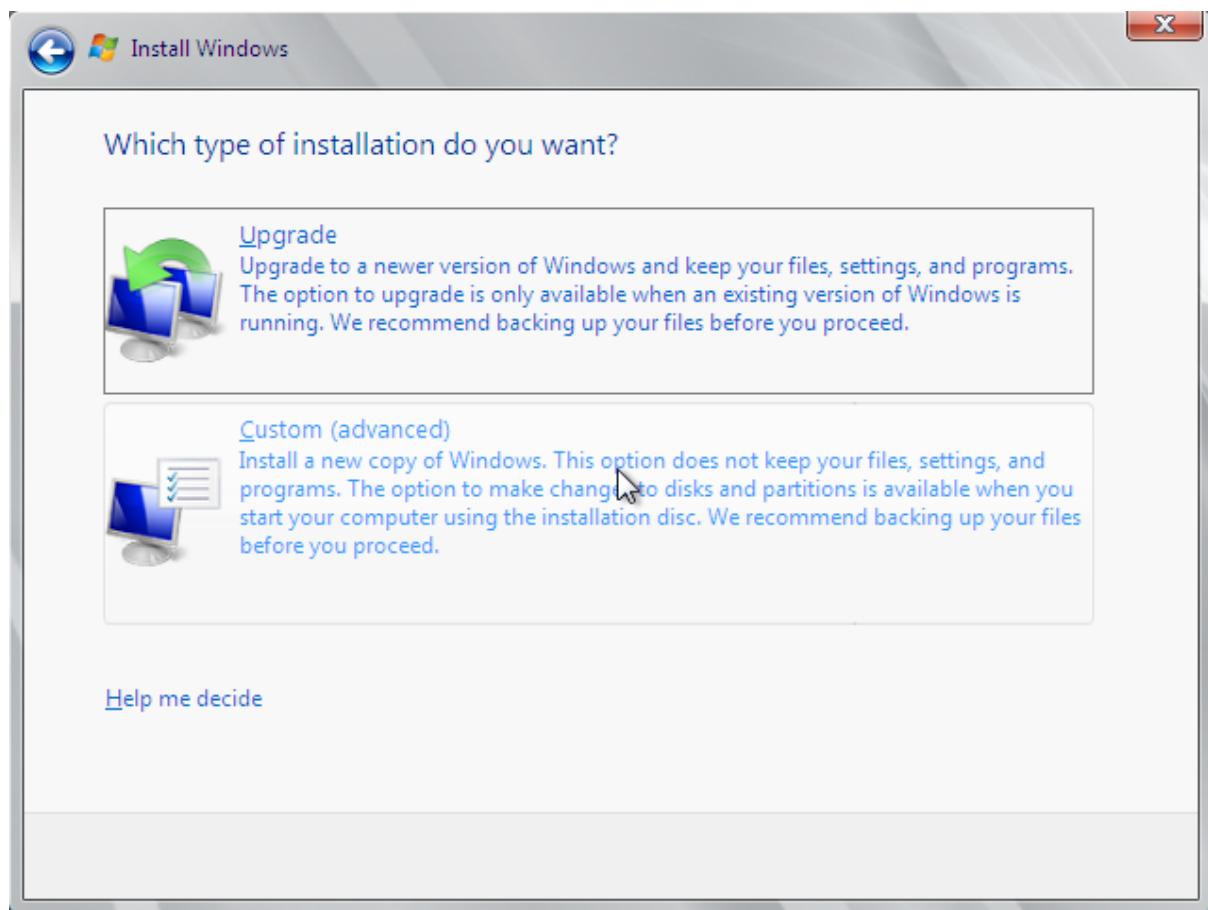
Accept the licensing terms and conditions to continue with the install. Then click next to move onto the next step.



Step 4

Similar to Server1 and Server2 we must set up the disk partition in the same manner.

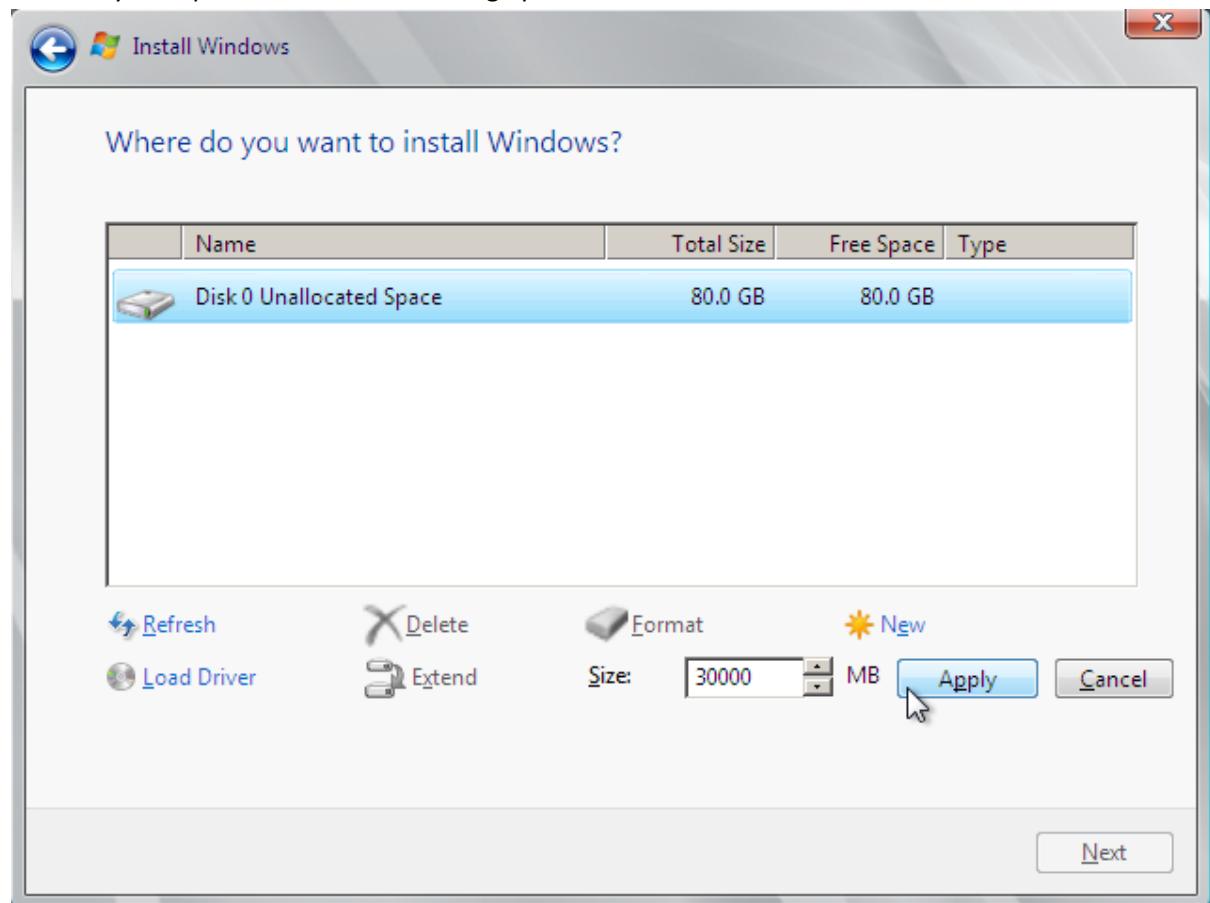
Choose custom installation.

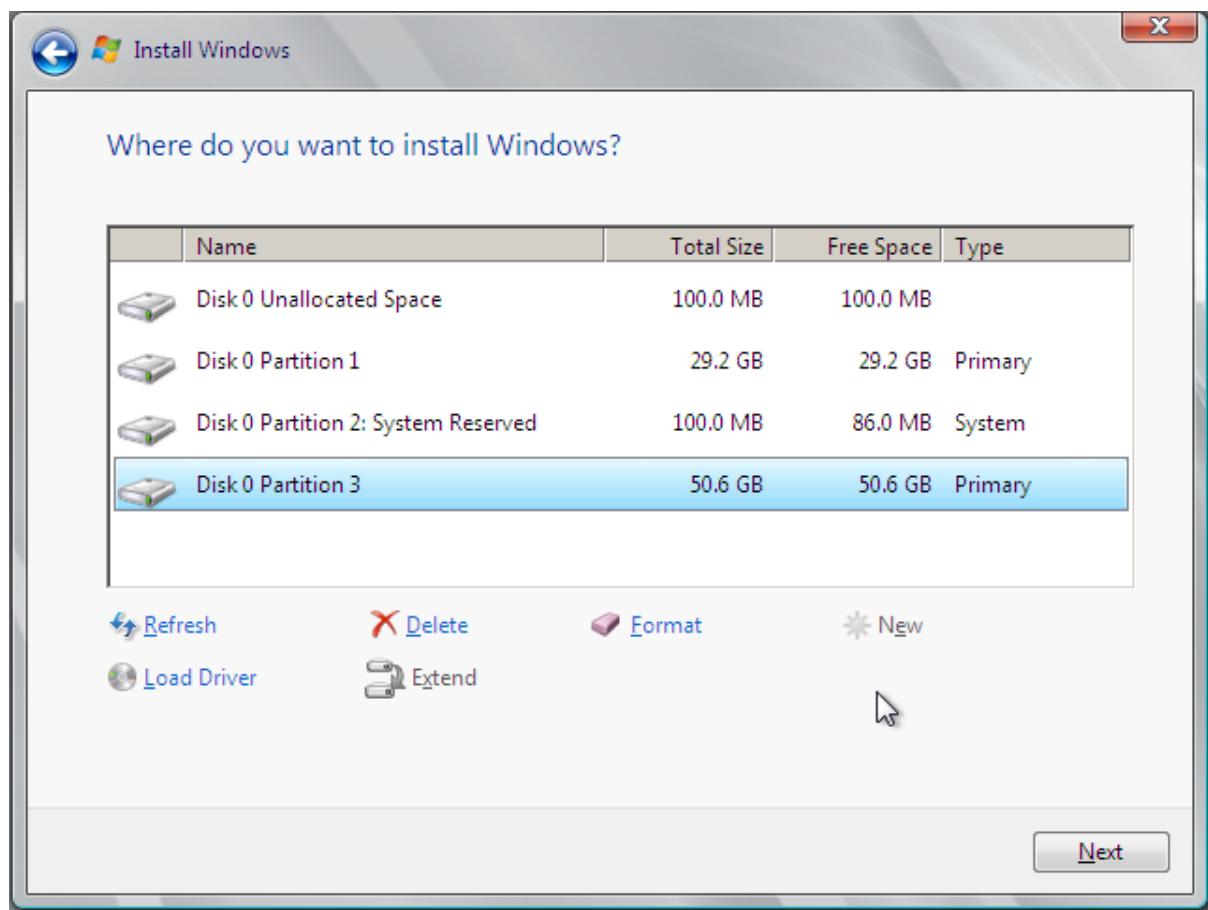


Step 5

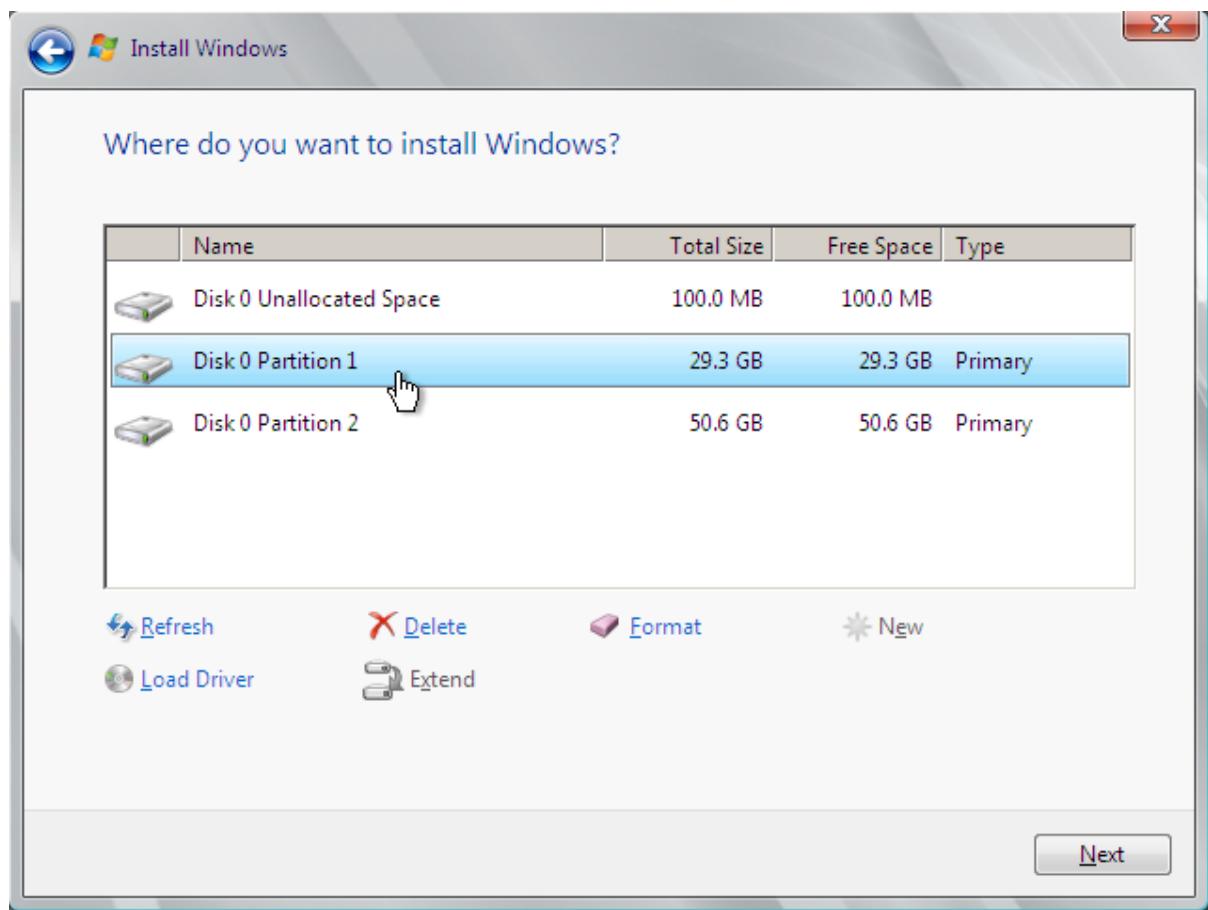
To set up the system and storage partitions, select the size and then click new.

A 30GB system partition and 50GB storage partition is to be created.



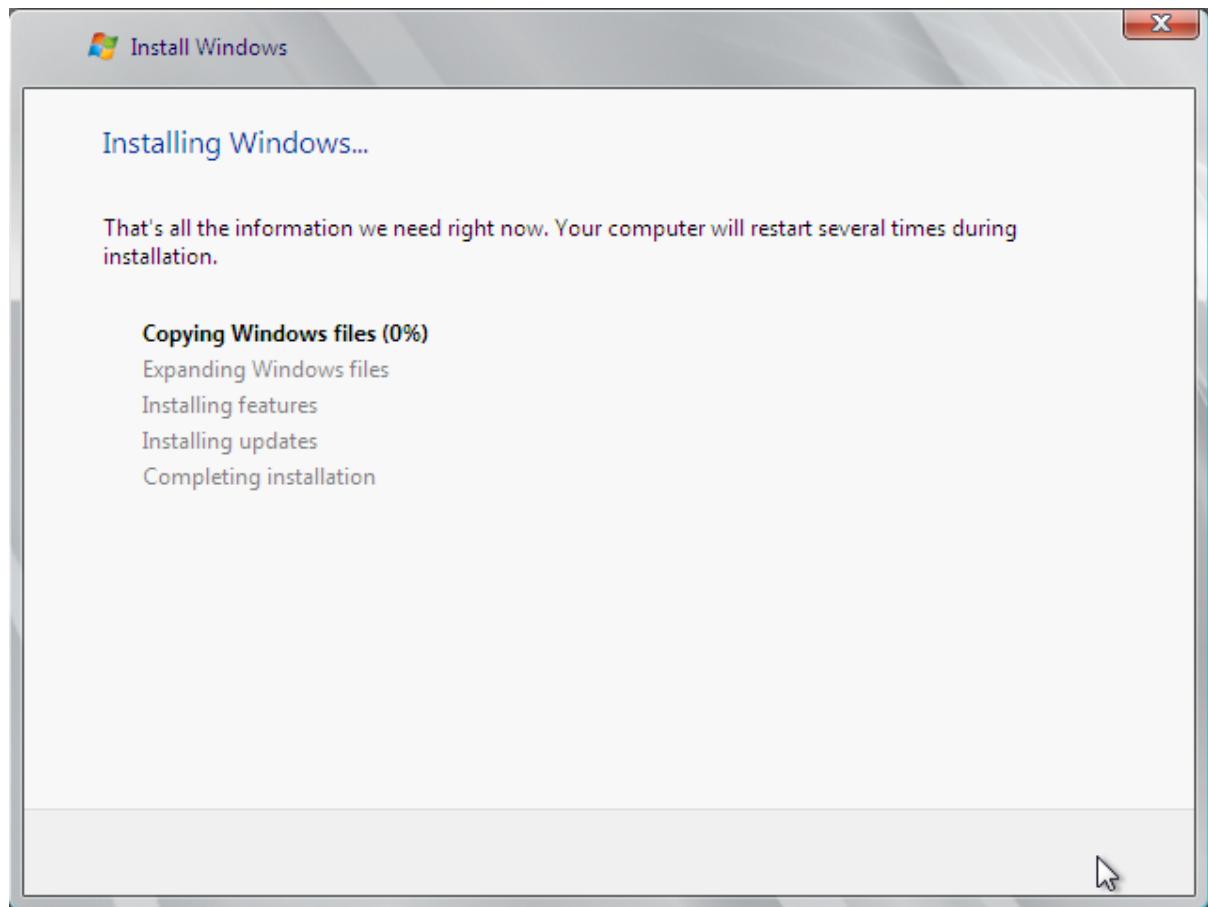


After these partitions are created the original partitions such as DISK 0 Partition 2: System Reserved, in the above picture, should be deleted.



Step 6

After clicking Next on the previous step, the installation will begin.



Step 7

When the installation has completed you will be prompted to enter a secure password.

Once this is completed, Server MS-CORE has now been fully installed.



Setting up computers on the domain

Change the name of the servers and clients

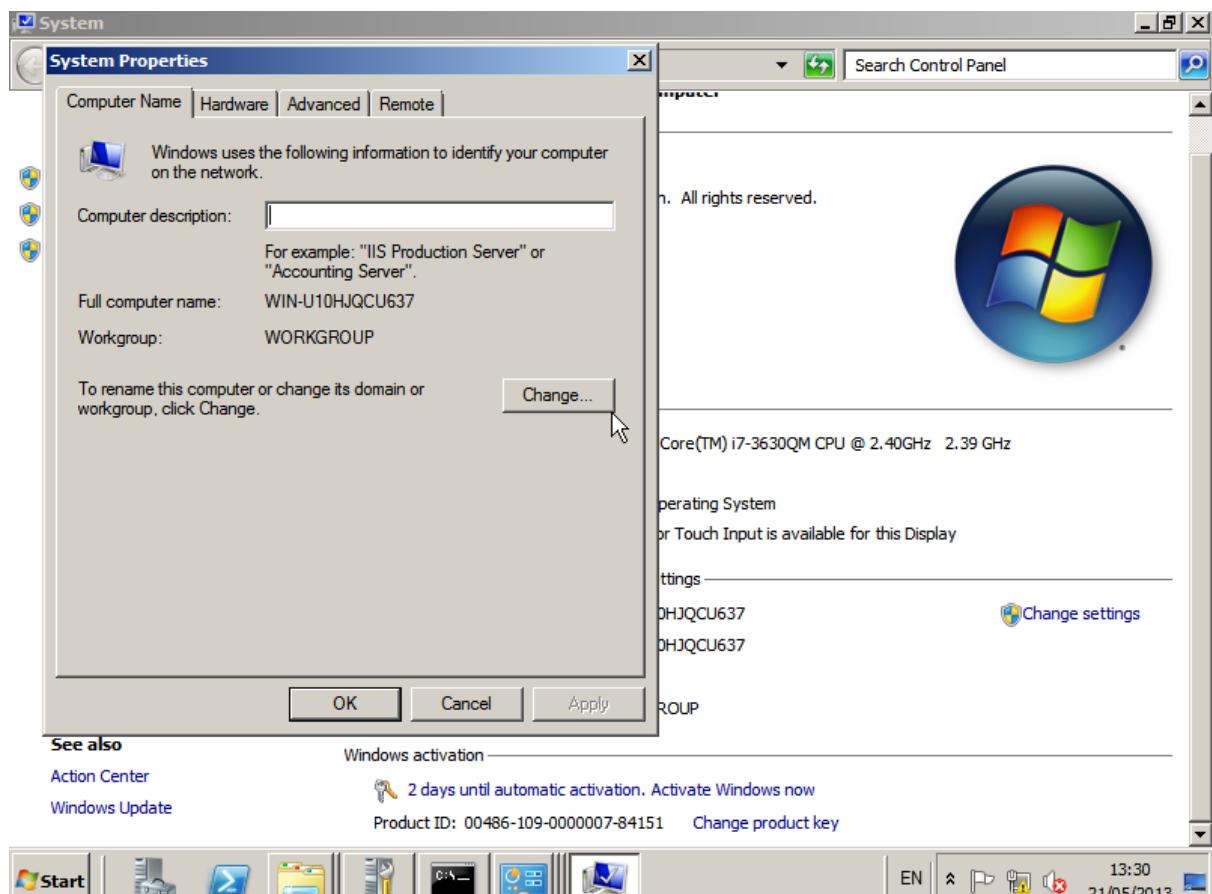
Server 1

Step 1

Right-click on My Computer, then click properties.

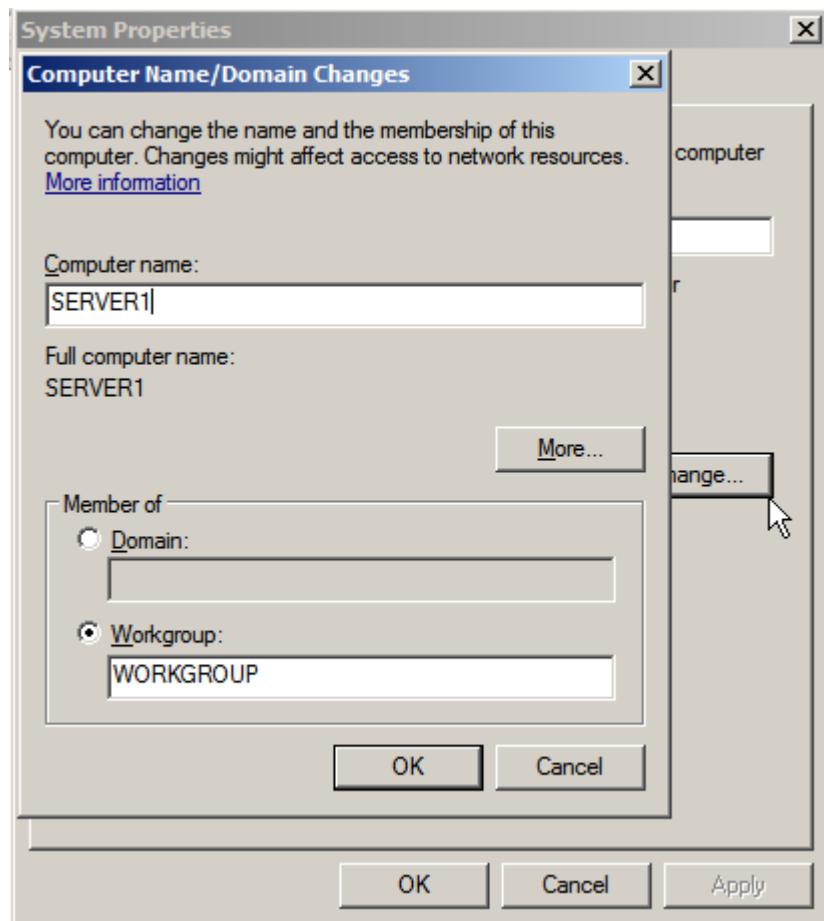
Step 2

Under Computer Name and workgroup settings, click change settings. This will bring up the System Properties box as displayed below. In the Computer Name tab, click change.



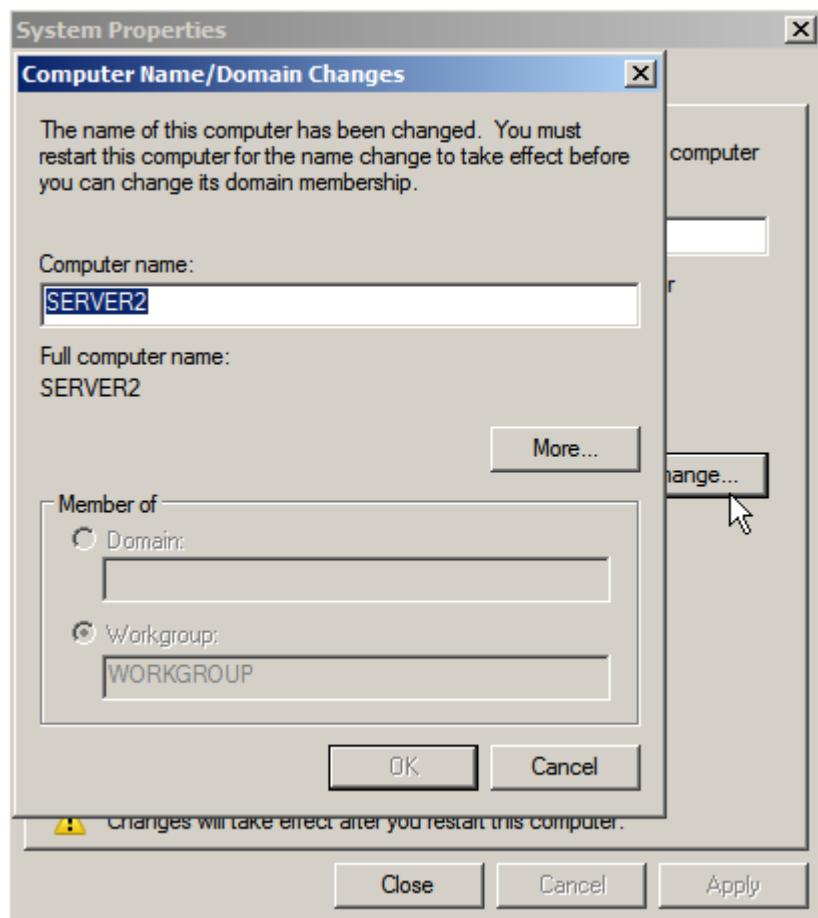
Step 3

Type the name of the computer you wish to change to. Click ok, then click apply and ok. You will now be prompted to restart the server upon completion.



Server 2

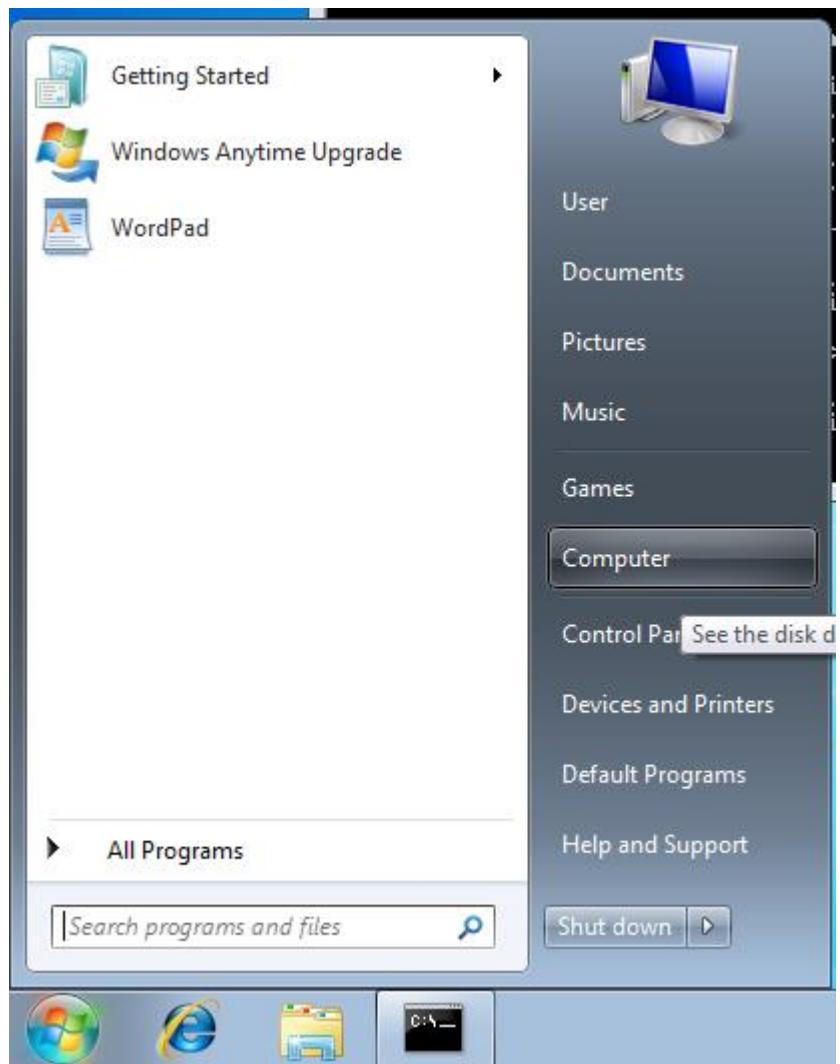
Follow the same steps to rename Server1 only change the name to Server2.



Client 1

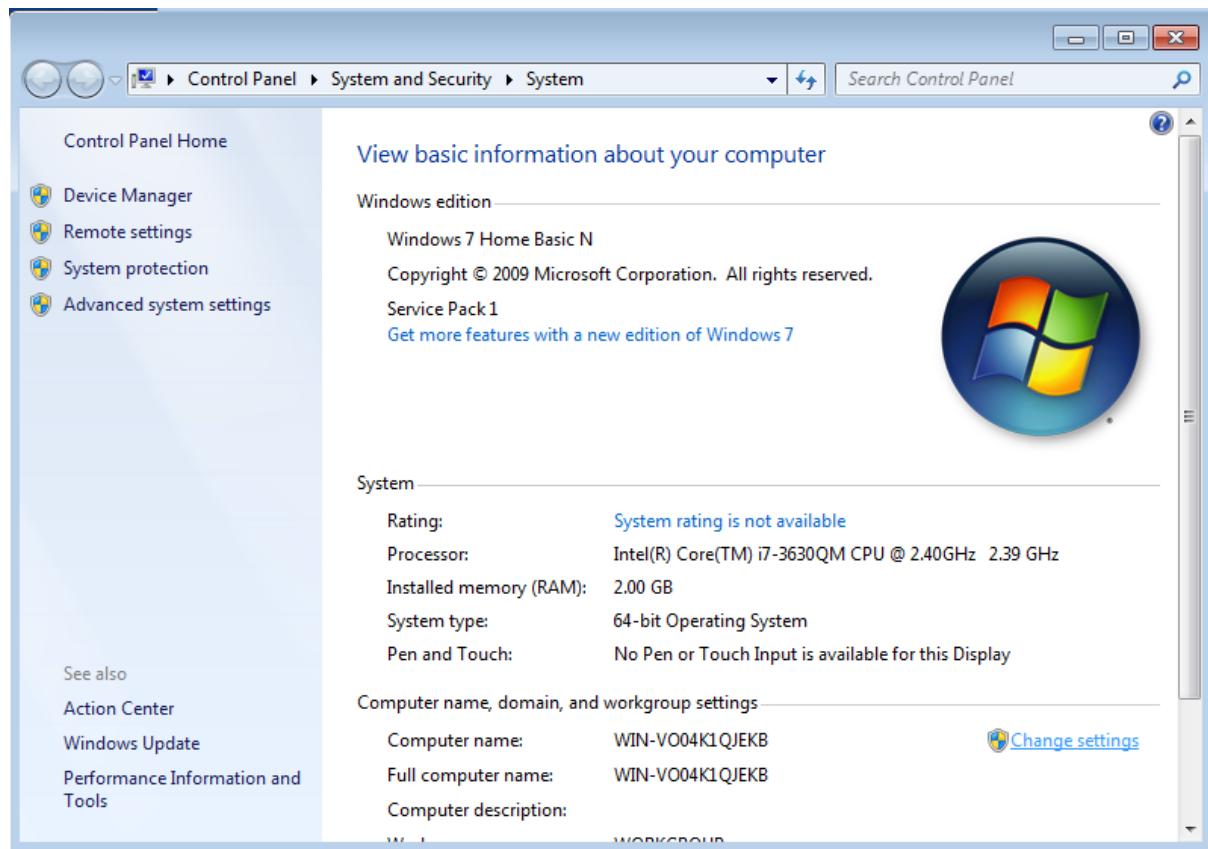
Step 1

Click Start, then right click on my computer, then click Manage.



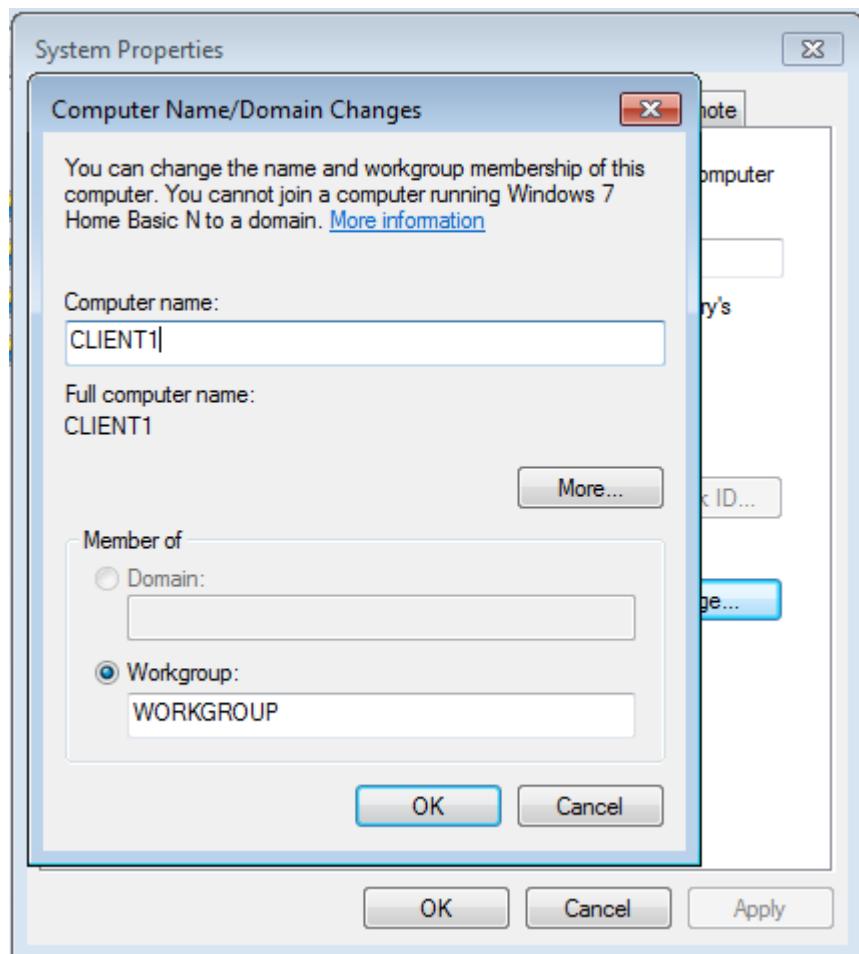
Step 2

Under Computer Name, Domain and Workgroup Settings, click Change Settings.



Step 3

In the Computer Name tab, click change. Then type the name of the computer you wish to change the name to. For the purposes of the assignment it should be name Client1.

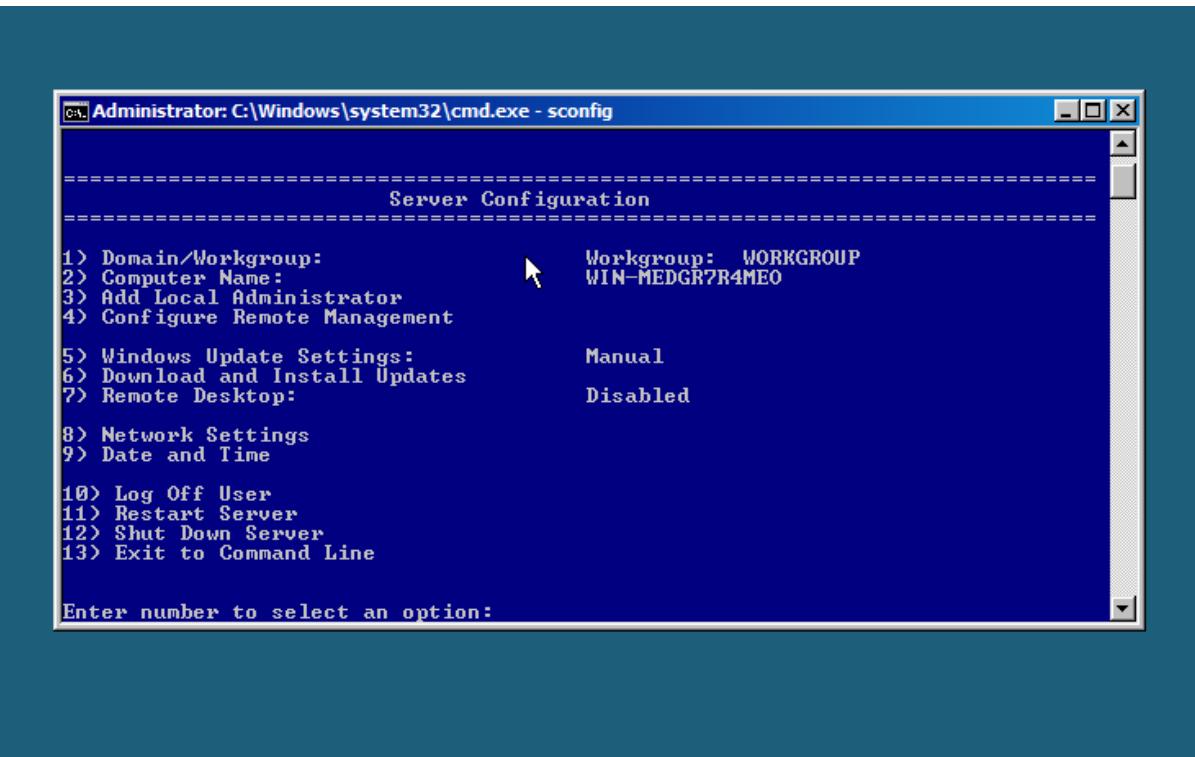


Click ok, then click Apply. You will now be prompted to Restart your computer to save the change of name.

MS-CORE

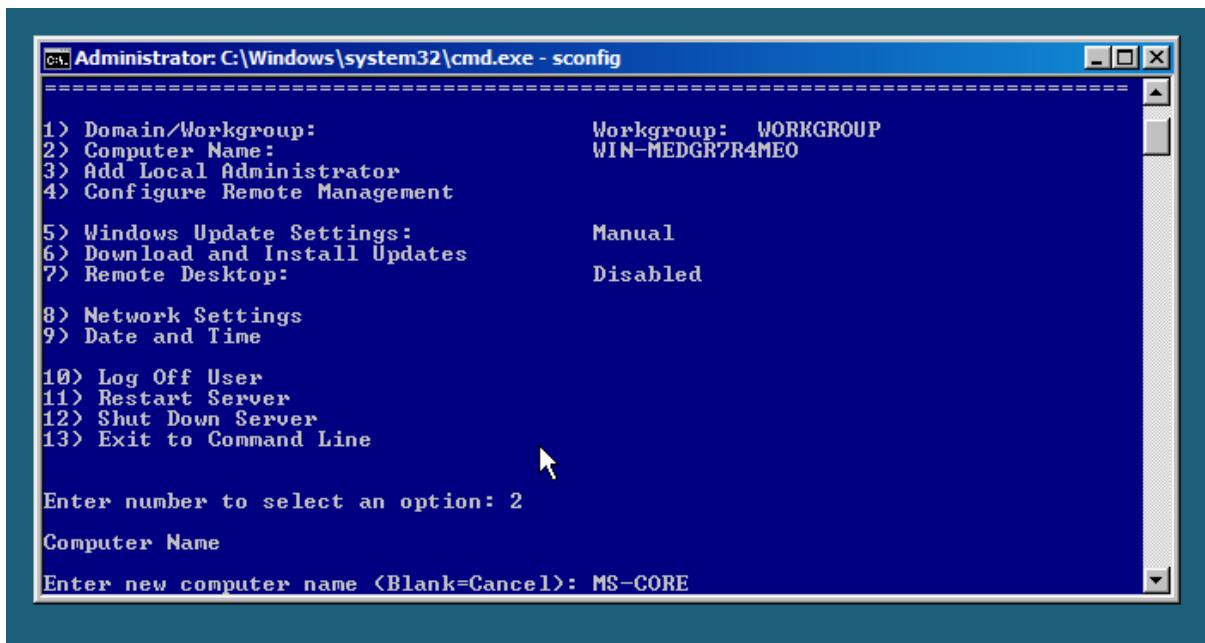
Step 1

On the command line, type "sconfig". This runs the server configuration setup.



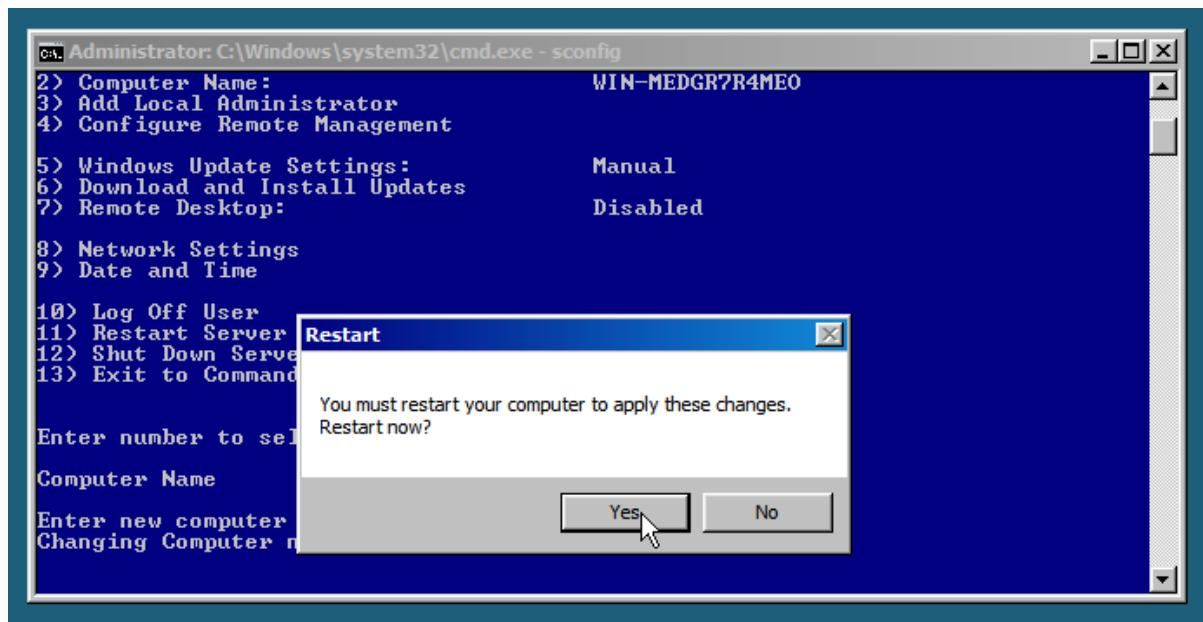
Step 2

Enter the number 2. Then Enter the name you wish to change the computer to. For the purposes of the assignment it should be name MS-CORE.



Step 3

Click Yes to restart the computer, when prompted, to save the name change.



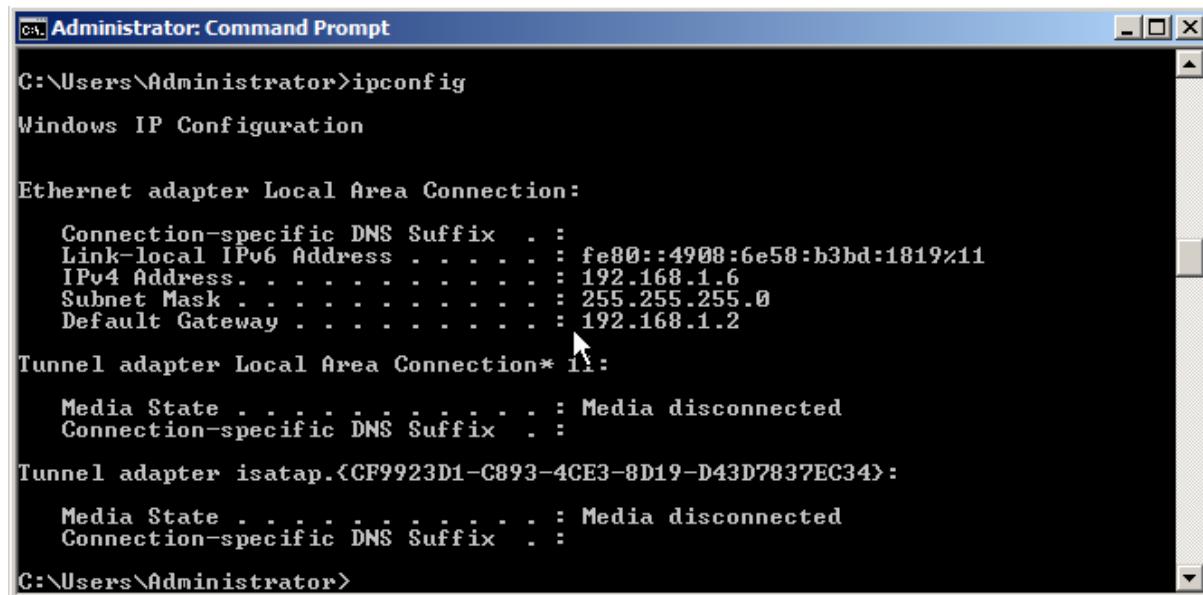
Assigning Static IP Address

Server 1

Step 1

Click start, then in the run box enter “cmd” then press enter.

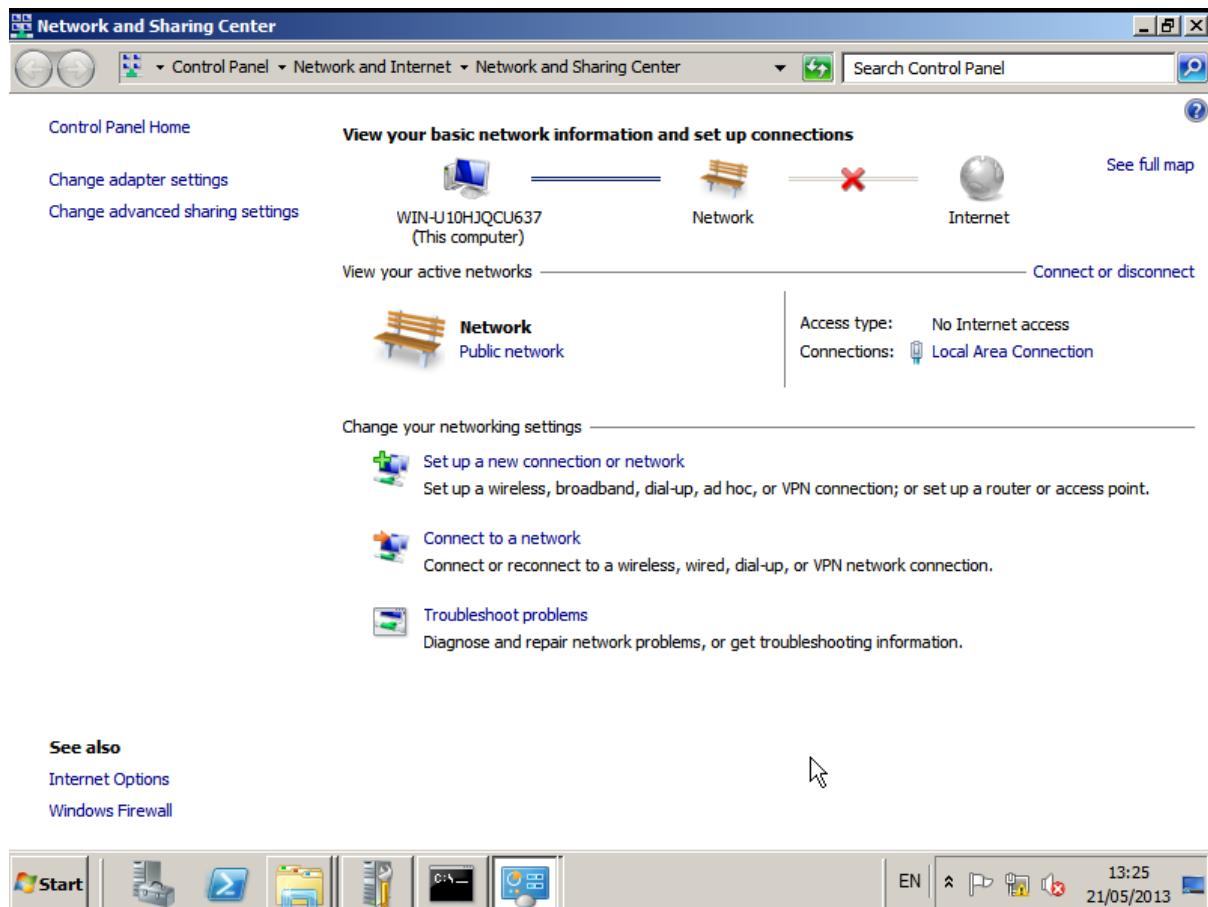
In the command line enter “ipconfig” to find out the network settings of the computer. The network settings for the computer must be changed in order to be on a static network.



Step 2

Server1 IP address should be changed to 192.168.0.1.

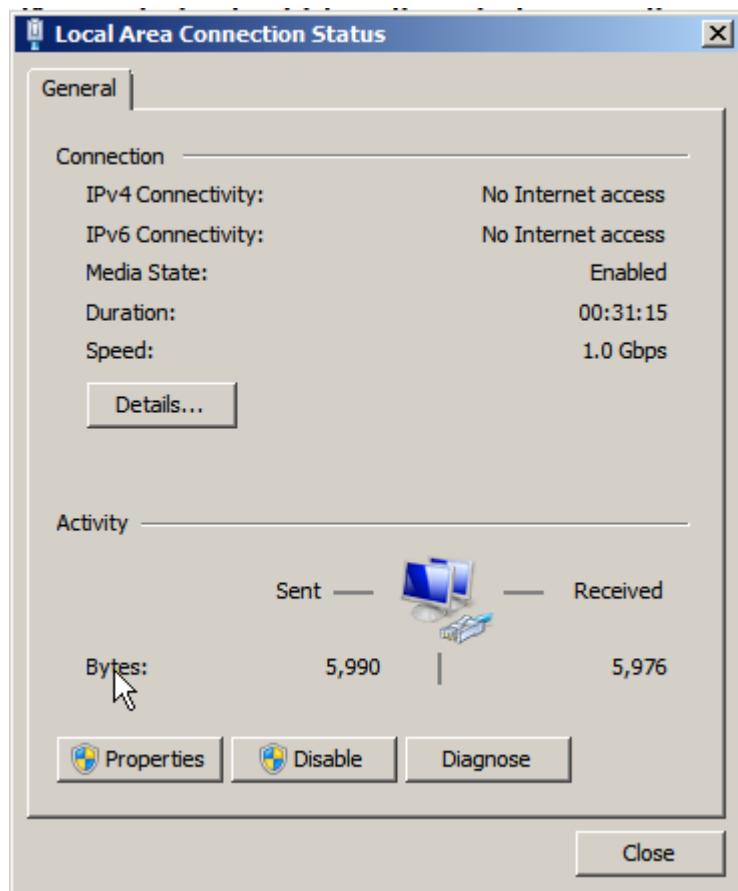
Open the network and sharing center.



Under “View your active networks” click “Local Area Connection”.

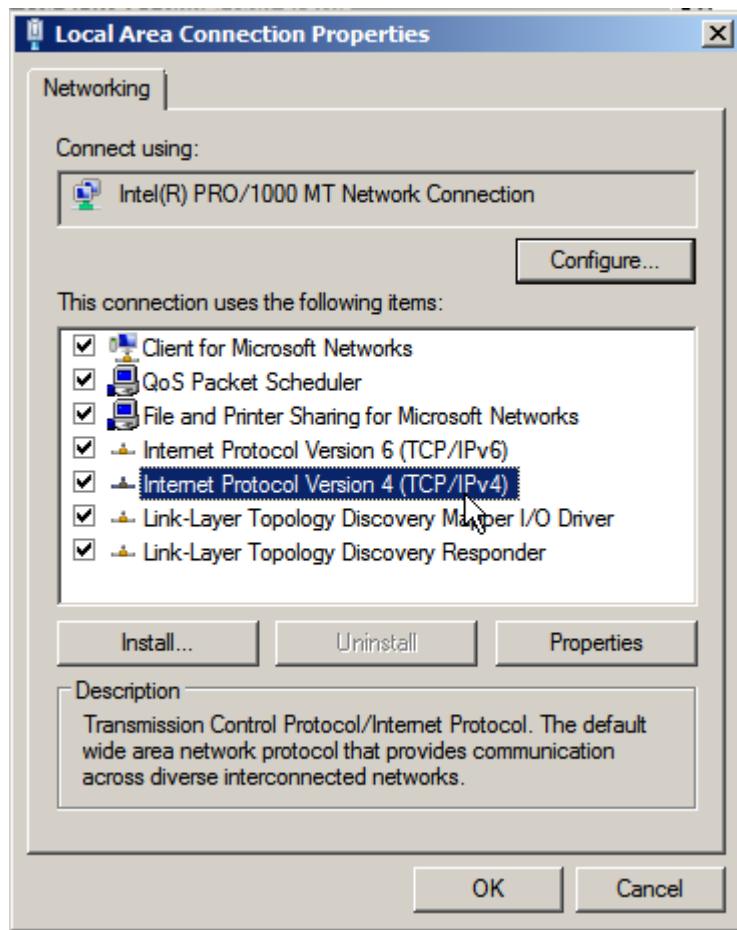
Step 3

In the box displayed below, click properties.



Step 4

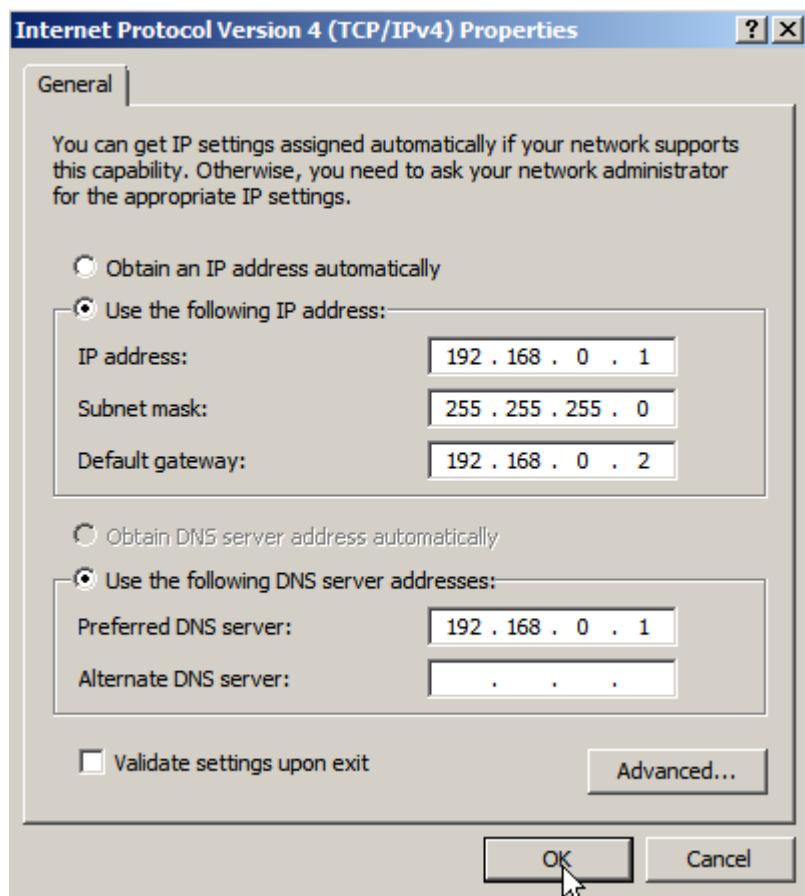
In the menu displayed below, double click Internet Protocol version 4.



Step 5

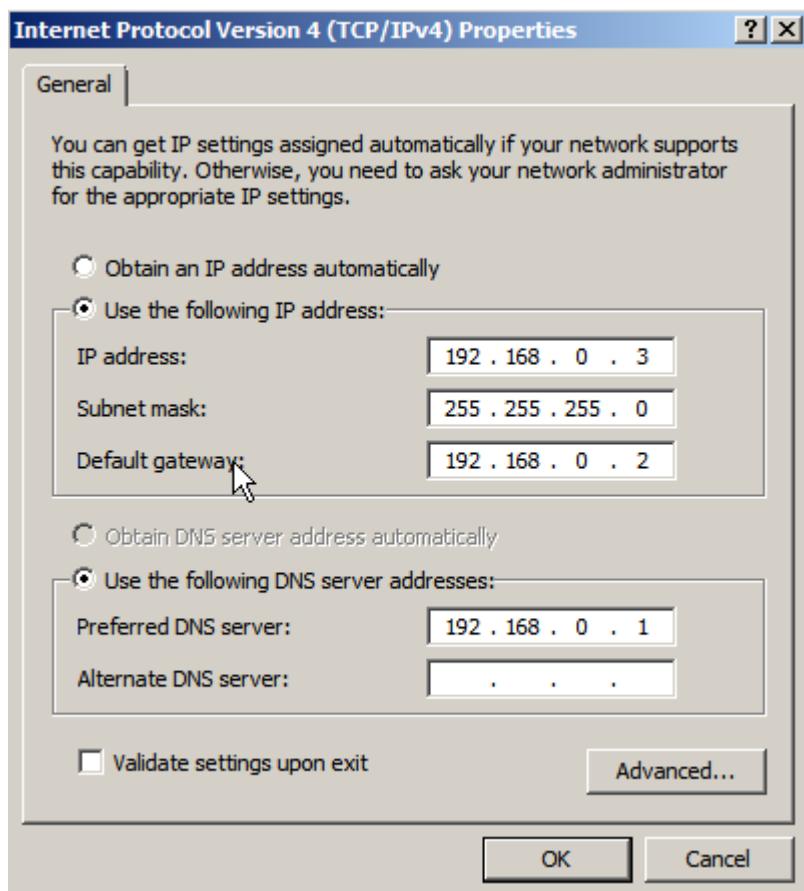
Enter the details as displayed below. A Default Gateway does not have to be entered as this will be a private internal network for the purposes of the assignment. The DNS server address does not have to be entered at this stage on Server1 and Server2, as once Active Directory is installed it must be re-entered to configure Active Directory.

Once the information is entered, click ok to save. Then run ipconfig again to make sure the settings have been saved.



Server 2

To statically assign Server 2, follow the exact same procedure only changing the IP address to 192.168.0.2



MS-CORE

To statically assign MS-CORE, enter the following command; netsh interface ipv4 set address name="Local Area Connection" source=static address=192.168.0.3 mask=255.255.255.0 gateway=192.168.0.2

```
C:\Administrator: C:\Windows\system32\cmd.exe
C:\Users\Administrator>netsh interface ipv4 show interfaces
Idx      Met          MTU        State           Name
-----  -----  -----
  3        10        1500  connected    Local Area Connection
   1       50  4294967295  connected  Loopback Pseudo-Interface 1

C:\Users\Administrator>netsh interface ipv4 set address name=ipv4 source=static
address=192.168.0.3 mask=255.255.255.0 gateway=192.168.0.2
The filename, directory name, or volume label syntax is incorrect.

C:\Users\Administrator>netsh interface ipv4 set address name="ipv4" source=static
address=192.168.0.3 mask=255.255.255.0 gateway=192.168.0.2
The filename, directory name, or volume label syntax is incorrect.

C:\Users\Administrator>netsh interface ipv4 set address name="Local Area Connect
ion" source=static address=192.168.0.3 mask=255.255.255.0 gateway=192.168.0.2

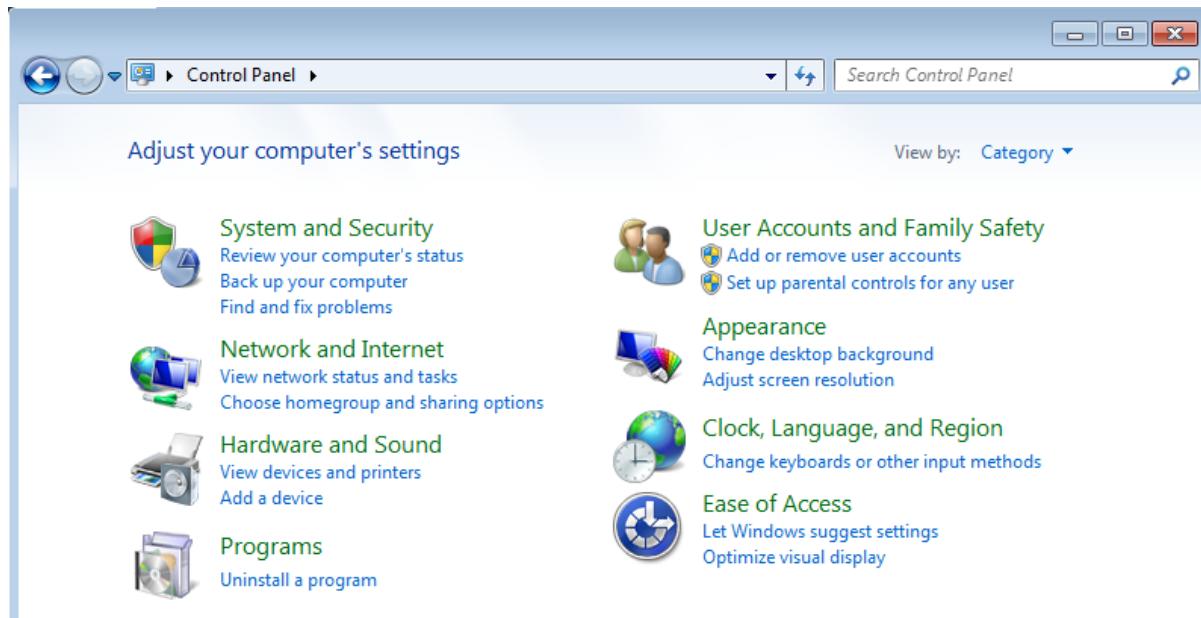
C:\Users\Administrator>
```

Client 1

To statically assign Client 1, the process is very similar to that of Server1 and Server2.

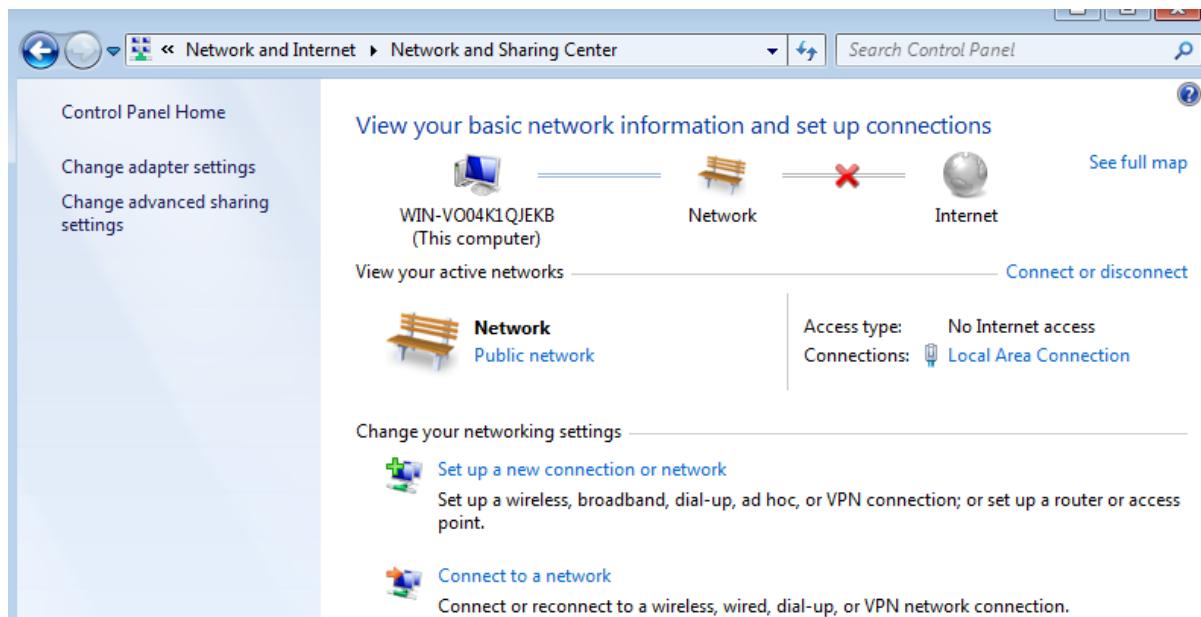
Step 1

Click start, then click control panel. Then click Network and Internet from the menu displayed below.



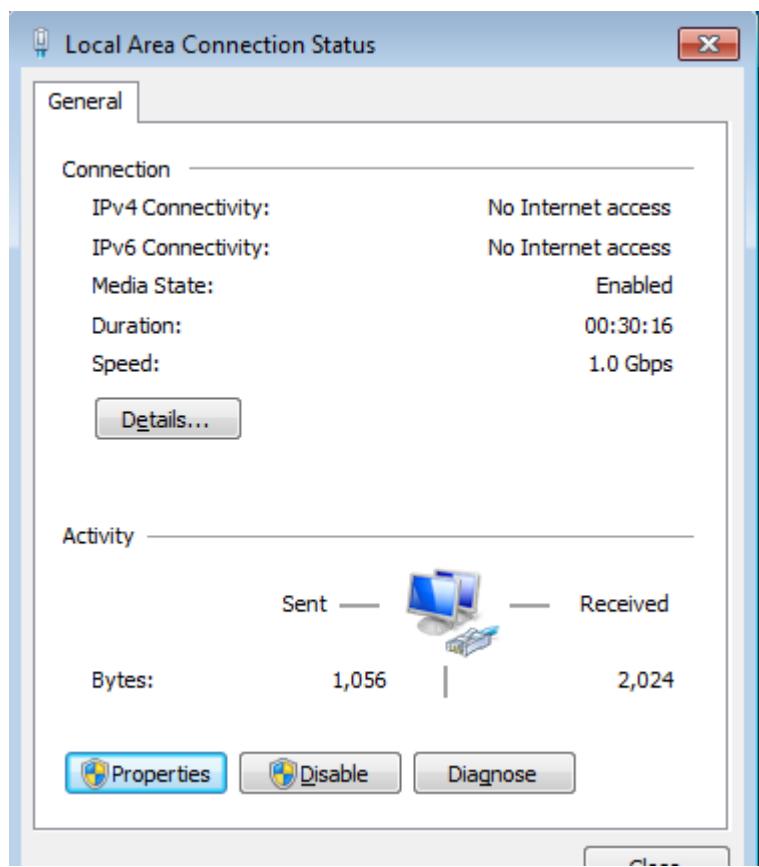
Step 2

Under, View your active networks, then click Local Area Connection.



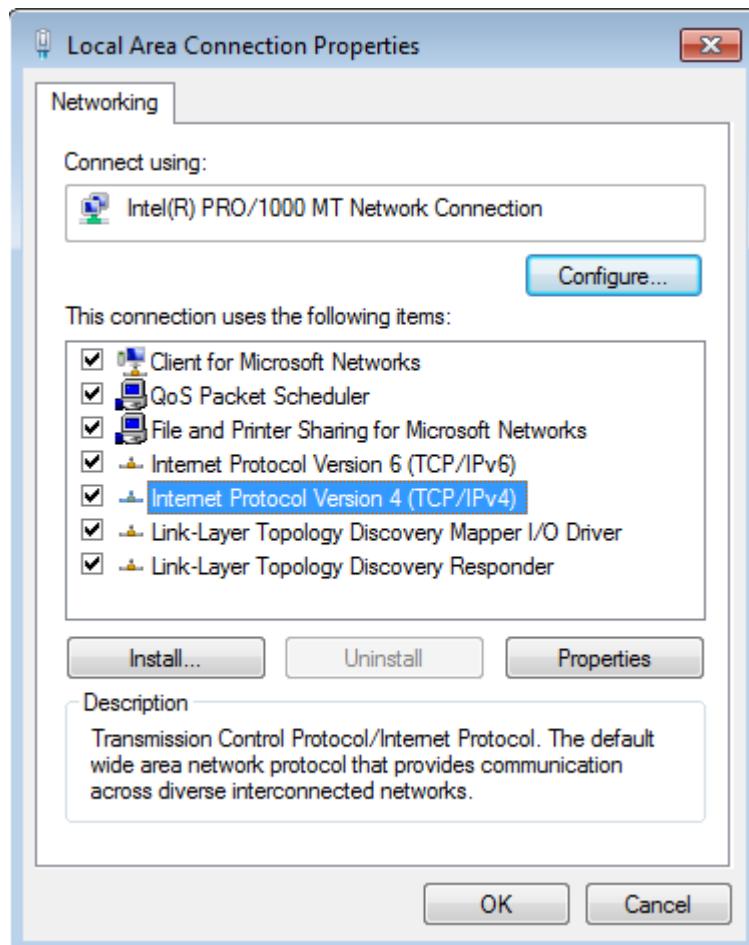
Step 3

From the Local Area Connection status, click Properties.



Step 4

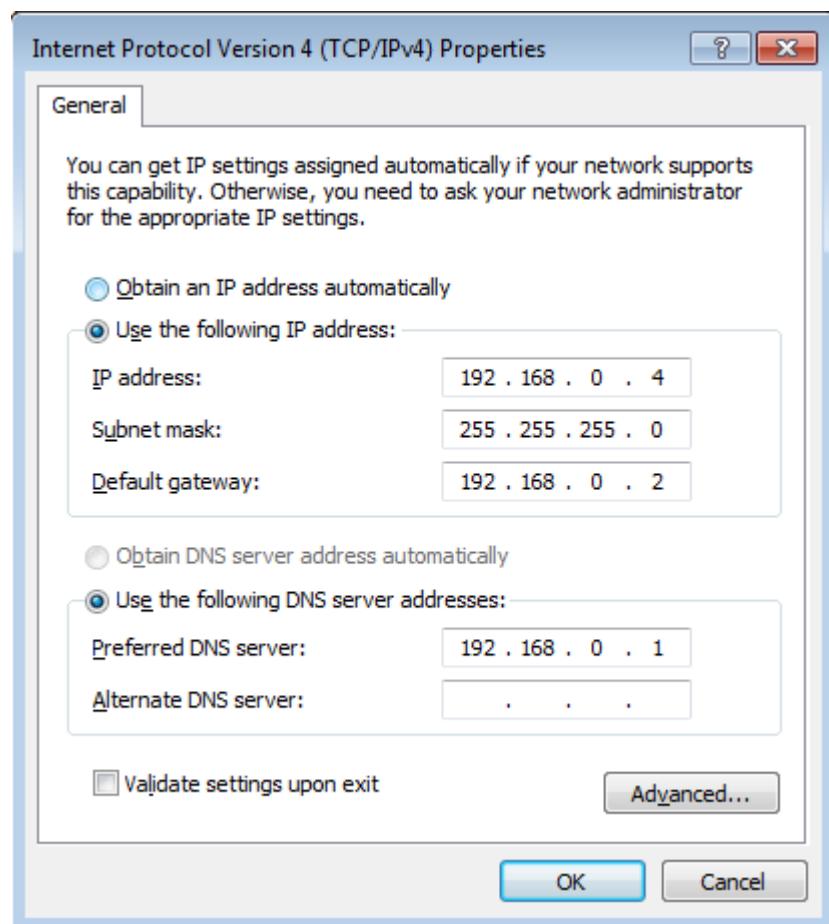
In the Local Connection Properties, double click Internet Protocol Version 4.



Step 5

Enter the following details to statically assign client1.

The DNS server address should be the same as Server1.



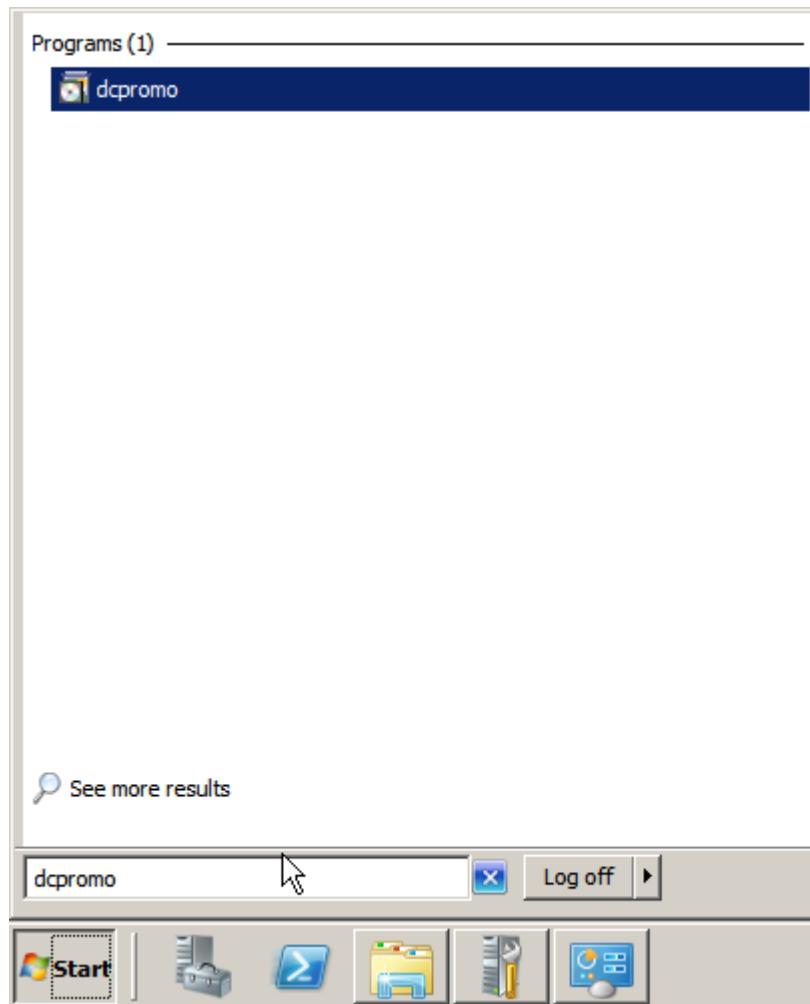
Task B

To set up Server 1 and 2 as domain controllers, MS-CORE as a member server, and client1 as workstation member. The Domain is to be called MSCCONV.IPA.

Server 1

Step 1

Click start, then in the run box, enter “dcpromo” then, press enter.



Step 2

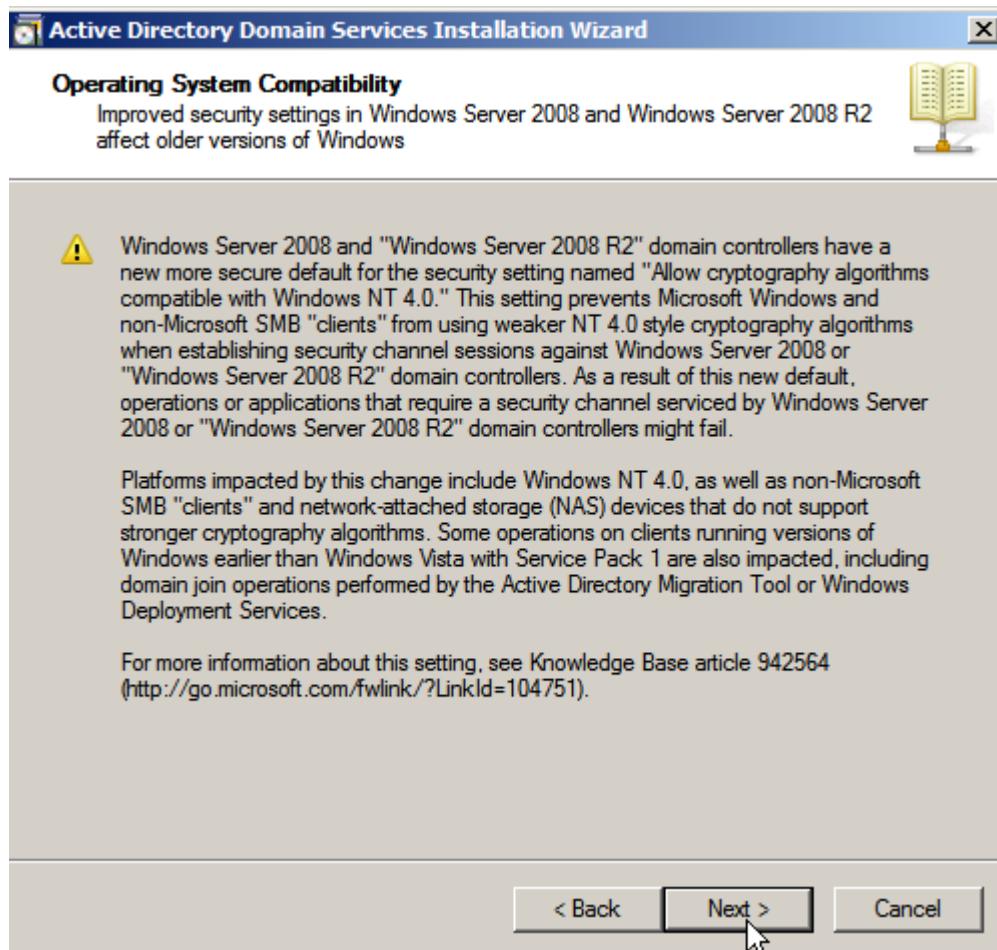
Dcpromo will start the active directory wizard, to install on the Server.

When the wizard opens, click next, to move onto the next step.



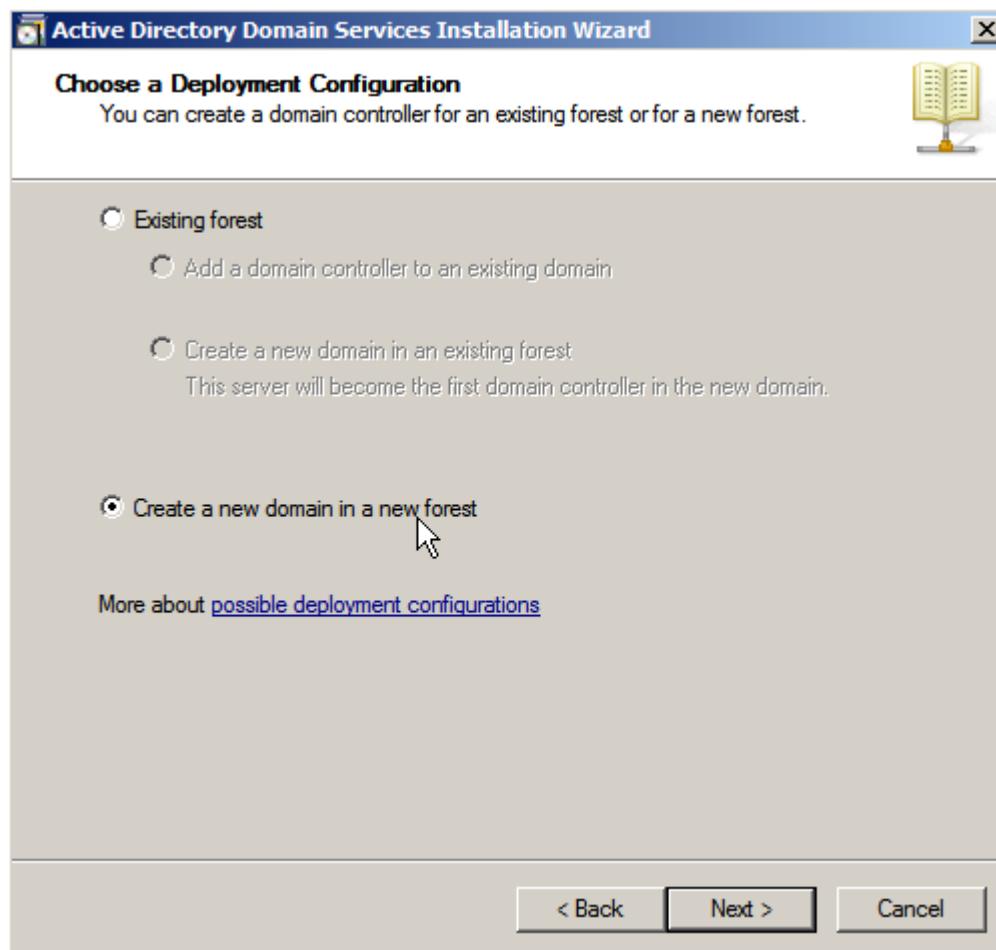
Step 3

When the screen below appears, click next.



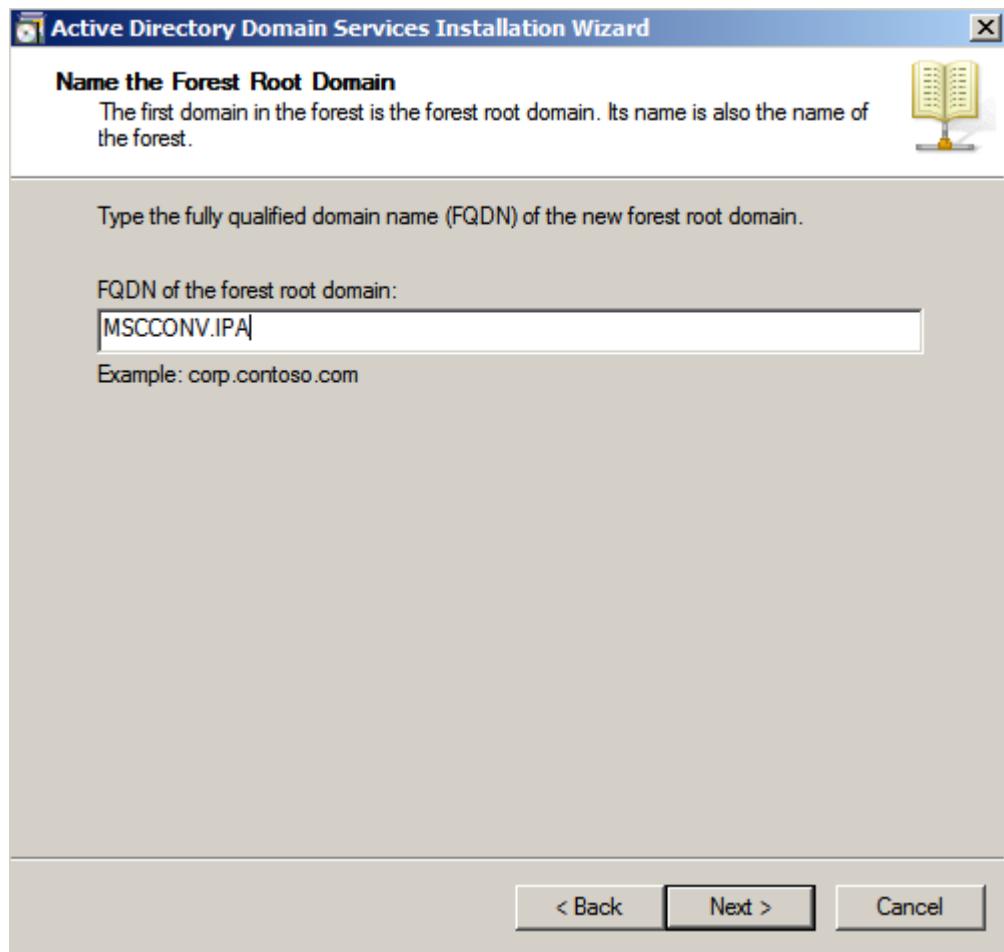
Step 4

When the screen below is displayed, select “create a new domain in a forest”.



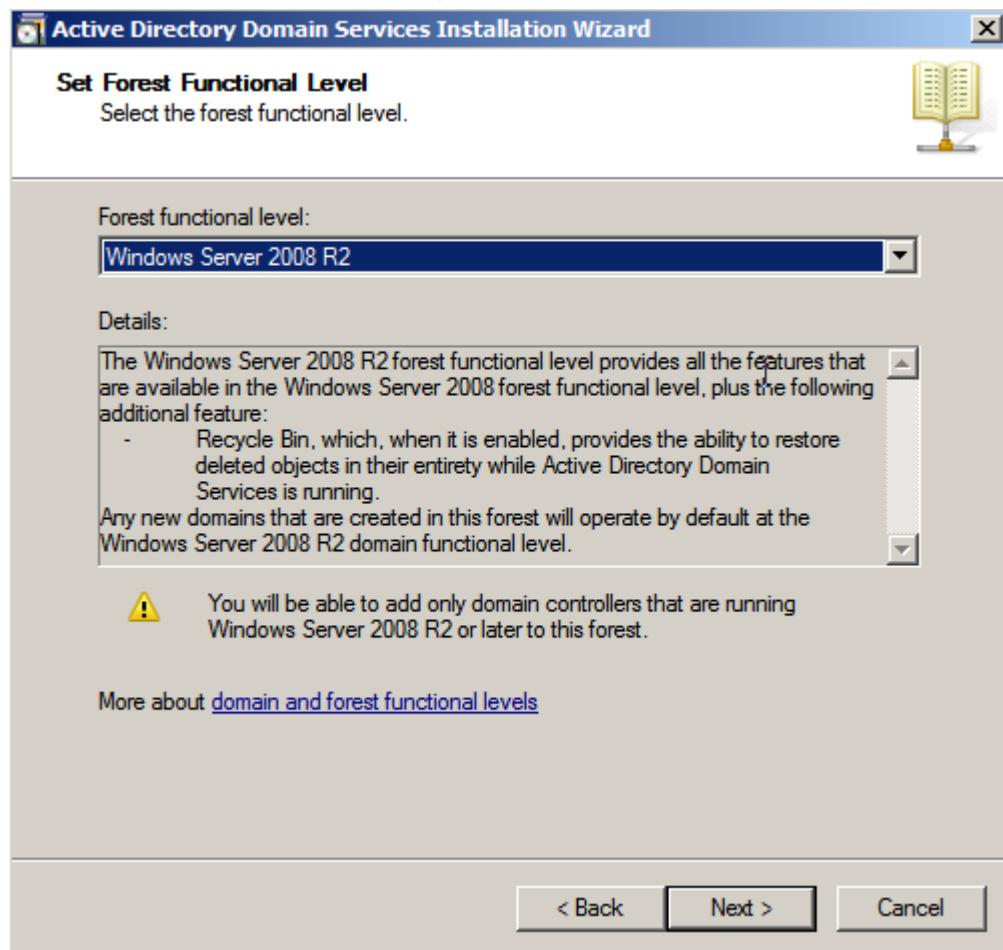
Step 5

Enter the name of the new Domain. For the purposes of this assignment, it is to be named MSCCONV.IPA.



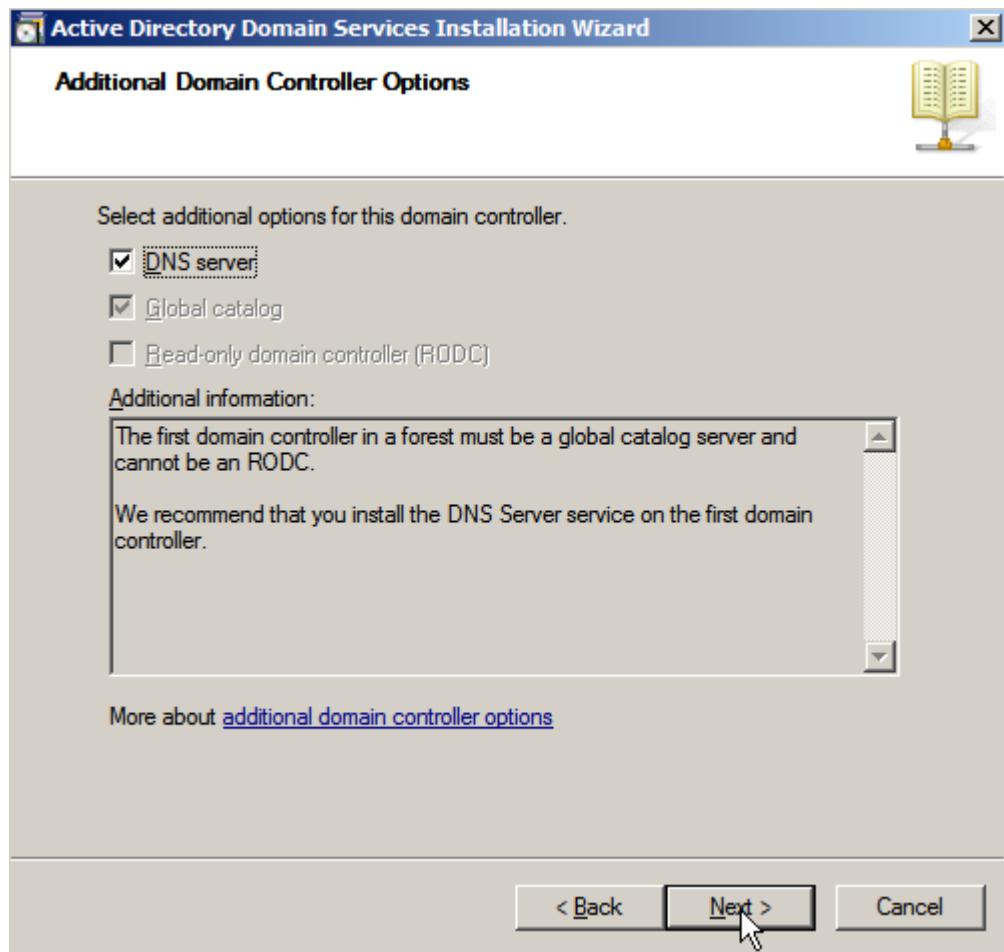
Step 6

As the servers are Windows 2008 R2, the forest functional level should be Windows Server 2008 R2.



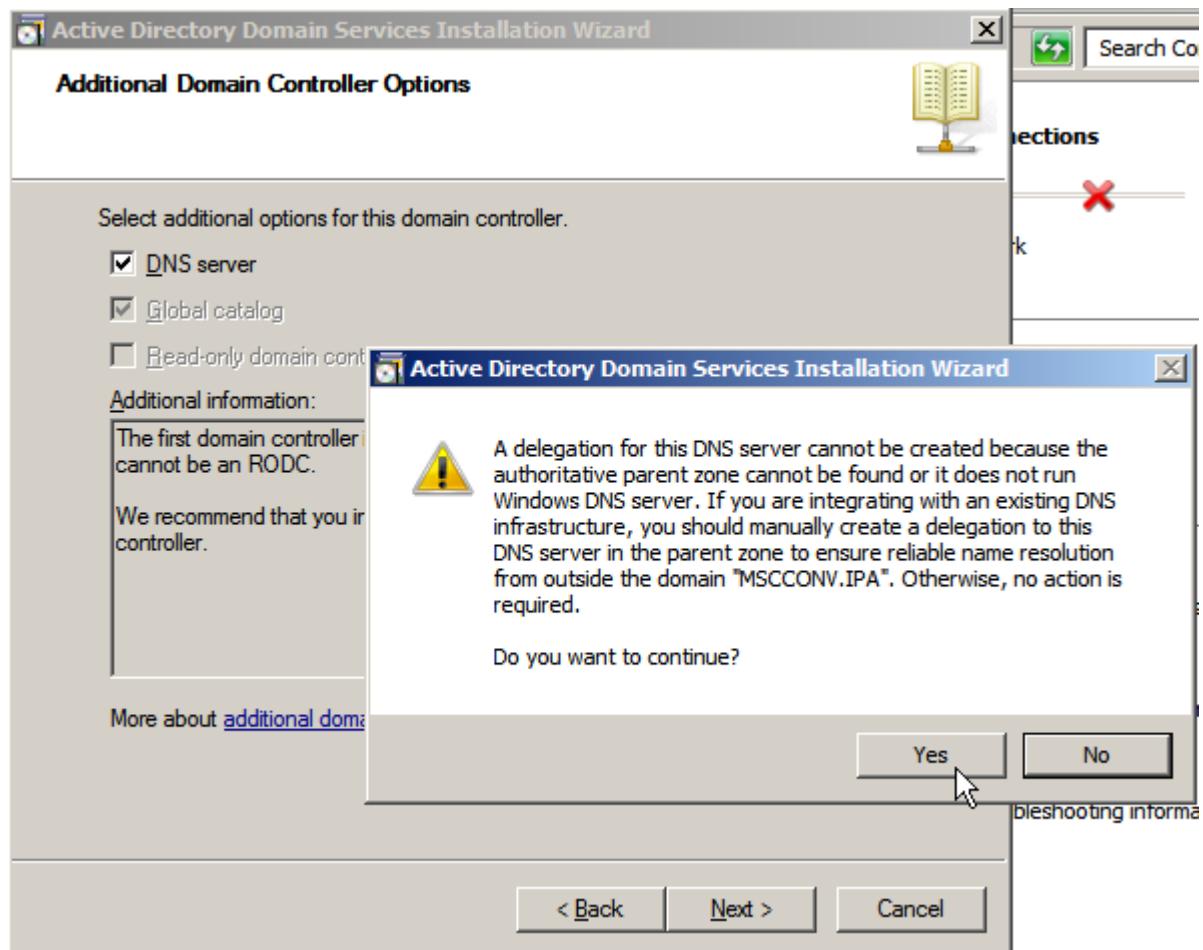
Step 7

Select DNS, as this must be installed.



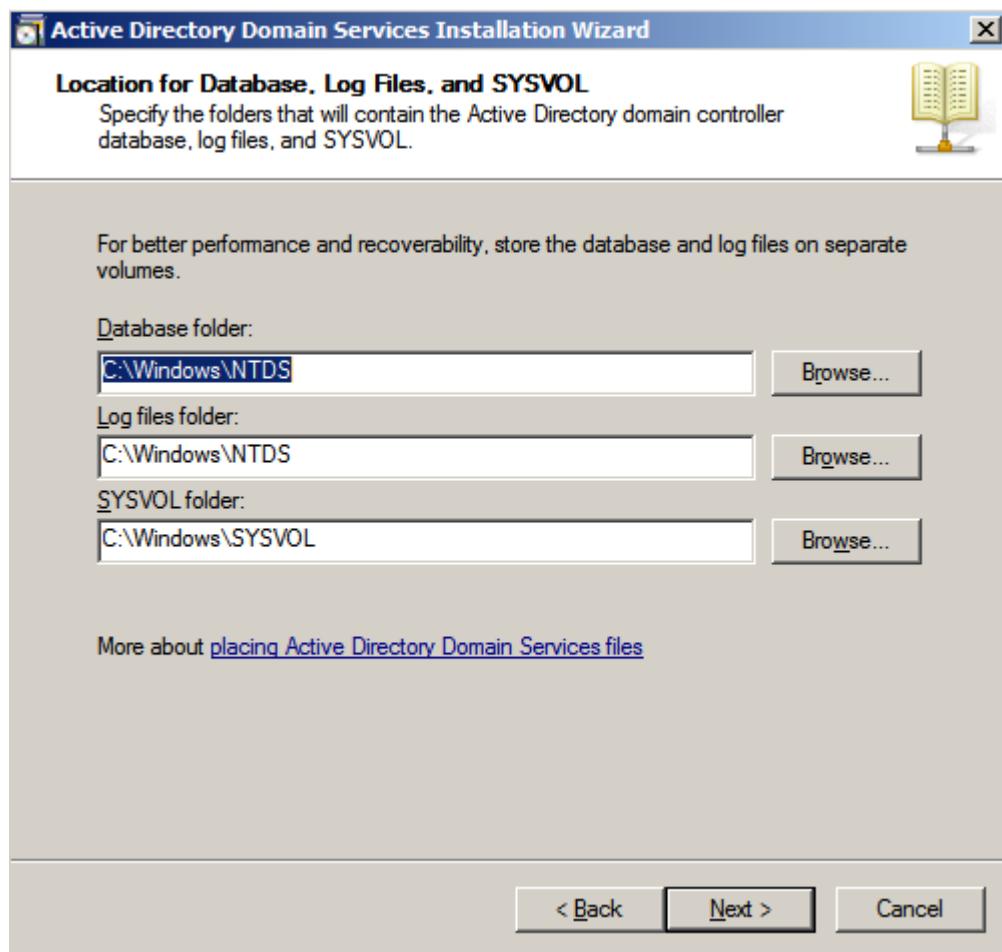
Step 8

When the pop up box below is displayed, click yes to install Active Directory.



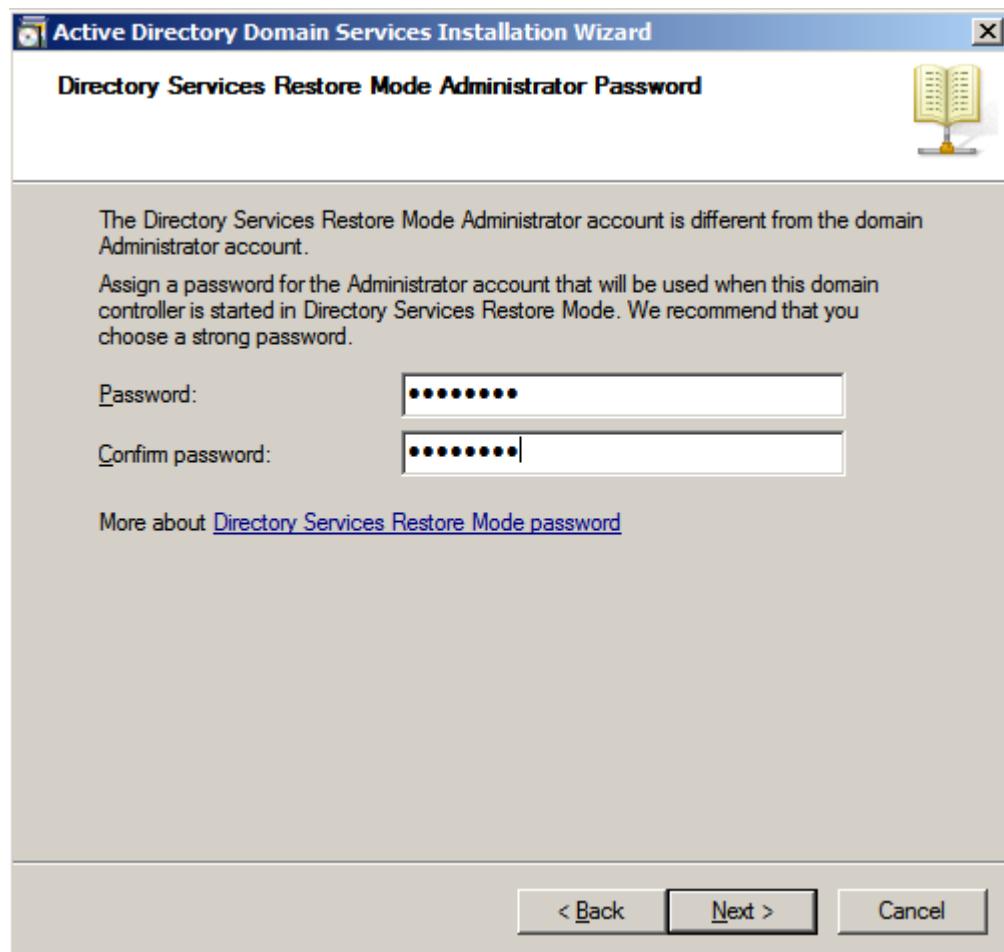
Step 9

The following screen should be left as default.



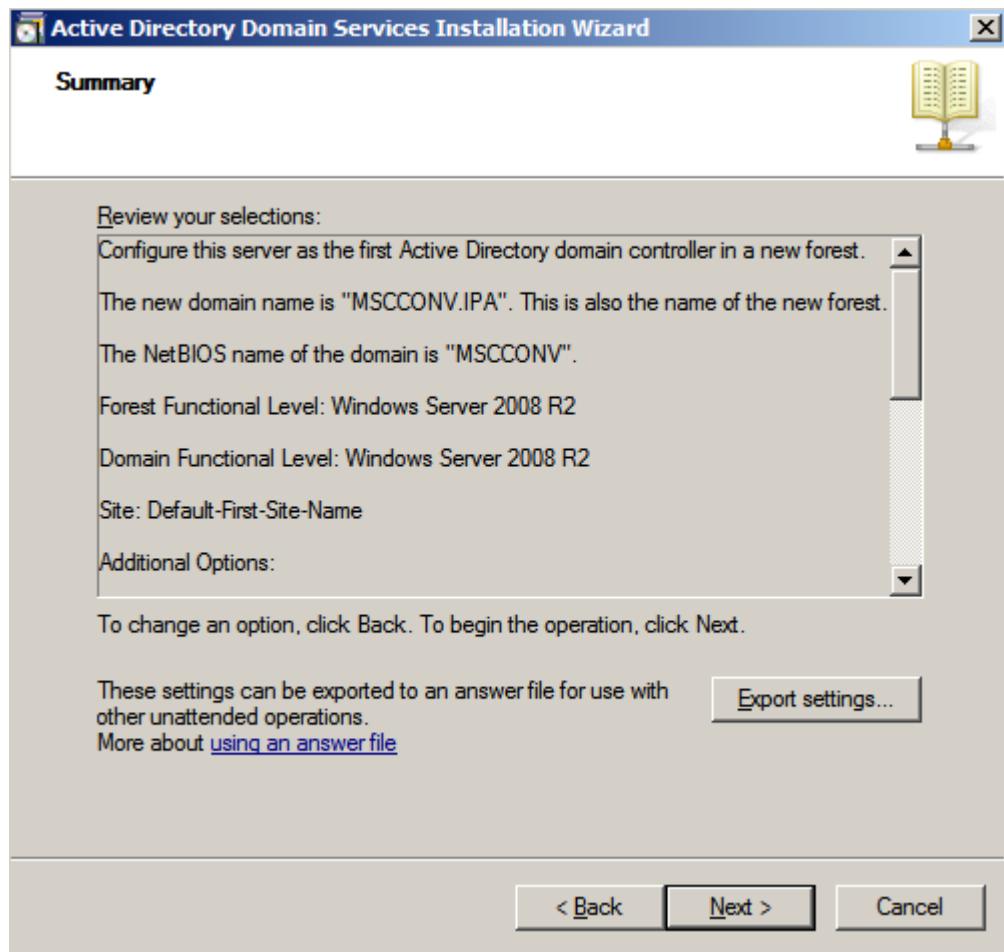
Step 10

Enter a password for the Domain Administrators account. This should be different to the local machine administrators password. However for the purposes of the assignment will remain Pa\$\$w0rd.



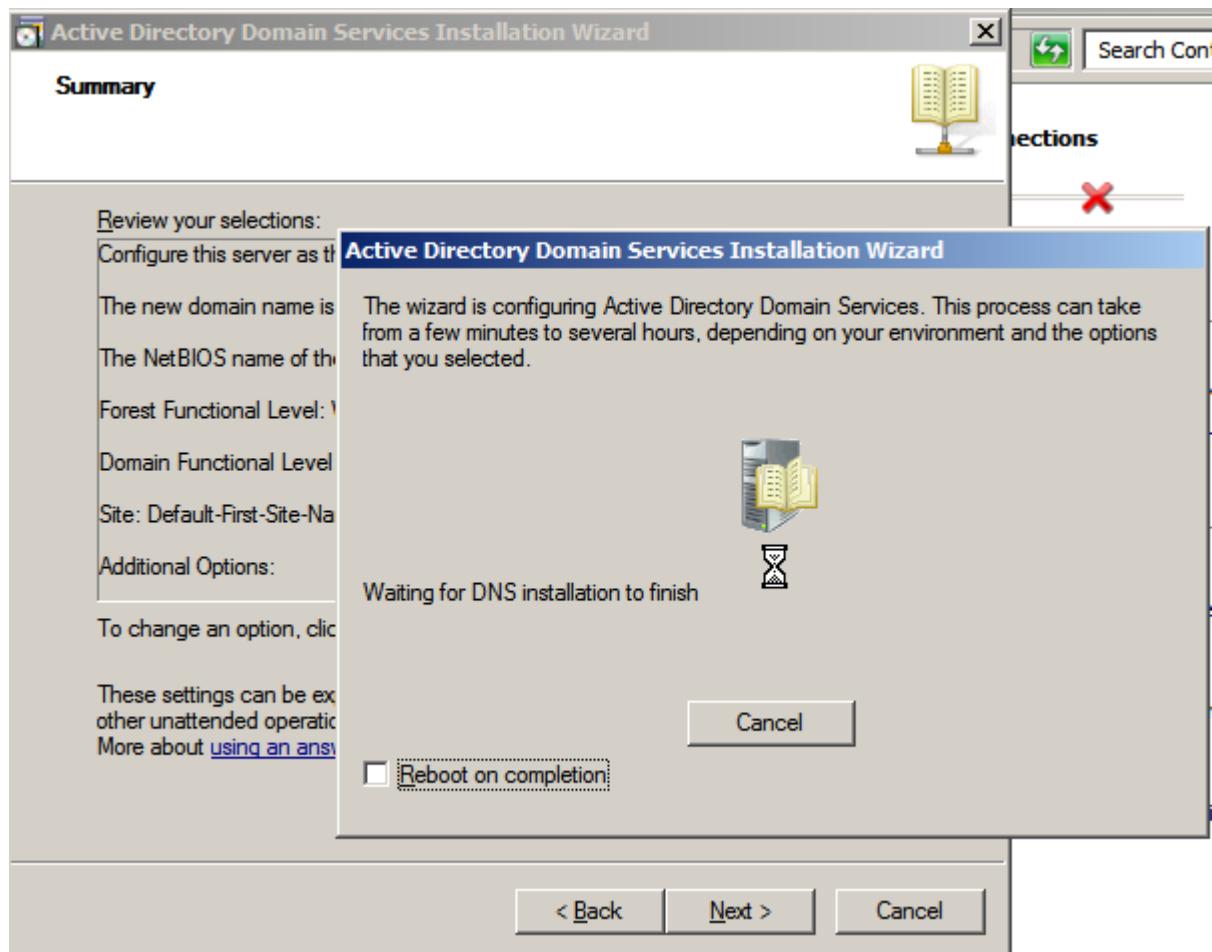
Step 11

The following screen gives a summary of the Active Directory setting which are about to be installed on the server1.



Step 12

After clicking next in the previous step, Active Directory will now begin installing.



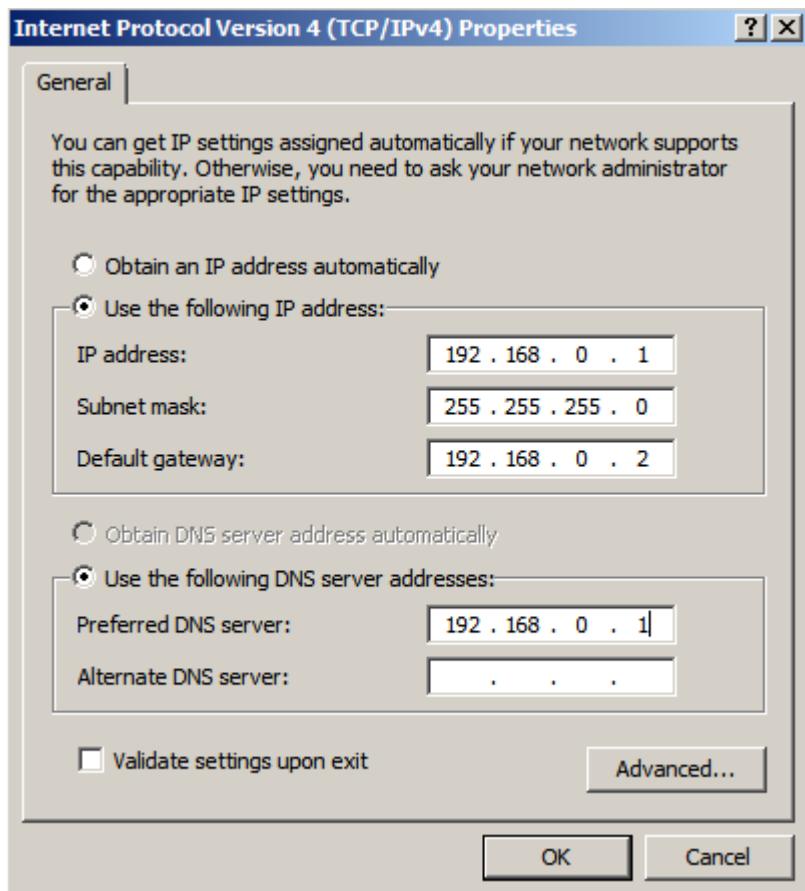
Step 13

When the screen as displayed below appears, click finish. Active Directory has now been installed on Server1 and MSCCONV.IPA domain has now been created.



Step 14

The DNS server must be reassigned again. Follow the same steps that were used to statically assign the Server1 IP address, then, rename the DNS address to the IP address of Server 1.



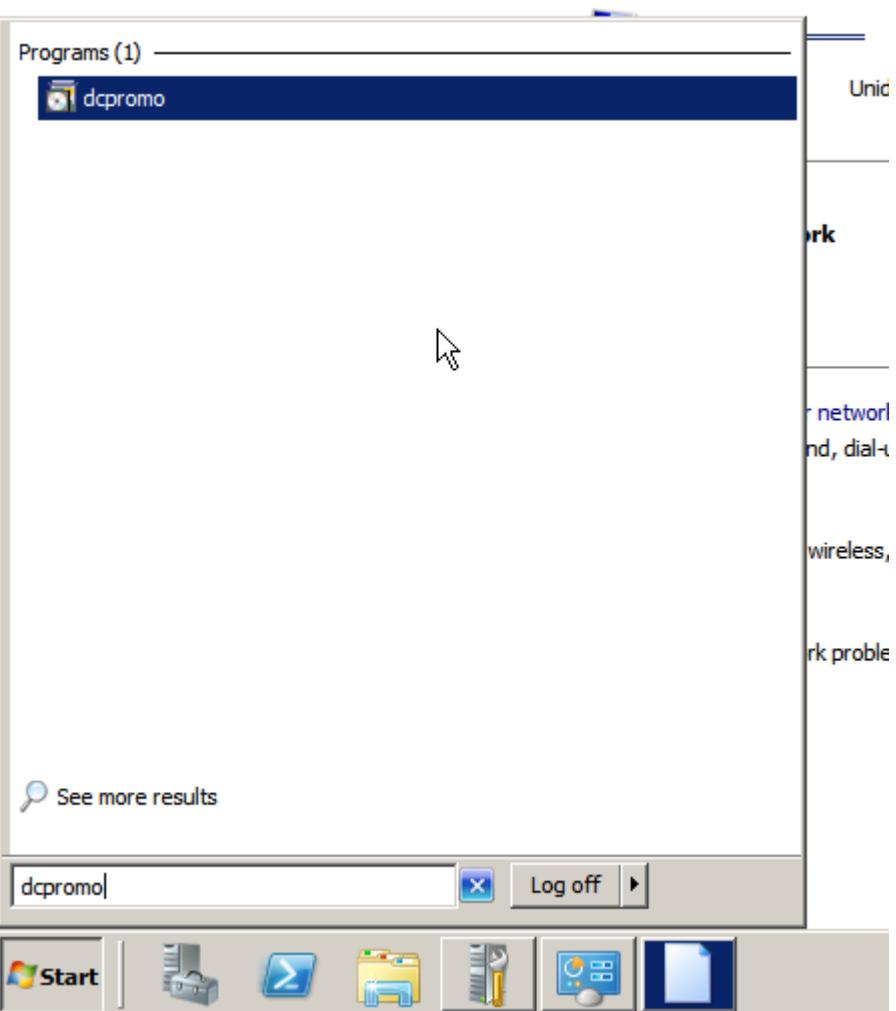
Server 2

Step 1

Click start, then, enter “dcpromo” into the run box, as displayed below.

Control Panel Home

View your basic network information and tools



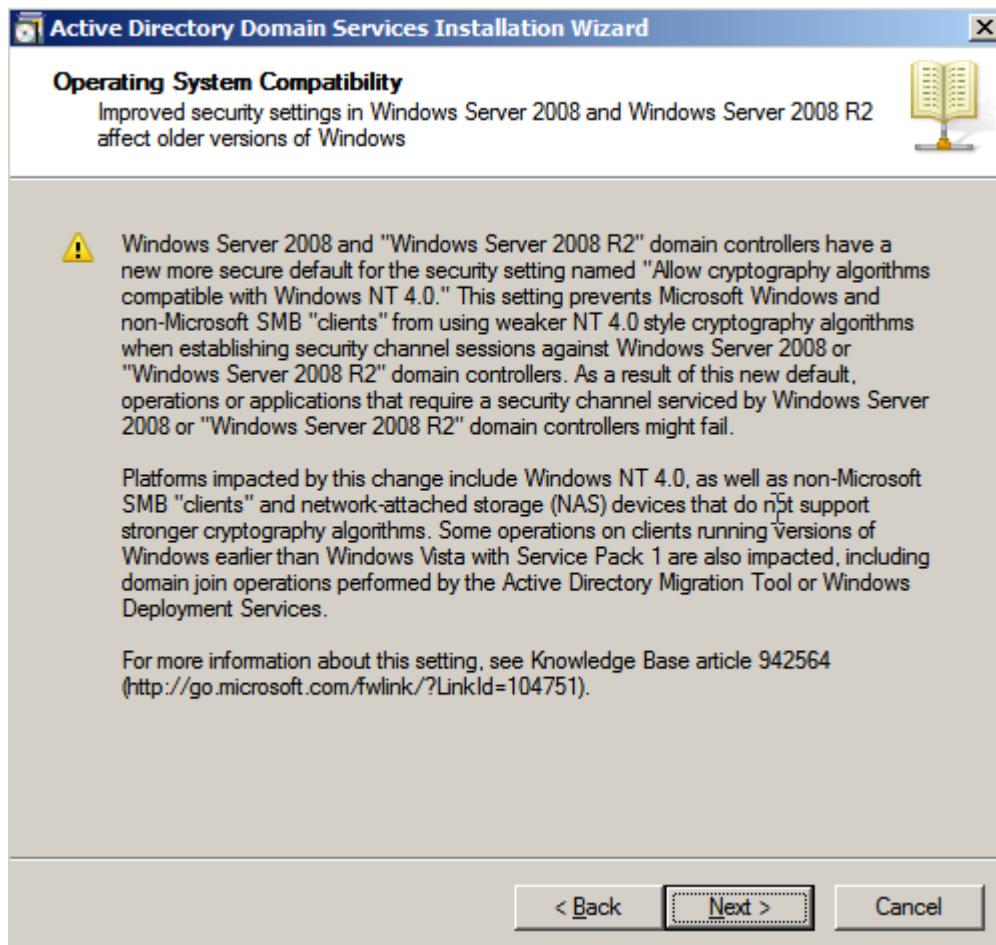
Step 2

When the screen below appears, click next.



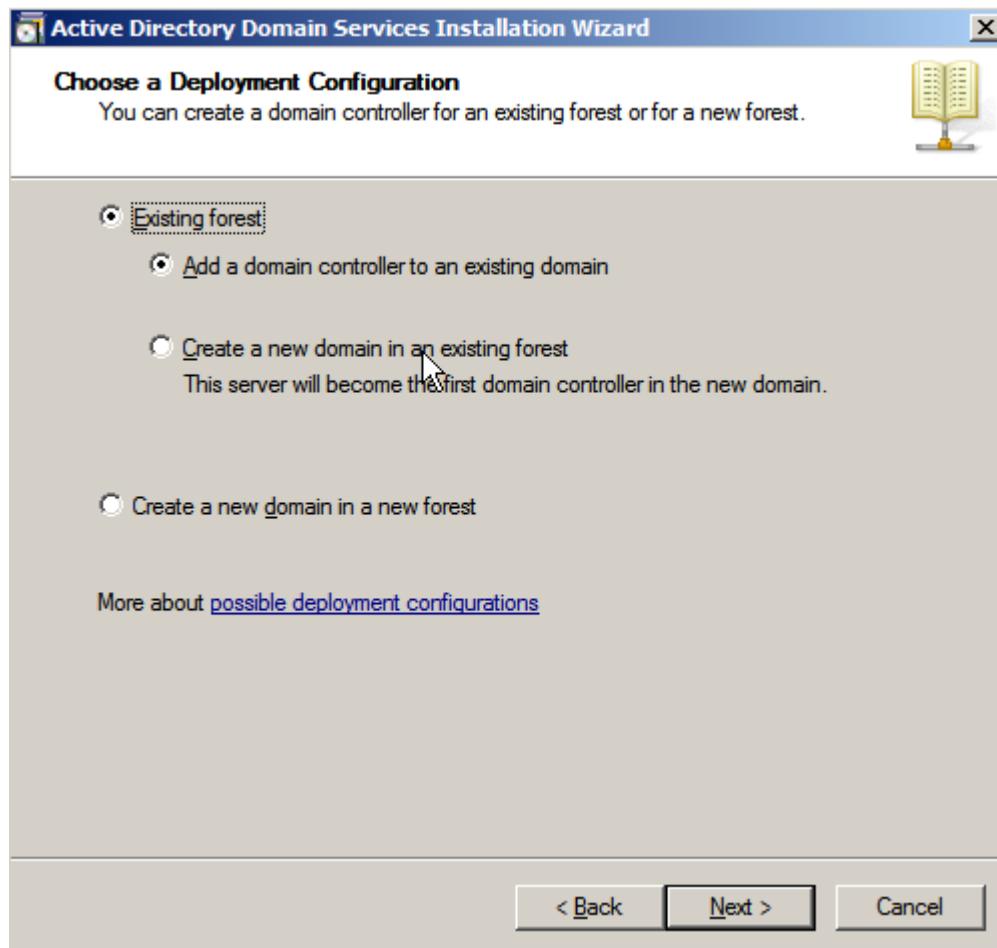
Step 3

Click next when the menu is displayed as below.



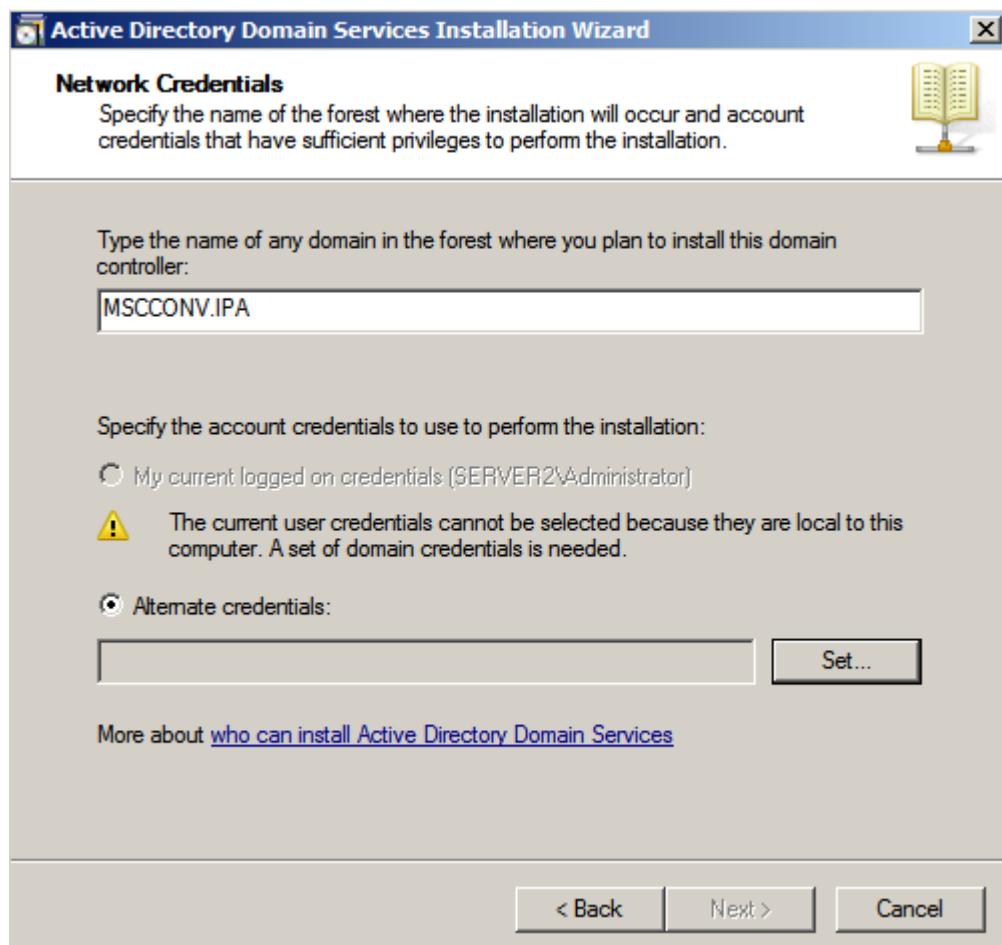
Step 4

As Server 2 is joining a domain that is already created, Existing Forest must be selected, then add a domain controller to an existing domain.



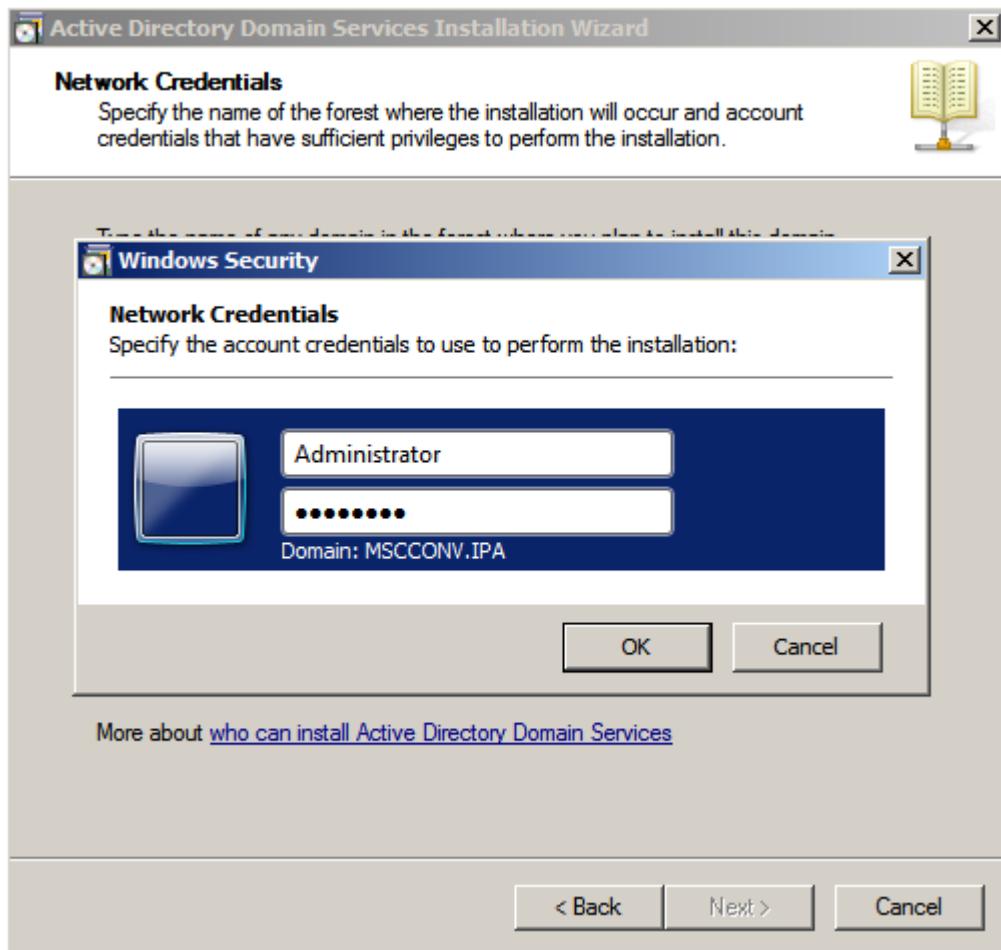
Step 5

Enter the name of the Domain, then, select Alternate credentials.



Step 5

Enter the Domain Username and password. Username = Administrator. Password = Pa\$\$w0rd.



After entering the domain administrators details, click ok then click next. Active Directory will now begin installing on Server 2.

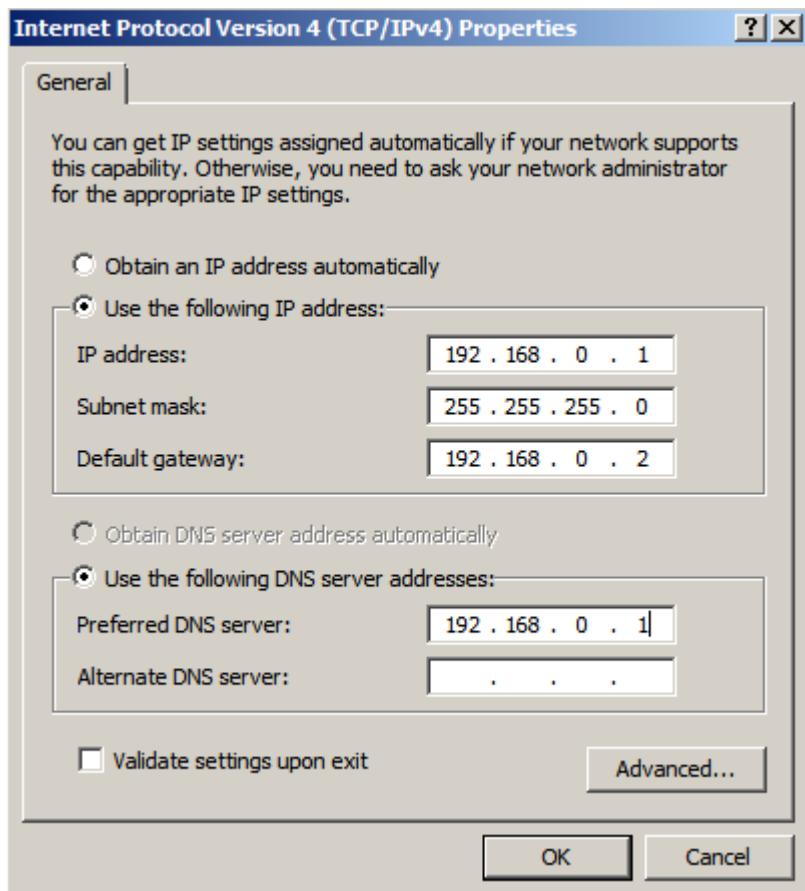
Step 6

Once Active Directory has finished installing, this window will appear.



Step 7

In the Internet Protocol Version 4 settings, change the DNS address to the address of server 1. Which is 192.168.0.1



MS-CORE

Step 1

On the command prompt, enter “sconfig”.

Press 1 then press enter, to join a domain or workgroup.

```
Administrator: C:\Windows\system32\cmd.exe - sconfig
1> Domain/Workgroup:          Workgroup: WORKGROUP
2> Computer Name:             MS-CORE
3> Add Local Administrator
4> Configure Remote Management
5> Windows Update Settings:   Manual
6> Download and Install Updates
7> Remote Desktop:            Disabled
8> Network Settings
9> Date and Time
10> Log Off User
11> Restart Server
12> Shut Down Server
13> Exit to Command Line

Enter number to select an option: 1

Change Domain/Workgroup Membership
Join <D>omain or <W>orkgroup? <Blank=Cancel> _
```

Step 2

Then press “d” and enter. Then type the name of the domain you wish to join, which is MSCCONV.IPA.

When asked to specify an authorized domain\user. Enter “Administrator” then enter the user Password which is “Pa\$\$w0rd”.

```
Administrator: C:\Windows\system32\cmd.exe - sconfig
4> Configure Remote Management
5> Windows Update Settings:   Manual
6> Download and Install Updates
7> Remote Desktop:            Disabled
8> Network Settings
9> Date and Time
10> Log Off User
11> Restart Server
12> Shut Down Server
13> Exit to Command Line

Enter number to select an option: 1

Change Domain/Workgroup Membership
Join <D>omain or <W>orkgroup? <Blank=Cancel> d
Join Domain
Name of domain to join: MSCCONV.IPA
Specify an authorized domain\user: _
```

```
Administrator: C:\Windows\system32\cmd.exe - sconfig
?> C:\Windows\System32\netdom.exe
8> Type the password associated with the domain user:
9>
10>
11>
12>
13>
En
Ch
Jo
Jo
Na
Sp
Jo
```

Step 3

Once the computer has joined the domain, it will ask you if you wish to rename the computer. As the server has already been renamed to MS-CORE in Task A, we can click no in this step.

```
Administrator: C:\Windows\system32\cmd.exe - sconfig
?> Remote Desktop: Disabled
8> Network Settings
9> Date and Time
10> Log Off User
11> Restart Server
12> Shut Down Server
13> Exit to Command Line

Enter number to select an option: 1

Change Domain/Workgroup Membership
Join <D>omain or <W>orkgroup? <Blank=Cancel> d
Join Domain
Name of domain to join: MSCCONU.IPA
Specify an authorized domain\user: Administrator
Joining MSCCONU.IPA...

Change computer name
Do you want to change the computer name before restarting the computer?
Yes No
```

Ms-Core has now joined the domain as a member server.

As this computer will be on a private internal network and not connected to the internet, Firewall should be disabled to be allowed complete communication with the rest of the computers on the domain.

To remove firewall, type “netsh advfirewall set allprofiles state off”, as demonstrated below.

```
C:\Administrator: C:\Windows\system32\cmd.exe
WINS Proxy Enabled . . . . . : No
DNS Suffix Search List . . . . . : MSCCONU.IPA

Ethernet adapter Local Area Connection:

Connection-specific DNS Suffix . . . . . :
Description . . . . . : Intel(R) PRO/1000 MT Network Connection
Physical Address . . . . . : 00-0C-29-BB-B8-B8
DHCP Enabled . . . . . : No
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::c956:1596:b5b:969f%3<Preferred>
IPv4 Address . . . . . : 192.168.0.3<Preferred>
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.0.2
DHCPv6 IAID . . . . . : 50334761
DHCPv6 Client DUID . . . . . : 00-0C-29-19-2C-3A-AF-00-0C-29-39-2E-4B

DNS Servers . . . . . : 192.168.0.1
NetBIOS over Tcpip . . . . . : Enabled

C:\Users\Administrator>netsh advfirewall set allprofiles state off
Ok.

C:\Users\Administrator>
```

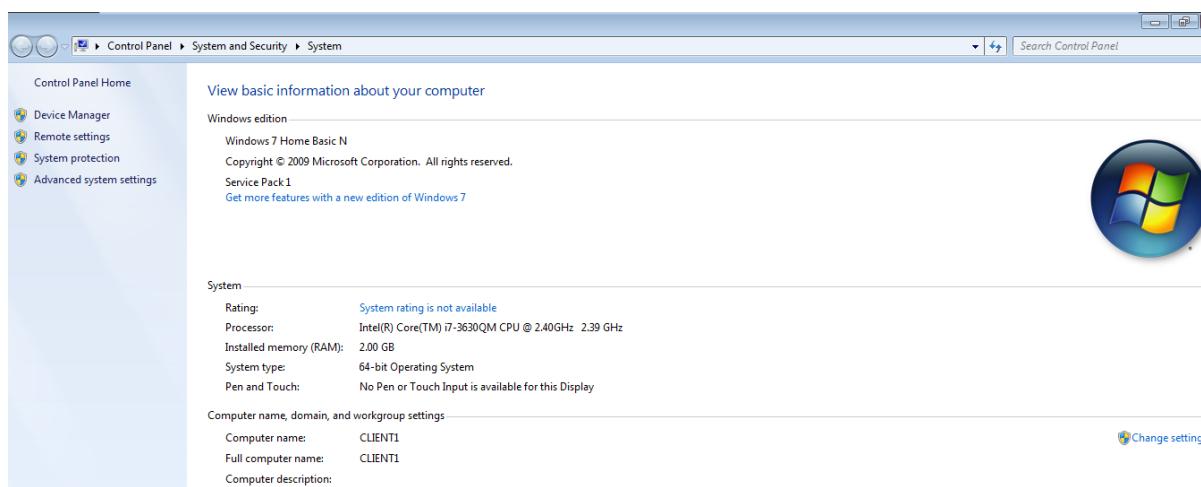
Client 1

To join a workstation to a domain, the computer must have a professional version of windows installed. For example a workstation running Windows 7 Home Edition does not have the facility to join a domain.

Step 1

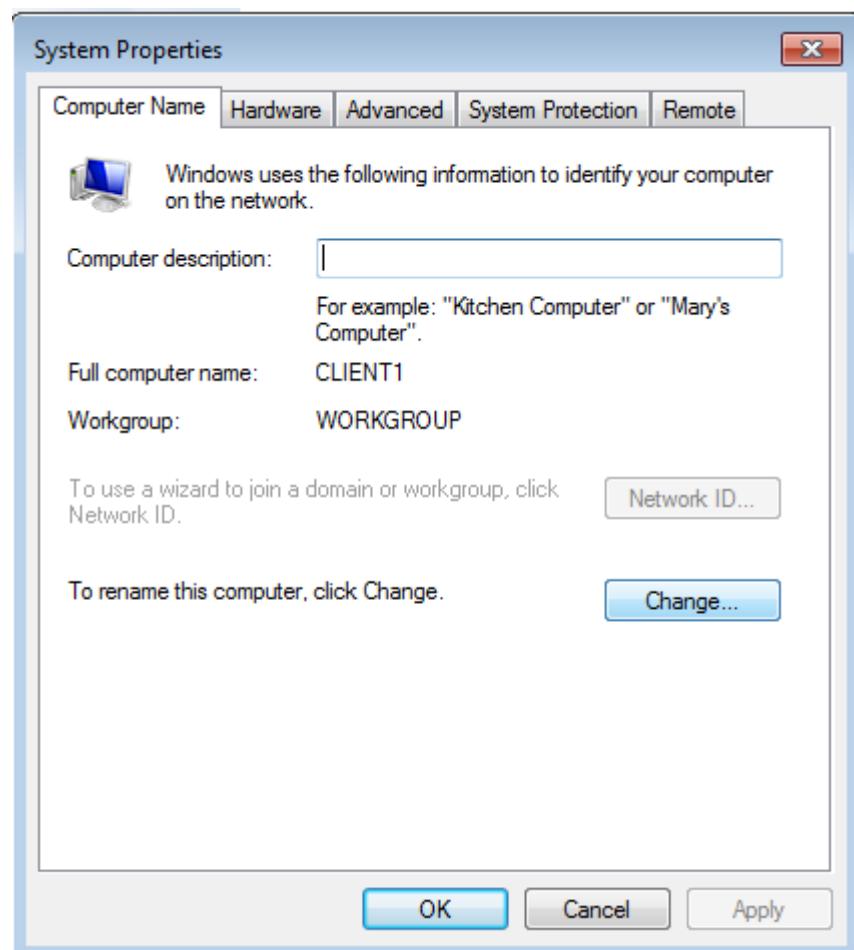
Right click on My Computer , then, click manage.

Under computer name, domain and workgroup settings click change settings.



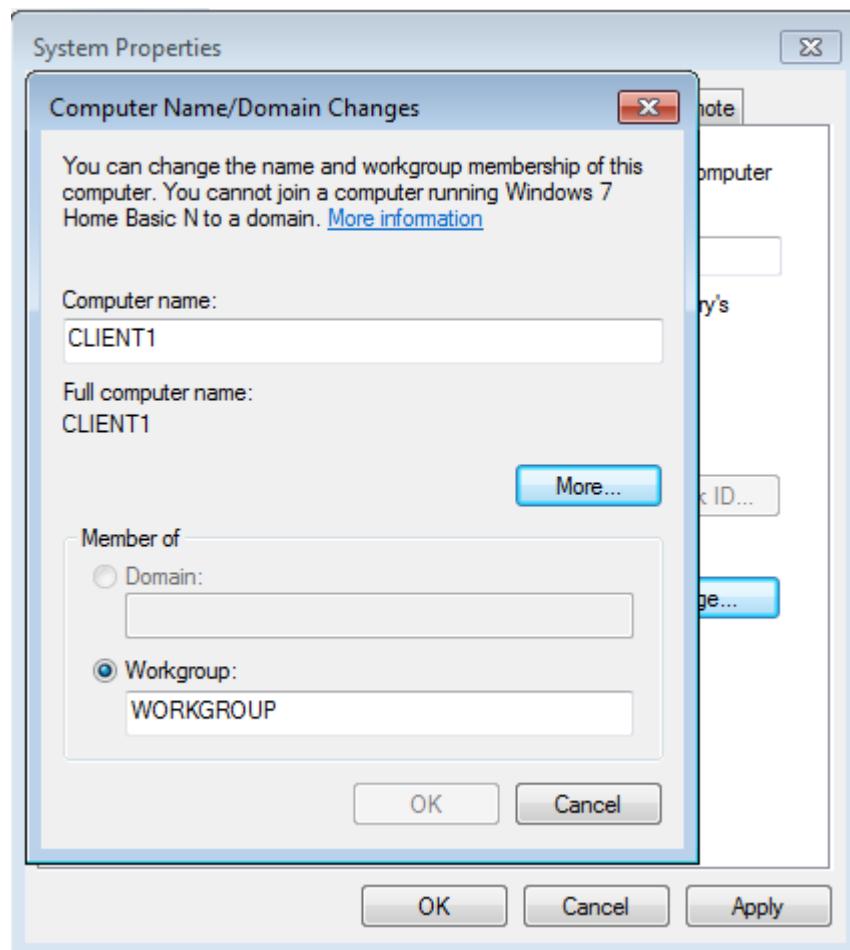
Step 2

In the Computer Name tab, click change.



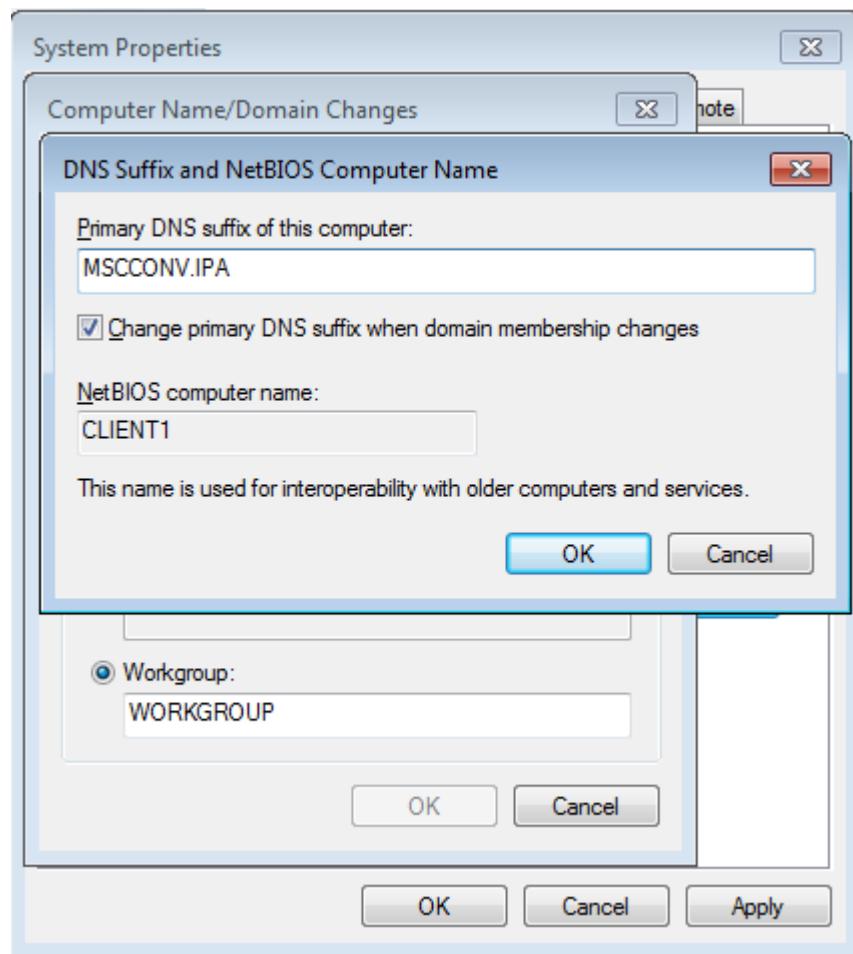
Step 3

In the Computer name/domain changes window, click more.



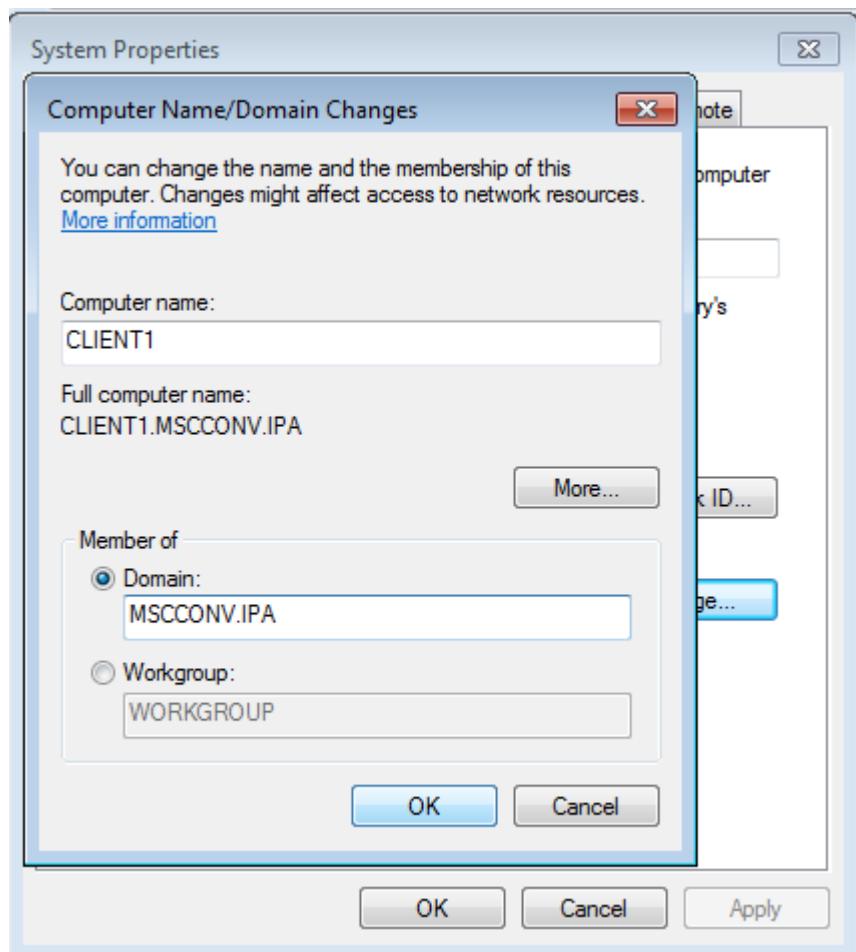
Step 4

Under Primary DNS suffix of this computer, enter the domain name you wish to join. For this assignment the name of the domain is MSCCONV.IPA. Then click ok.



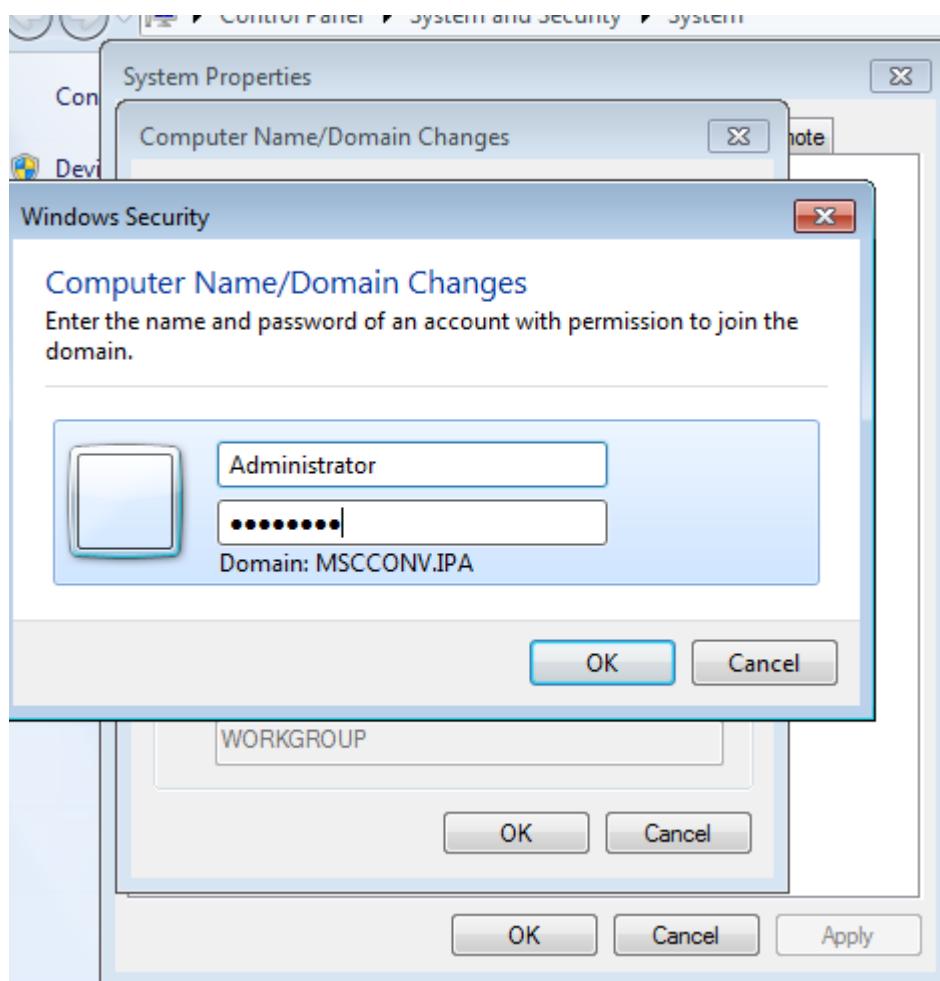
Step 5

Then under domain enter, MSCCONV.IPA



Step 6

Then enter the domain administrators details.



Client1 has now joined the domain called MSCCONV.IPA as a member computer.

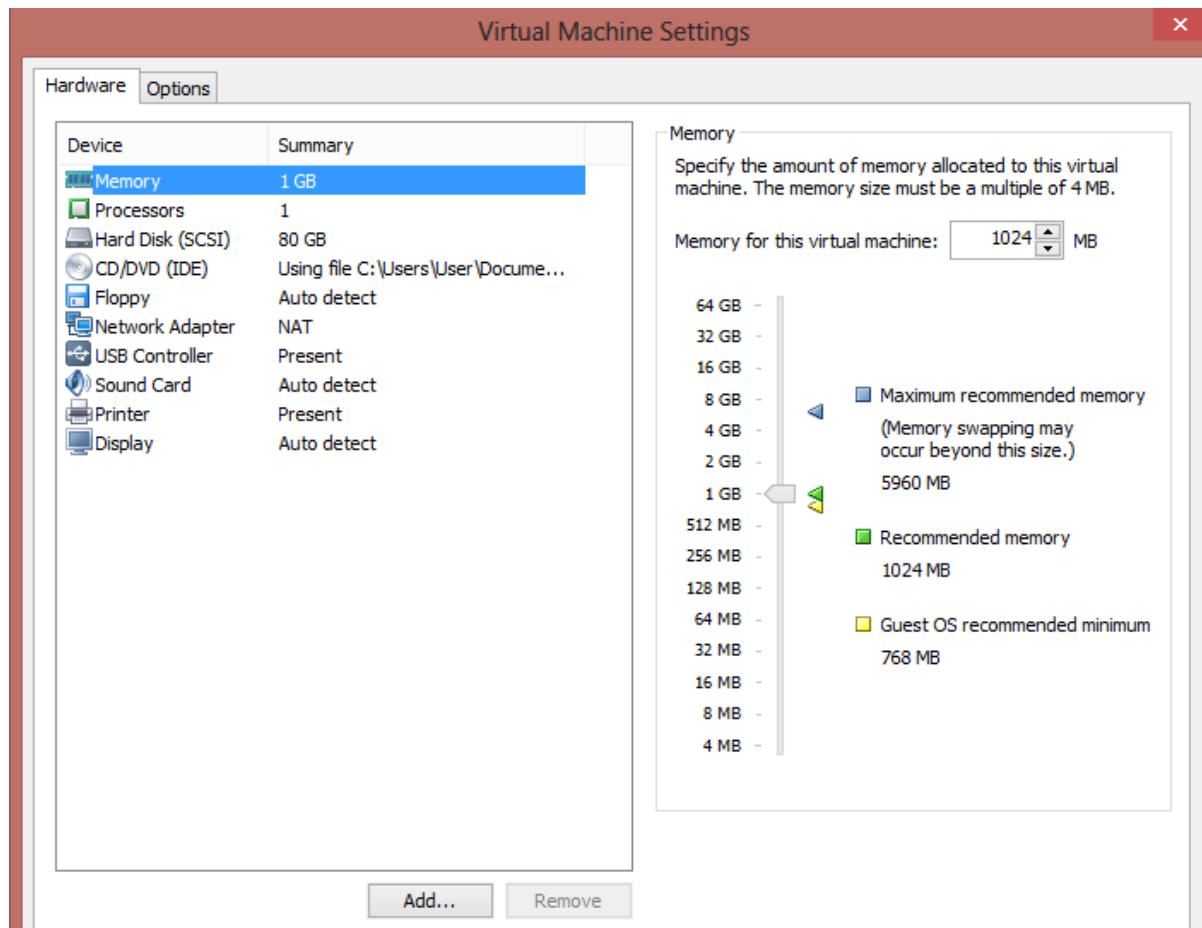
Task C

Install 2 hard disks on server1 of size 40GB and mirror the operating system to disk1, then create a spanned volume of all 3 disks.

Step 1

Shut down the server and select Hardware installation as the reason for the shut down so that it saves the current machines state.

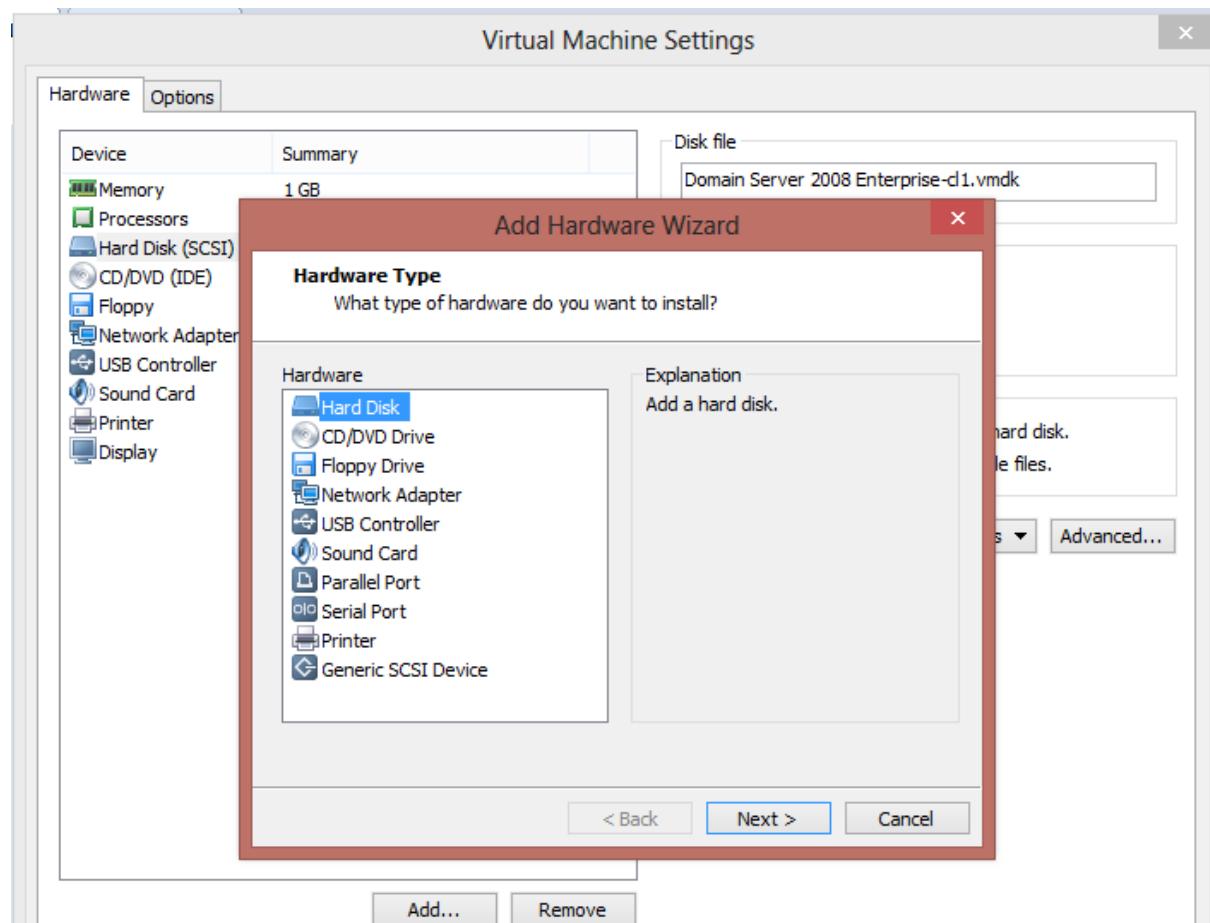
Then when the machine has shut down, select, edit virtual machine settings. The window displayed below will then appear.



Step 2

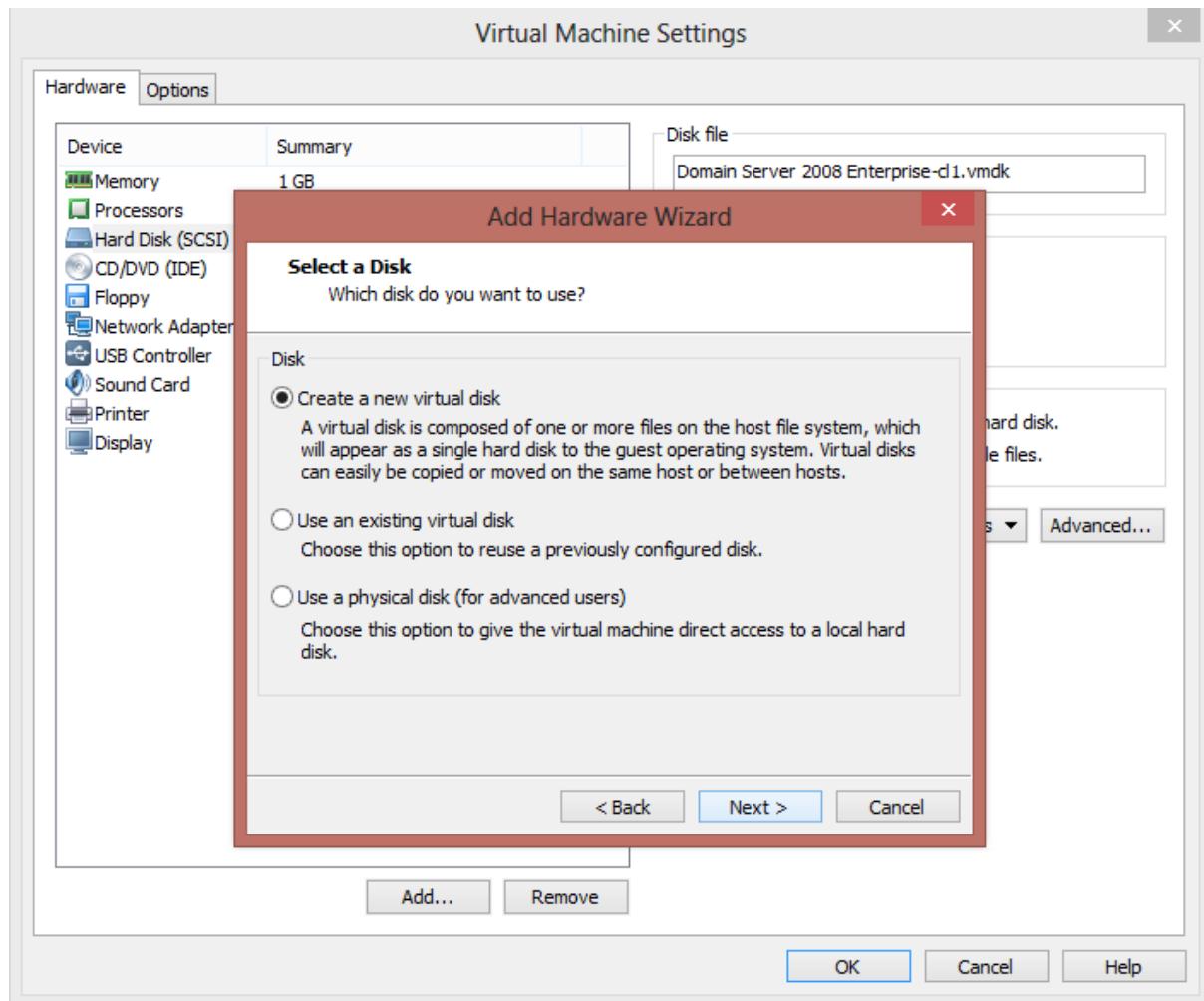
Click hard disk so that it is highlighted then, click, Add.

Then select Hard Disk from the option box and click next.



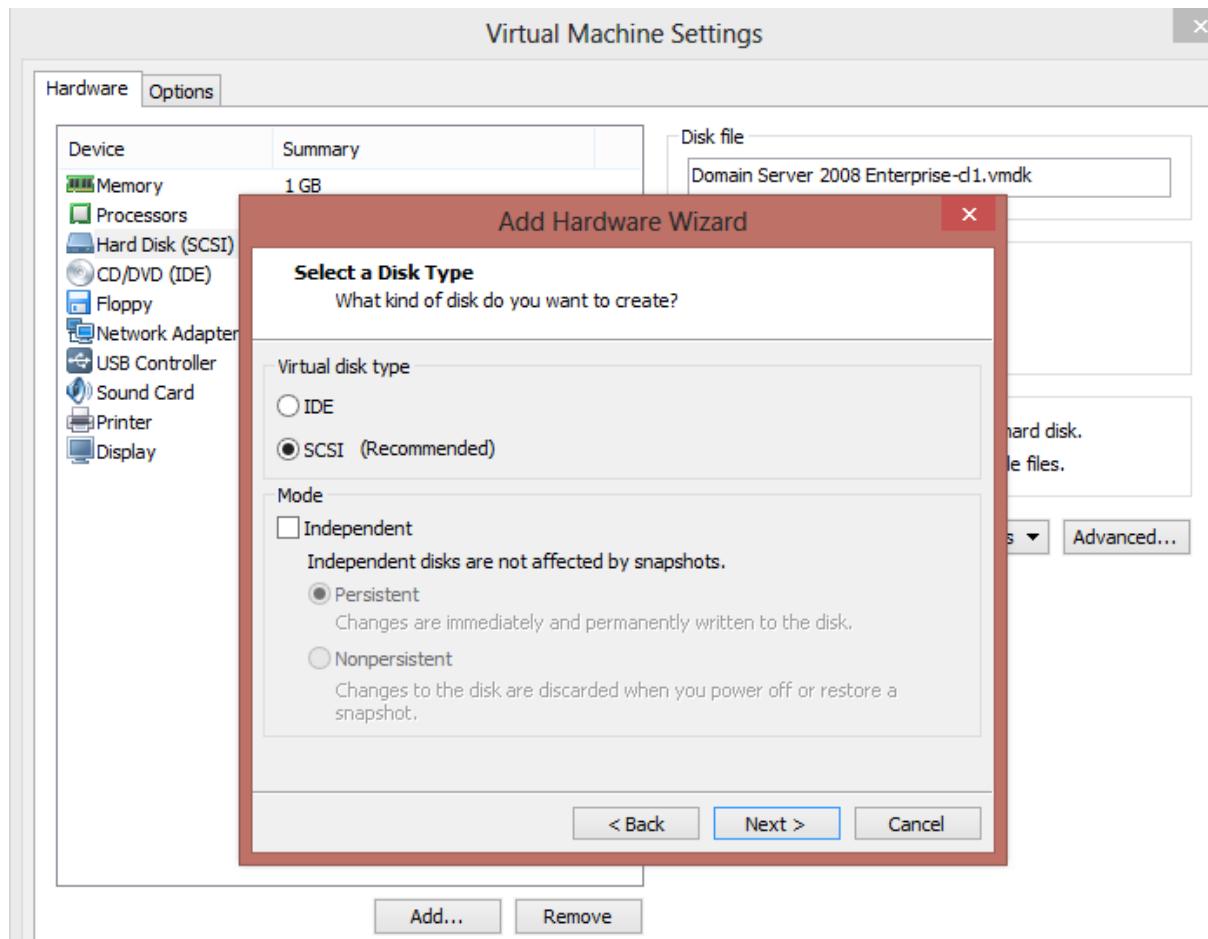
Step 3

Select, Create a new virtual disk from the menu displayed.



Step 4

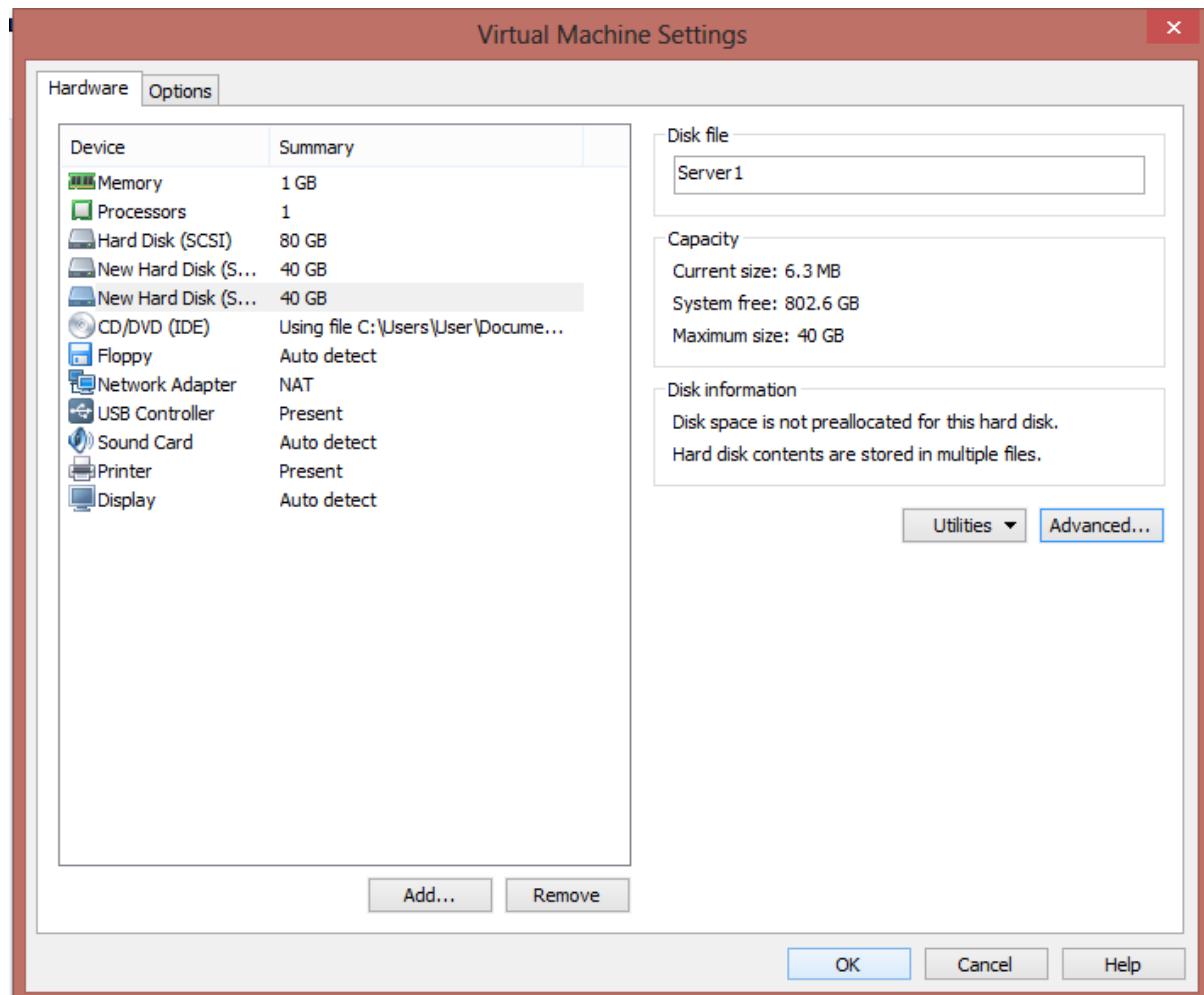
Select SCSI which is selected by default. Then click, Next.



Step 5

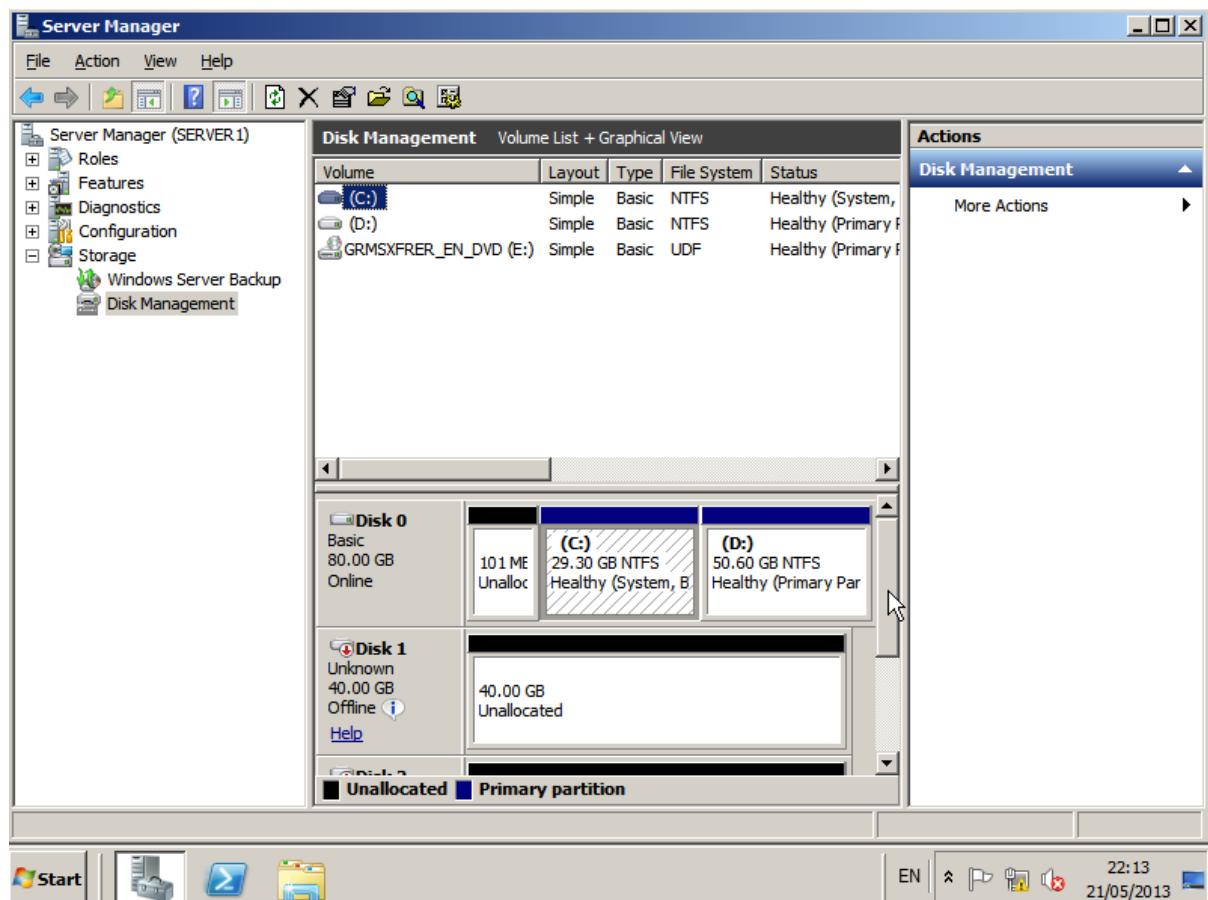
Repeat the process to add the second 40GB hard disk. When this is done it should be displayed as below.

When this is done, power on Server1.



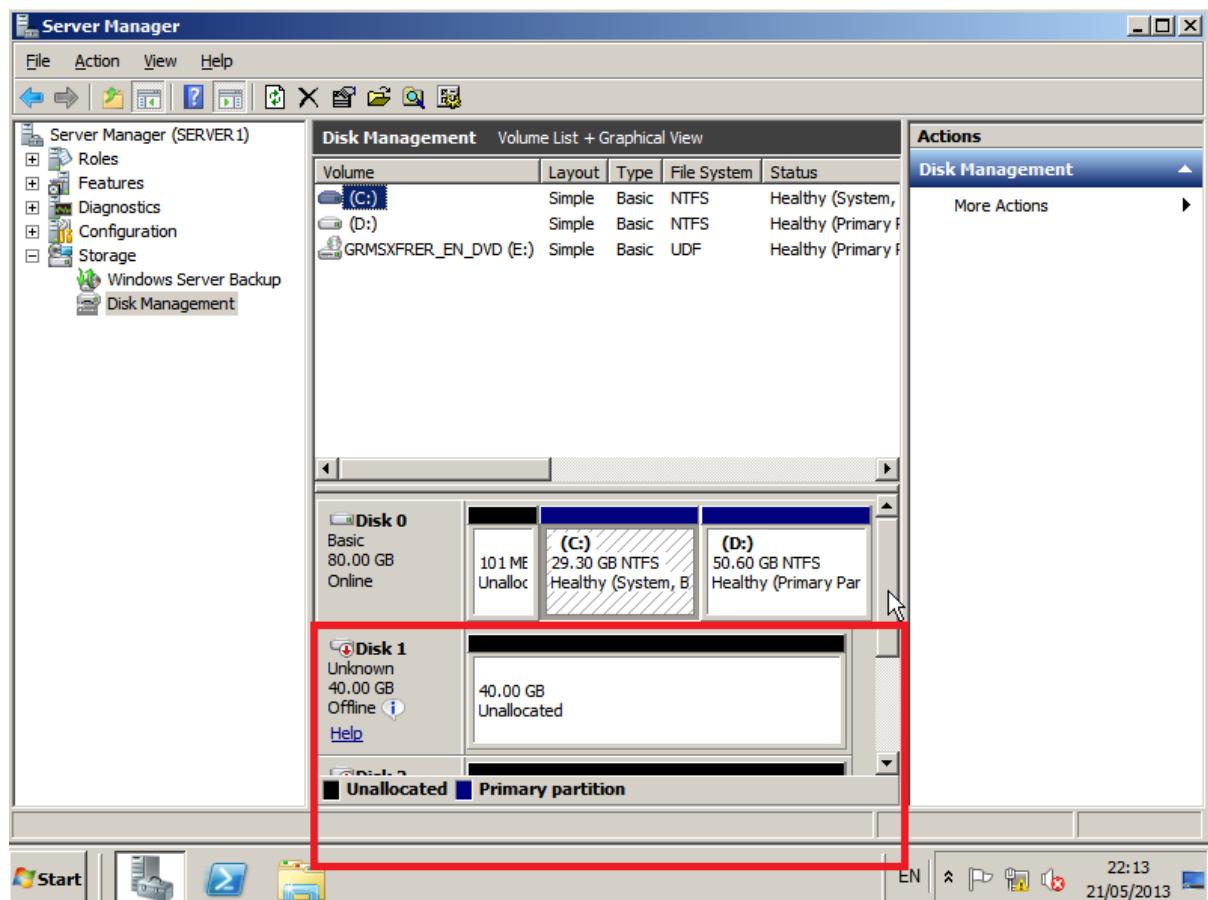
Step 6

Once Server1 is powered on, Open the Server manager. Then click, storage, then Disk Management.



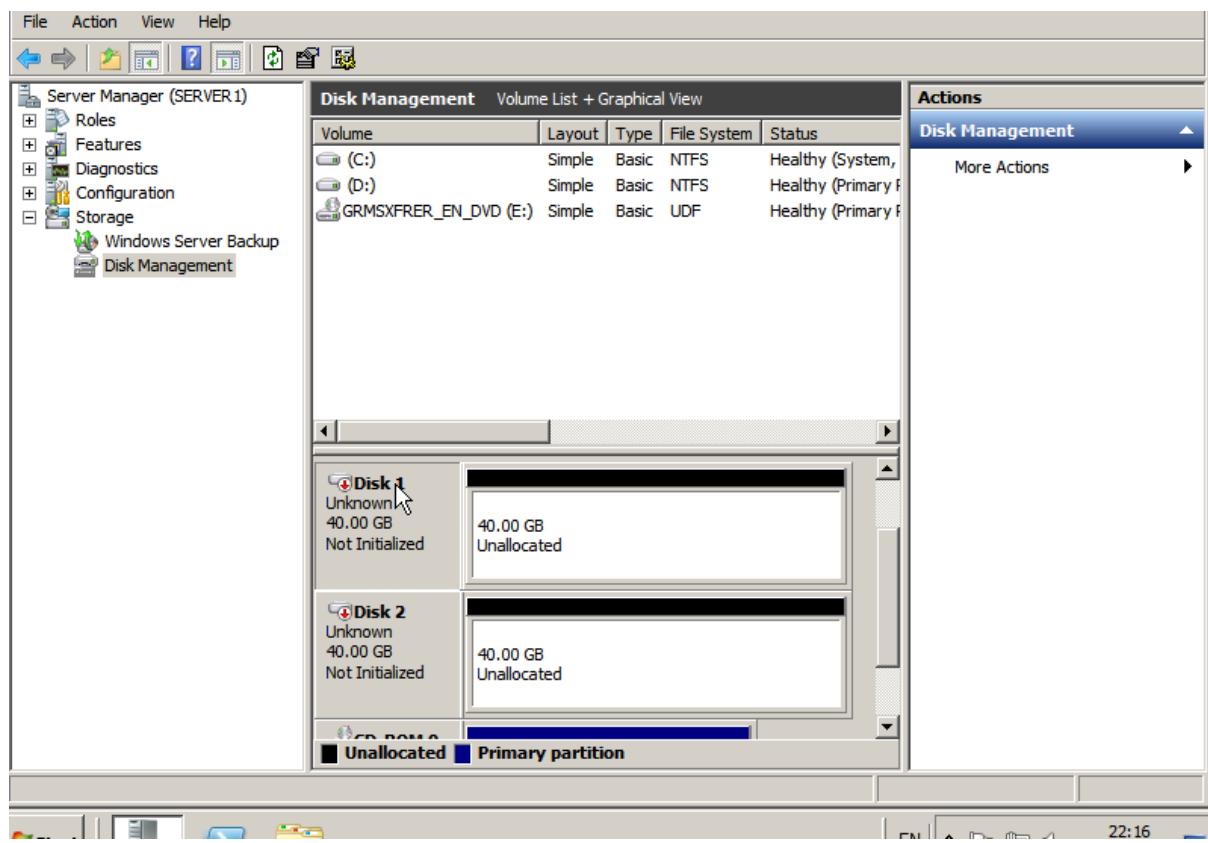
Step 7

In the highlighted part on the picture below, right click on Disk 1, then click online. Repeat this for Disk 2.



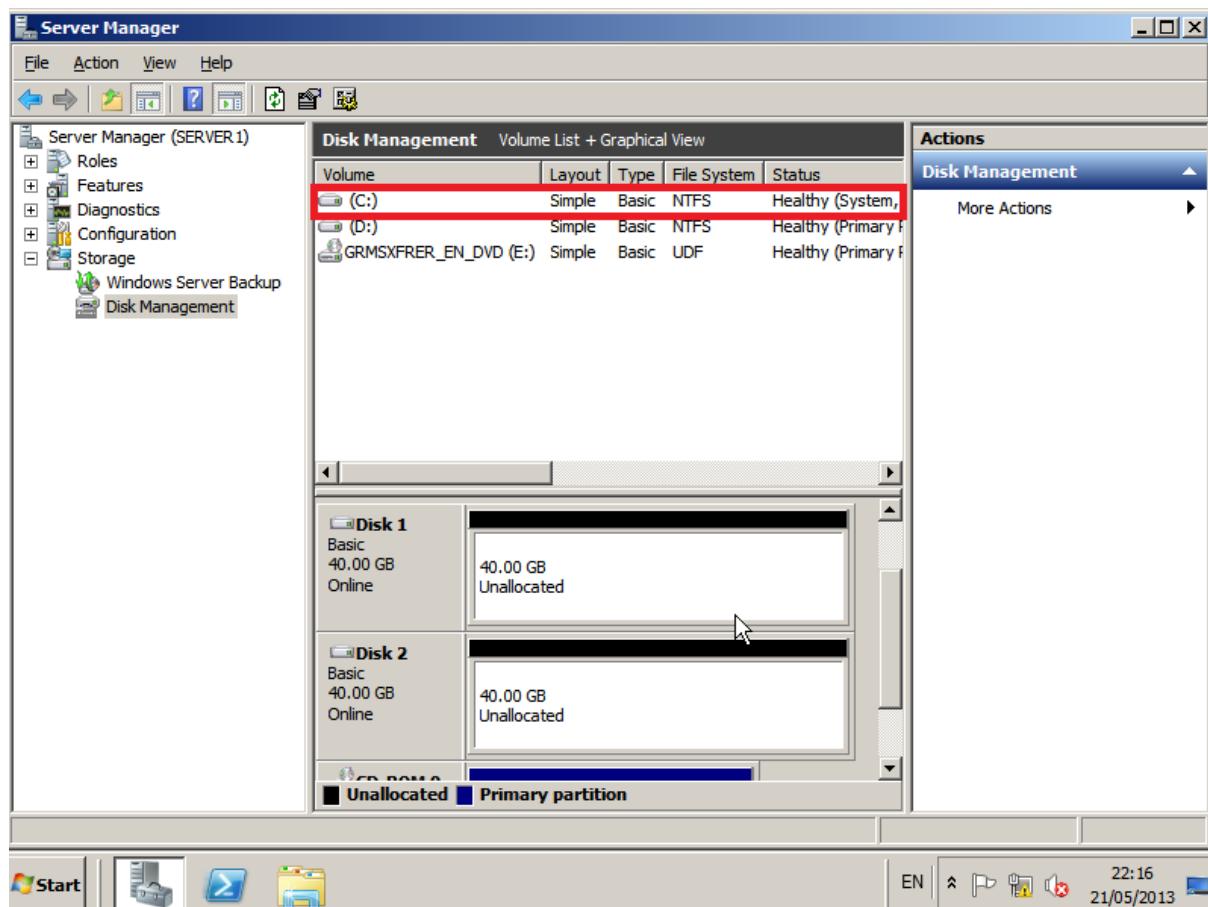
Step 8

Again on Disk1 and Disk2, right click, then click initialize disk. Do the same for both disks.



Step 9

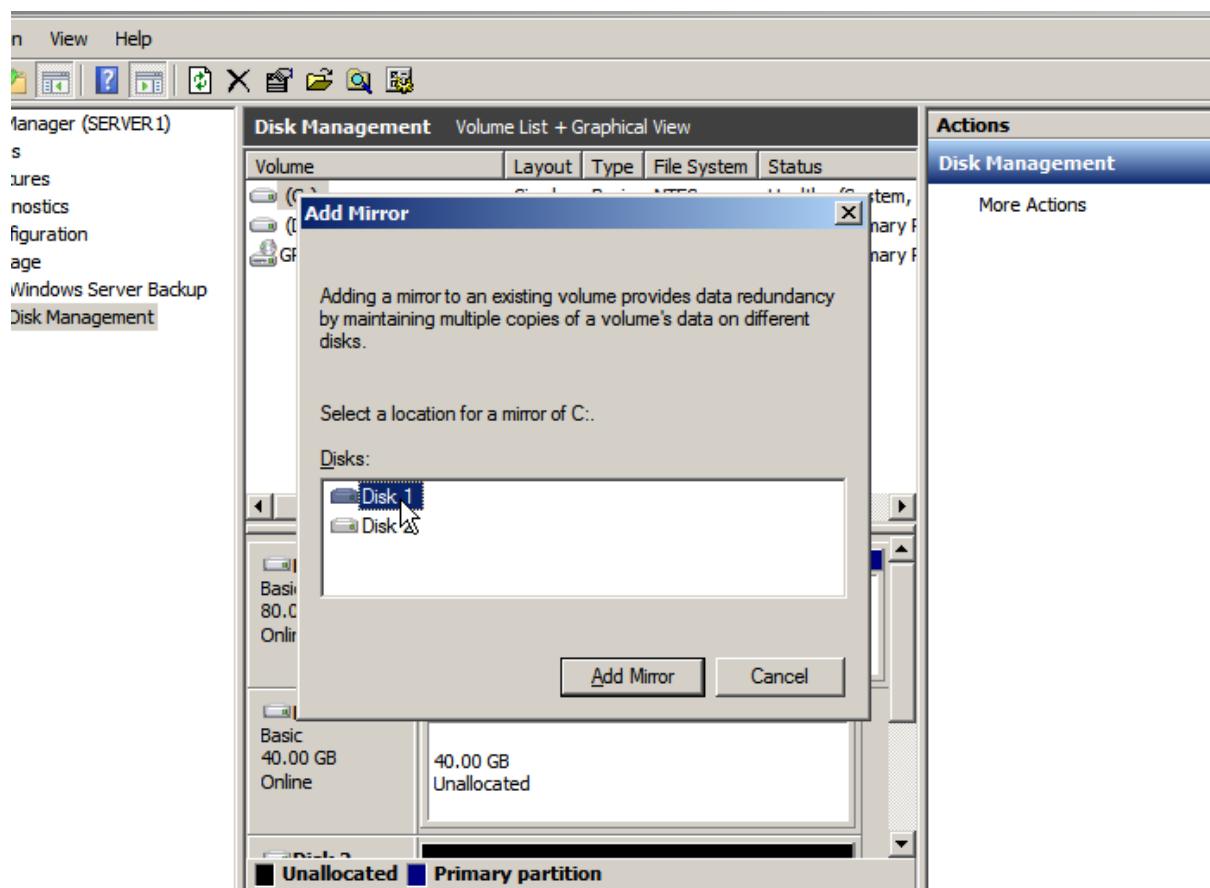
In the highlighted area right click, then click, add mirror.



Step 10

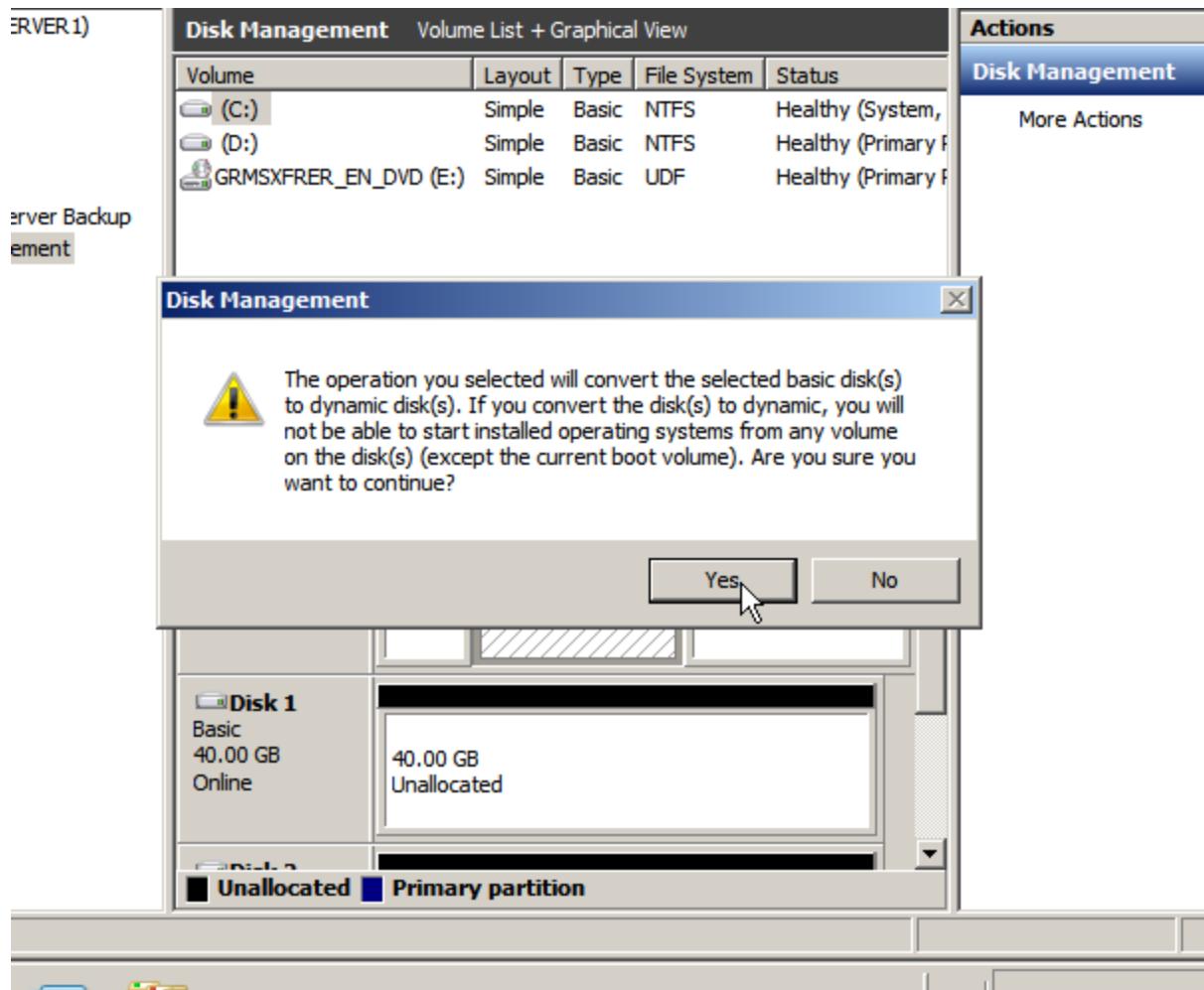
For the assignment, disk 1 is to be selected for the C drive mirror.

Select Disk 1 then click next.

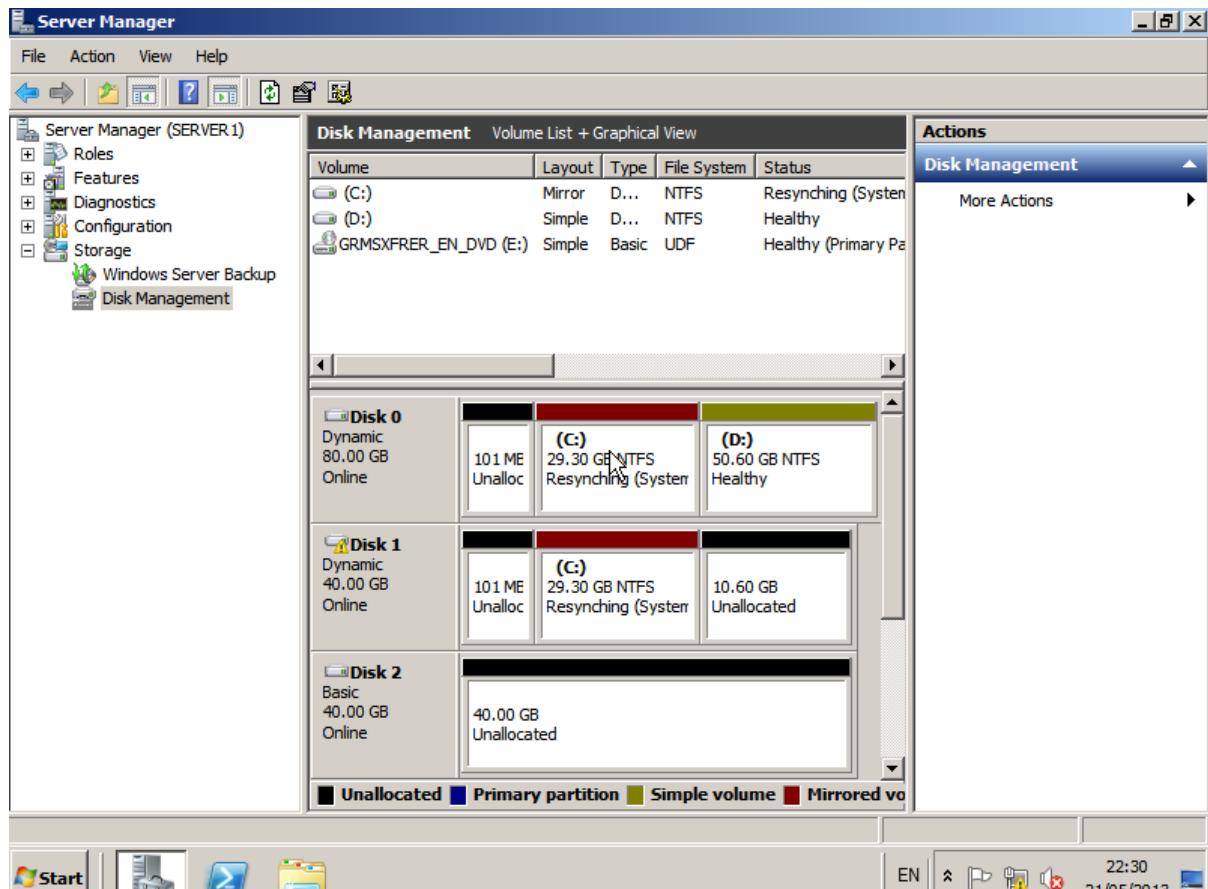


Step 11

Click yes when the warning screen below appears. This will start synching the new mirror.



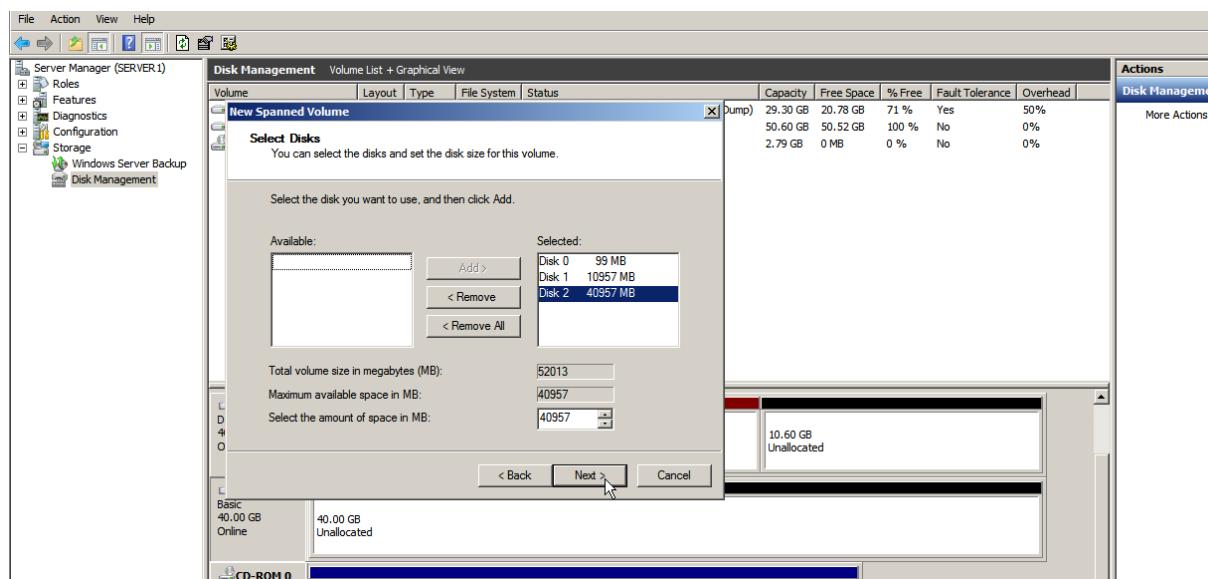
When it is done syncing and setup has finished, it will be displayed as below.



Step 12

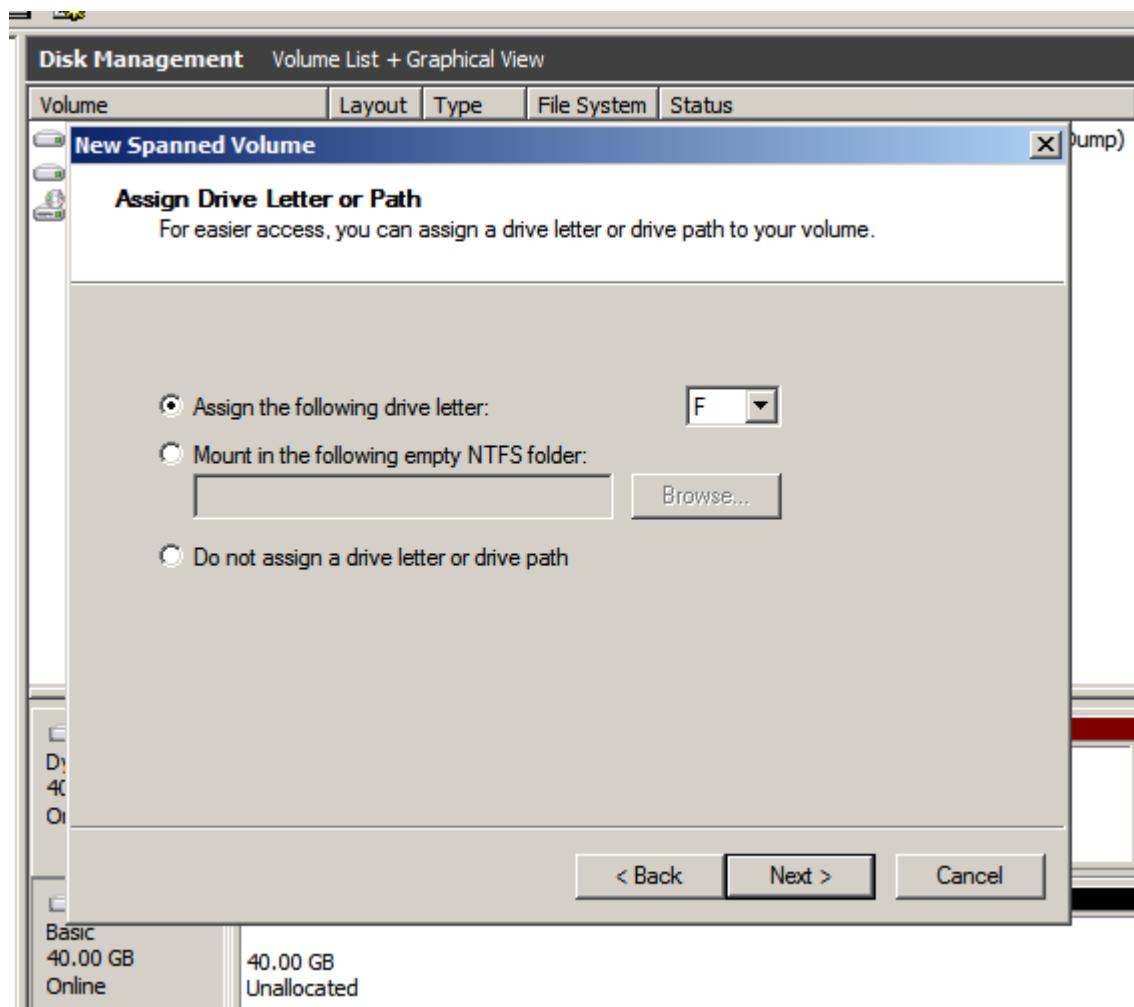
To create the spanned volume, right click on disk management, then click create spanned volume.

Then add all 3 disks. All the storage will be added together, then click Next.



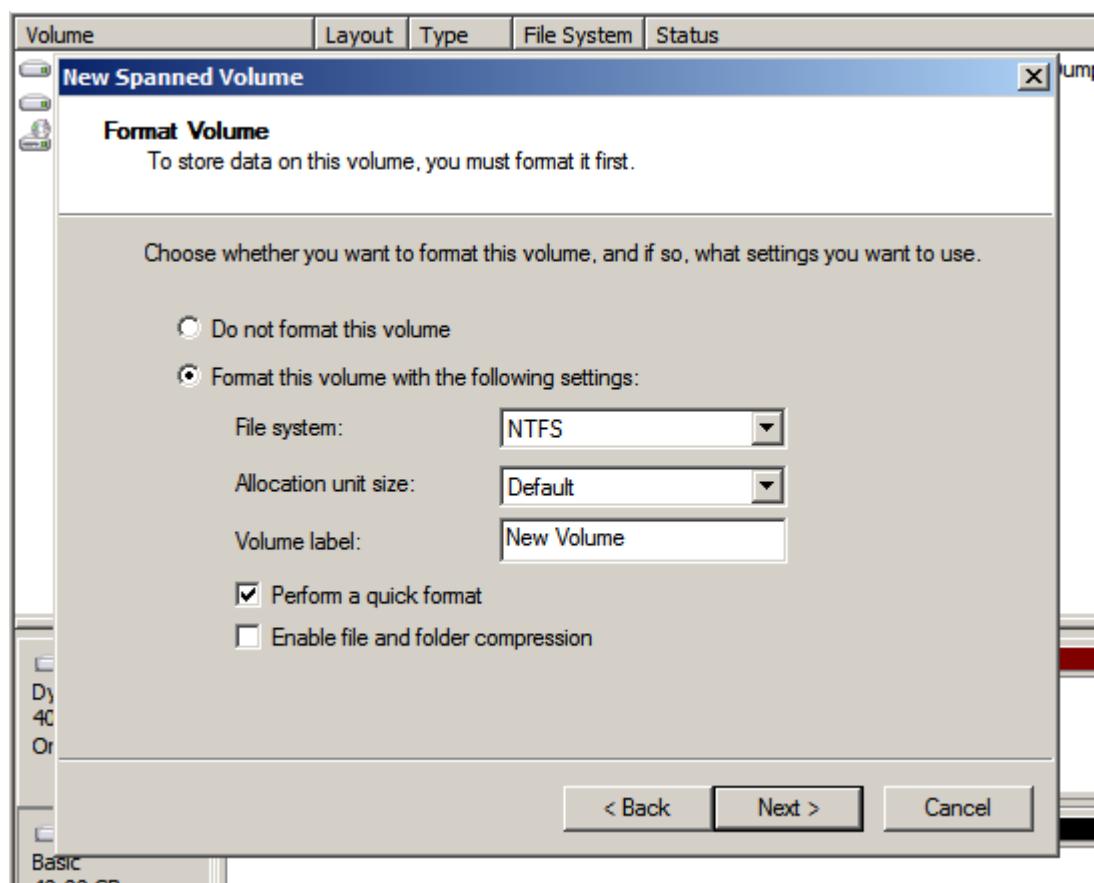
Step 13

Enter a name for the drive then click Next.

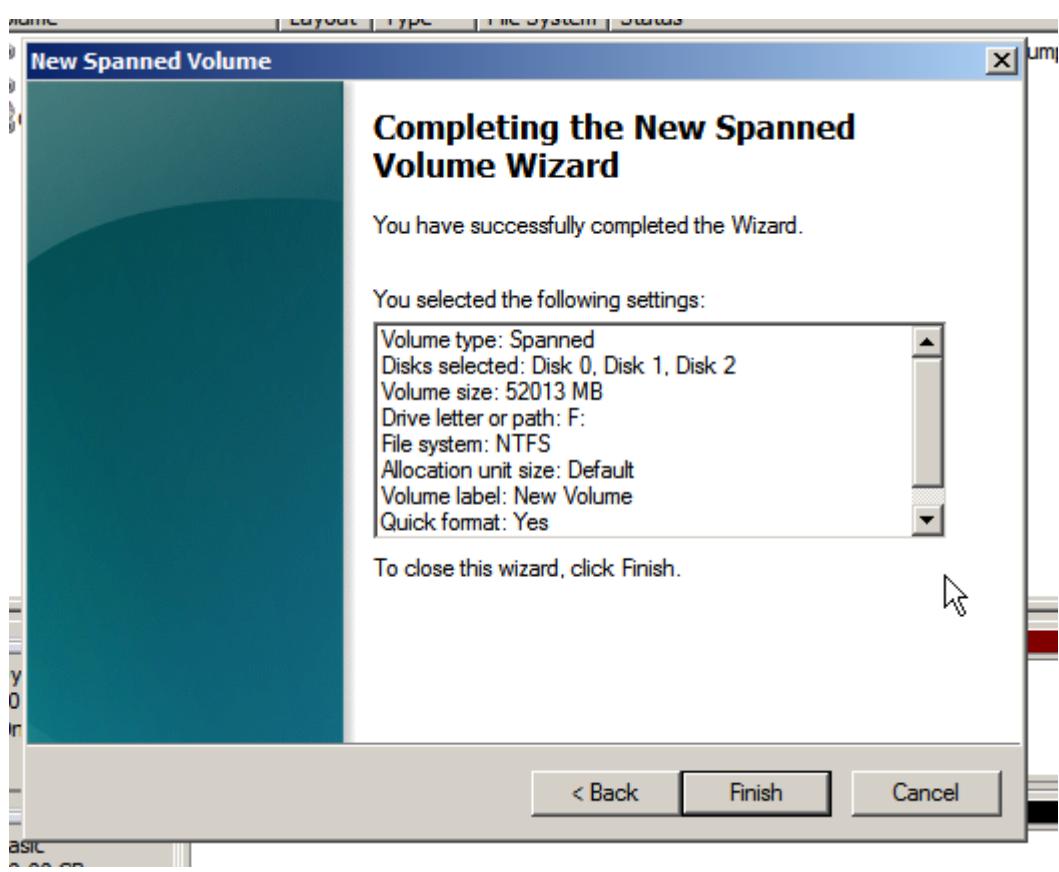


Step 14

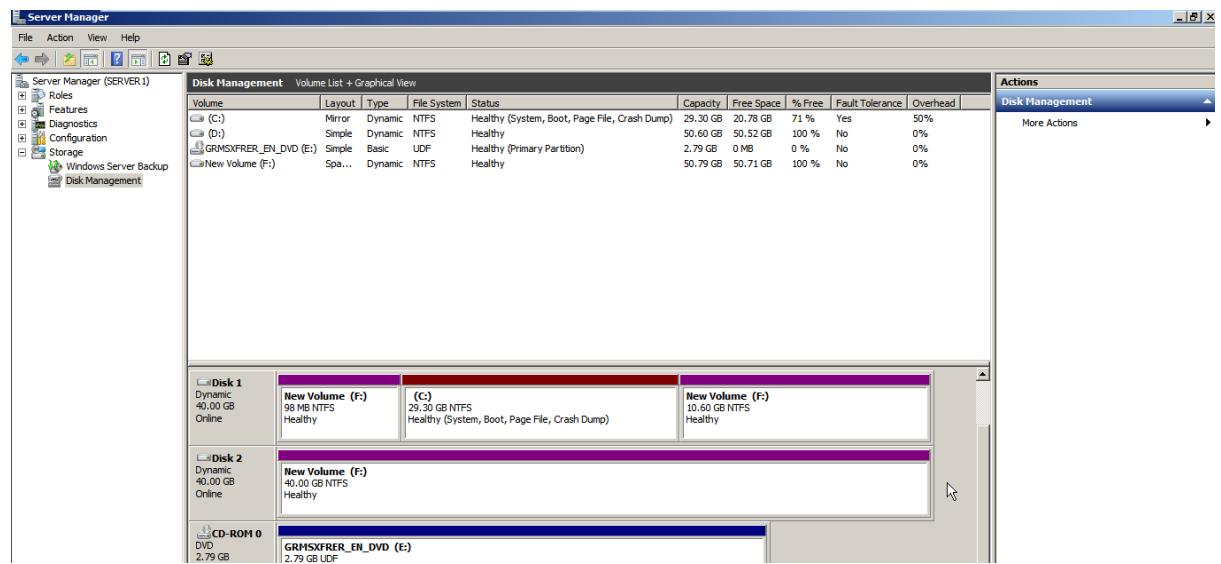
Leave as default and format by NTFS. Then click next for the next step.



Step 15



After the wizard has finished, the disks will be displayed as below.

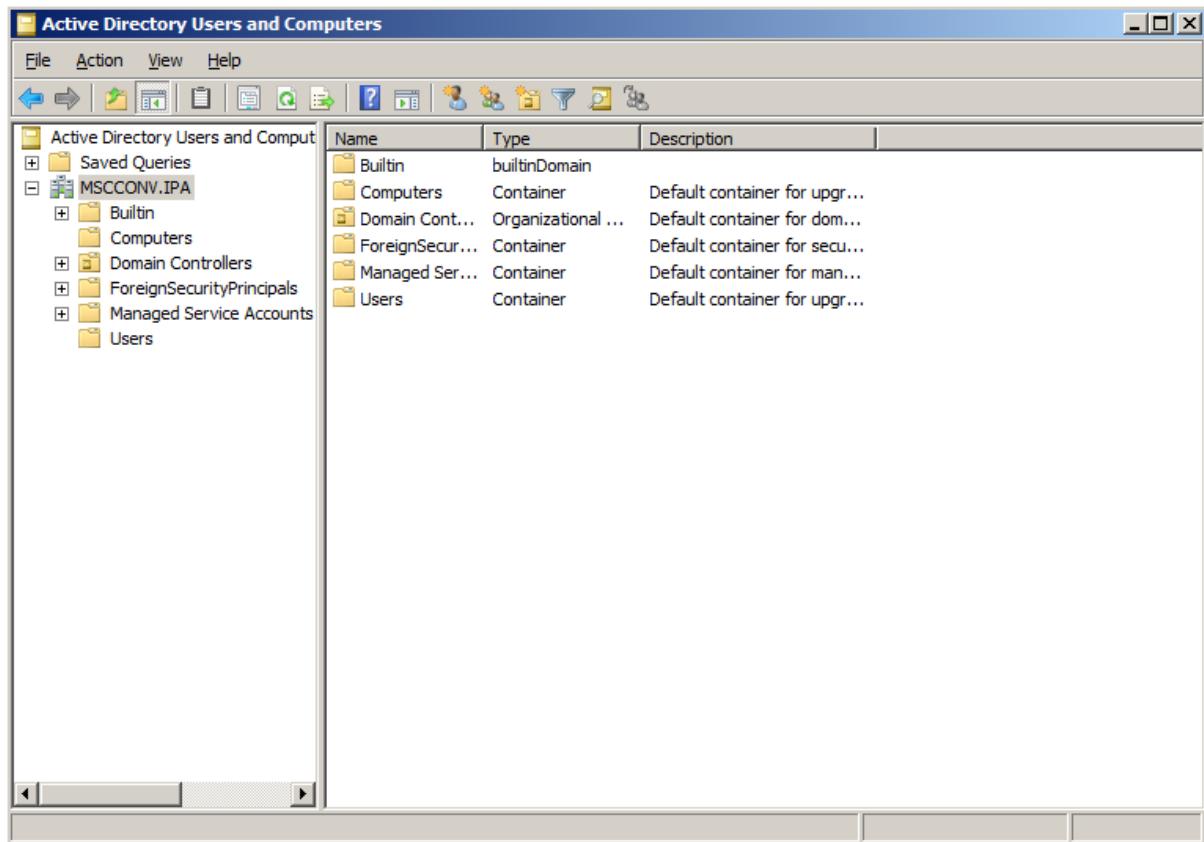


Task D

Create an organisational structure and limit their log on to weekdays only.

Step 1

Click start, then click Administrator's Tools, then click Active Directory Users and Computers.

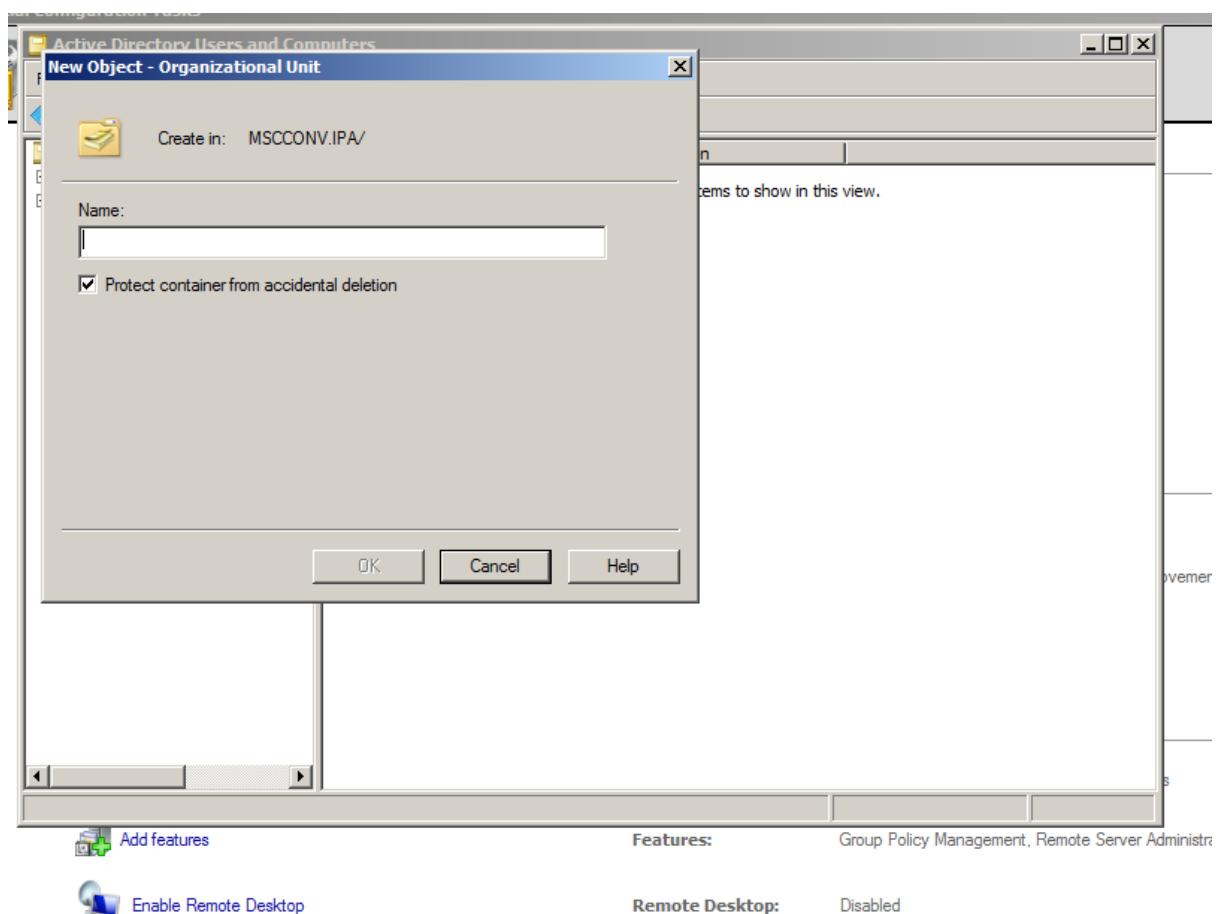


Step 2

Right click on the Domain MSCCONV.IPA, then click, create new Organisational Structure.

Then enter the name of the new Organisational Structure.

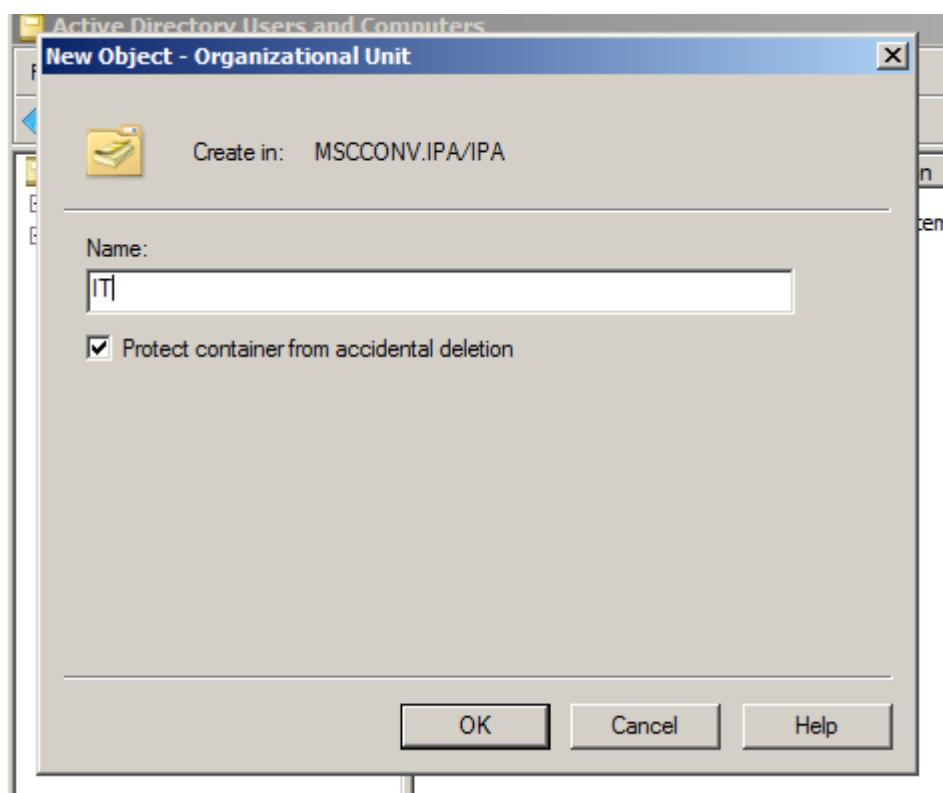
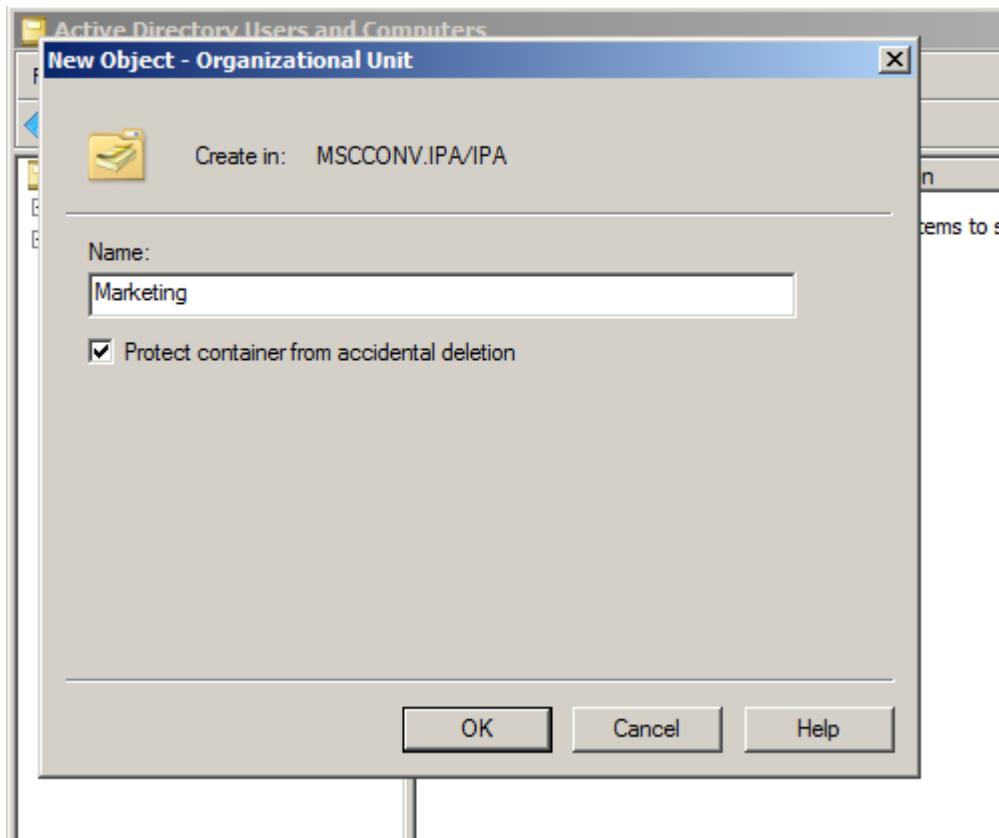
For the purposes of this assignment the parent Organisational Structure is to be name IPA.



Step 3

Right click on IPA, then, click new Organisational Structure. Do this for the two Child Organisational Units.

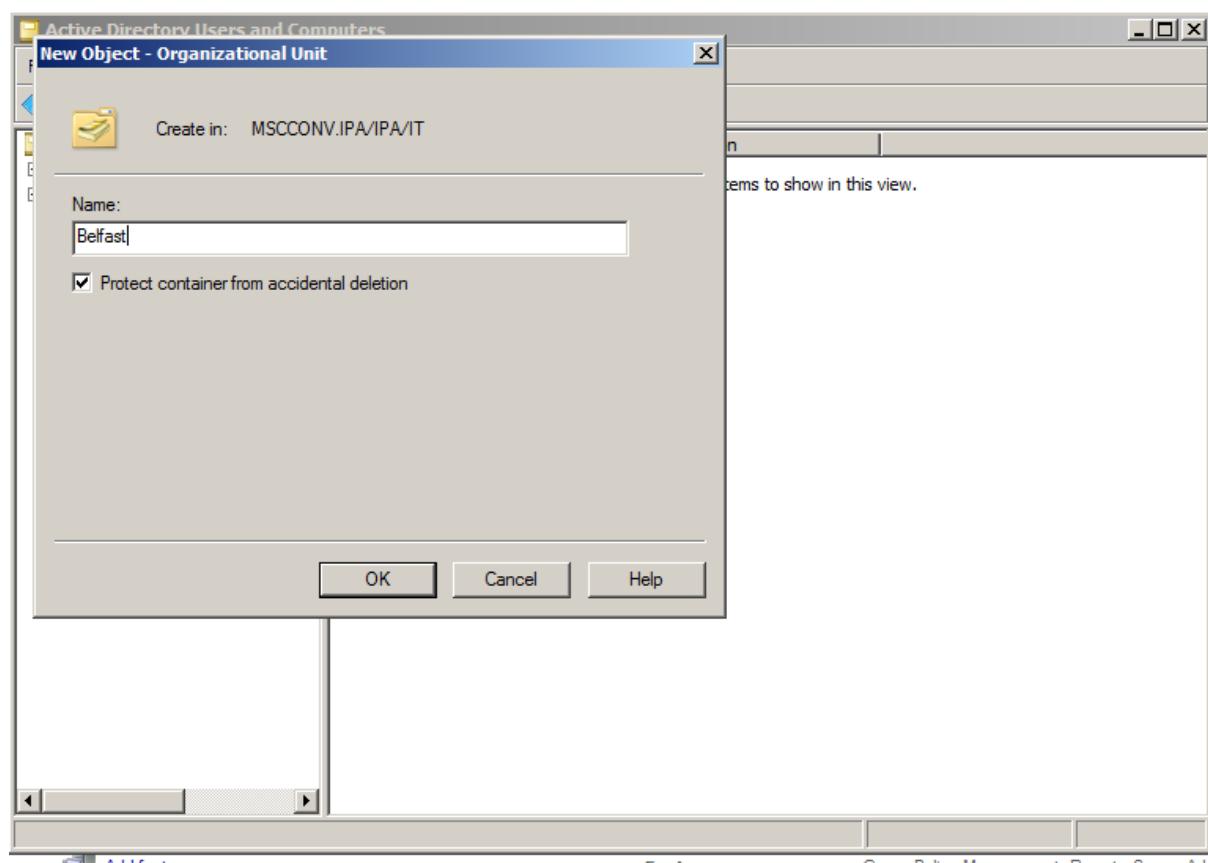
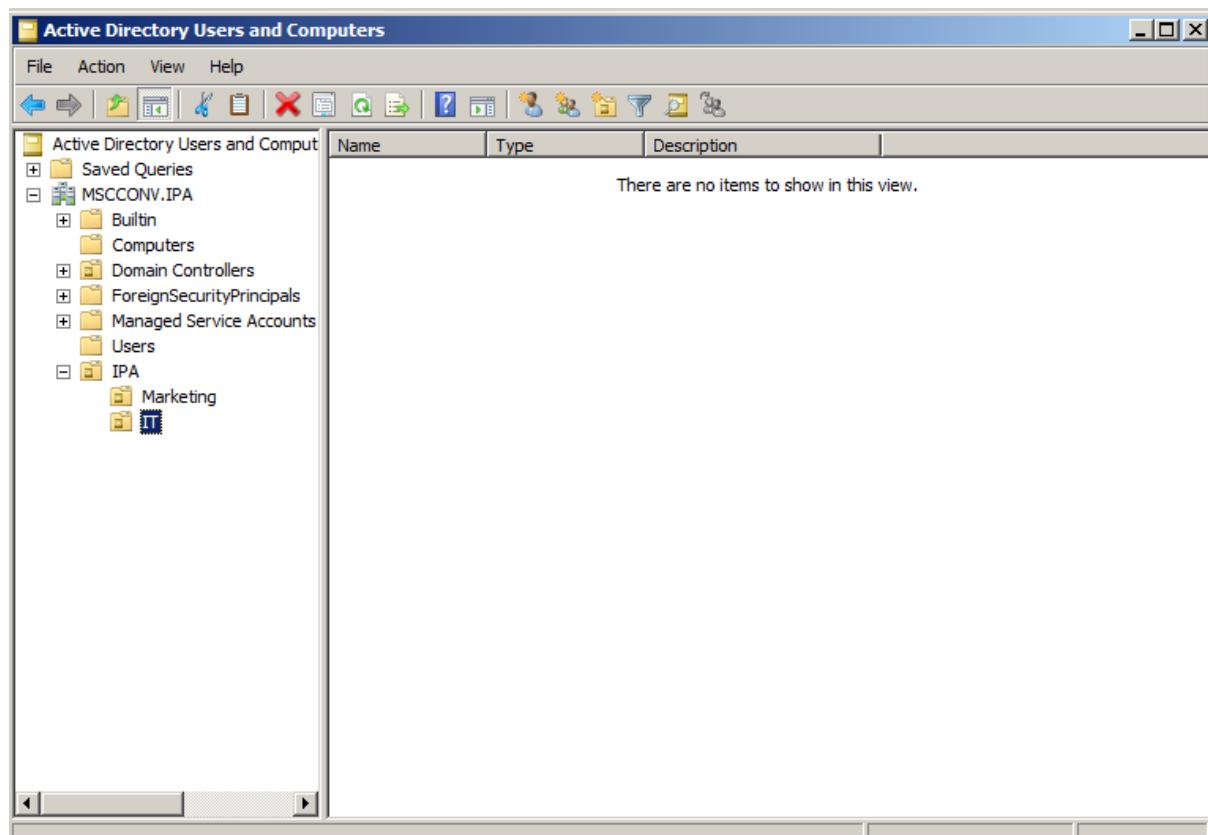
Create two child Organisational Unit's in IPA. The First is to be called Marketing, the second is to be called IT.

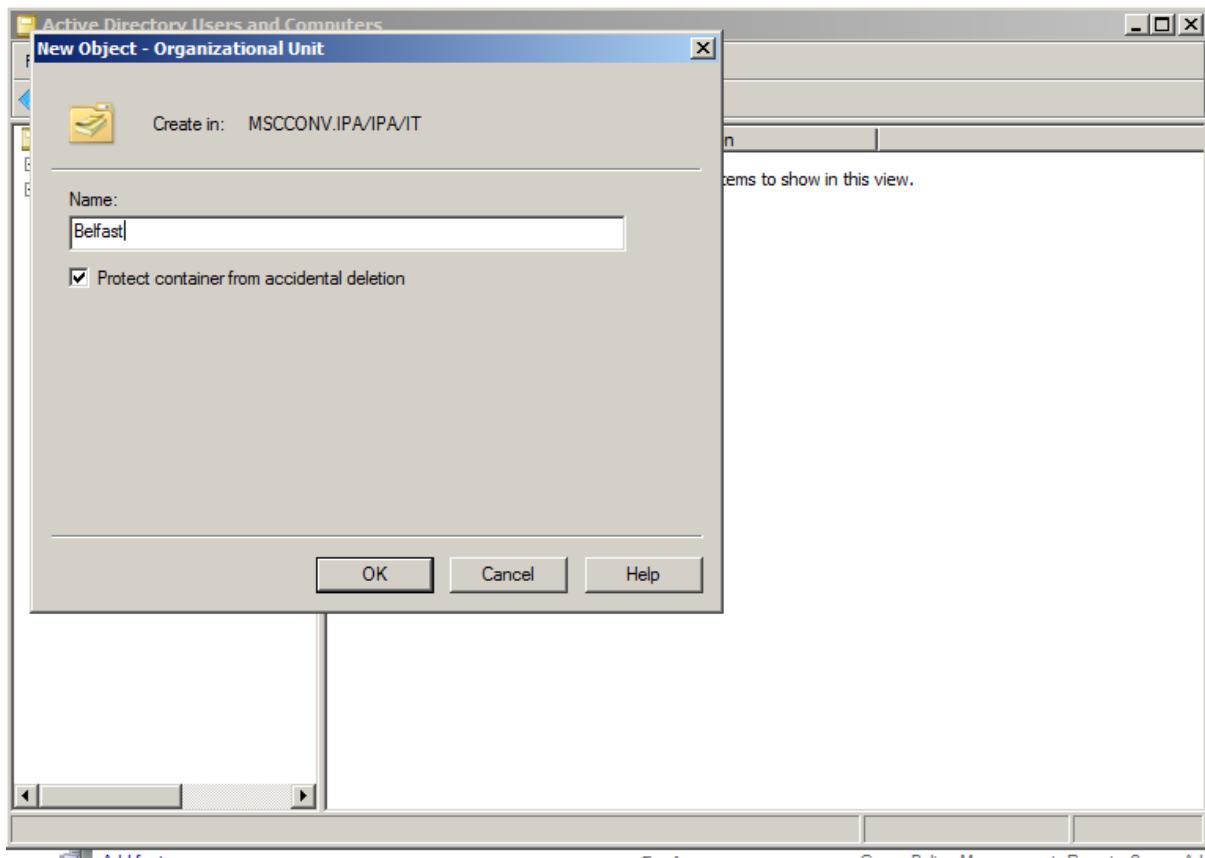


Step 4

Create two sub Organisational Units in IT called Belfast and Dublin.

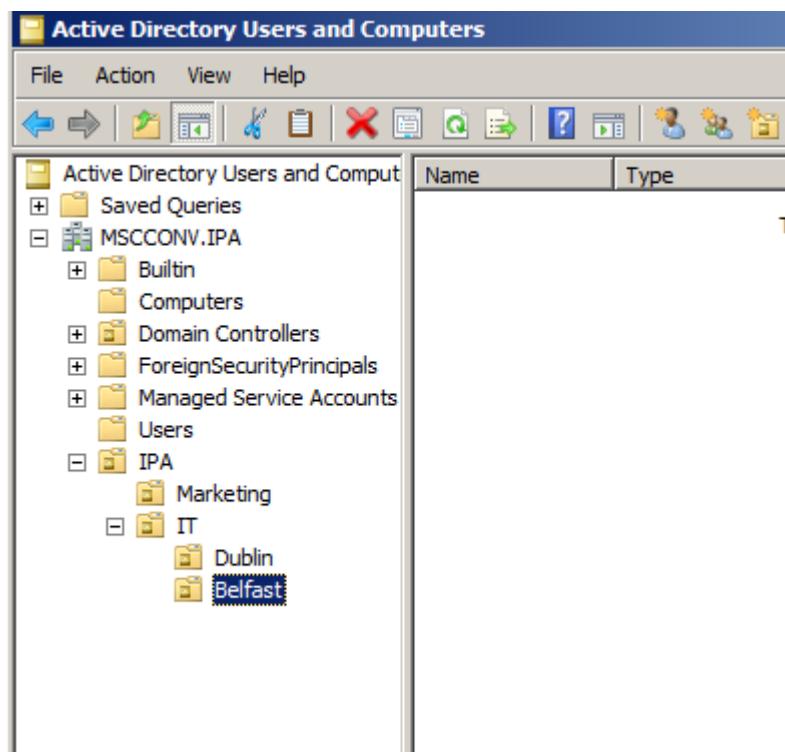
Right click on IT, then, click new Organisational Unit.





Step 5

When the previous steps have been completed, the Organisational Unit structure should look like this:



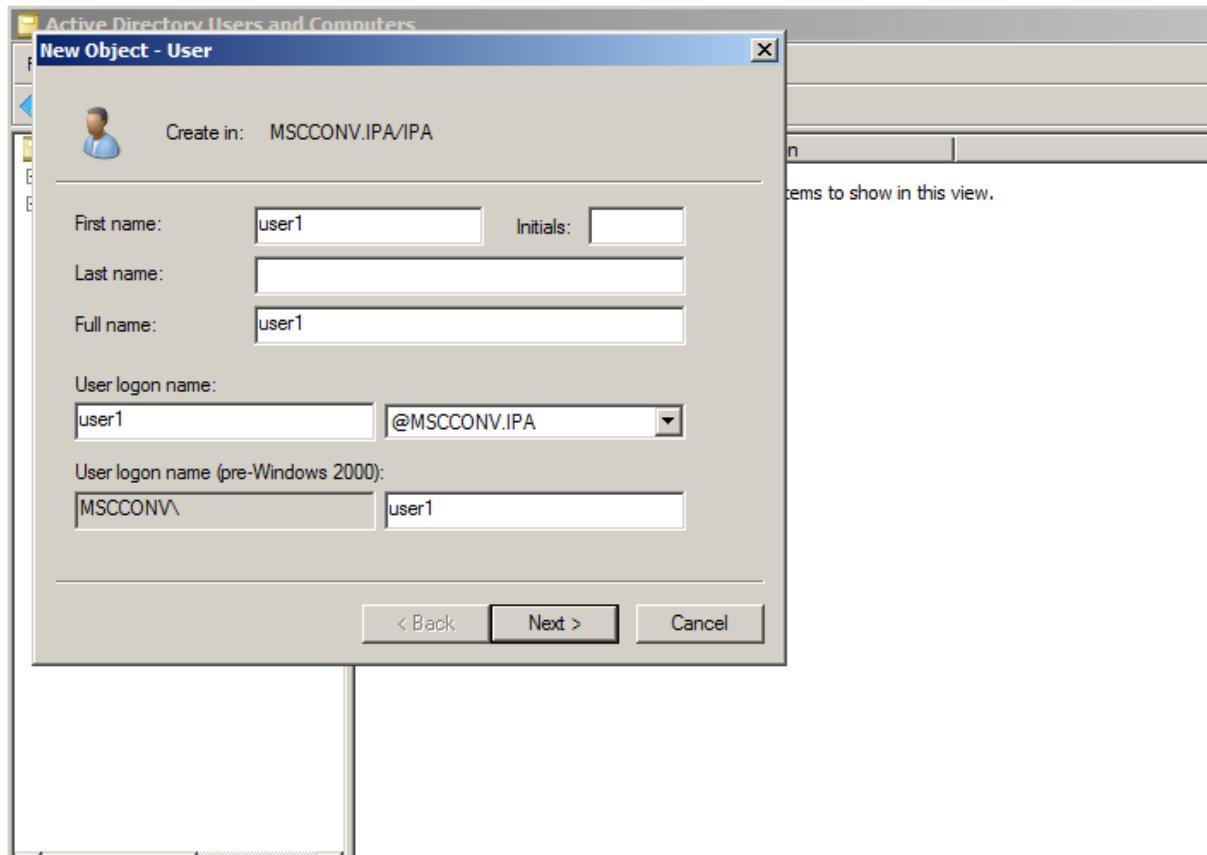
Step 6

Create 10 users in the Parent Organisational Unit called, IPA.

The users are to be called User1 to User10(first name only) and have a default password of Pa\$\$w0rd.

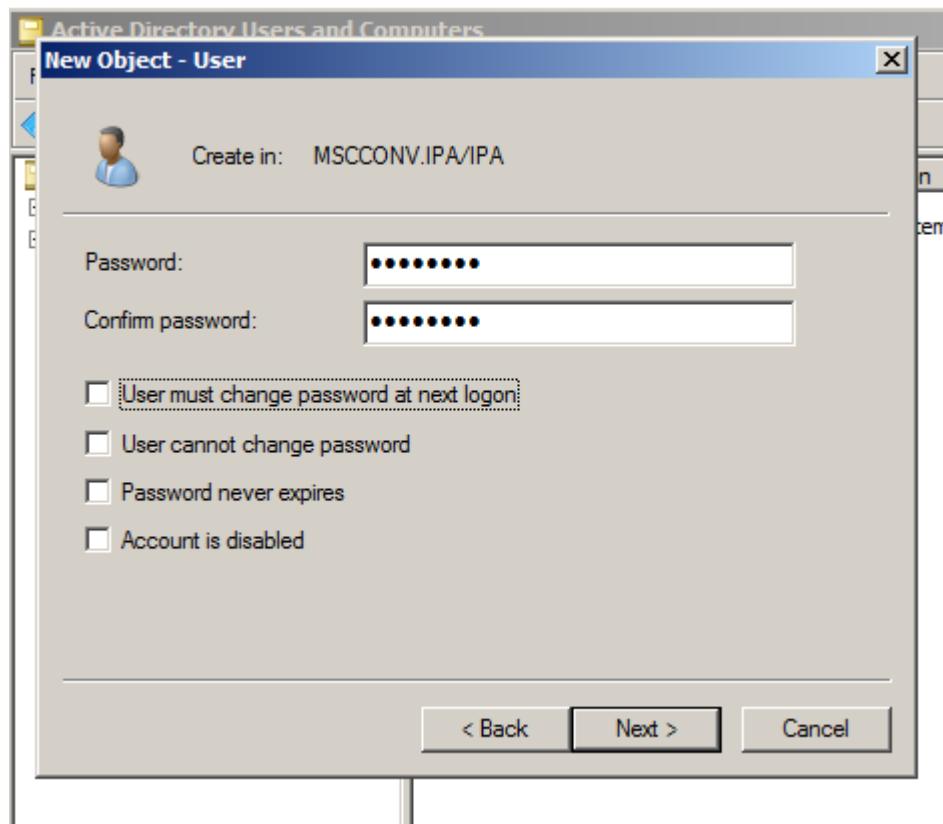
Right click on IPA, then click new user.

Enter the user name and the users logon name, which will appear when they need to log on.



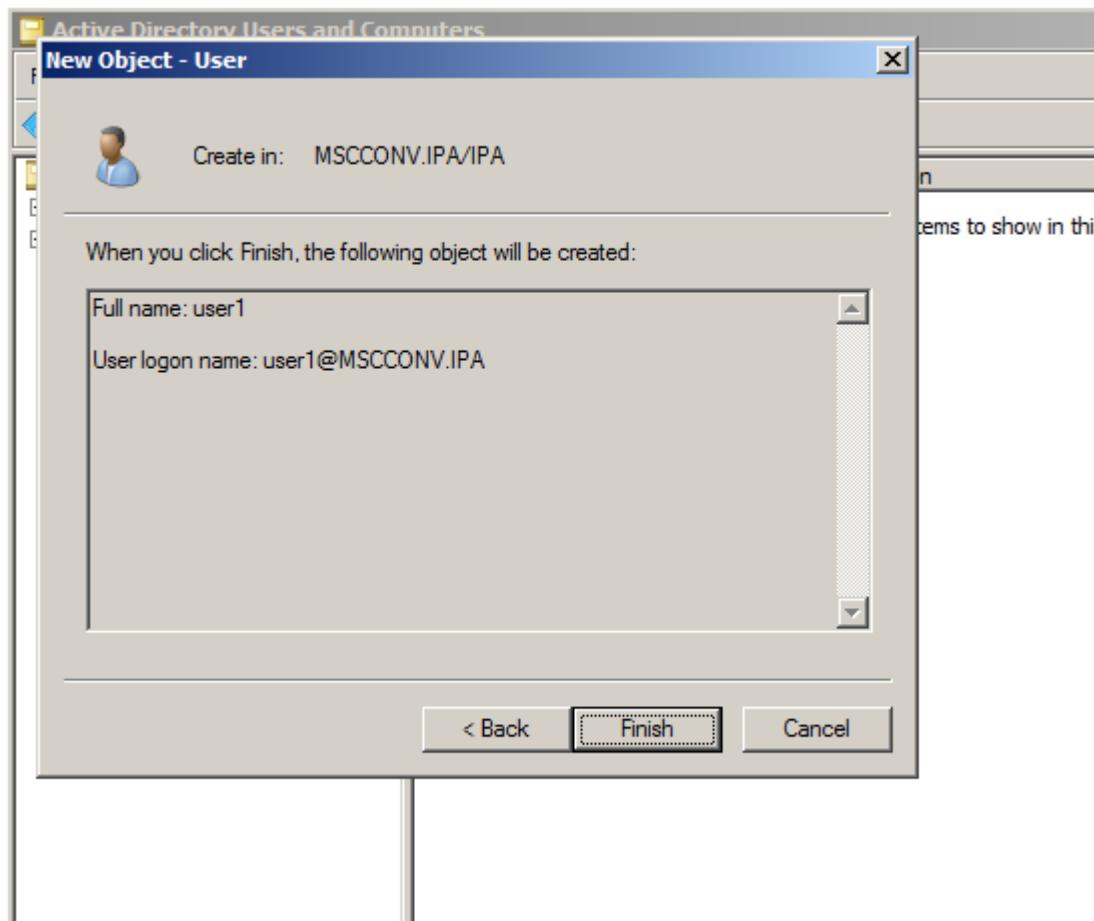
Step 7

Then enter the default password of Pa\$\$w0rd as displayed below. Make sure that none of the boxes are ticked below, so that users do not change their passwords at logon.



Step 8

In the next screen check the user credentials that were entered, once you are satisfied click Finish to create the user.



Step 9

Repeat all the steps to create all 10 users in IPA.

Active Directory Users and Computers

File Action View Help

Active Directory Users and Computers

Name	Type	Description
Marketing	Organizational ...	
IT	Organizational ...	
user1	User	
user2	User	
user3	User	
user4	User	
user5	User	
user6	User	
user7	User	
user8	User	
user9	User	
user10	User	

Step 10

Create 5 users in Marketing called user 11 to user15 with a default password of Pa\$\$w0rd.

Right click on Marketing then click New user.

Repeat steps 6 to 8 to create new users.

The screenshot shows the Active Directory Users and Computers console. The left pane displays the navigation tree under 'MSCCONV.IPA' with 'Marketing' selected. The right pane shows a table of users:

Name	Type	Description
user11	User	
user12	User	
user13	User	
user14	User	
user15	User	

Step 11

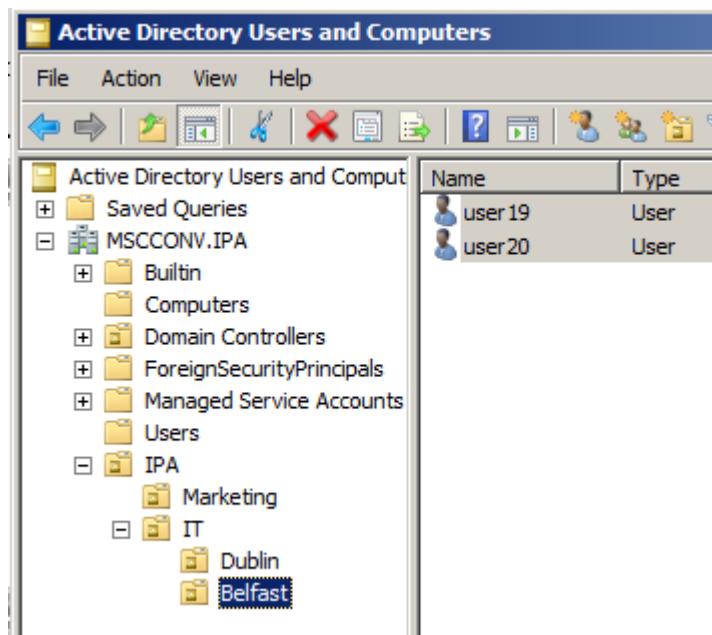
3 users are to be created in Dublin, ranging from, User16 to User18.

The screenshot shows the Active Directory Users and Computers console. The left pane displays the navigation tree under 'MSCCONV.IPA' with 'Dublin' selected. The right pane shows a table of users:

Name	Type	Description
user16	User	
user17	User	
user18	User	

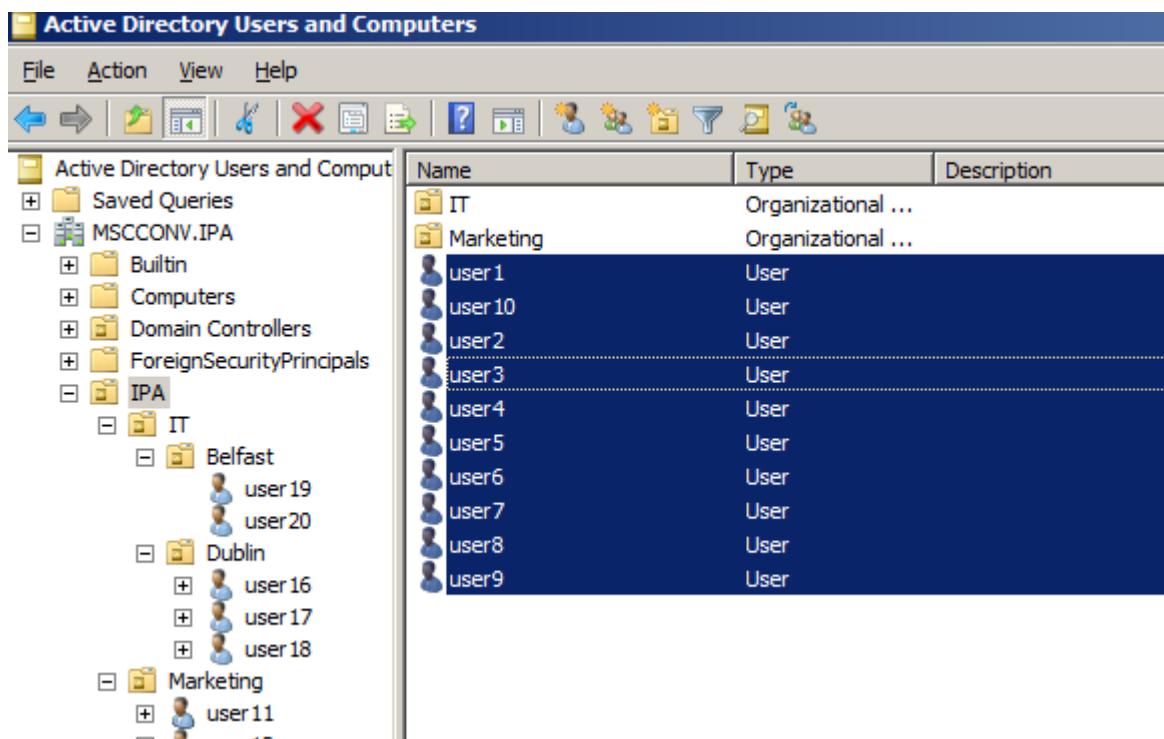
Step 12

2 users are to be created in Belfast called User19 and User20.



Step 13

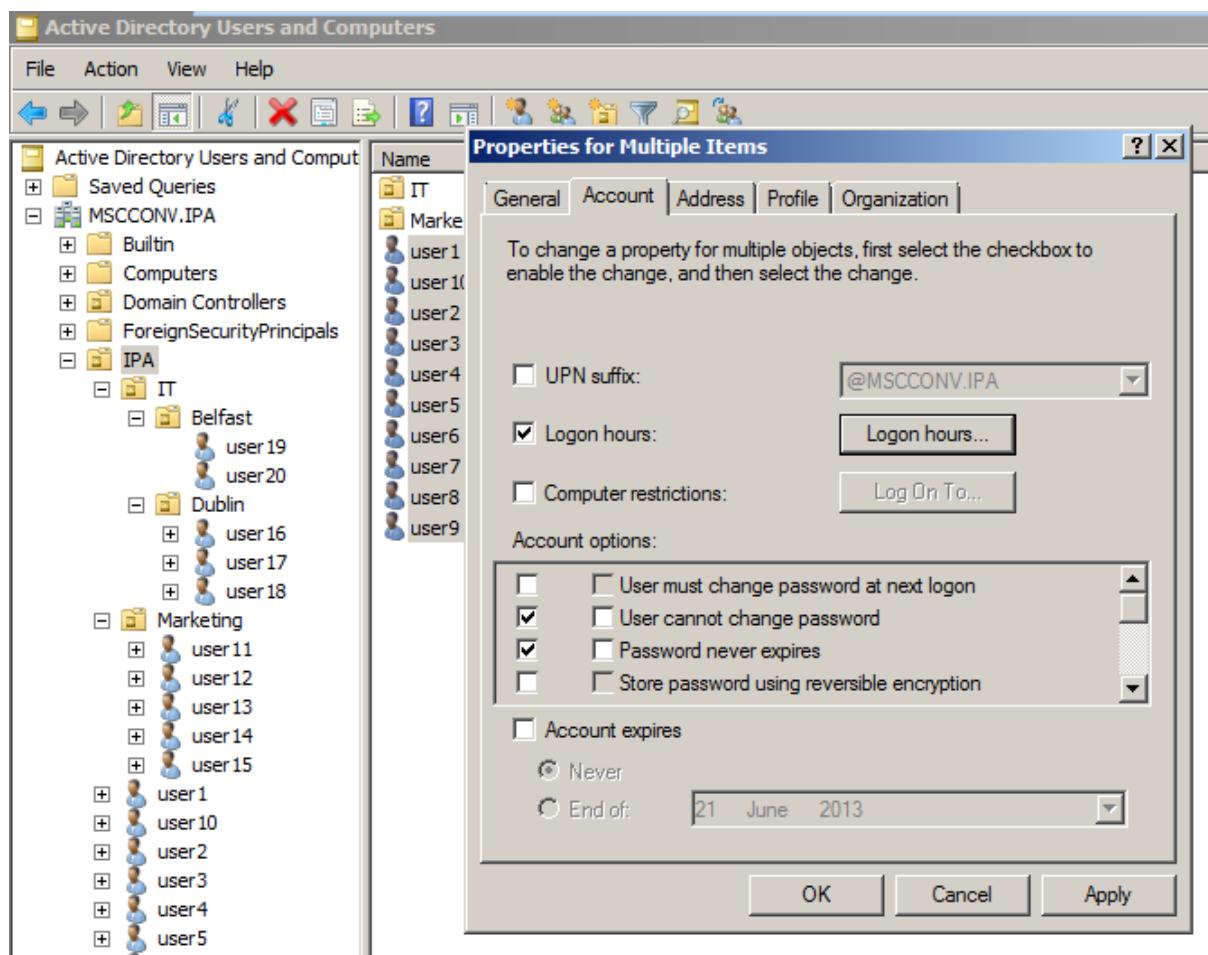
To enable all users to have 24 hour logins from Monday to Friday, select all users, then, right click on the users, then, click properties.



Step 14

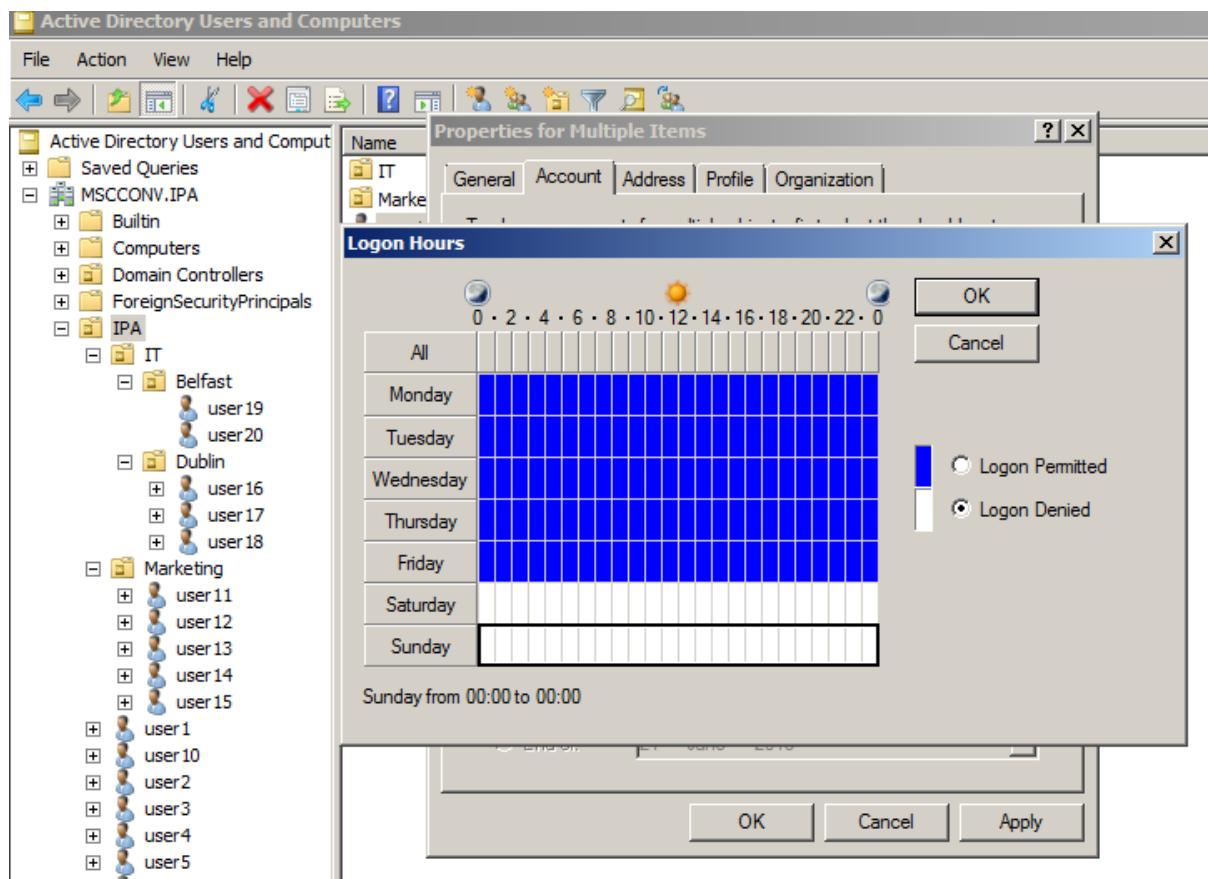
In the Account tab tick, “user cannot change password” and “Password never expires”.

Then click logon hours to set the logon times for the users.



Step 15

Since the users are not allowed access on Saturday and Sunday, select the two days then change to "permission denied" as displayed below.



Click ok, then click Apply. To check if the settings have been saved, highlight one user then click properties. If you check with all the users selected, it will replace with previous settings with the settings in the window that has just been opened.

Repeat these steps for all other users in the other Organisational Units.

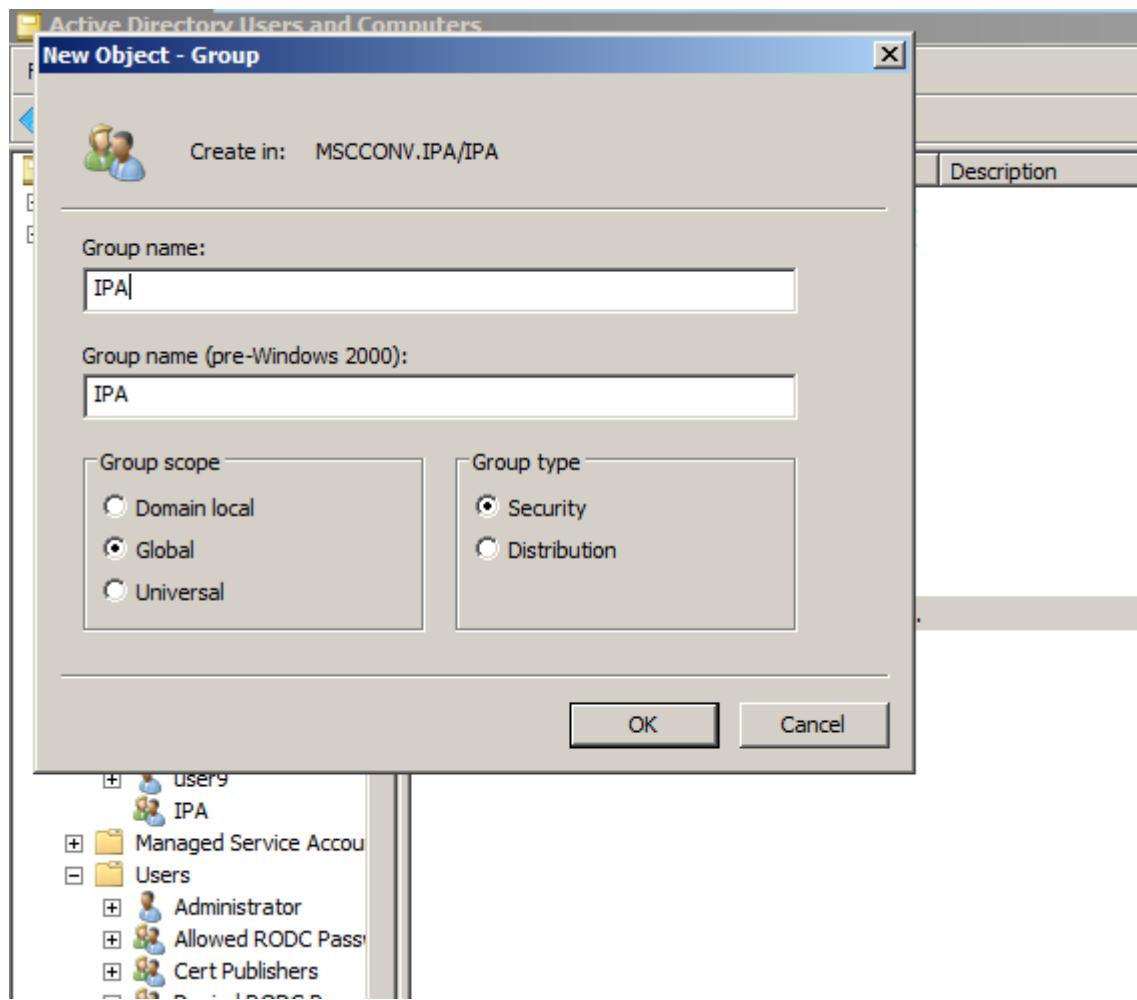
Task E

To create groups for each Organisational unit(IPA, Marketing, IT, Belfast, Dublin) :

Step 1

Right click on the Organisational Unit, you wish to create a group inside. Then Click new group.

Type the name for the group you wish to create. Leave the scope as default(Global) and Group type as default(security).

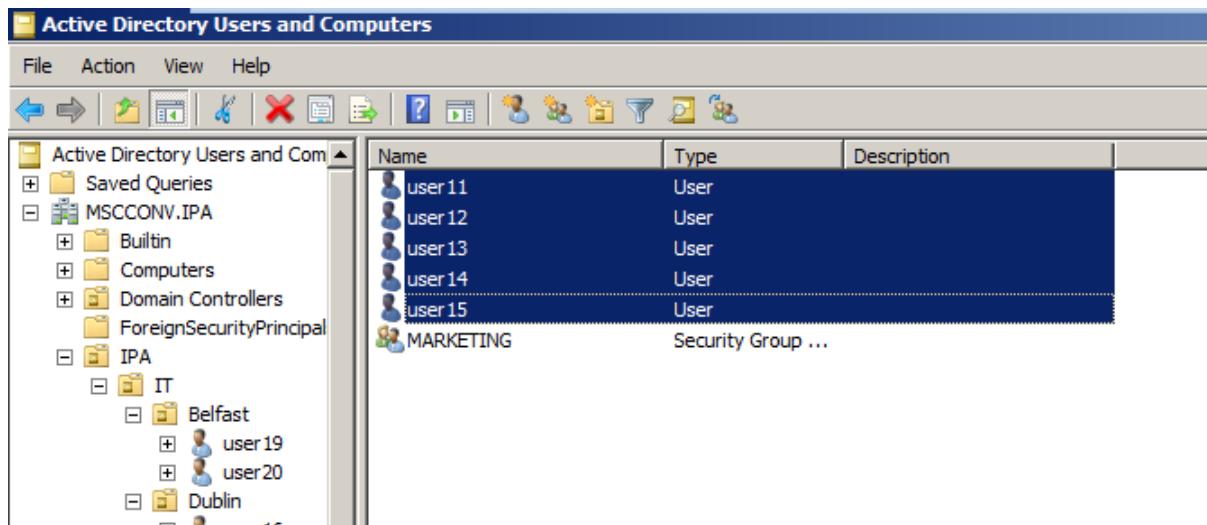


Then click ok to finish creating the group. Now, repeat this for the other Organisational Units, such as, Marketing, IT, Belfast, and Dublin.

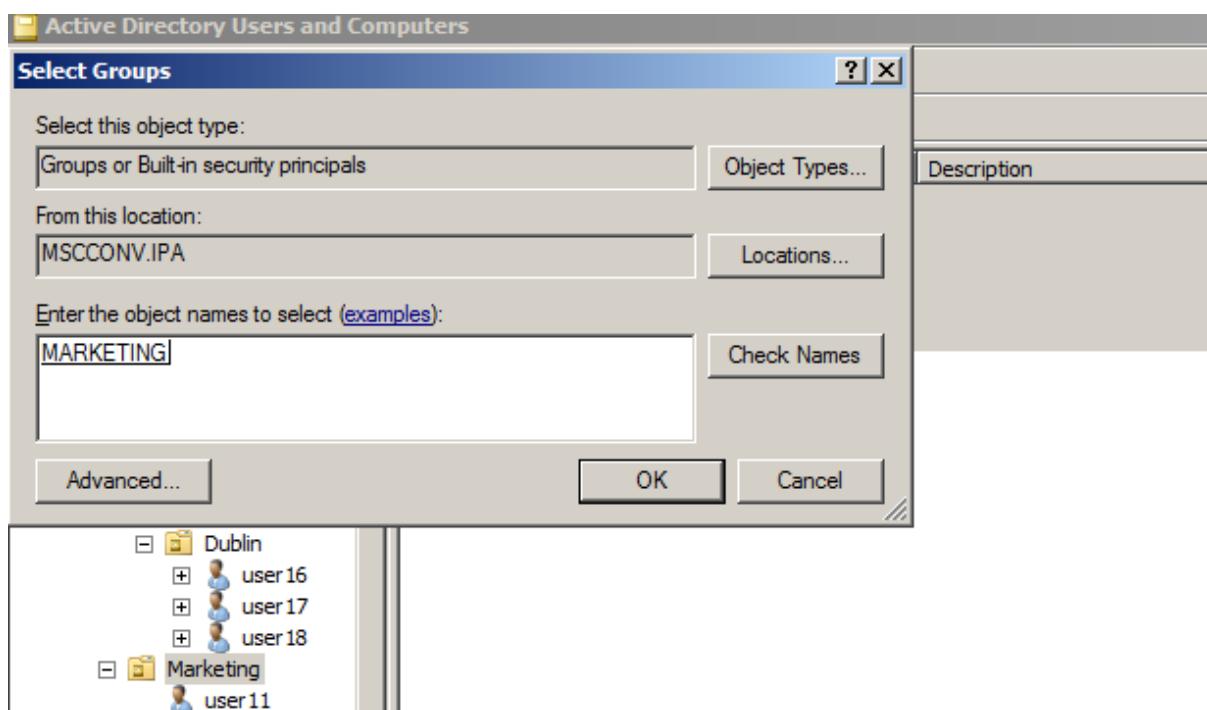
Step 2

Add the users into their relevant group.

Select all of the users (ctrl + a), then right click and click add to group.



Type the name of the group in the window, then, click check names to ensure that it validates.



Then click ok to finish and exit.

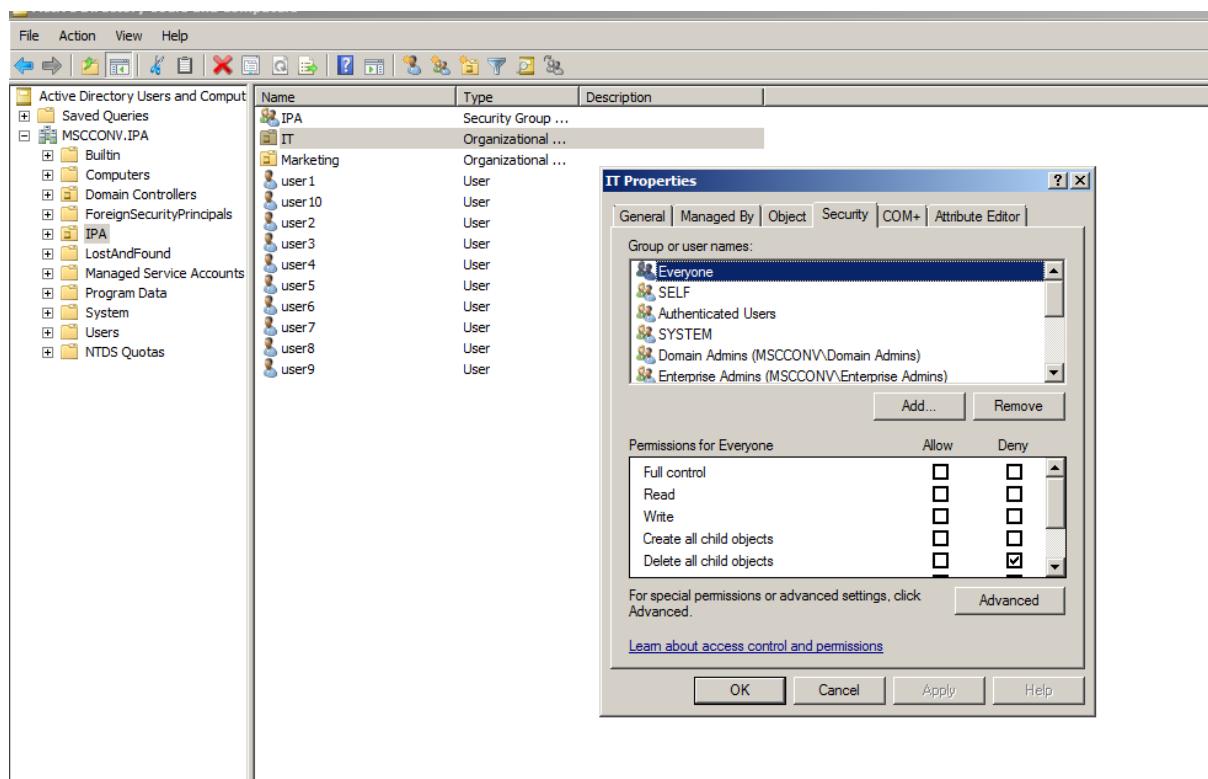
Now, repeat the same steps for IPA, IT, Belfast and Dublin.

Prevent the users in the Marketing Organisational Unit from seeing IT Organisational Unit in Active Directory:

Step 1

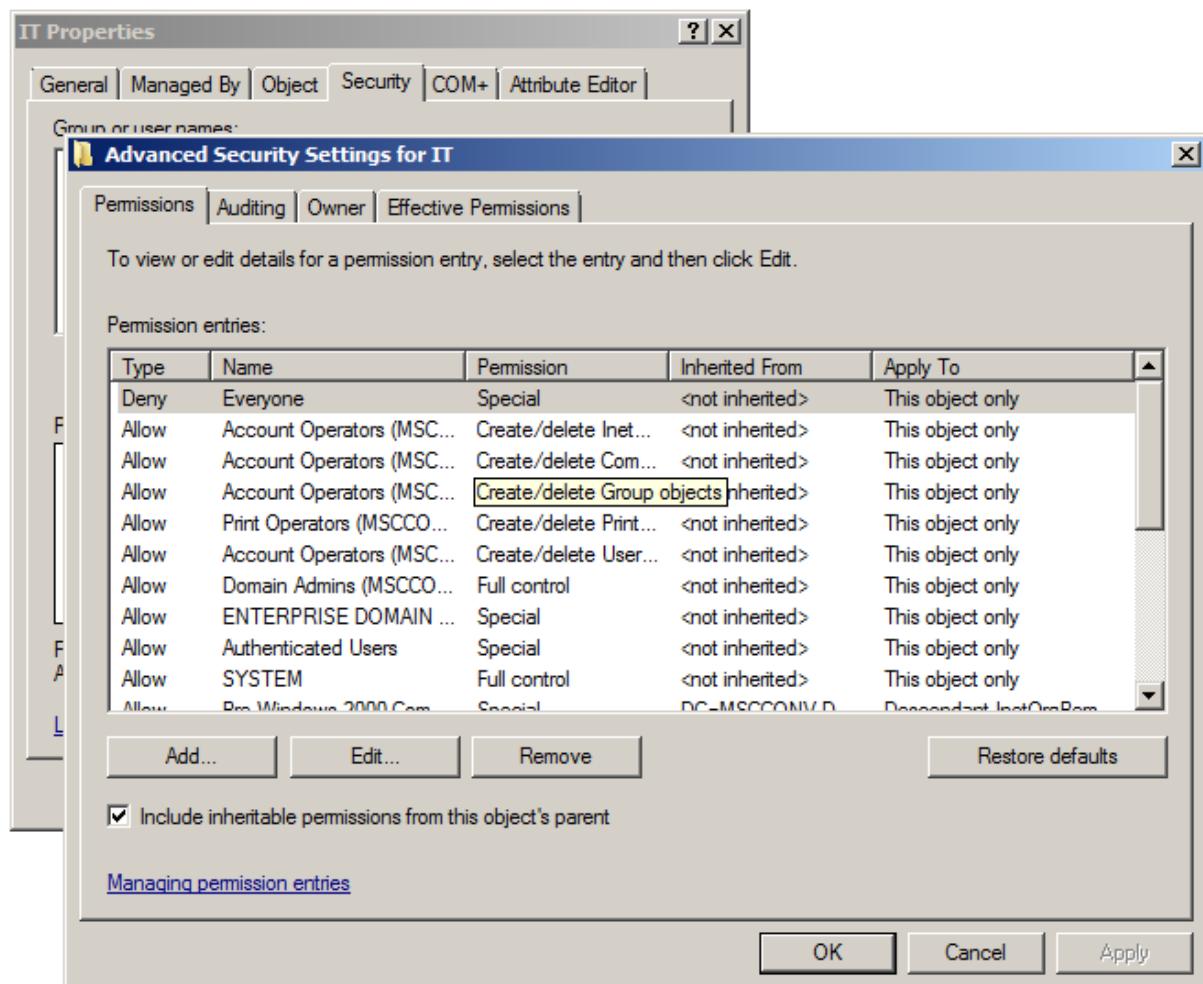
In the active directory users and computer window, click view, then, turn on advanced features.

Right click on the IT Organisational Unit. Then in the Security tab, click Advanced.



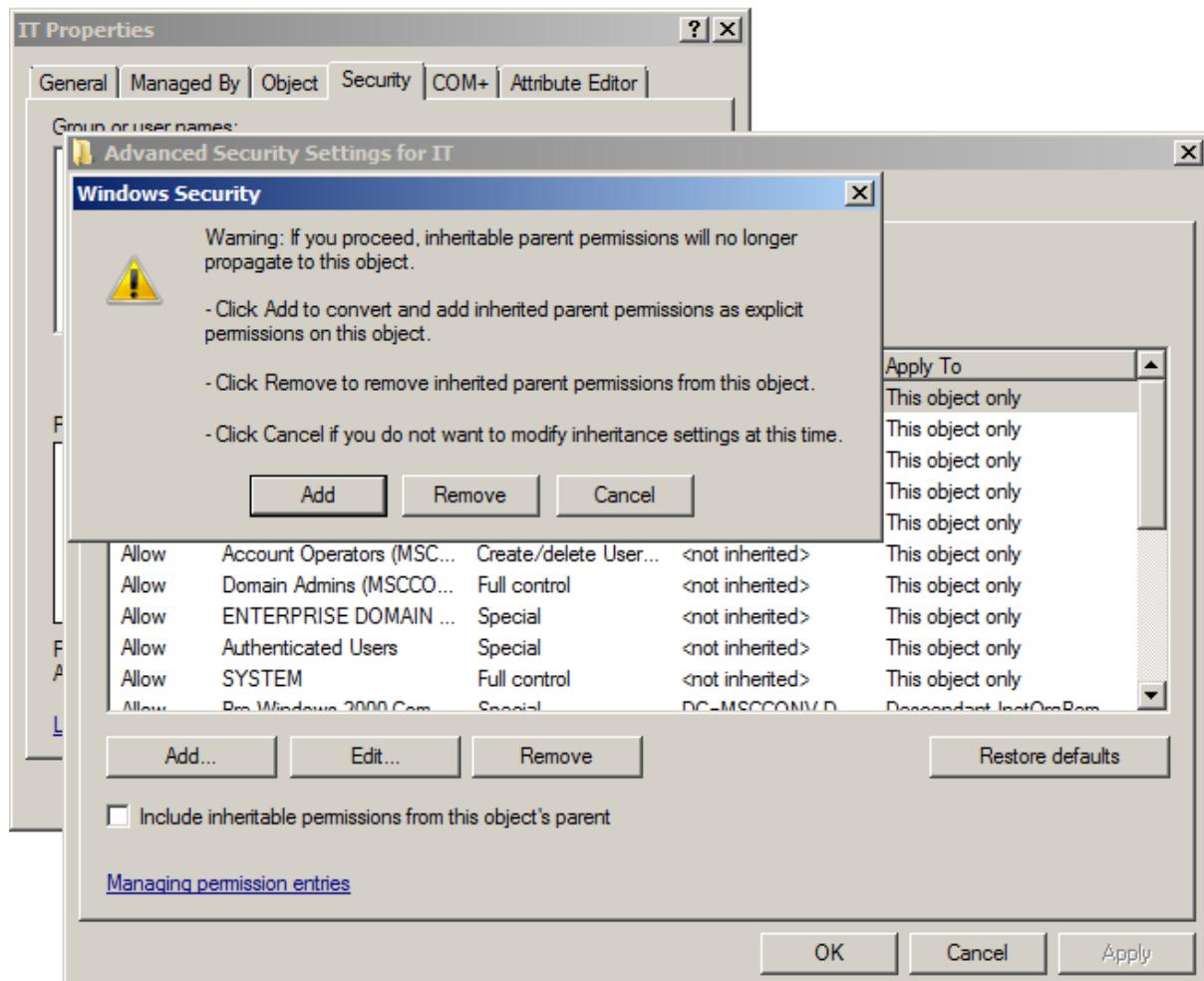
Step 2

Untick “include inheritable permissions from this object’s parent”.



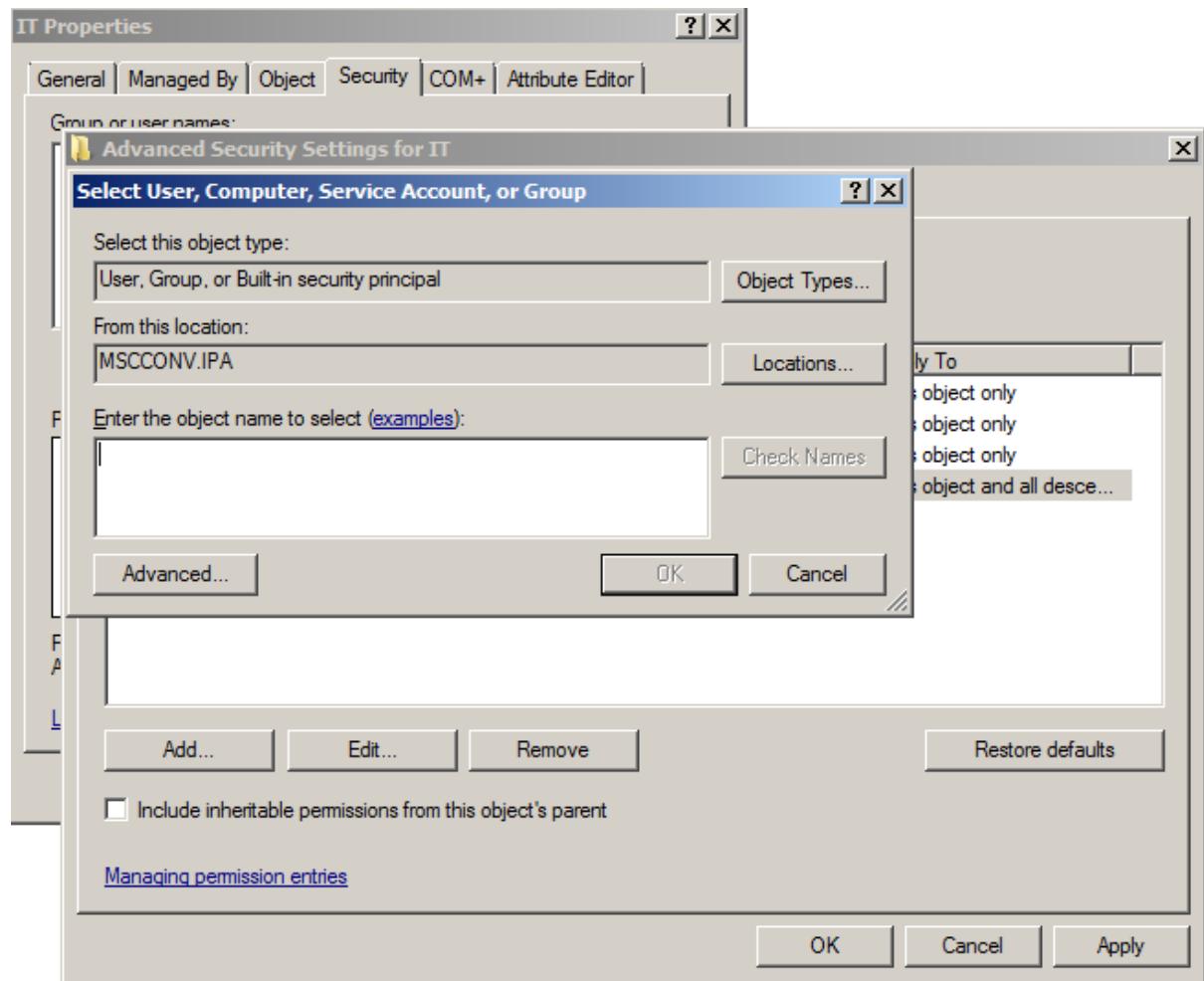
Step 3

In the pop-up window click “remove”.



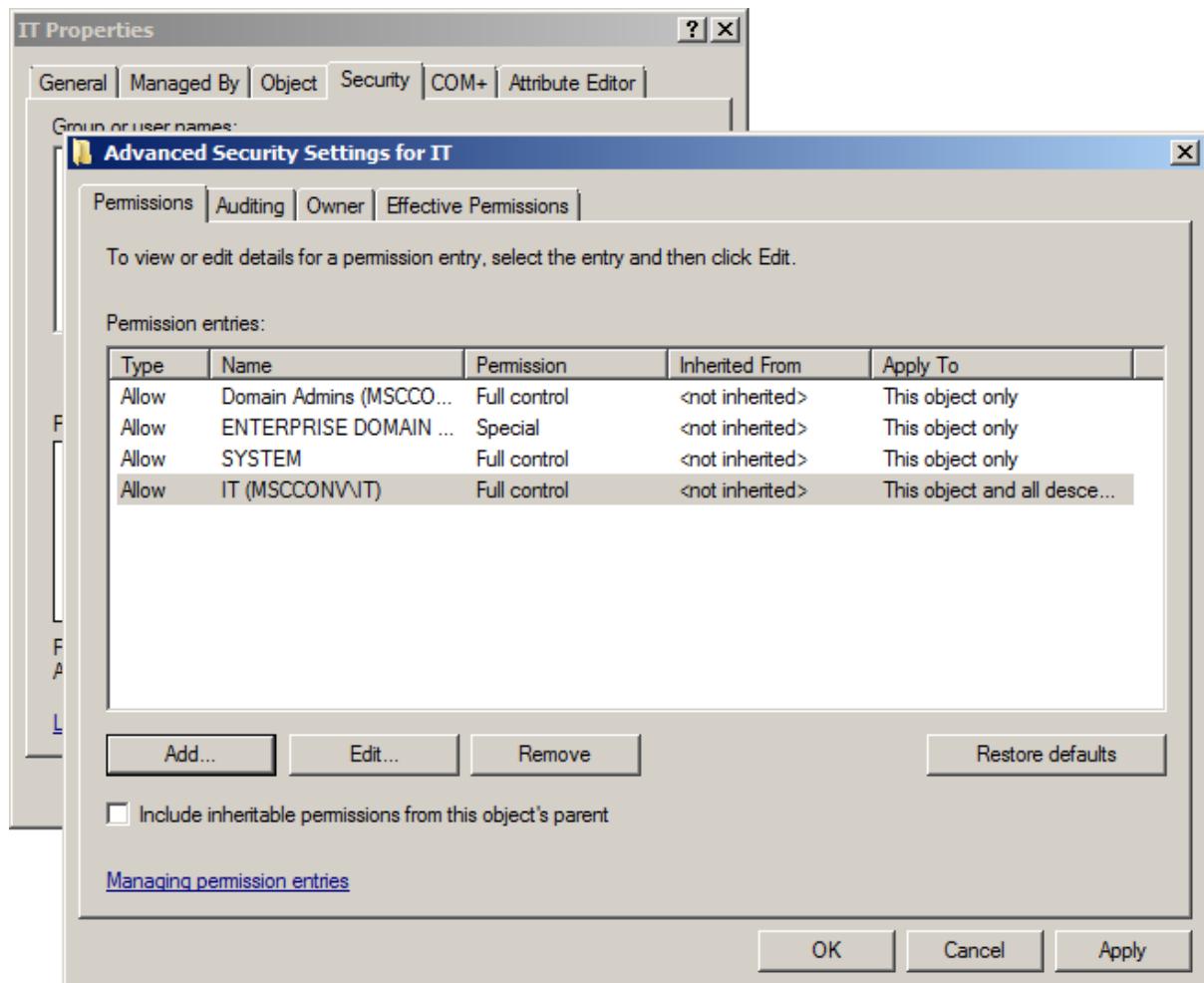
Step 4

Click Add, then in the box type "IT" then click check names, to validate IT then click ok.



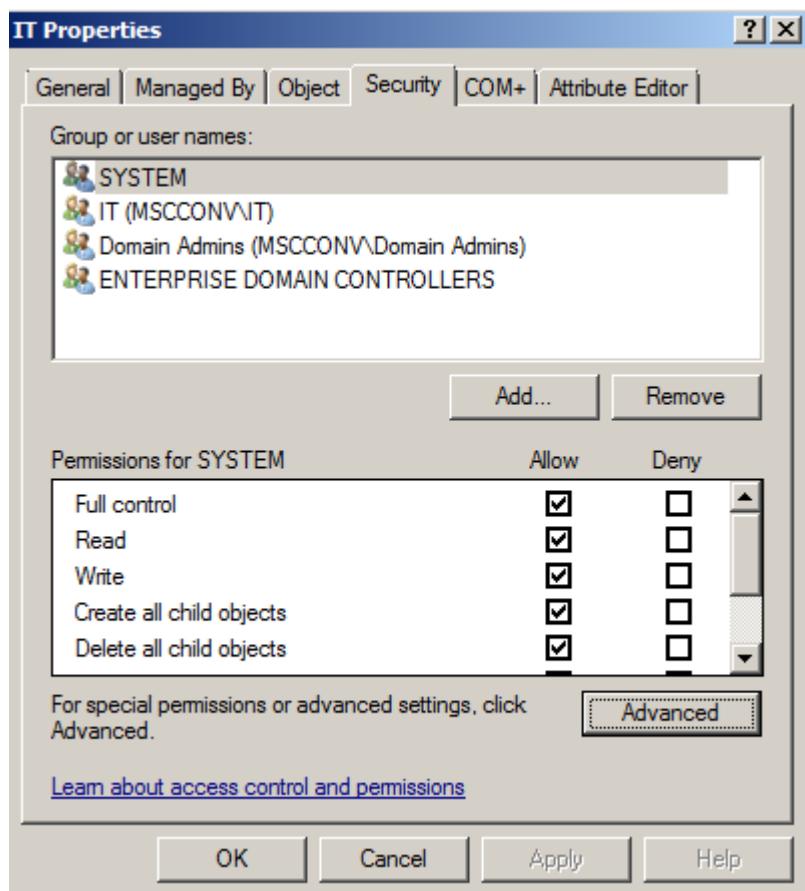
Step 5

Then remove the other Users and permission groups until it is the same as below.



Step 6

After clicking Apply in step 5, it should look the same as below if done correctly.



Create 3 Group Policies to achieve the following:

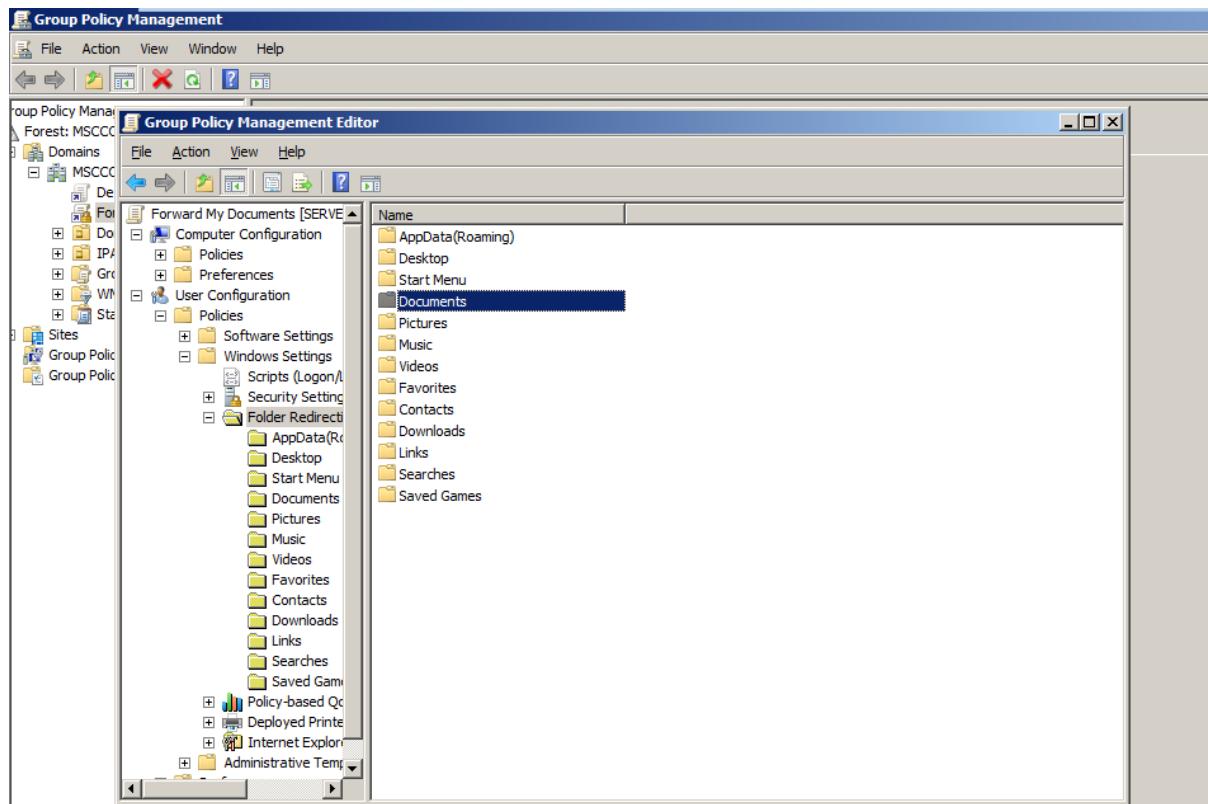
- Forward my documents from Client1 to a folder on the root of C on Server2 called User_Docs.
- Prevent Belfast from accessing control panel. Please exclude user 20 from this policy.
- Publish any MSI file of your choice from the C drive contents to all users in Dublin.

Step 1

On Server 2

Click Start, then hover over Administrator Tool's, then click Group Policy Management Editor.

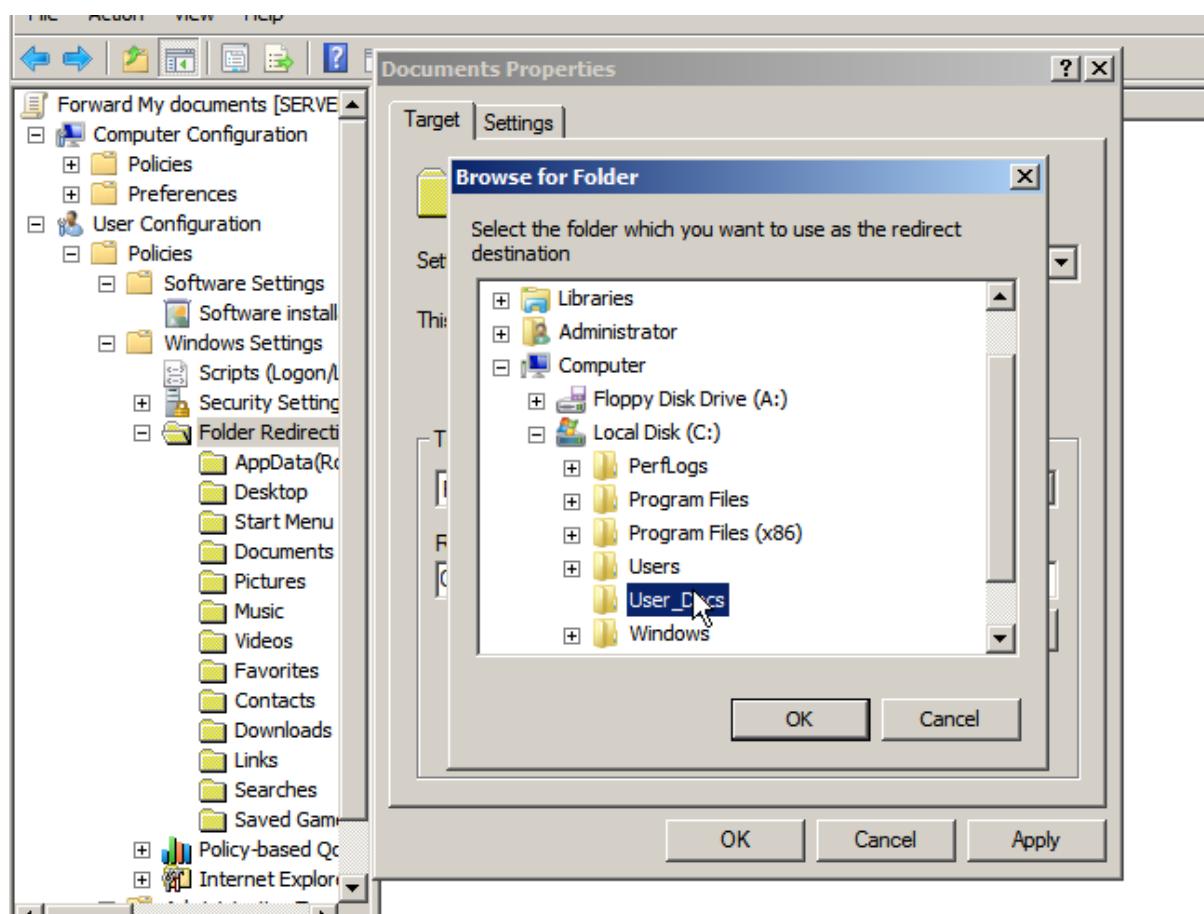
When the Group Policy Management Editor has opened, expand User Configuration then expand Folder Redirection



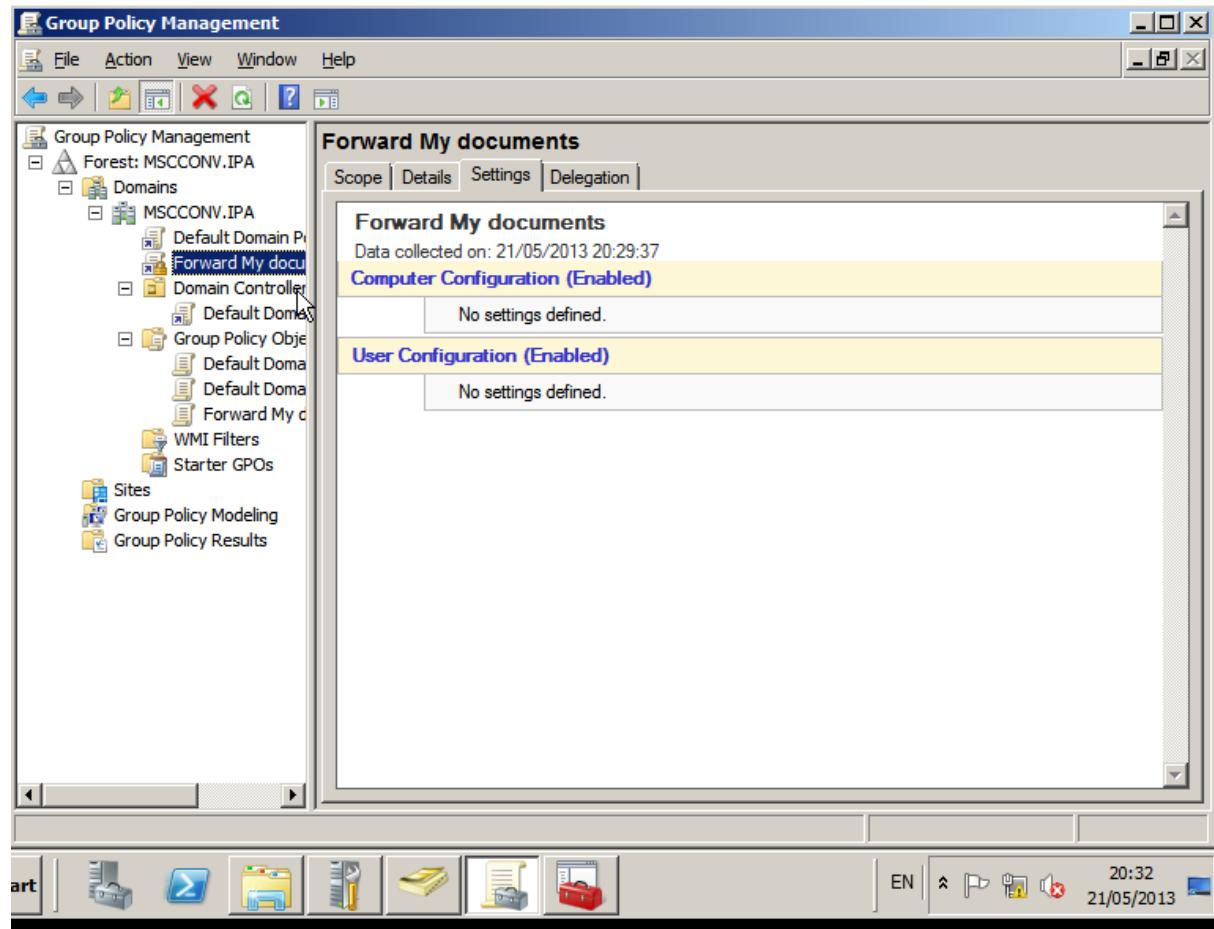
Now open My Computer and open the C: drive, then create a folder called User_Docs.

Double Click on Documents in the Group Policy Management.

Then when the Document Properties window opens click browse for target and select User_Docs on the C: drive.



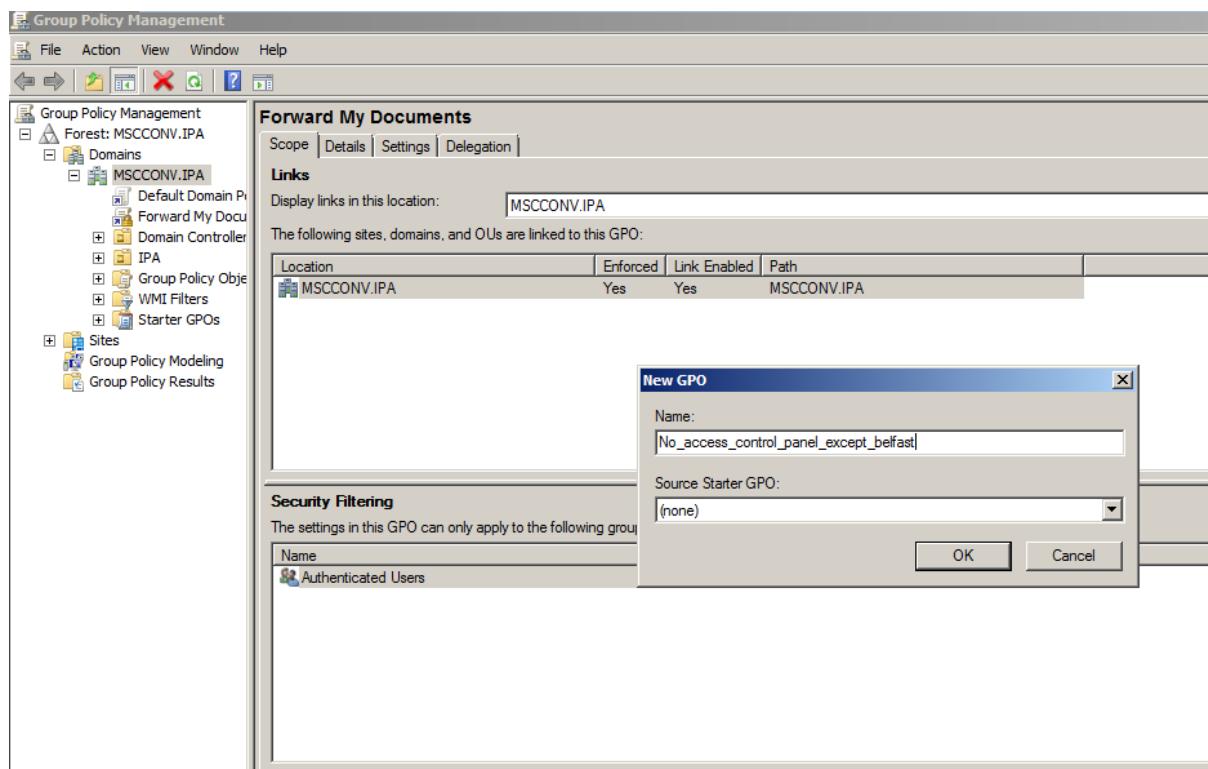
Then in the Group Policy management Window, right click on the group policy and click "Enable".



Step 2

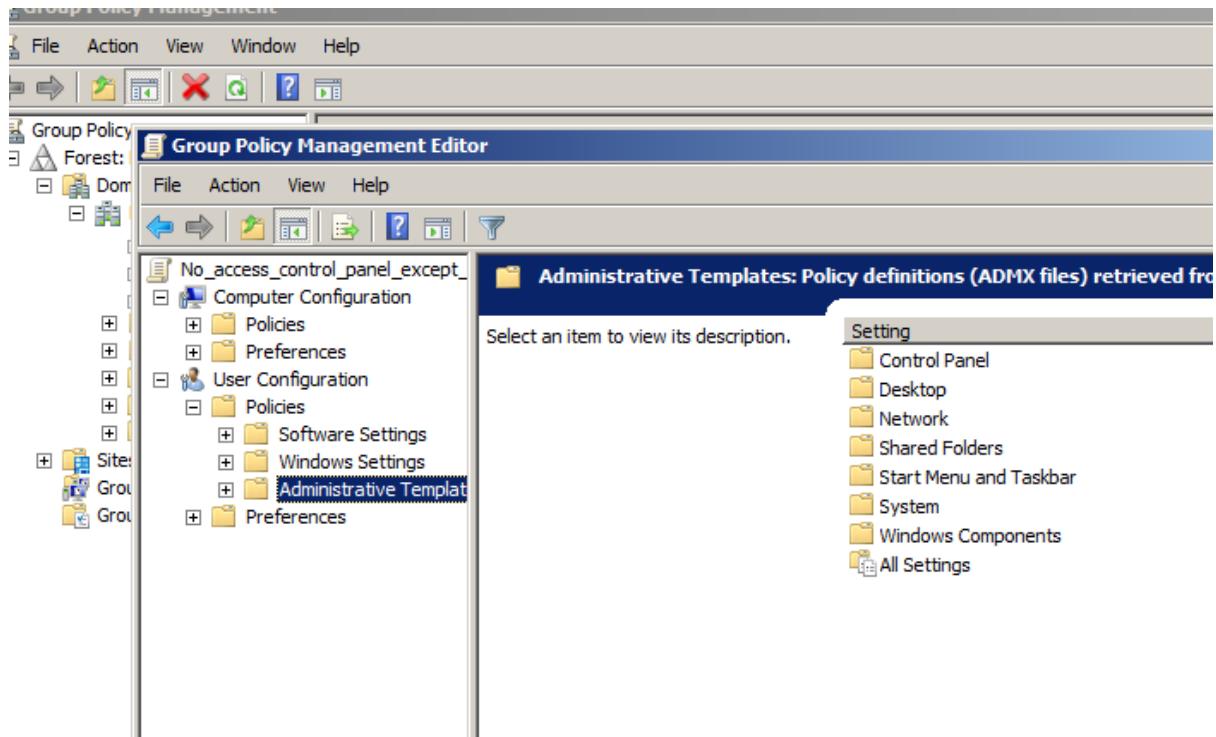
In the Group Policy Management Window, right click on MSCCONV.IPA and click new group policy.

Then in the new window that has opened, create a name for the new policy.



After clicking ok the Group Policy Management Editor will open.

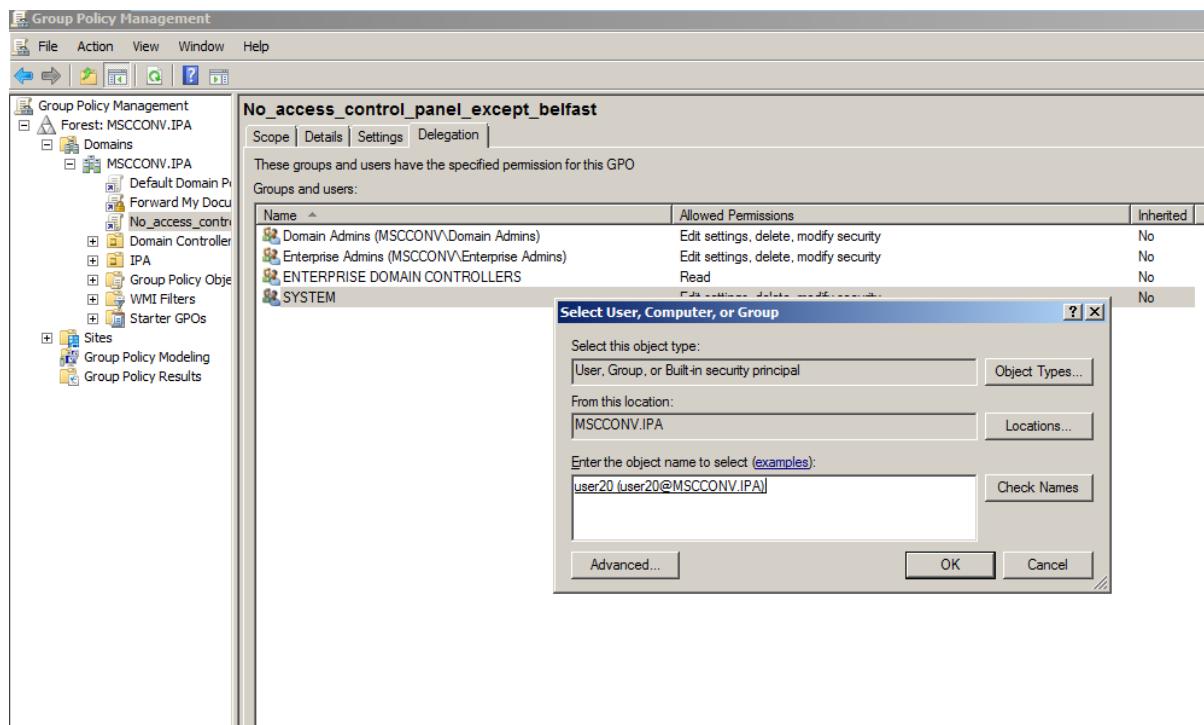
Expand User configuration, then click on Administrative Templates.



Double click on the Control Panel.

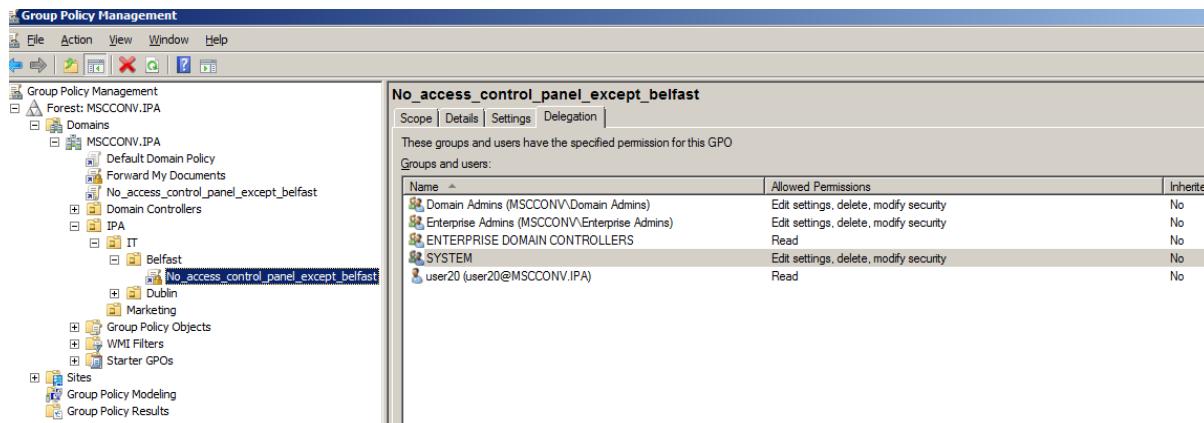
Then Remove Access until it just displays Admins and Local Admins.

Now click Add then enter User20 in the text box, click check names then click ok.



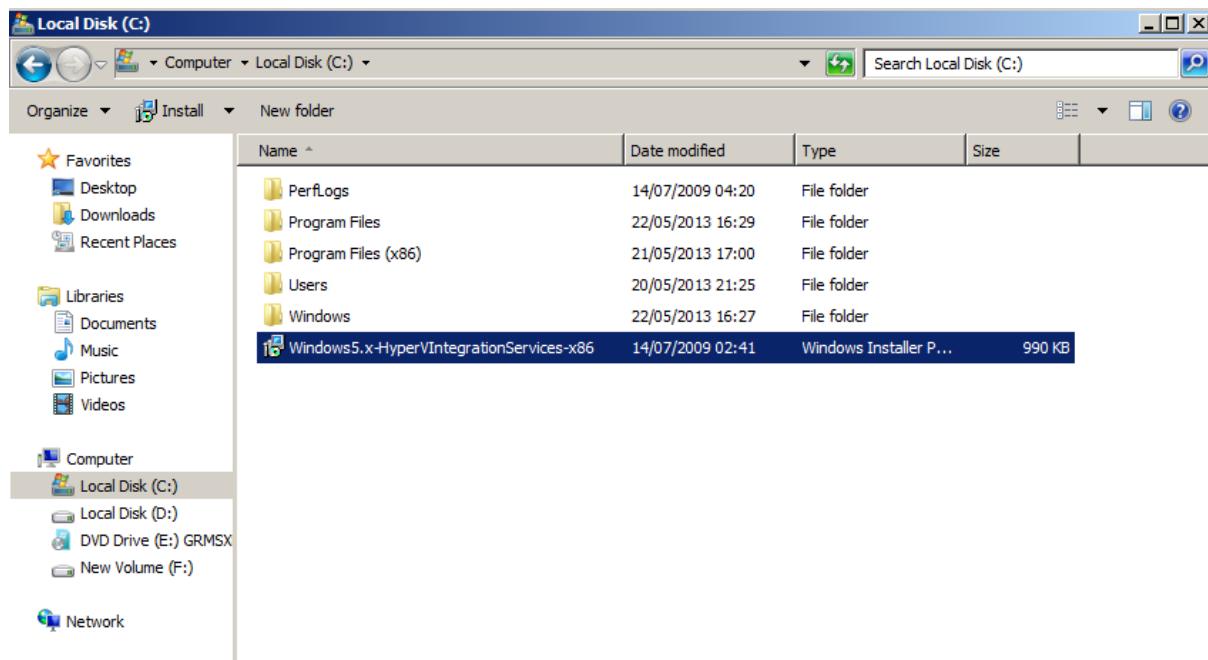
Once completed it should look the same as below. Then drag the newly created Group Policy into the Belfast Organisational Unit, right click on the group policy, then click enable.

Now only User20 and Admins will have access to the control panel in the Belfast Organisation Unit.

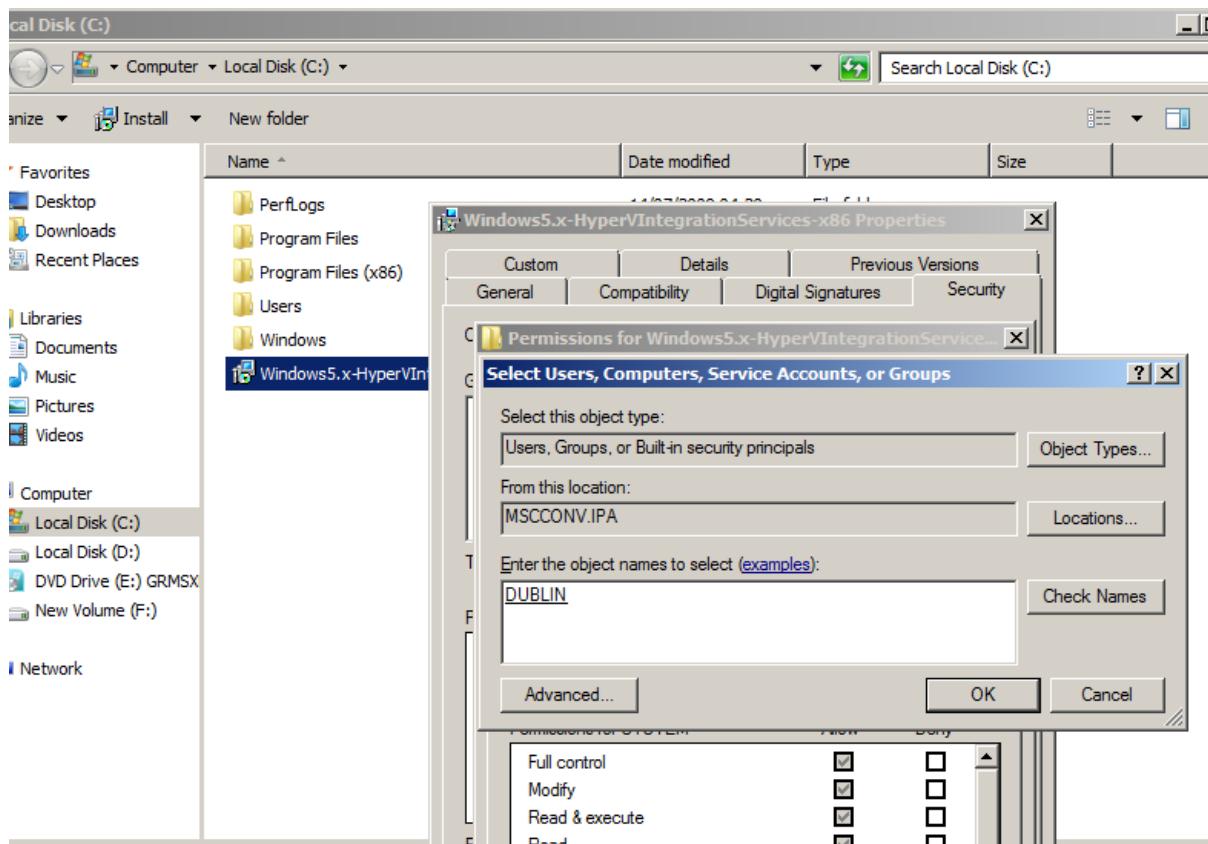


Step 3

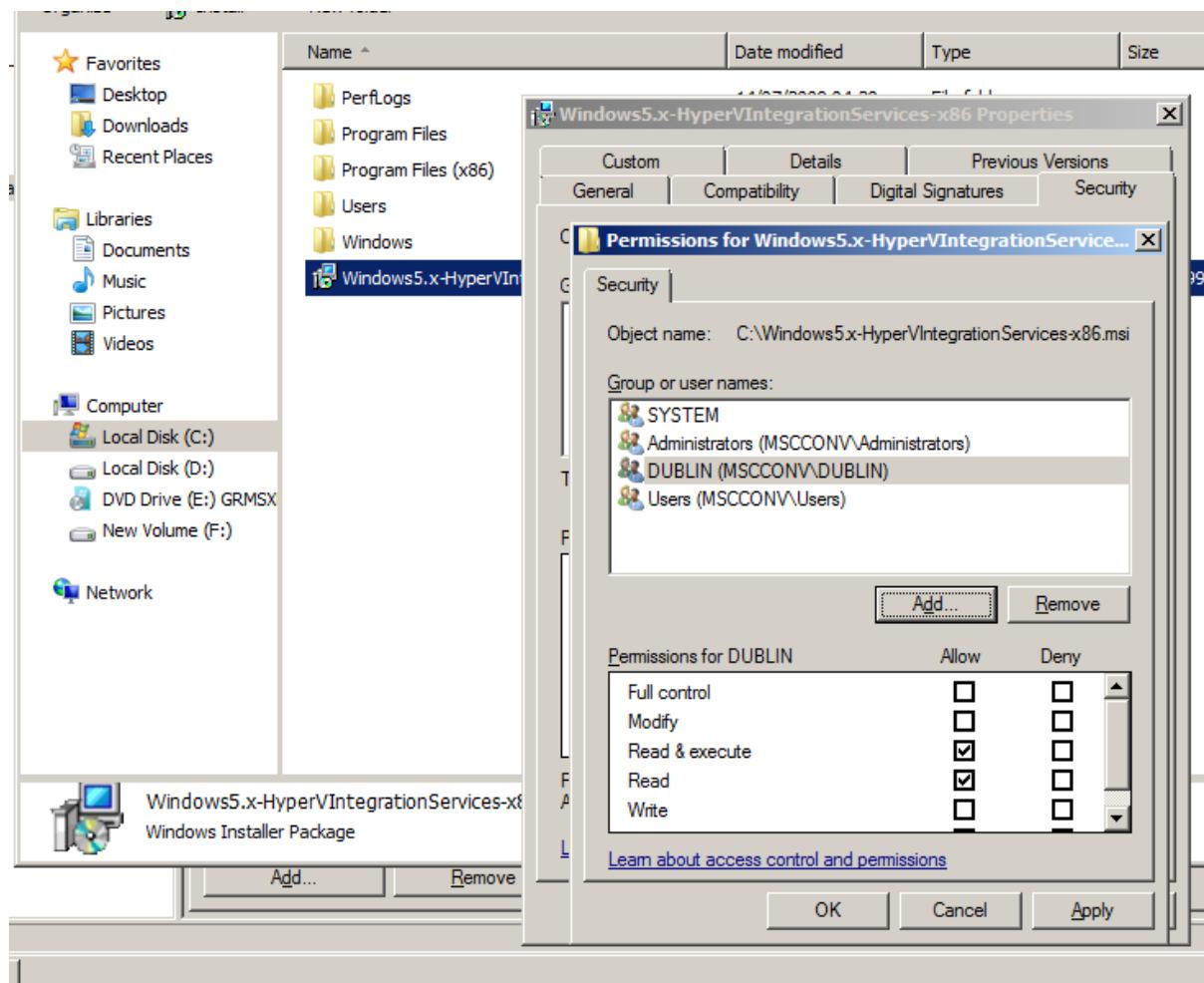
Open My Computer, then open the C: drive. Search local Disk(c:) as displayed on the right hand top corner in the image below, for a MSI file. Then publish the MSI file to the C drive as displayed below.



Right click on the MSI file, then click properties. In the security tab click add then in the pop up window, type Dublin, click check Names then click ok.



Remove all of the users and groups apart from Dublin and Administrators, both Local and Domain.



Now access only Administrators, system and Dublin can access the MSI file.

Task F

Configure Server1 as a print server and install 3 printers and publish 2 of them to Active Directory.

Step 1

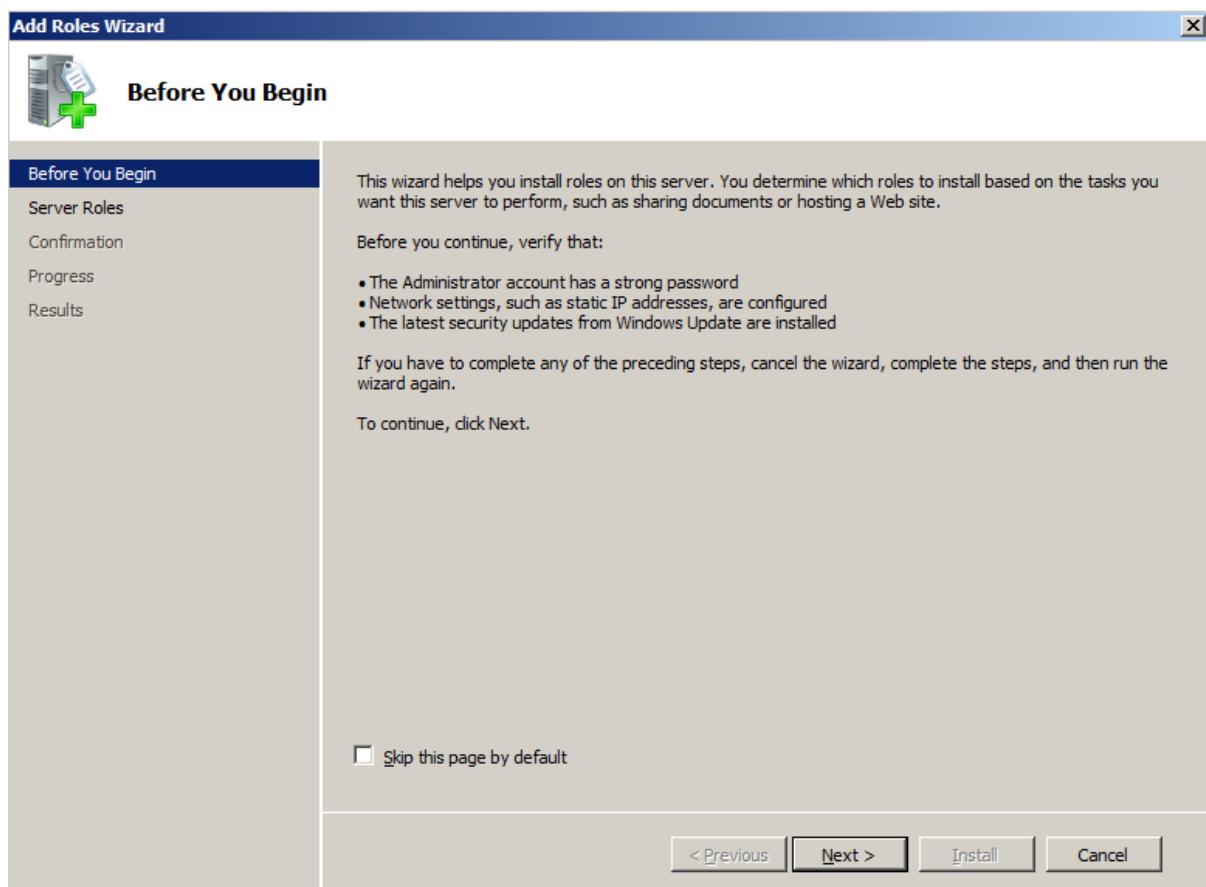
Open the Server Manager window.



Under Roles summary, click Add Roles.

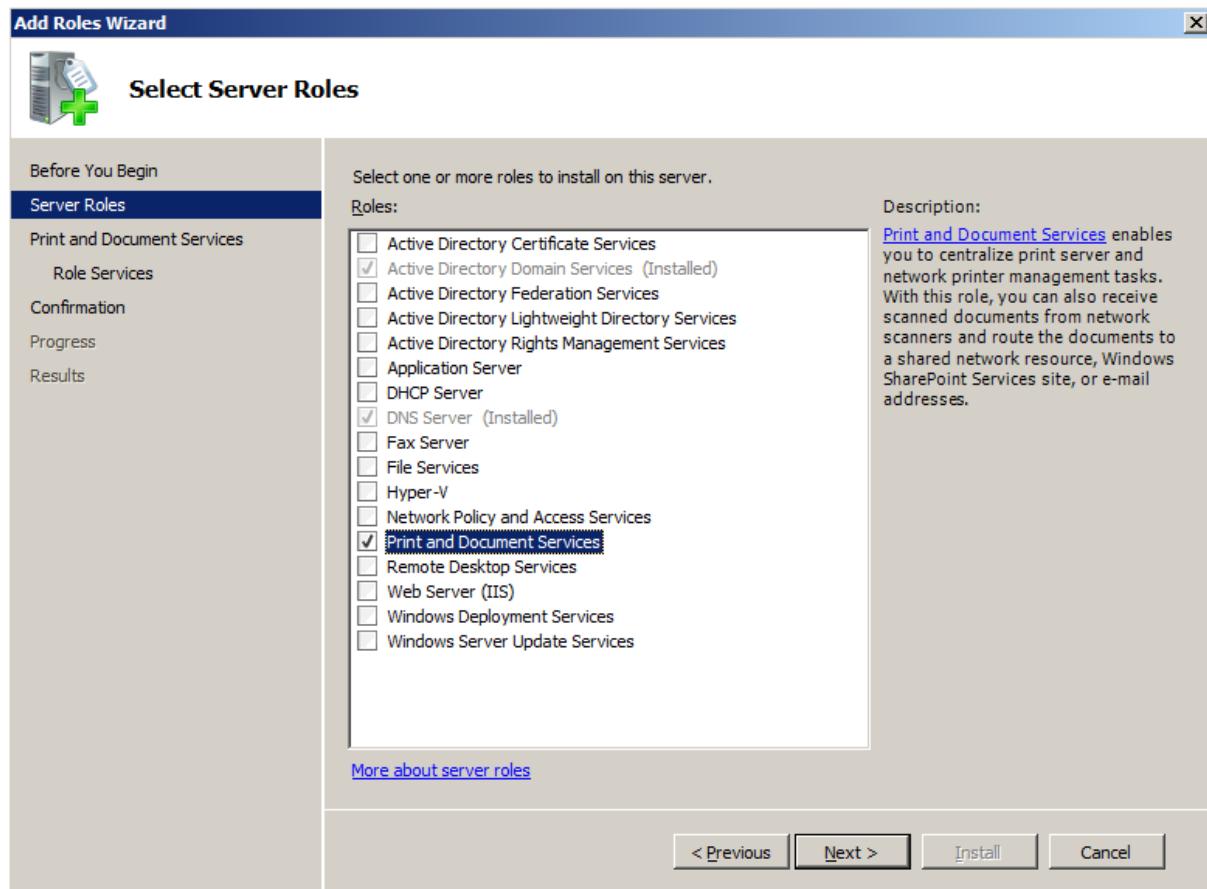
Step 2

An Add Roles wizard will appear after clicking Add Roles. Simply click Next when it opens to move onto the next stage.



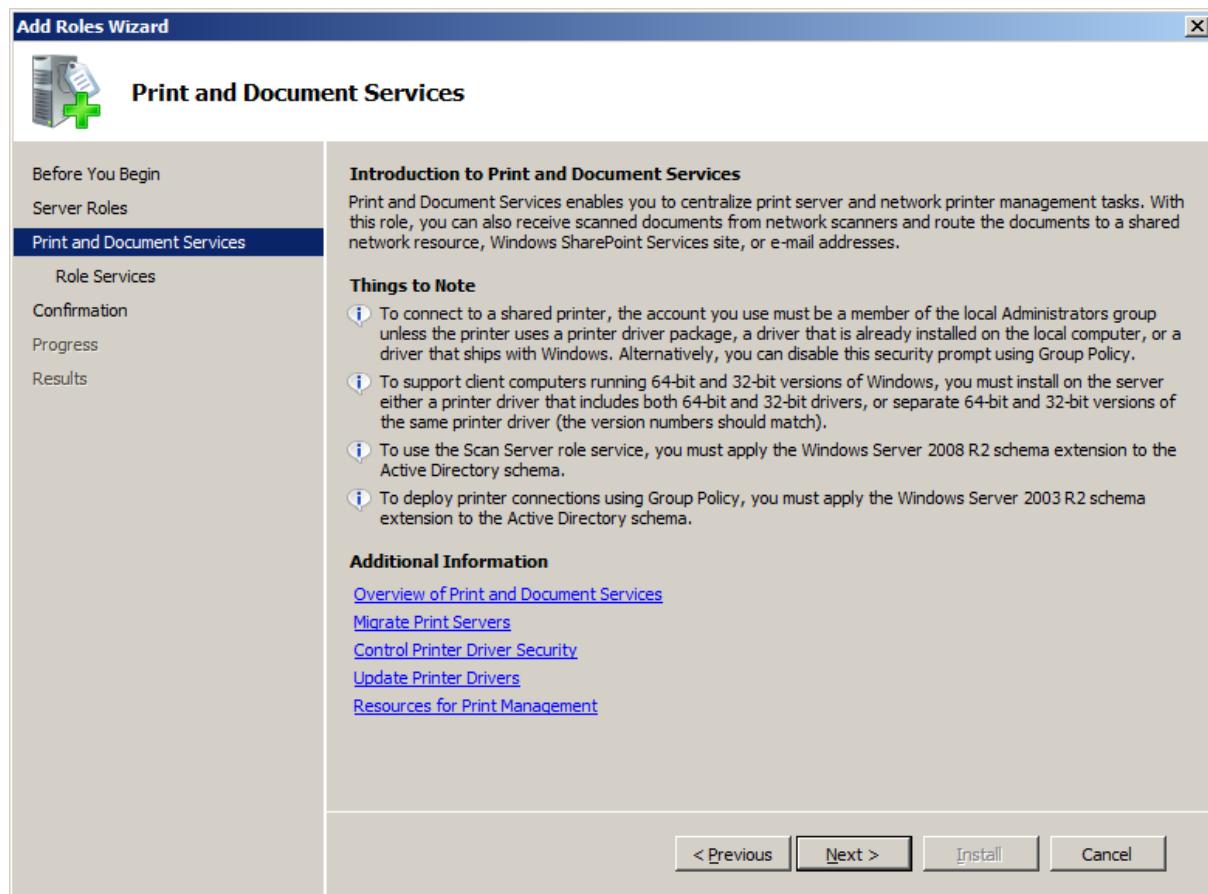
Step 3

From the following menu select Print and Document Services, then, click Next.



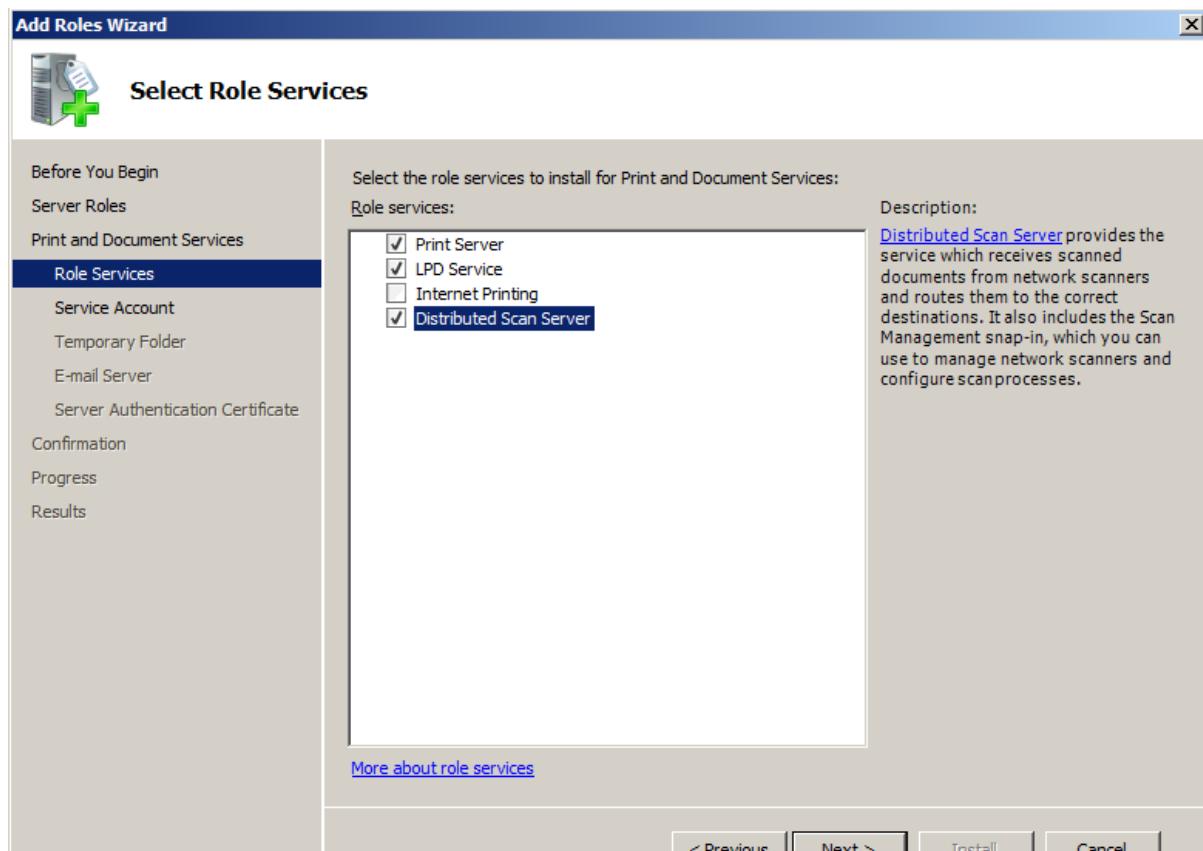
Step 4

The next menu gives you an overview of what this Role does. After reading, simply click Next to move onto the next stage.



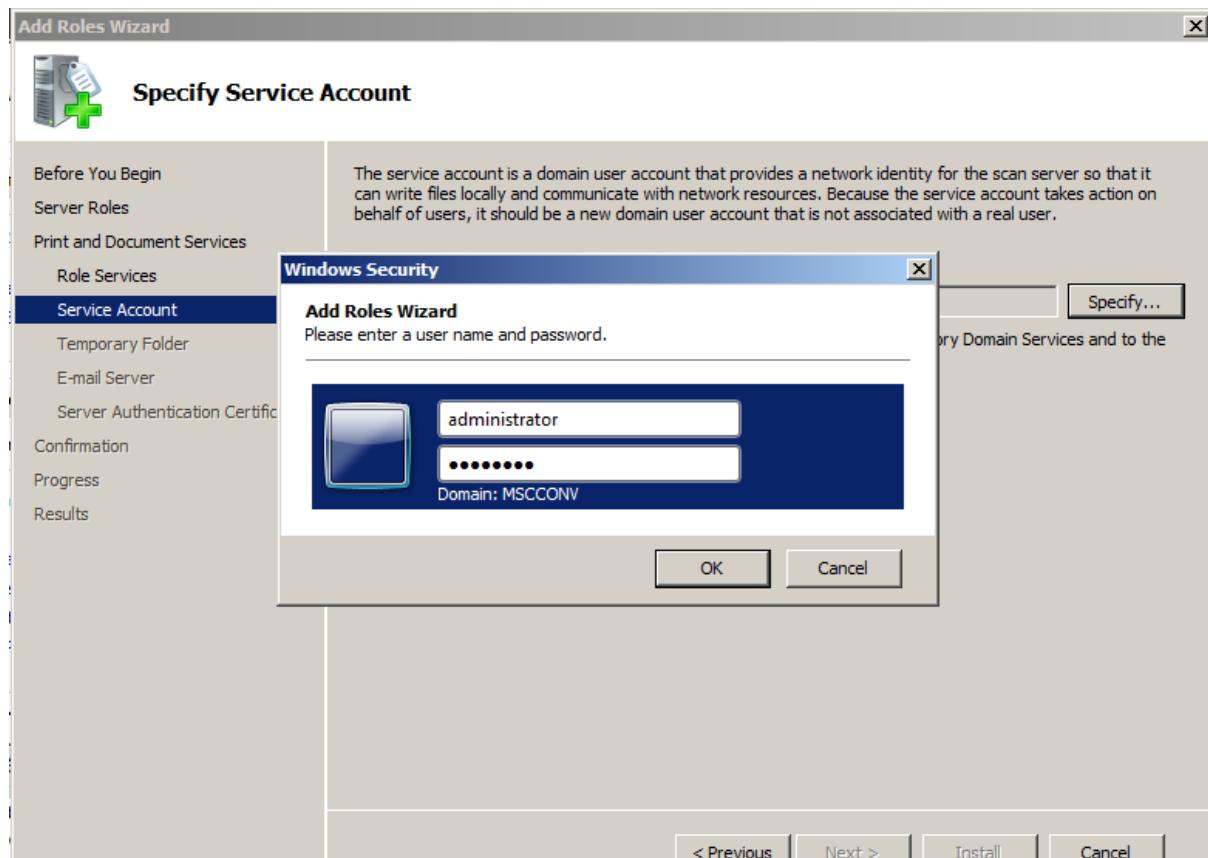
Step 5

For the Printer services to work, you must select; Print Server, Lpd Server, and Distributed Scan Server. This is displayed Below.



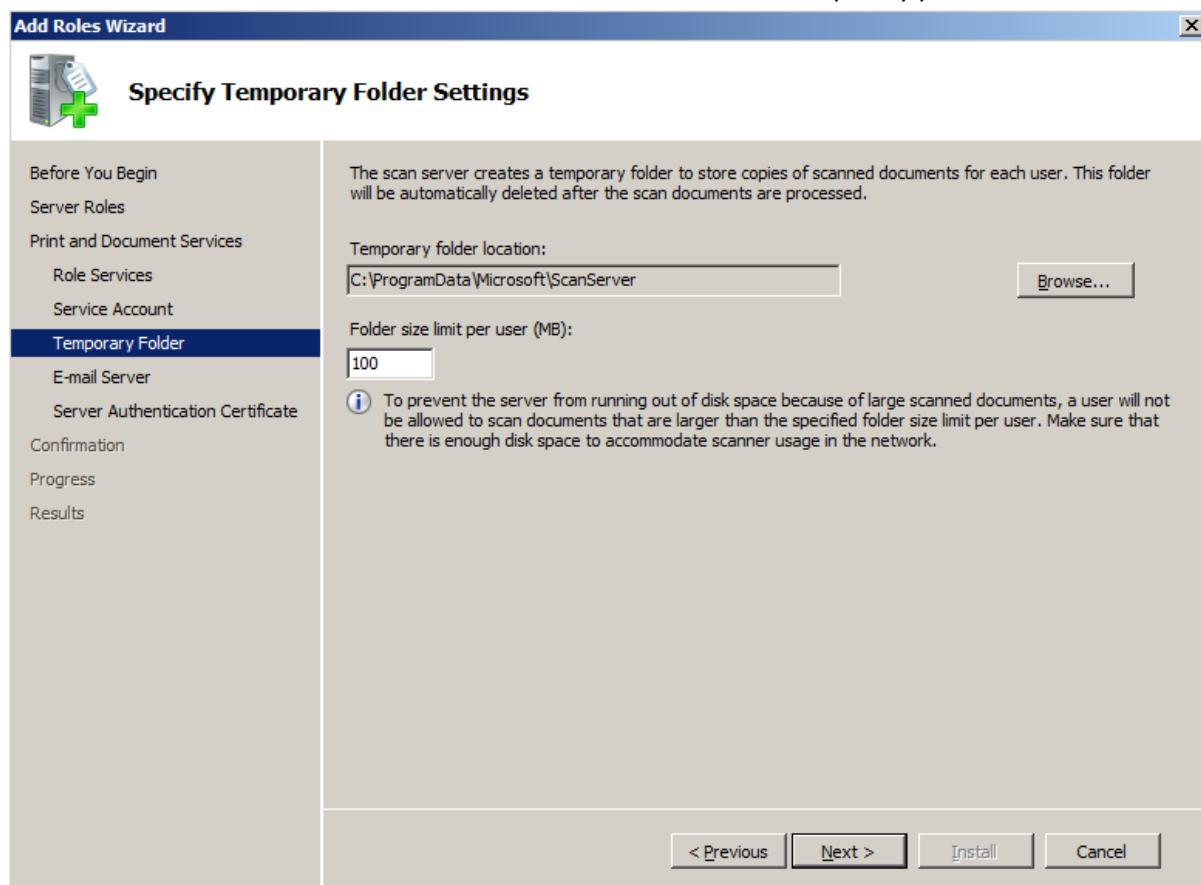
Step 6

You need to enter the Server1 Administrator username and password to authenticate adding roles. Once that is entered, click ok, then click Next to move onto the next step.



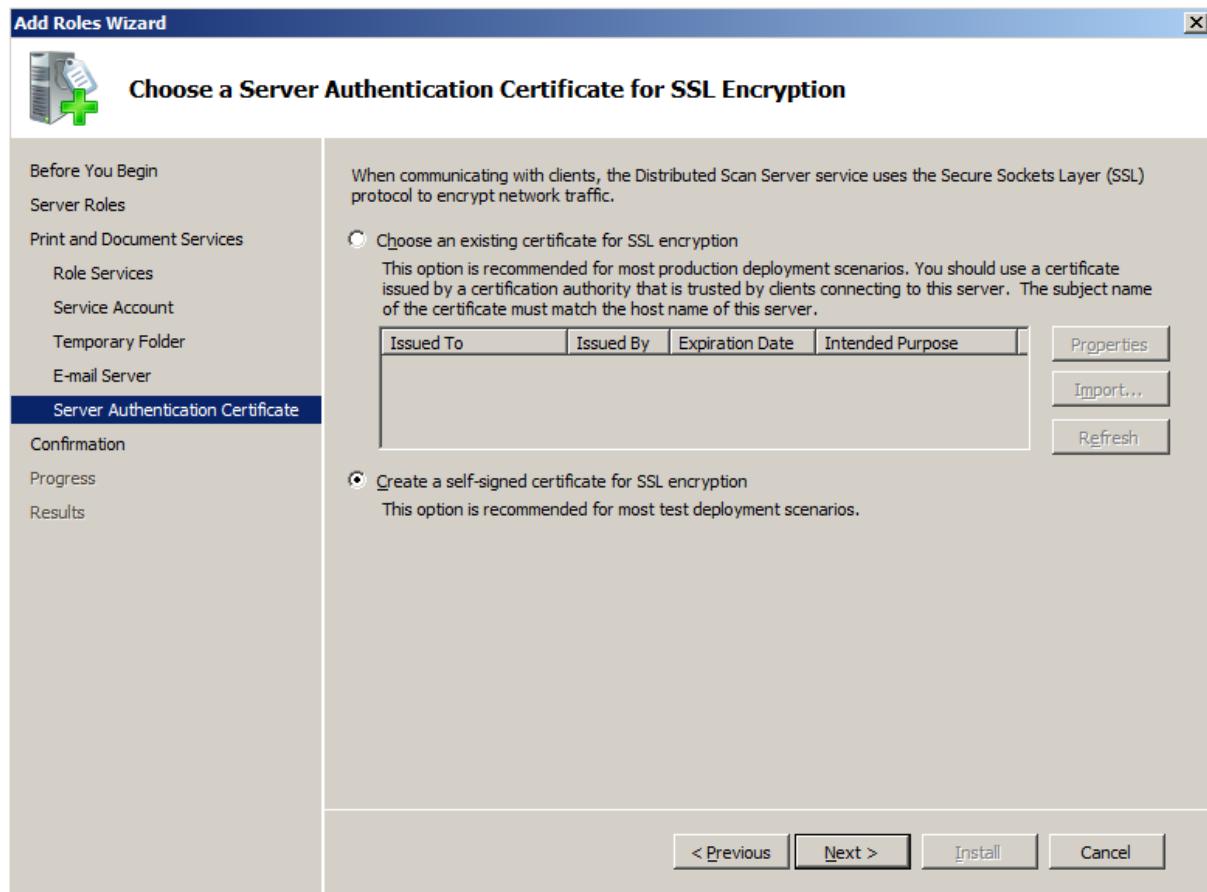
Step 7

The next screen should be left as default. This dictates where the temporary print folder is stored.



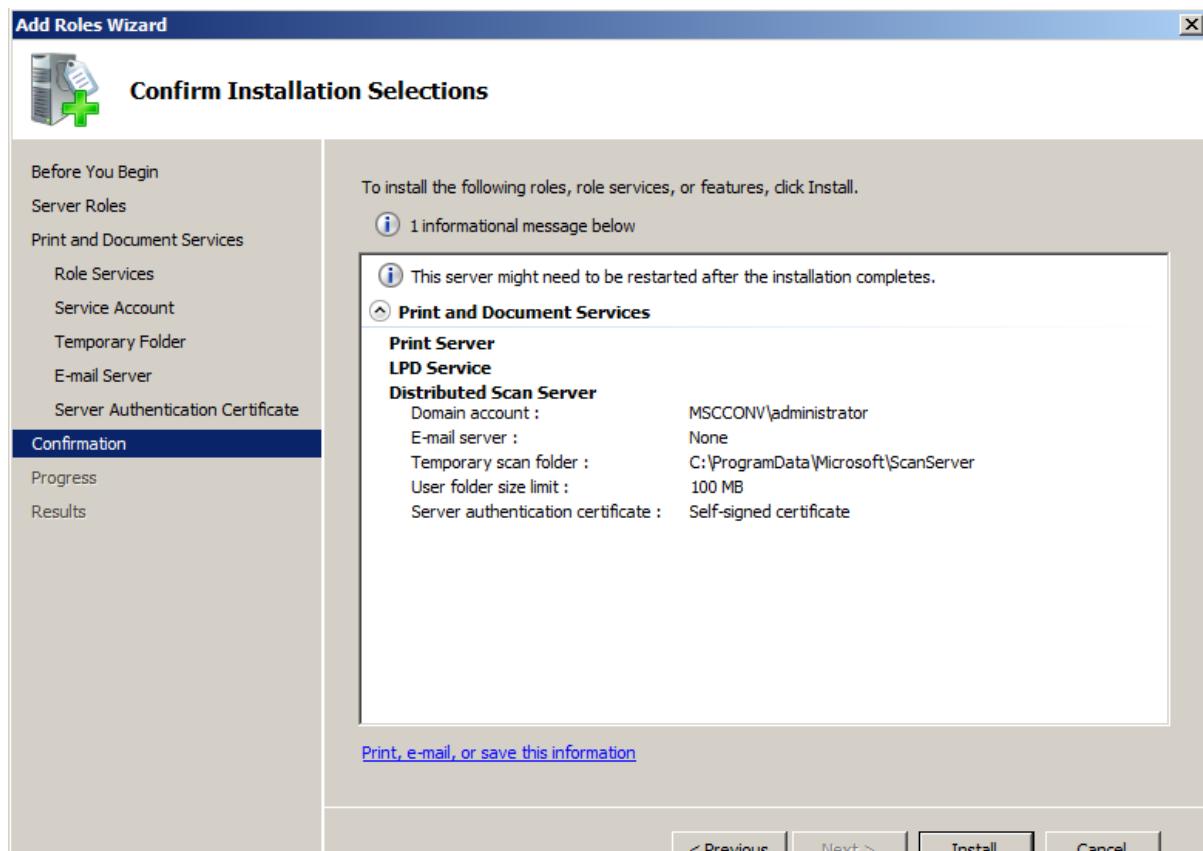
Step 8

As this is for testing purposes, Select, Create a self-signed certificate for SSL encryption. Then, click Next.



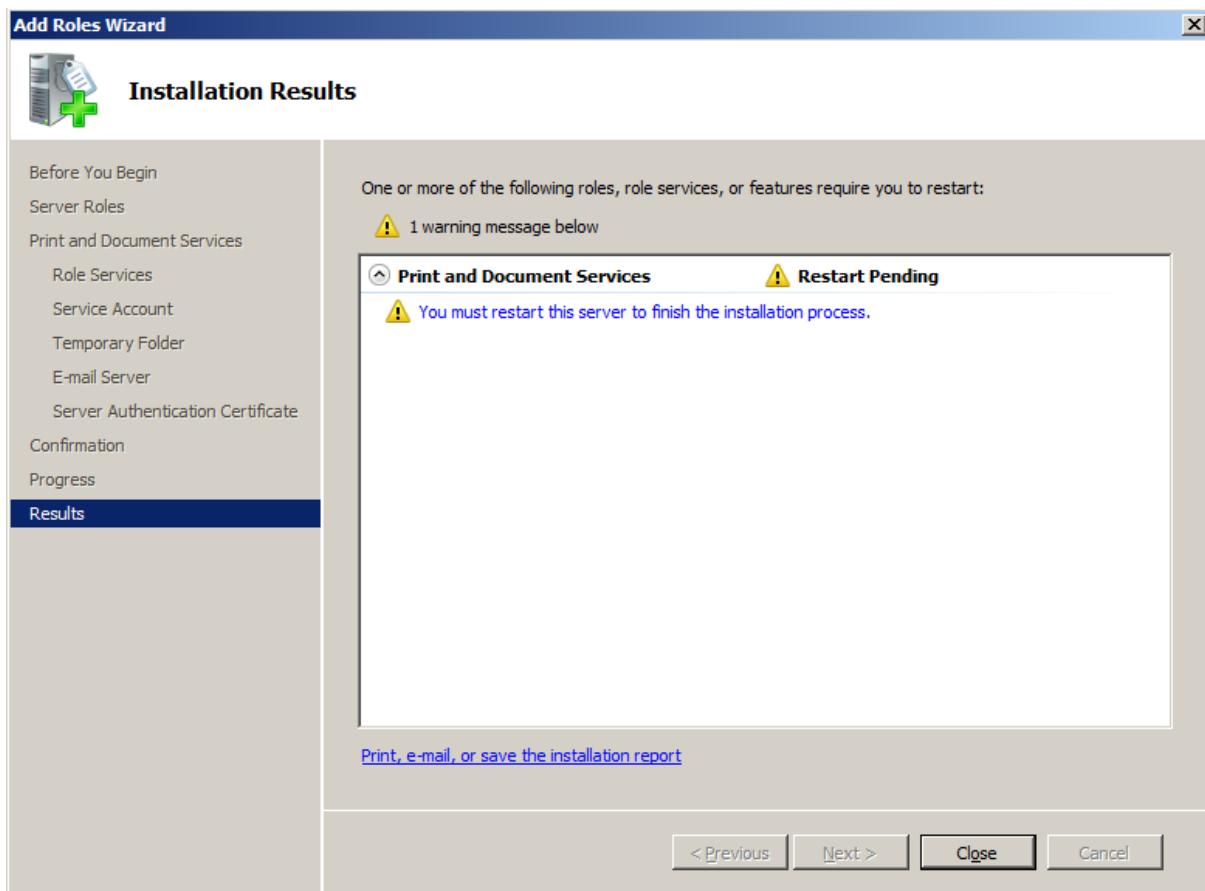
Step 9

The next screen gives you an overview of the settings you are about to install on your server. Once you are happy, simply click Install.



Step 10

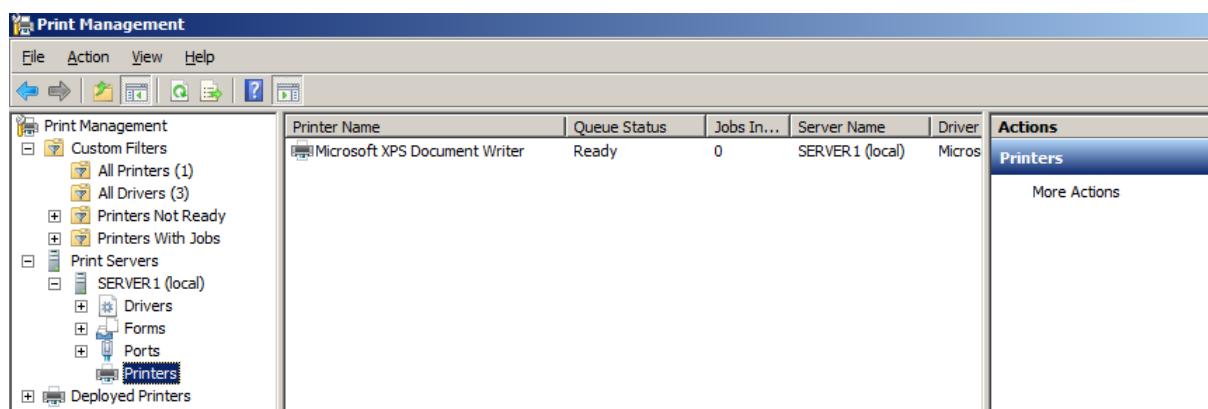
To finish the installation process the server must be restarted when prompted.



Step 11

After the server has restarted, click start, then in Administrator's Tools, click, Print Management.

Once opened expand out Print Servers, then click printers, so it is displayed the same as below.

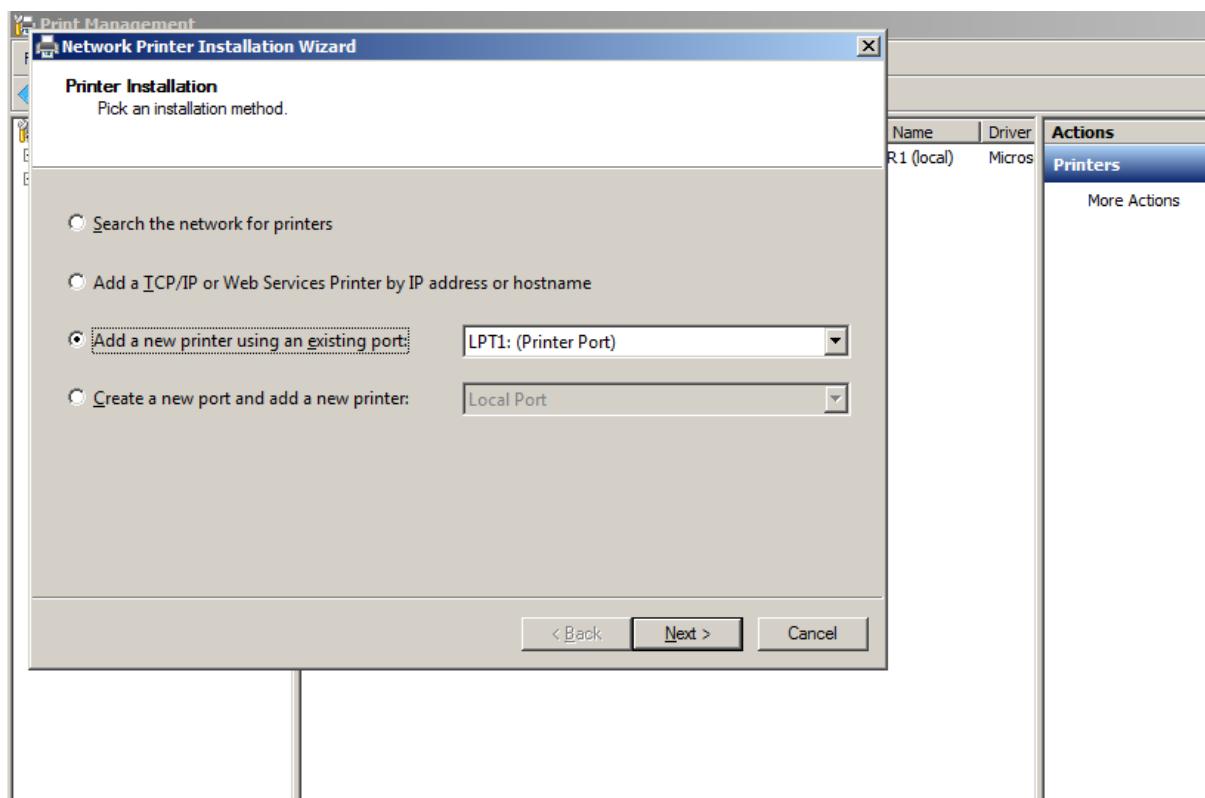


Step 12

Right click on printers, then click install new printer.

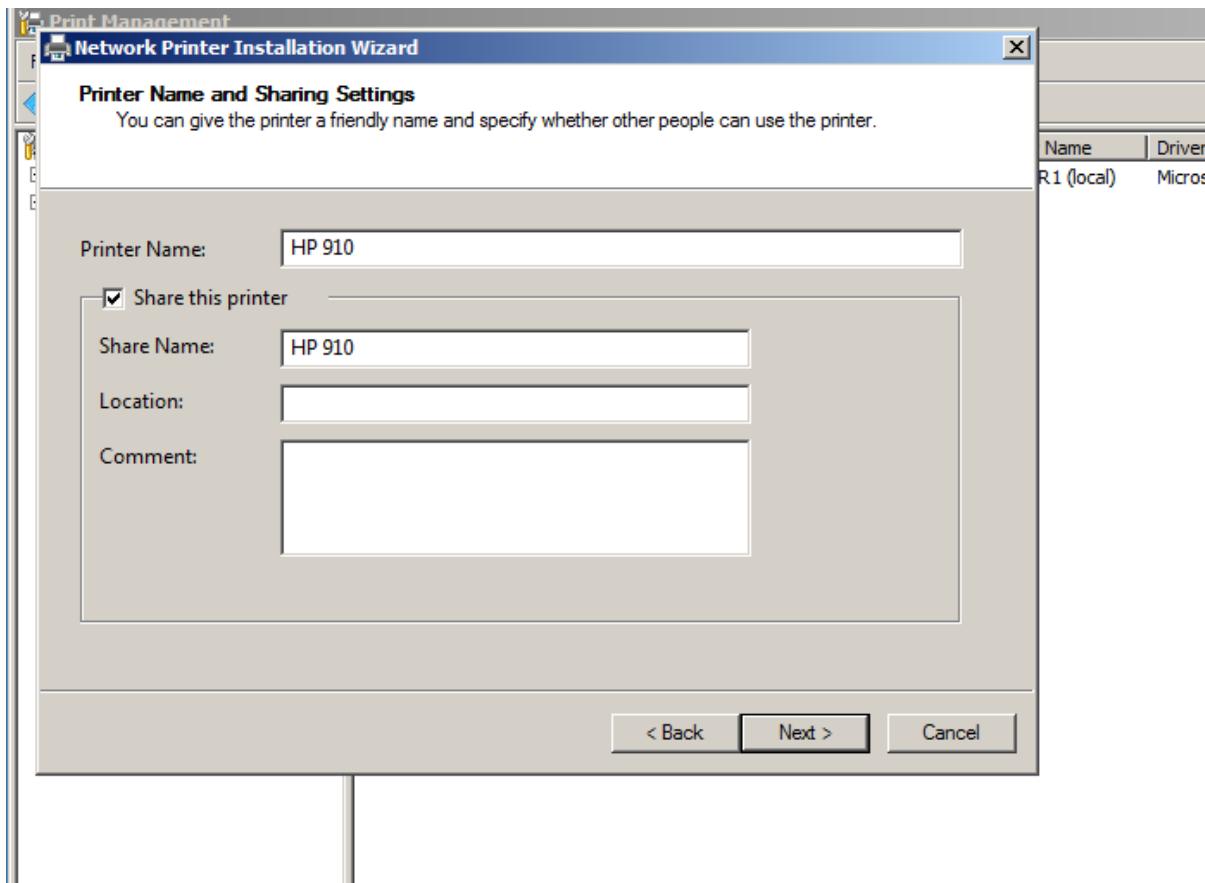
Select "Add a new printer using an existing port: Lpt1: (PrinterPort)"

Then click Next.



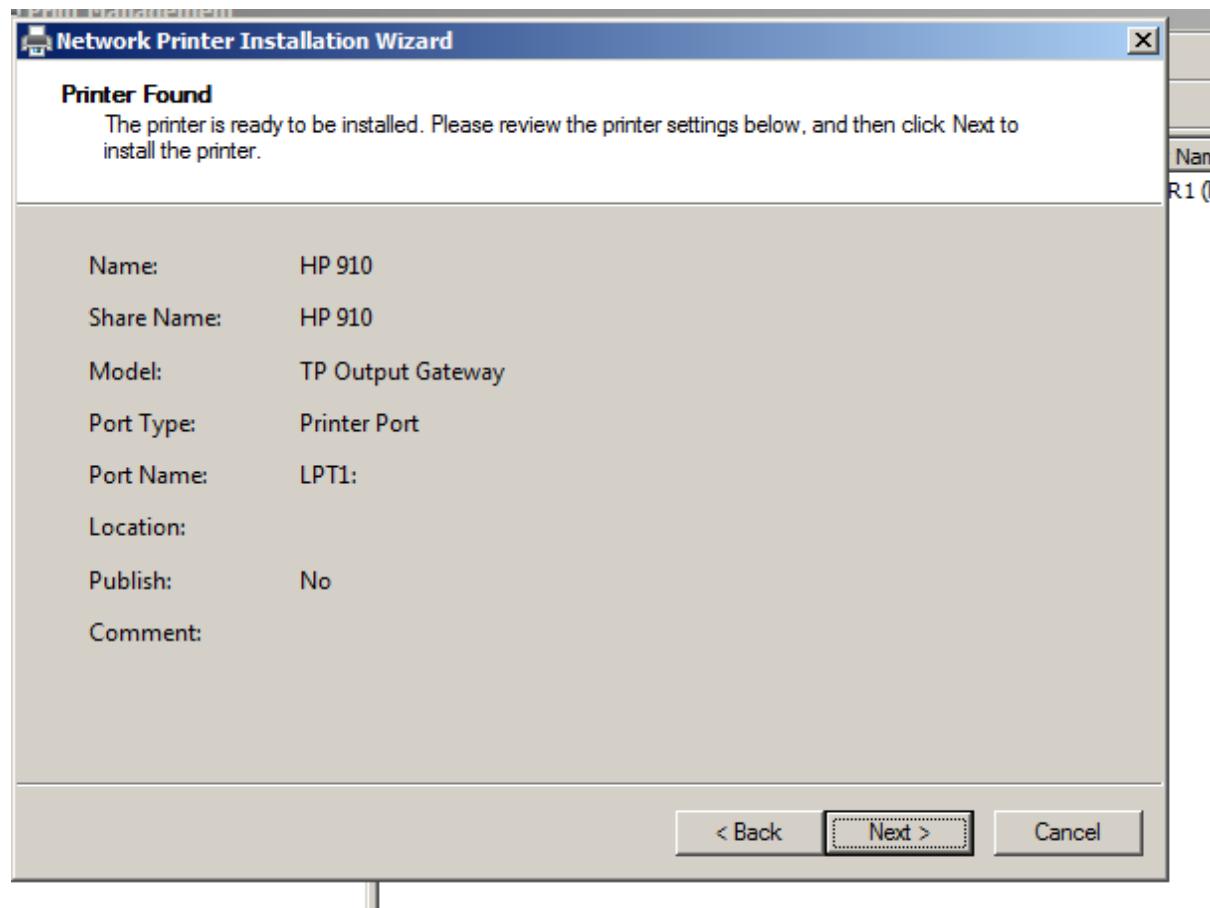
Step 13

In the next window, write down the name of the printer, and, its share name. Then click Next.



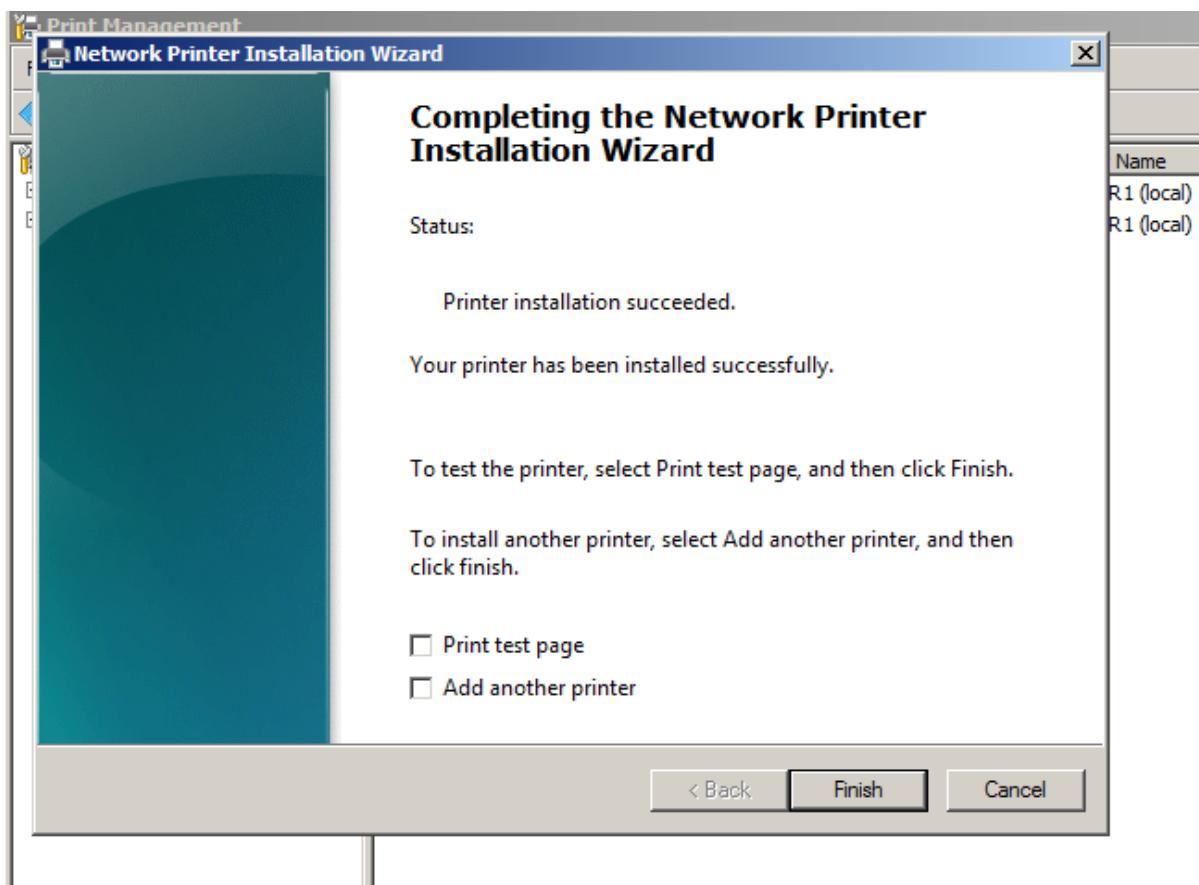
Step 14

Once you are satisfied with the overview click Next.



Step 15

Click Finish to finish the installation.



Step 16

Repeat the same process to create HP915 and Generic/text only. If done correctly it should look the same as the image below.

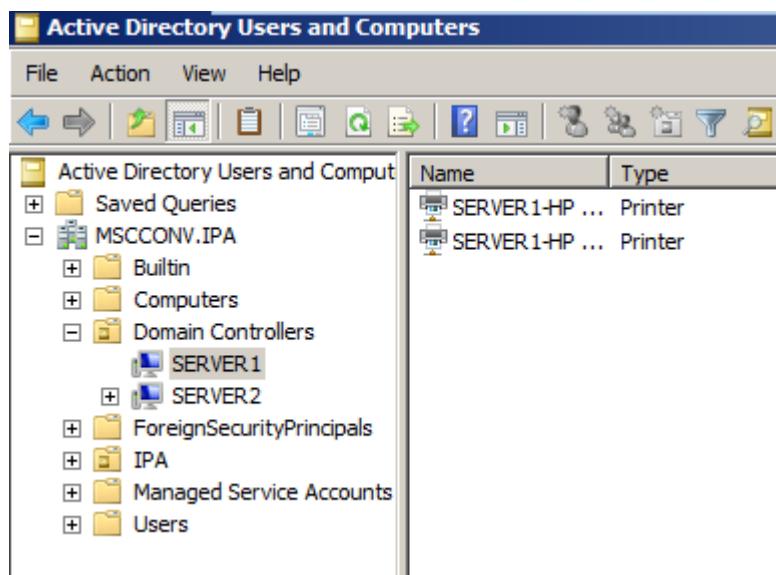
Print Management					
File Action View Help					
Print Management					
Custom Filters Print Servers SERVER1 (local) Drivers Forms Ports Printers Deployed Printers					
Printer Name	Queue Status	Jobs In...	Server Name	Driver	Actions
Generic.text only	Ready	0	SERVER1 (local)	TP Out	Printers
HP 910	Ready	0	SERVER1 (local)	TP Out	
HP 915	Ready	0	SERVER1 (local)	TP Out	
Microsoft XPS Document Writer	Ready	0	SERVER1 (local)	Micros	

Step 17

Right click on HP 910 and Hp 915 and click publish to Active Directory.

Then open Active Directory Users and Computers and double click on Server1. There you will see the two printers displayed as below.

Now the printers can be used by any of the Active Directory users inside MSCCONV.IPA domain.

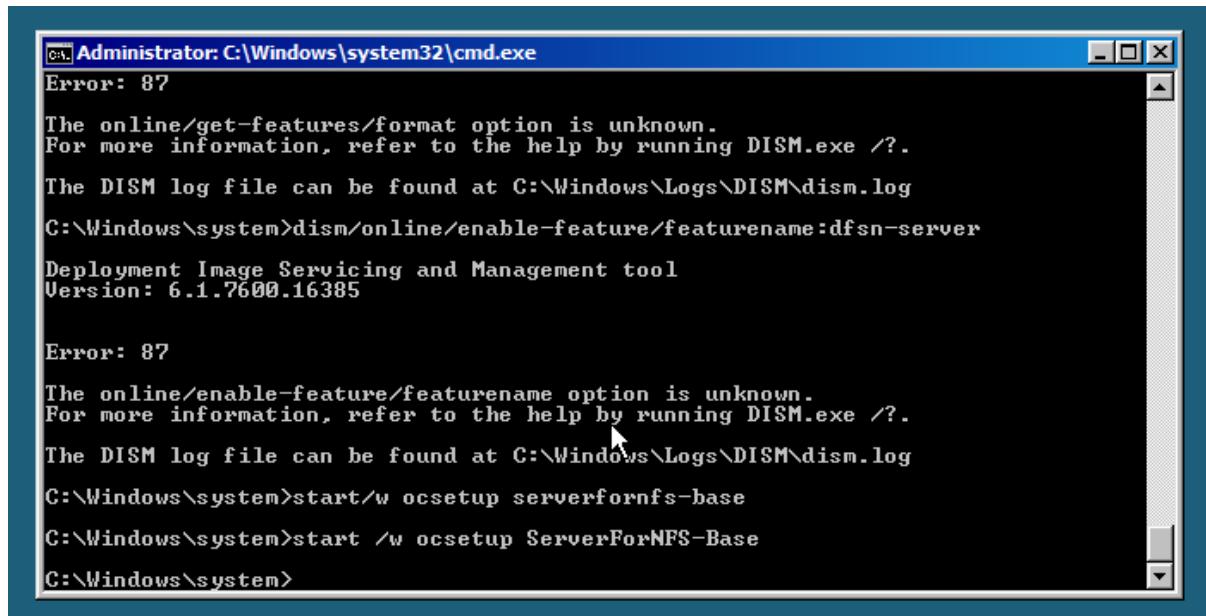


Task G

MS-CORE is to be set up as a file server. Then enable Remote Desktop and access it from Client1.

Step 1

Enter the following commands to install a File Server role MS-CORE and set it up as a file server, “start /w ocsetup ServerForNFS-Base”.



The screenshot shows an Administrator command prompt window titled "Administrator: C:\Windows\system32\cmd.exe". The window contains the following text:

```
Error: 87
The online/get-features/format option is unknown.
For more information, refer to the help by running DISM.exe /?.

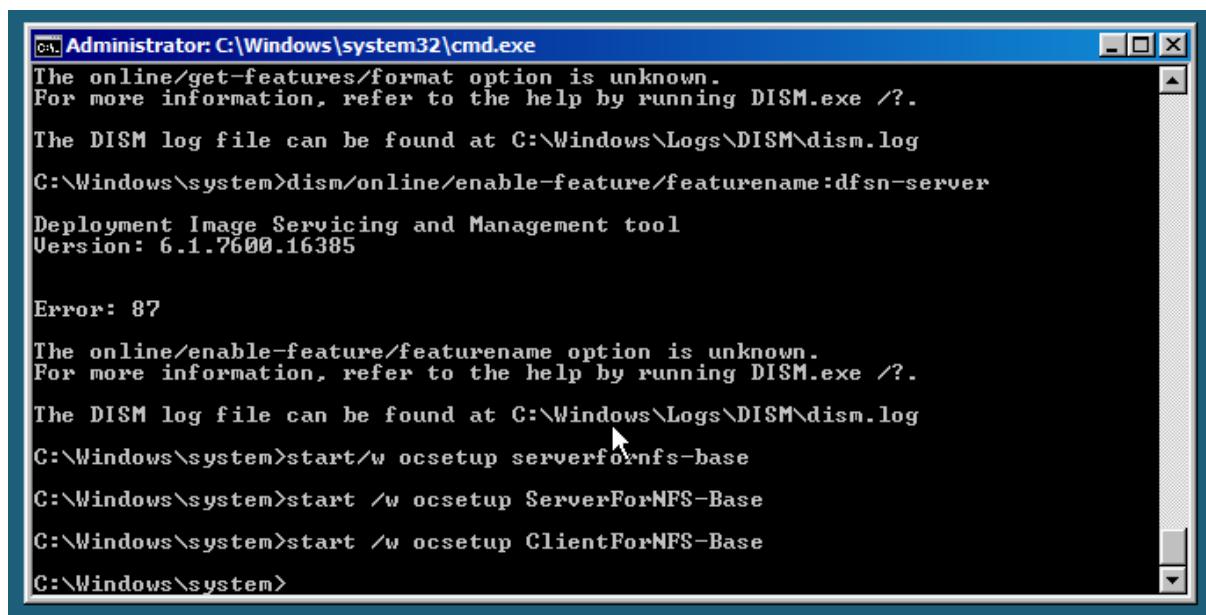
The DISM log file can be found at C:\Windows\Logs\DISM\dism.log

C:\Windows\system>dism/online/enable-feature/featurename:dfsn-server
Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

Error: 87
The online/enable-feature/featurename option is unknown.
For more information, refer to the help by running DISM.exe /?.

The DISM log file can be found at C:\Windows\Logs\DISM\dism.log
C:\Windows\system>start/w ocsetup serverfor nfs-base
C:\Windows\system>start /w ocsetup ServerForNFS-Base
C:\Windows\system>
```

Then enter the following command, “start /w ocsetup ClientForNFS-Base”



The screenshot shows an Administrator command prompt window titled "Administrator: C:\Windows\system32\cmd.exe". The window contains the following text:

```
The online/get-features/format option is unknown.
For more information, refer to the help by running DISM.exe /?.

The DISM log file can be found at C:\Windows\Logs\DISM\dism.log

C:\Windows\system>dism/online/enable-feature/featurename:dfsn-server
Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

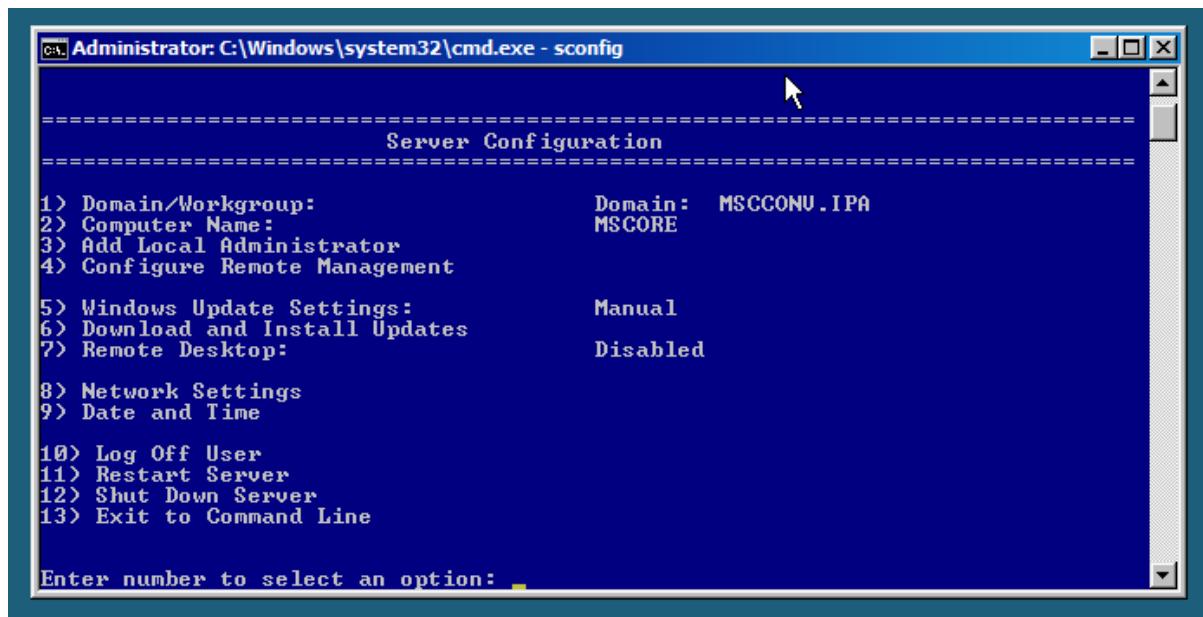
Error: 87
The online/enable-feature/featurename option is unknown.
For more information, refer to the help by running DISM.exe /?.

The DISM log file can be found at C:\Windows\Logs\DISM\dism.log
C:\Windows\system>start/w ocsetup serverfor nfs-base
C:\Windows\system>start /w ocsetup ServerForNFS-Base
C:\Windows\system>start /w ocsetup ClientForNFS-Base
C:\Windows\system>
```

After those commands are entered, MS-Core is now setup as a file server.

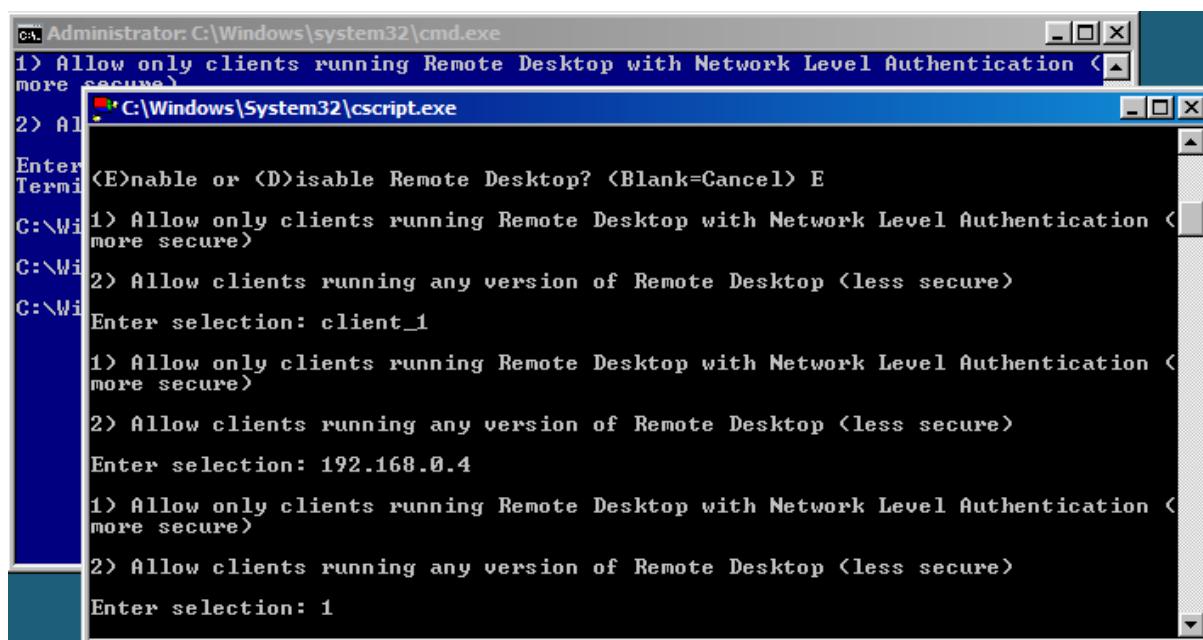
Step 2

Enter “sconfig” on the command line.



Step 3

From the sconfig menu, press "7" then enter, now the Remote Desktop wizard will start.



Choose 1 for security reasons so that only Network Authenticated users can remotely access MS-CORE.

Step 4

C:\Windows\System32\cscript.exe

```
7> Remote Desktop: Disabled
8> Network Settings
9> Date and Time
10> Log Off User
11> Restart Server
12> Shut Down Server
13> Exit to Command Line

Enter number to select an option: 7

<E>nable or <D>isable Remote Desktop? <Blank=Cancel> e

1> Allow only clients running Remote Desktop with Network Level Authentication <
more secure>
2> Allow clients running any version of Remote Desktop <less secure>

Enter selection: 1

Enabling Remote Desktop...
```

Remote Desktop

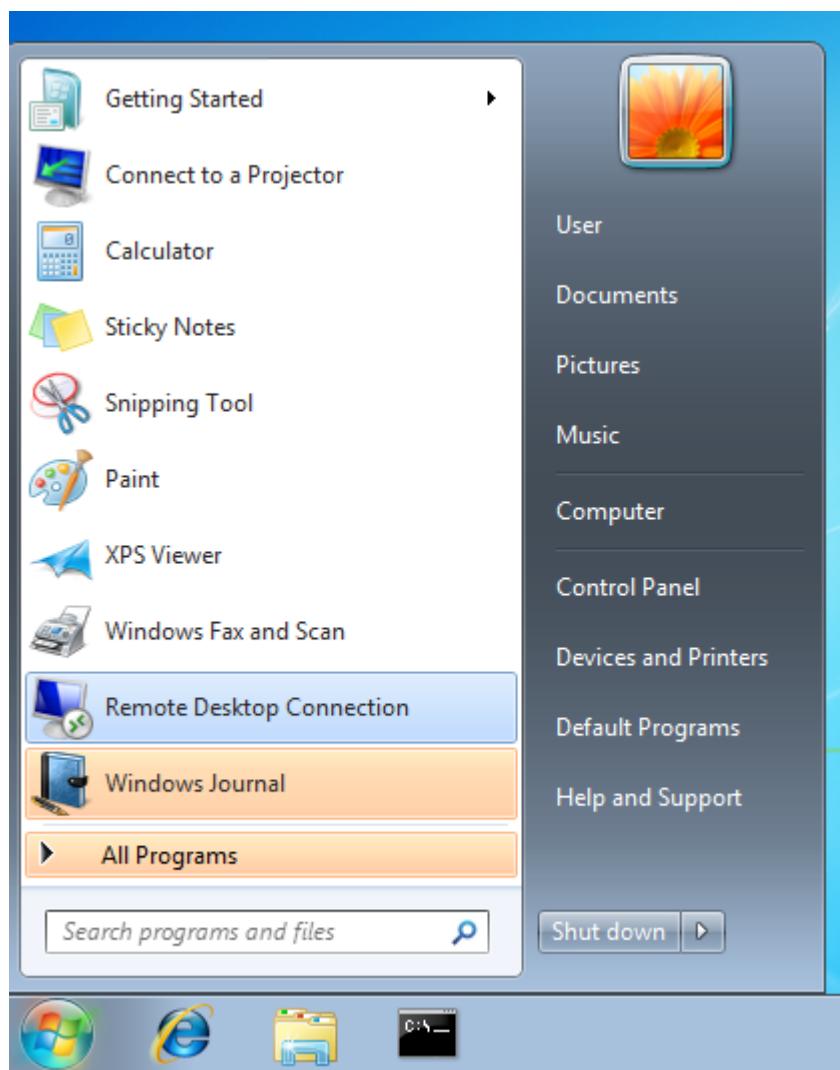
Remote Desktop enabled for clients only running Remote Desktop with Network Level Authentication (more secure).

OK

Now click ok in the pop up box. Remote Desktop has now been enabled on MS-CORE for Network Authenticated users.

Step 5

On Client1 open the Remote Desktop Connection wizard. It may be pinned to start up, similar to below, or will be in “All Programs”.



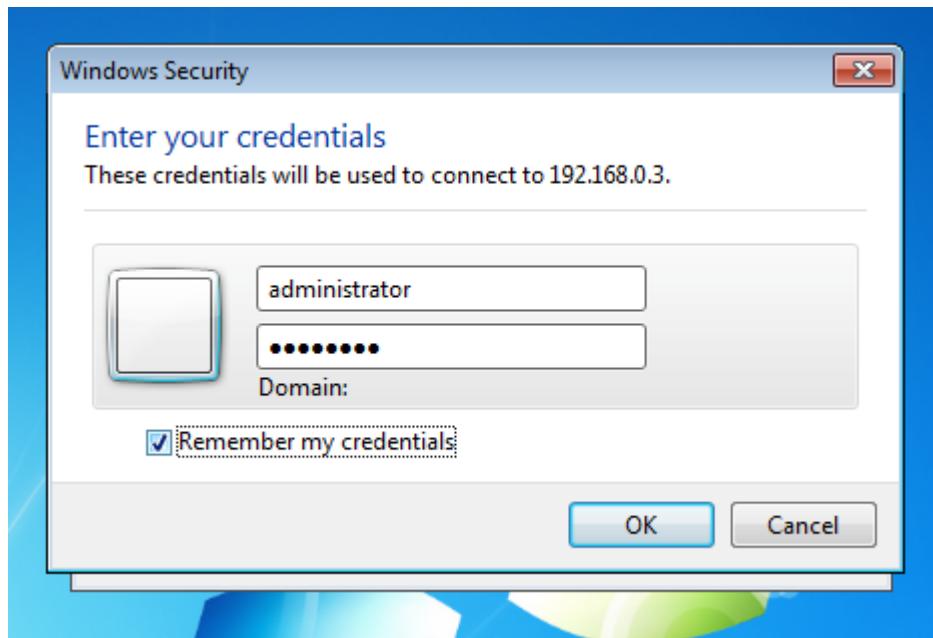
Step 6

Enter the IP address of MS-CORE, when the wizard starts. This is displayed below.



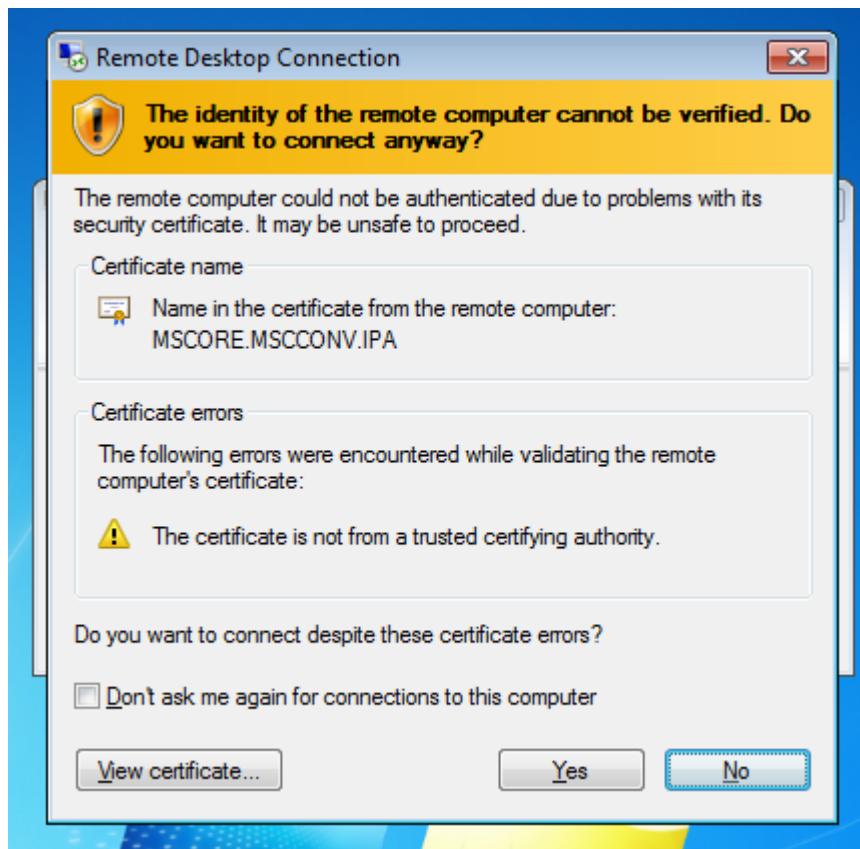
Step 7

When prompted enter the domain Administrator's username and Password. For the assignment it is Administrator and Pa\$\$w0rd.



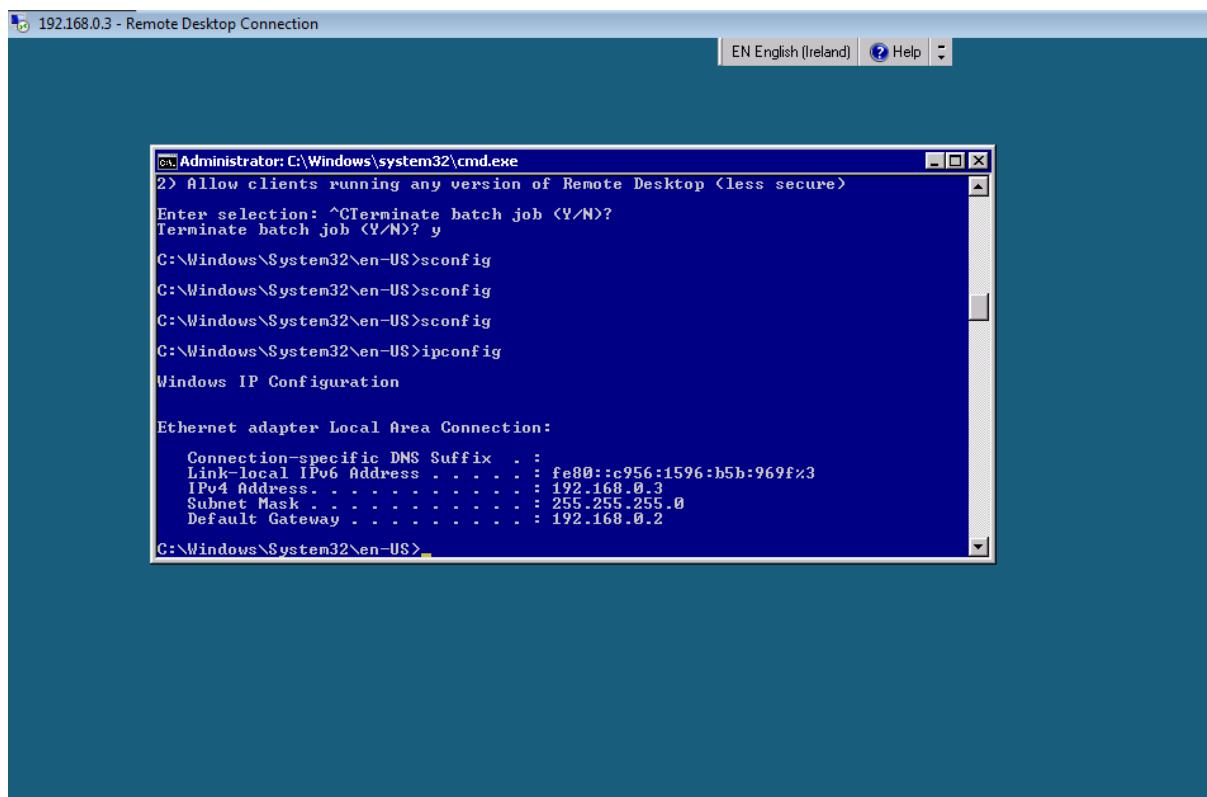
Step 8

Click yes to the following warning to continue connecting with MS-CORE.



Step 9

The following screen will now appear on Client1.



If MS-CORE was previously logged in before the Remote Desktop Connection, it will automatically be logged out as displayed below.

EN

Press CTRL + ALT + DELETE to log on



 Windows Server 2008 R2
Enterprise

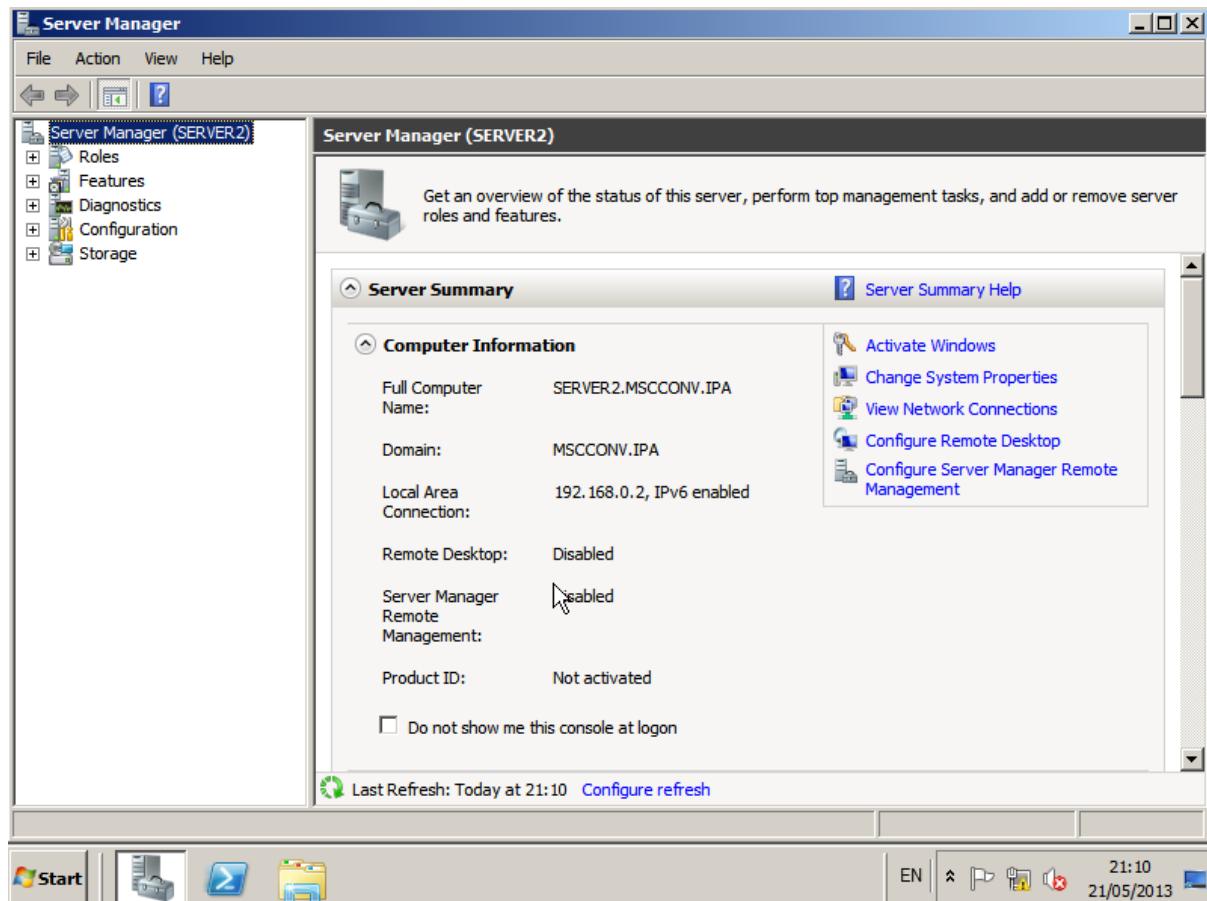
Task H

Install DHCP on Server2 with a scope of 192.168.0.100 to 192.168.0.150, default subnet mask and appropriate DNS address(192.168.0.1). Client1 should obtain its address and TCP/IP settings from the DHCP.

Then disable the DHCP services to prove that Client1 will receive an APIPA address. Windows supports a feature which is called Automatic Private IP Addressing(APIPA) that automatically assigns an IP address to the system when the client cannot obtain an IP address automatically.

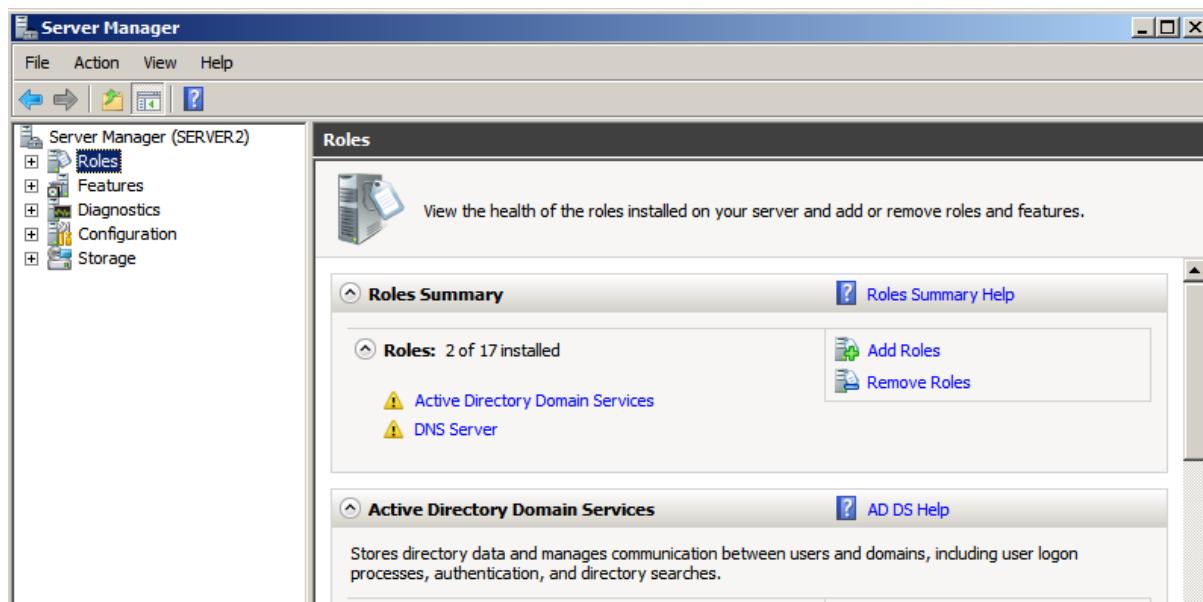
Step 1

Open Server Manager. Then click on Roles.



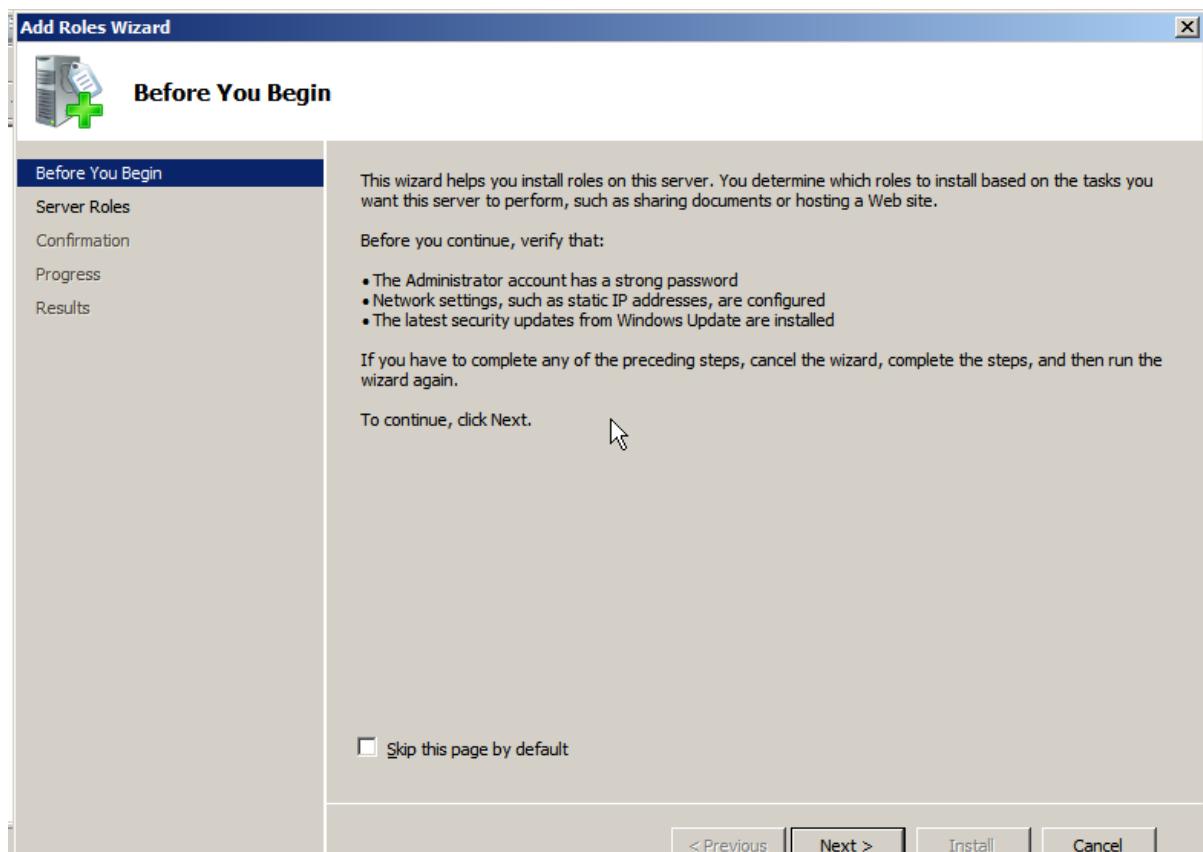
Step 2

Under Roles summary click Add Roles.



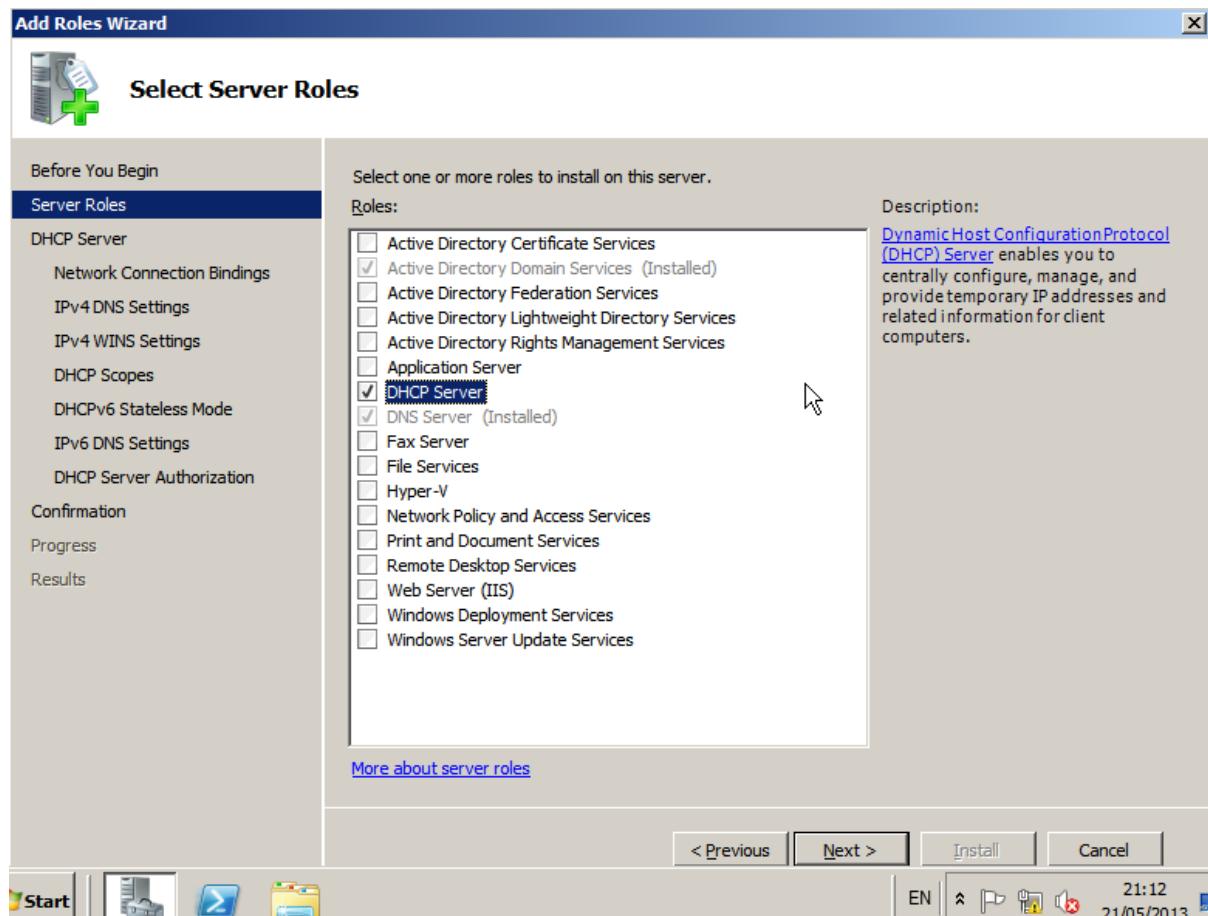
Step 3

Click Next to move onto the next step.



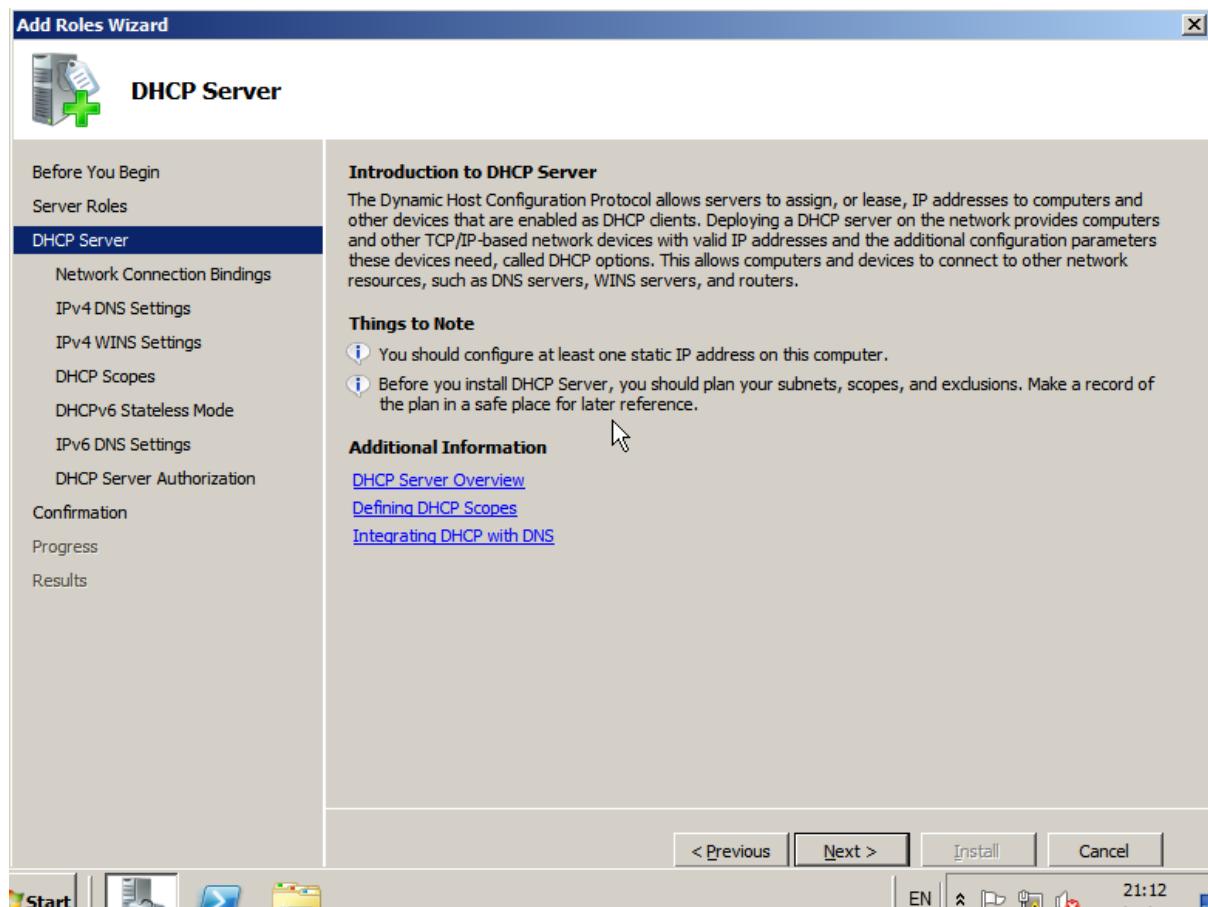
Step 4

From the Roles, select DHCP, then click Next.



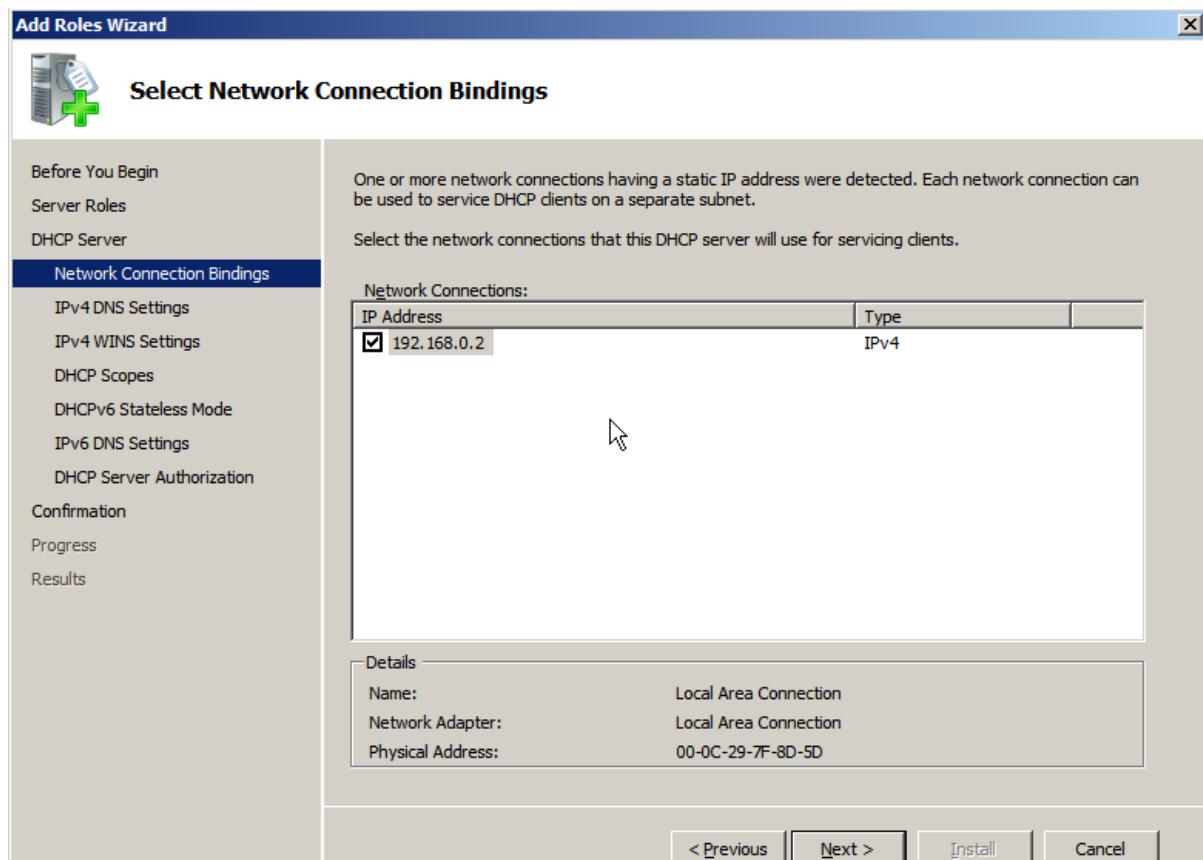
Step 5

The next screen gives you an overview of what DHCP does. Click Next to move to the next step.



Step 6

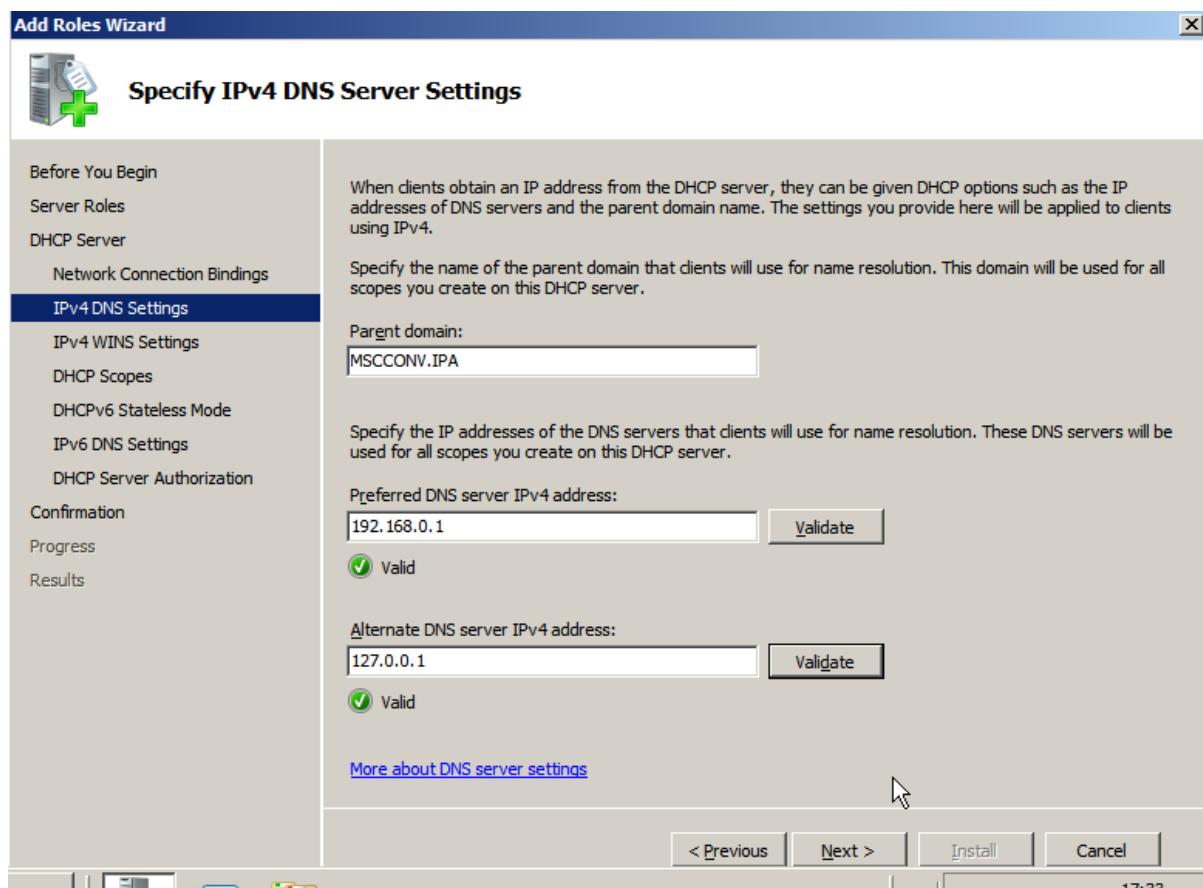
Select the address of the server you are installing DHCP from the menu, which is displayed below. Then click Next.



Step 7

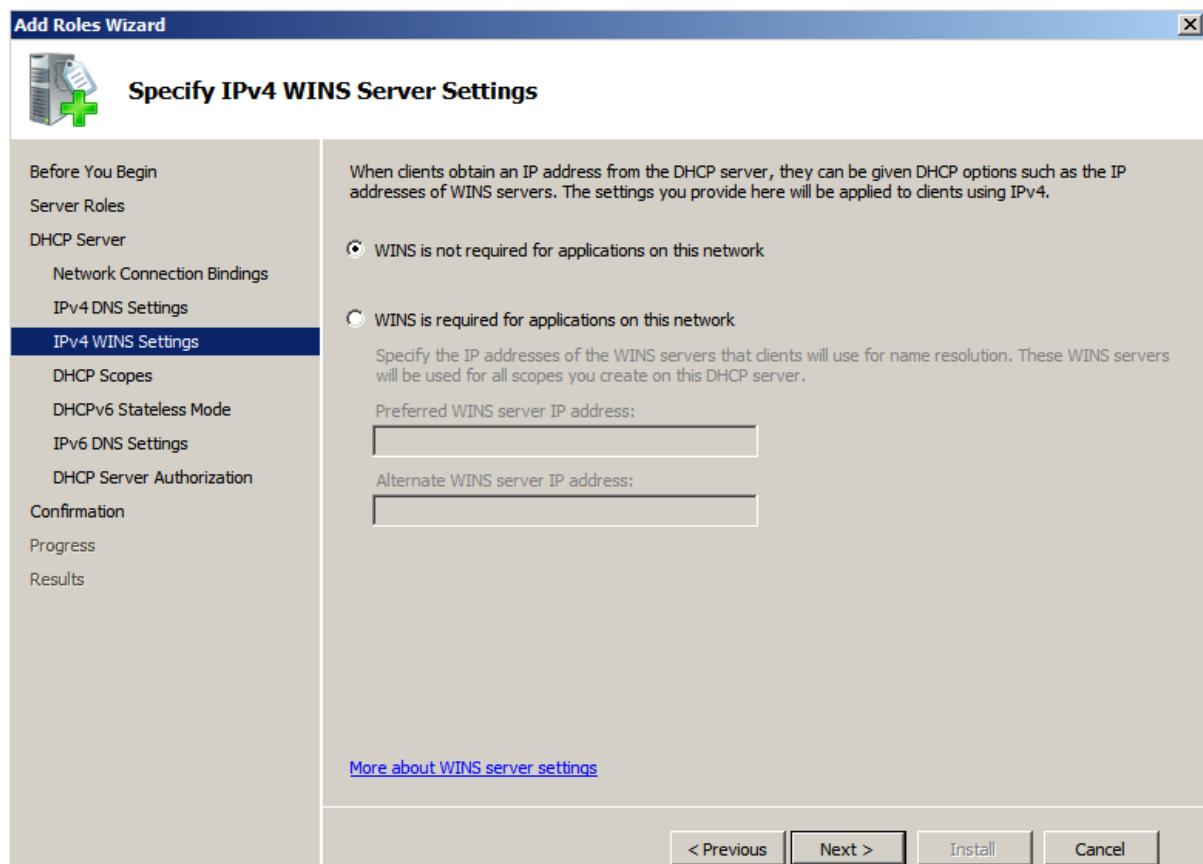
Enter the name of the parent domain, which for the purposes of the assignment is MSCCONV.IPA.

Then enter the address of the DNS server, which in this case is Server1. Then click Next.



Step 8

Leave this screen as Default as this is not needed for our network.



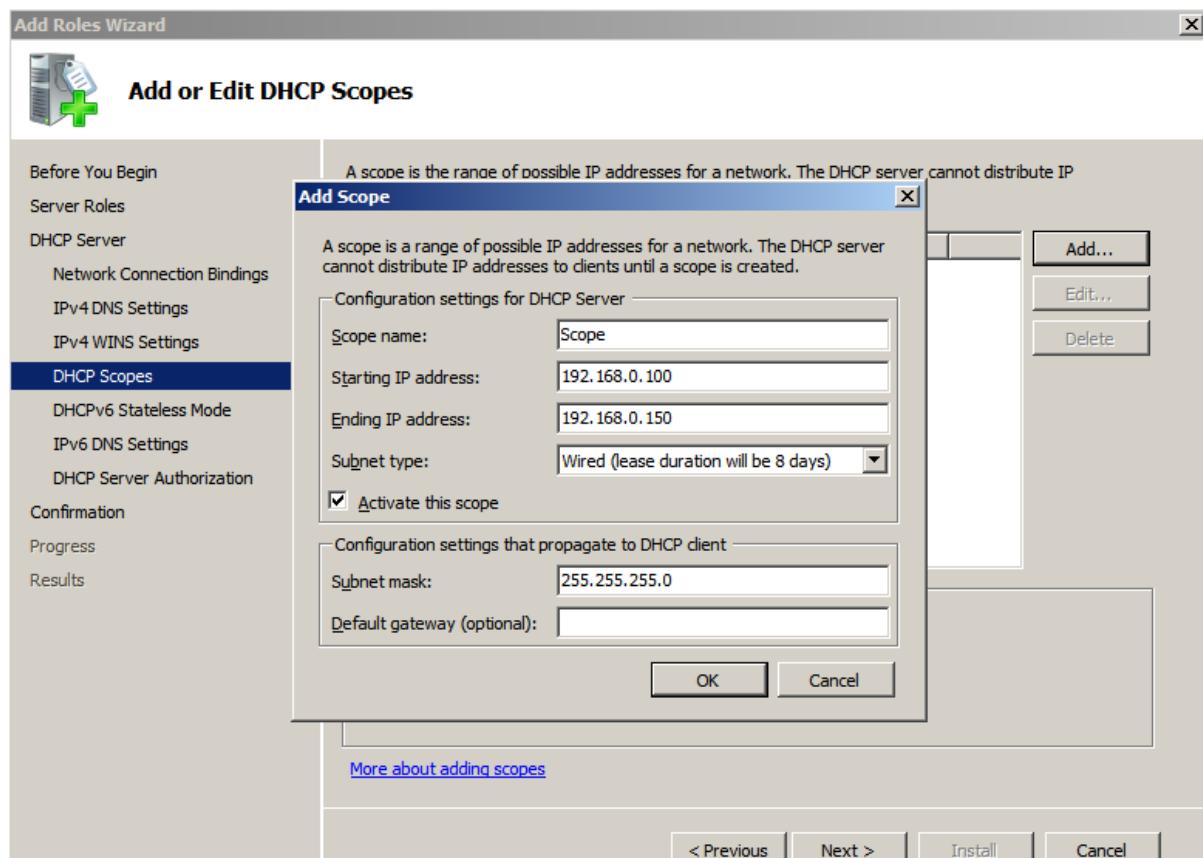
Step 9

In the next screen click Add, to add scope.

In the starting IP addresses enter: 192.168.0.100

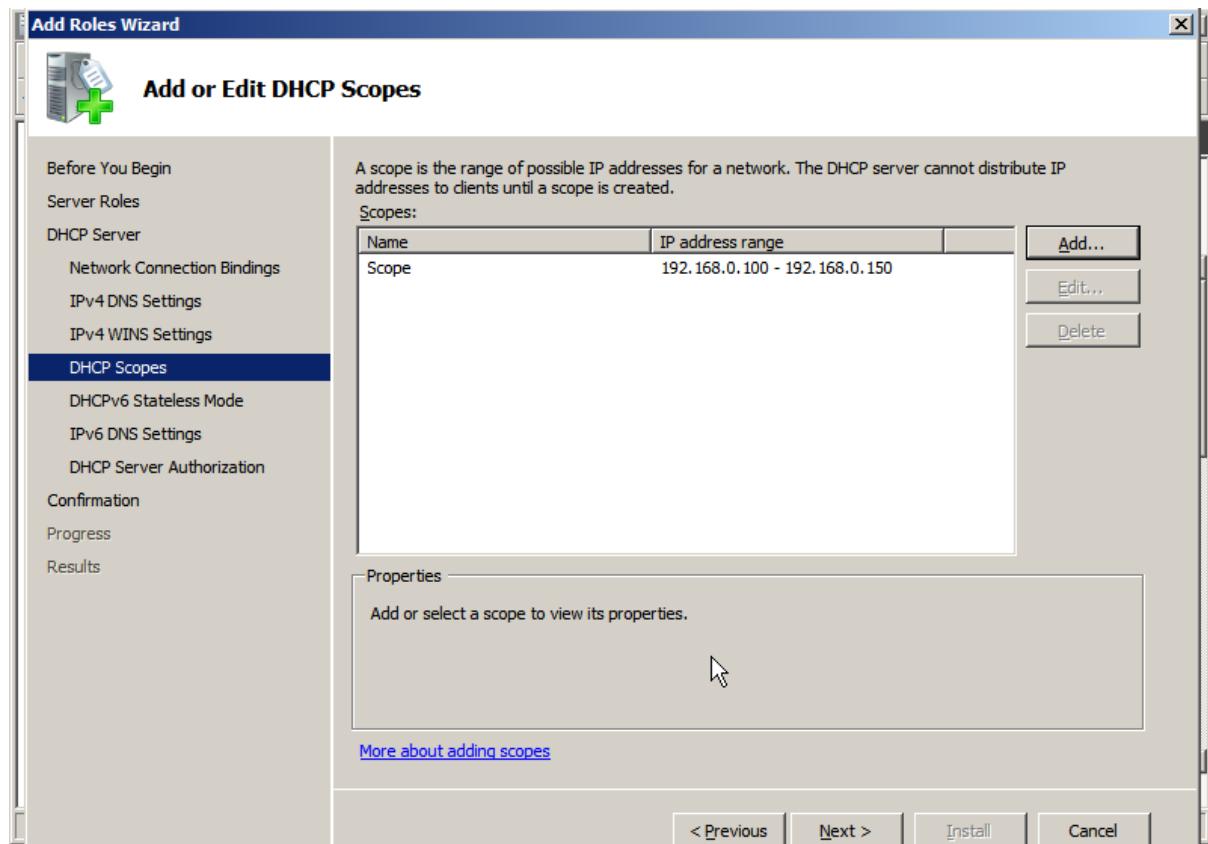
In the ending IP addresses enter: 192.168.0.150

Then for the subnet mask enter default 255.255.255.0.



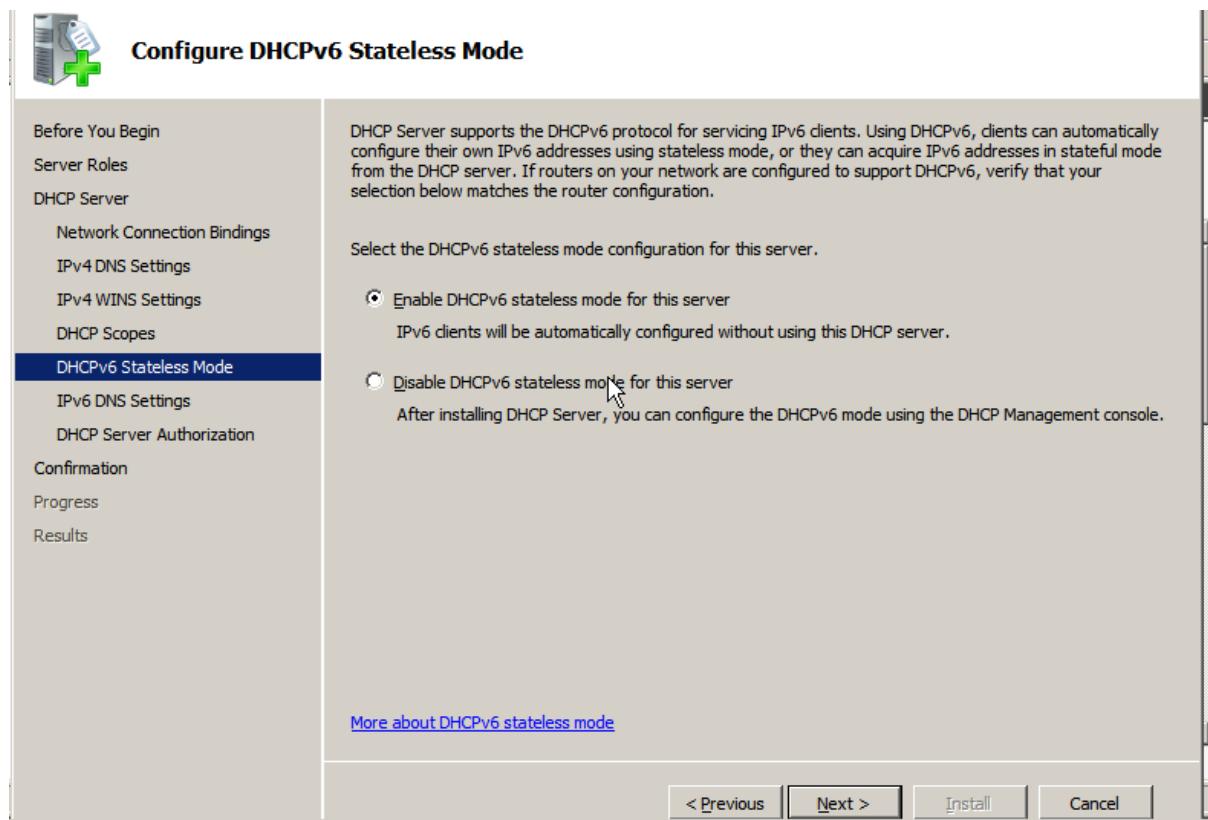
Step 10

After creating scope, if done correctly it should look similar as below.



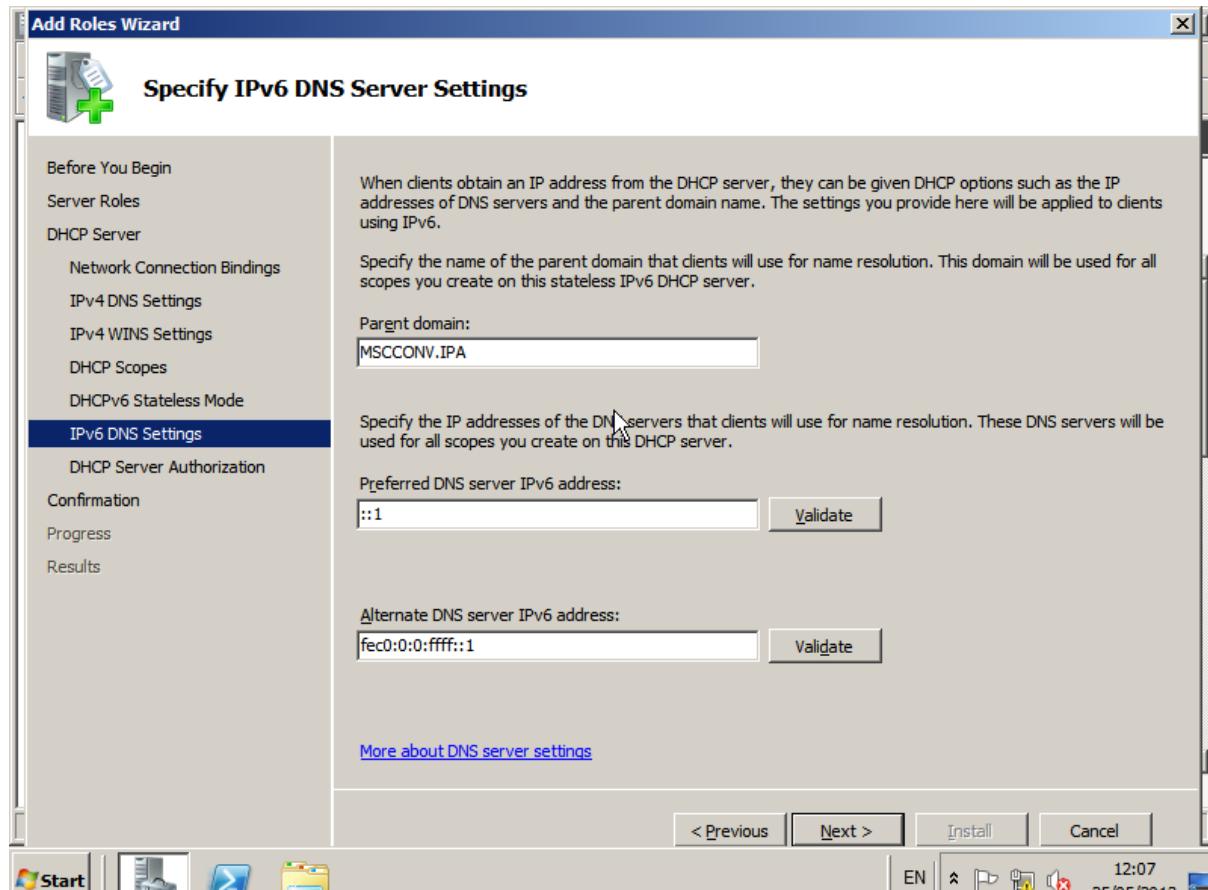
Step 11

Check to enable DHCPv6, then click Next.



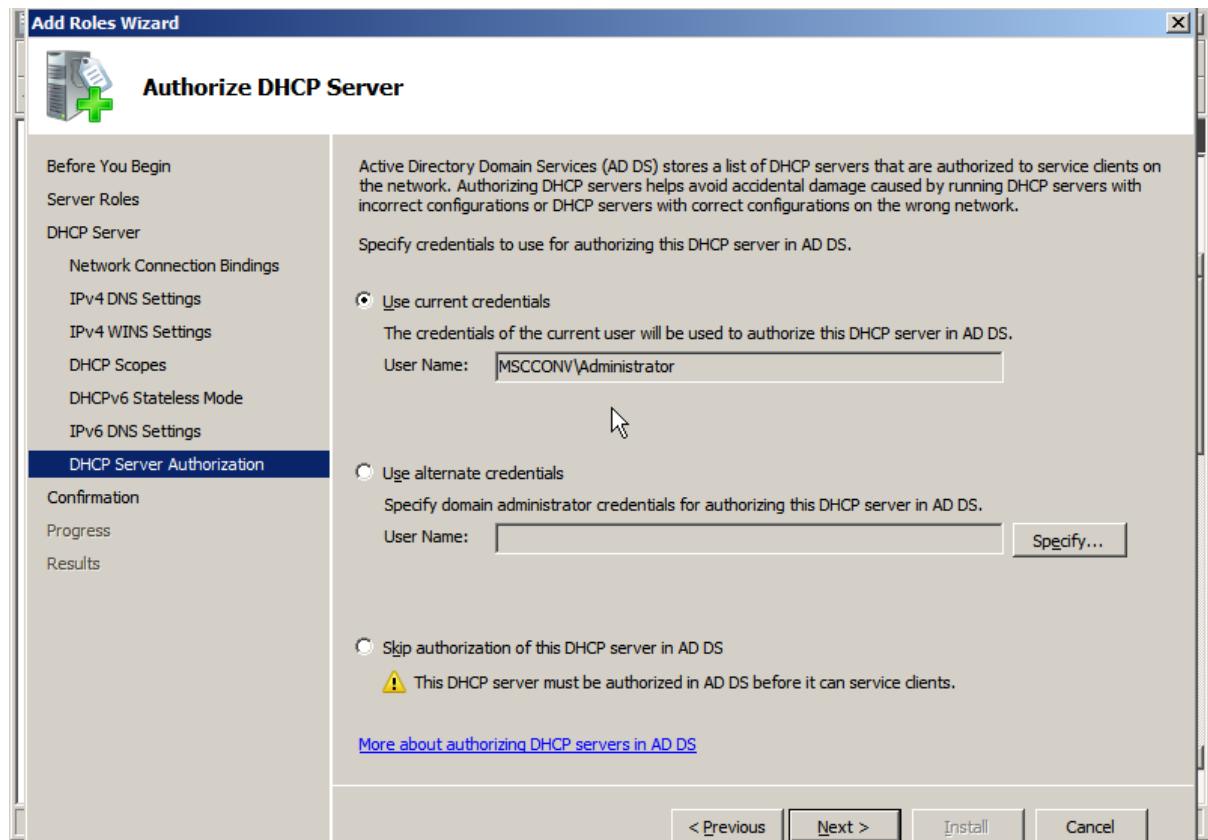
Step 12

In the next window, check the settings before they are applied to make sure you are satisfied. Then, click, Next.



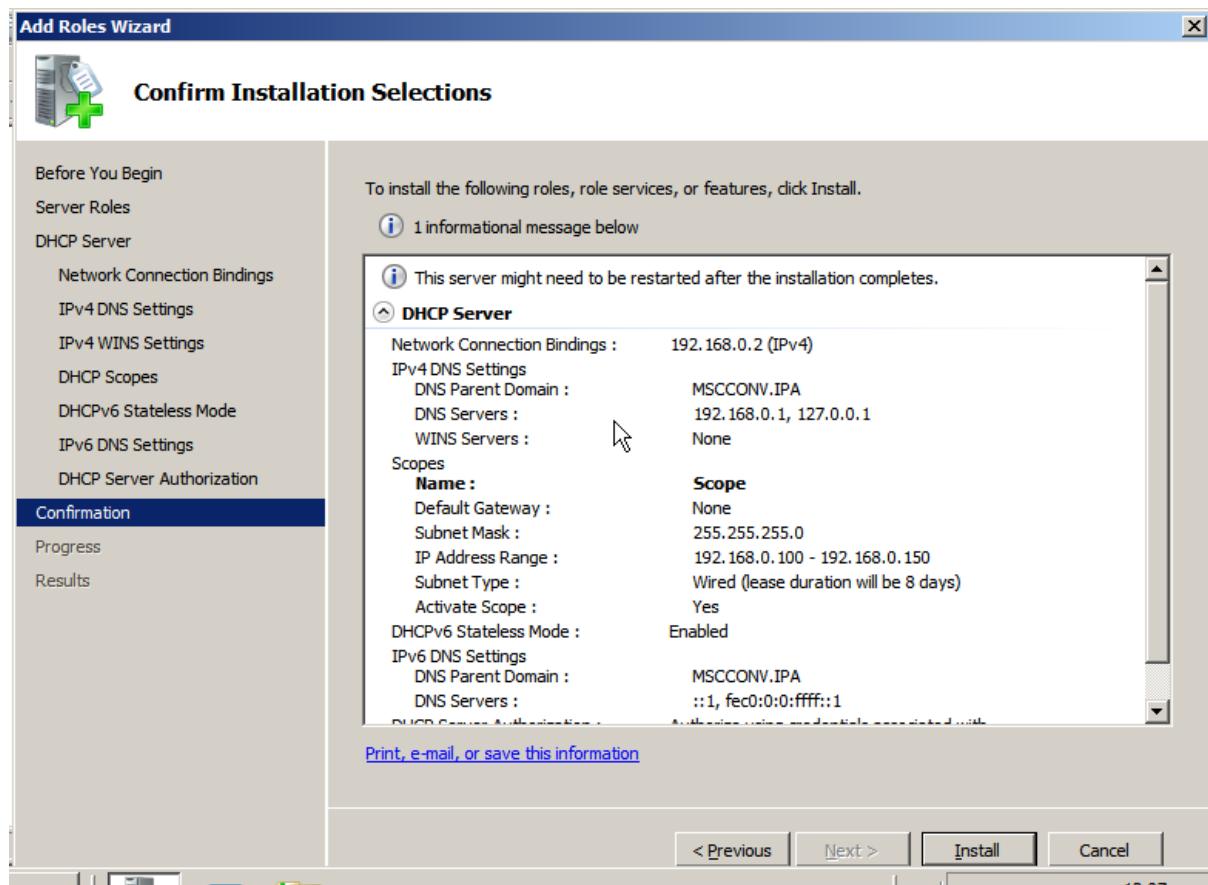
Step 13

Select “Use current credentials” then click next to move to the next step.



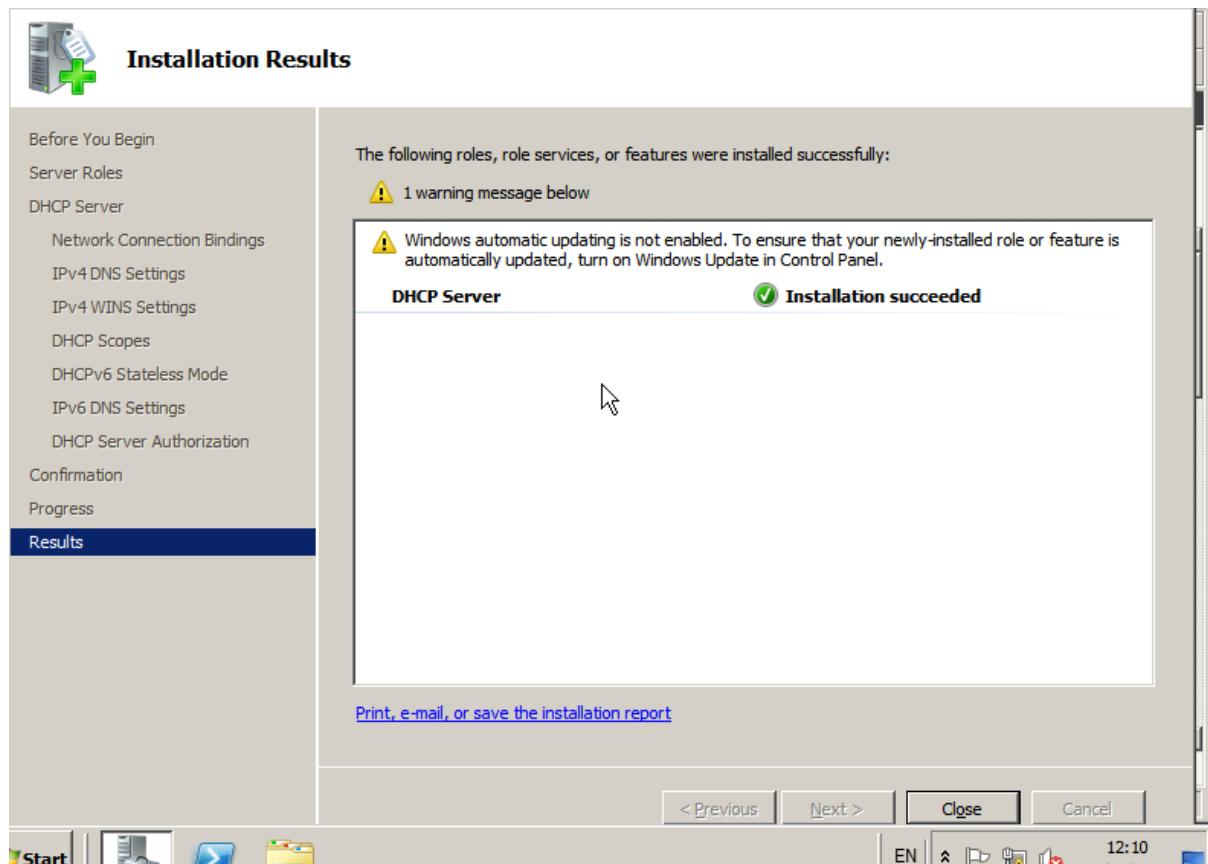
Step 14

Check over the details to make sure everything is correct before installation. Once you are satisfied, click Next.



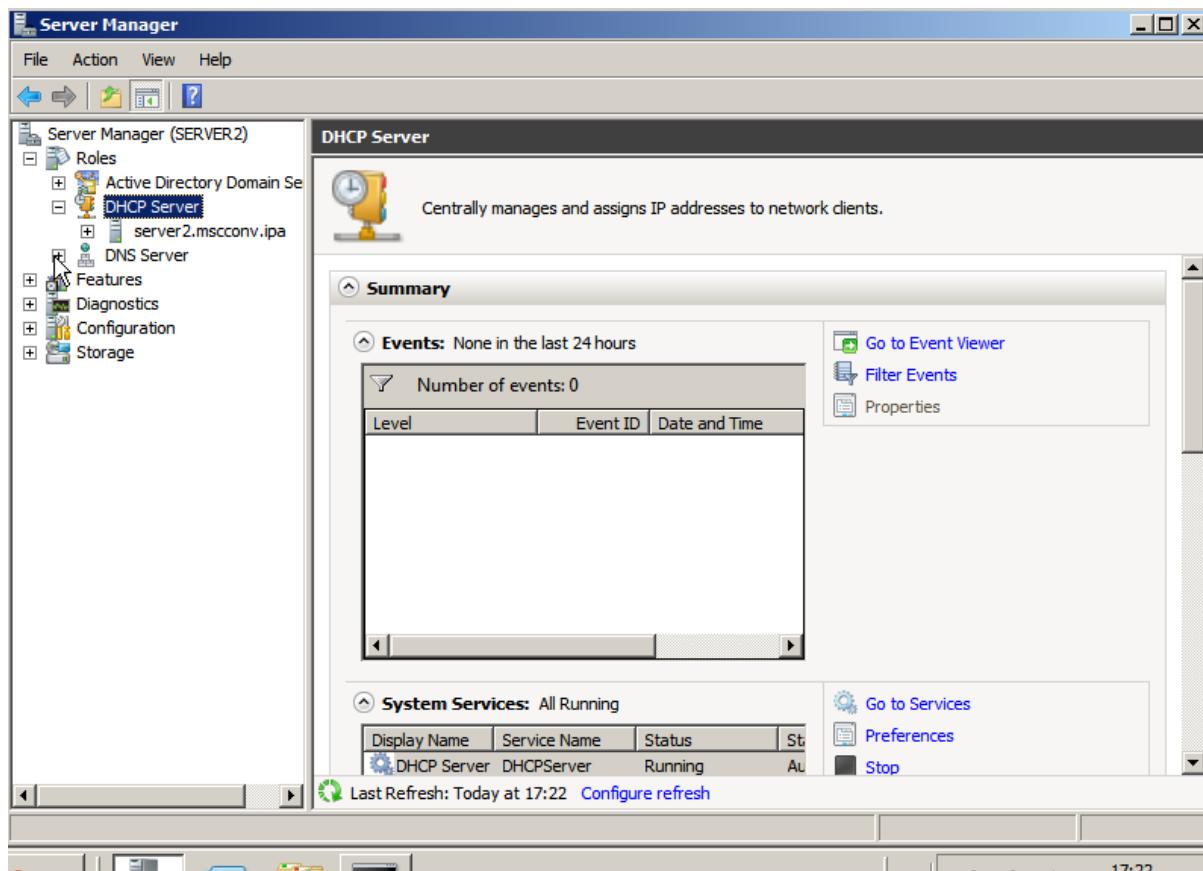
Step 15

When the DHCP role has been installed the screen will be displayed as below.



Step 16

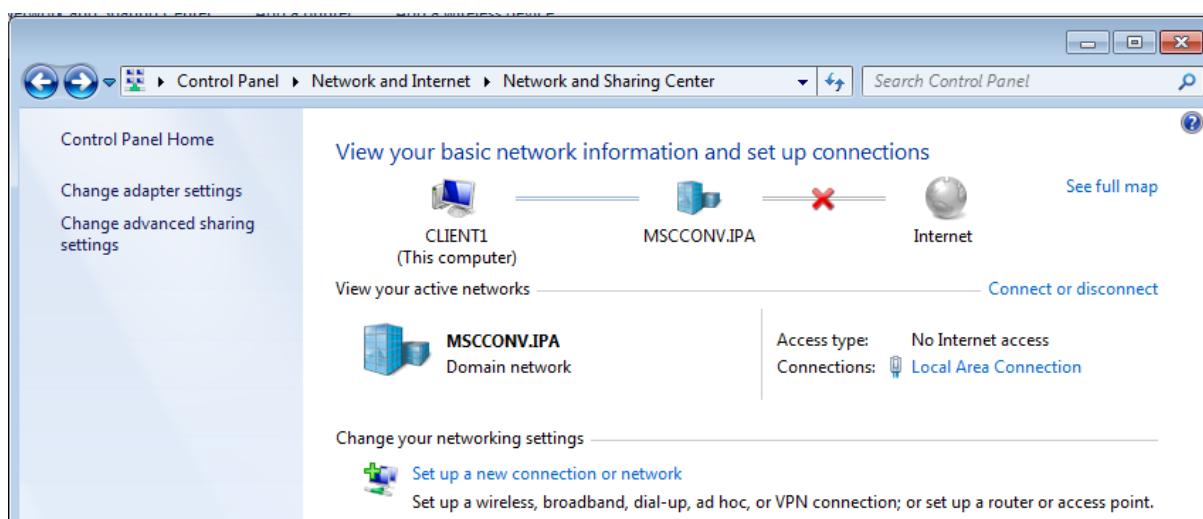
Now in Server Manager, DHCP role will appear like below.



Step 17

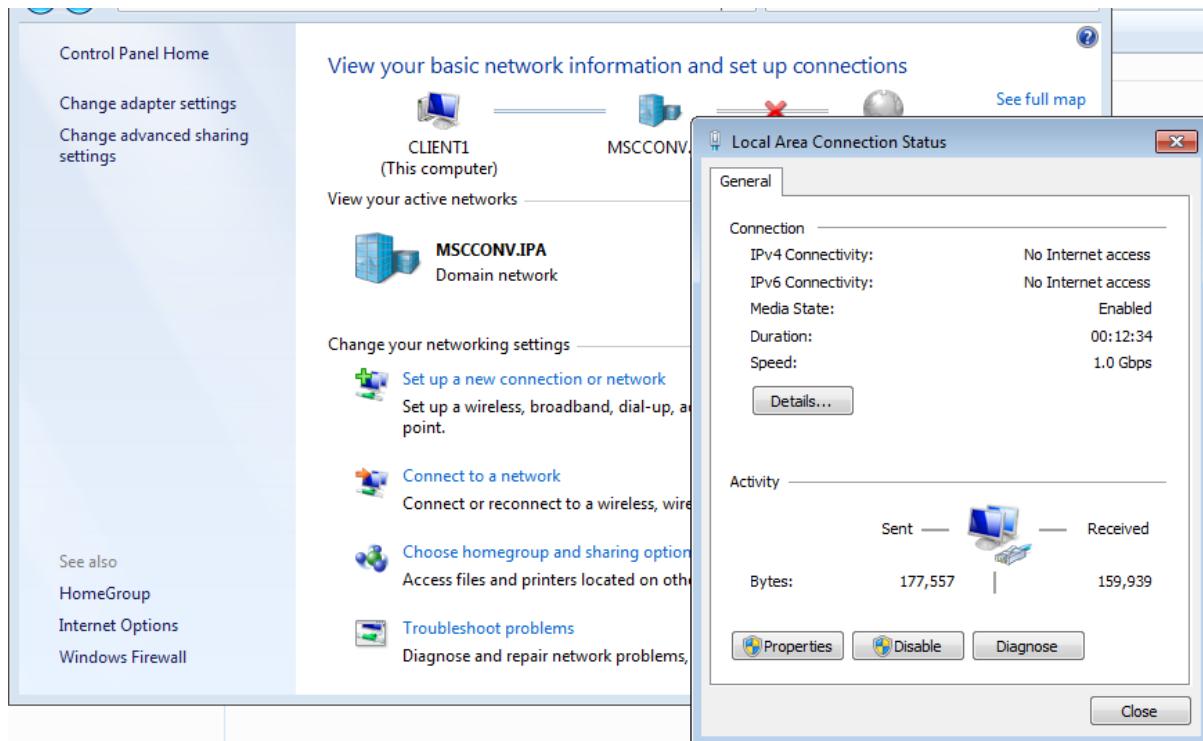
In client1, open the Network and Sharing Center.

Then click on Local Area Connection.



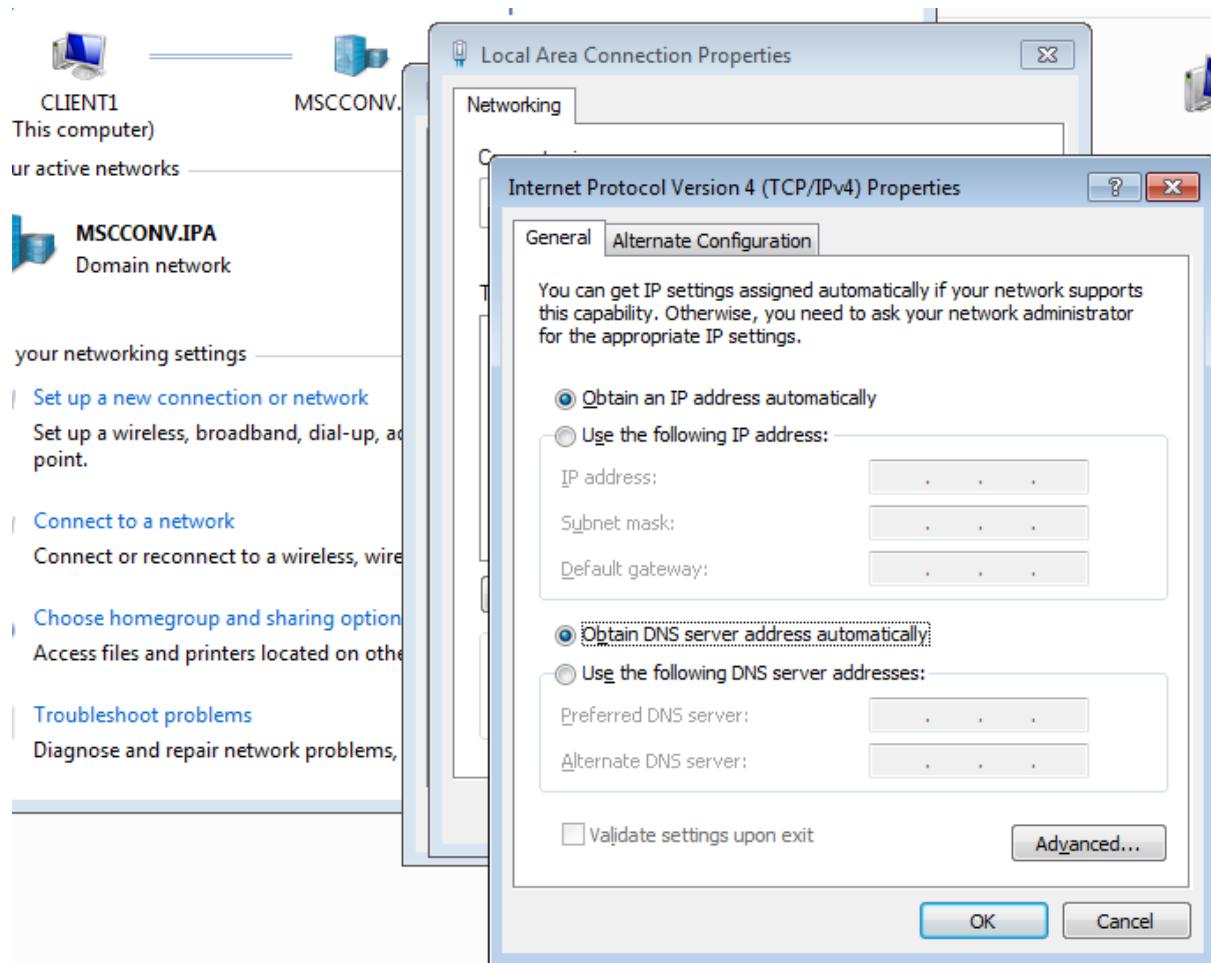
Step 18

In the Local Area Connection Status menu, click Properties.



Step 19

Change the network settings to Obtain both IP and DNS settings automatically. This will ensure that Client1 is no longer statically assigned and take its settings from the DHCP settings on Server2.



Step 20

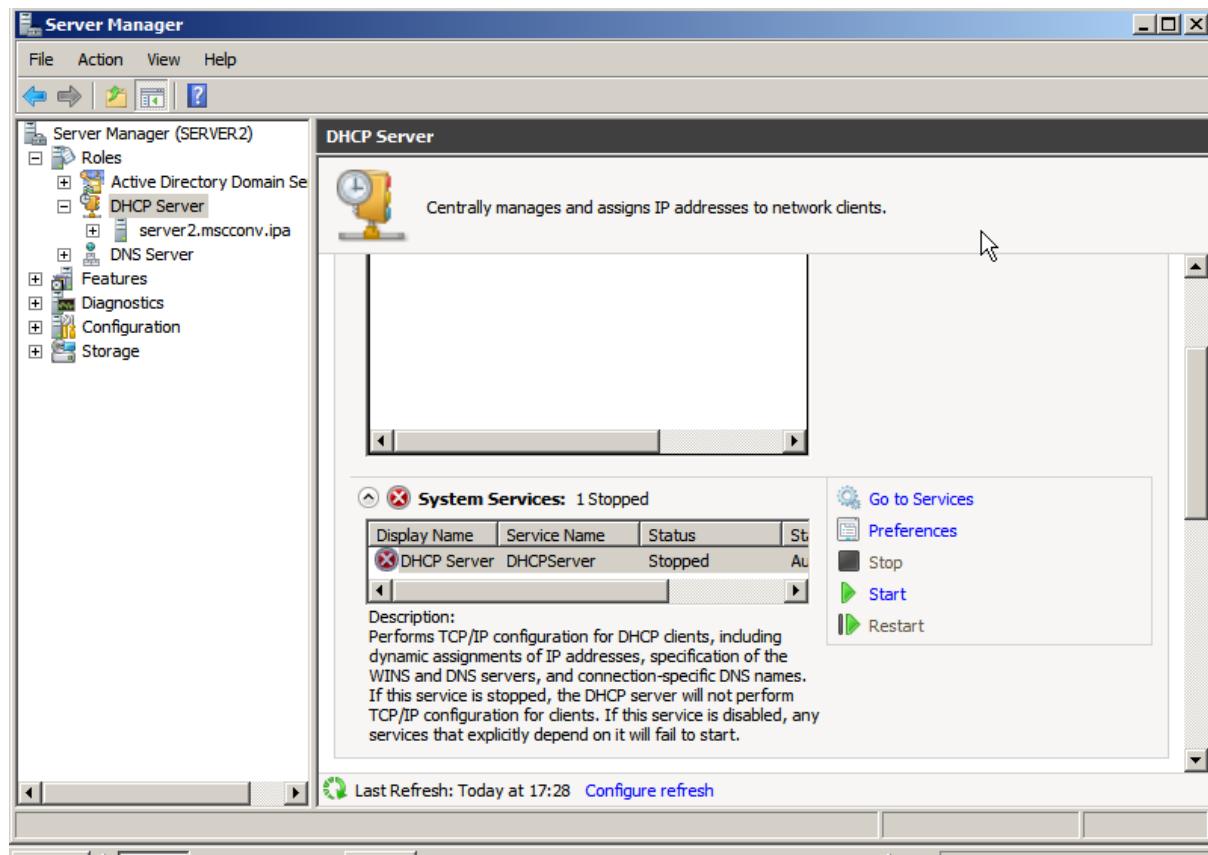
Open the Command Prompt(still on Client1), the run ipconfig /all.

As displayed below the IP address has now changed to that of the DHCP settings on Server2.

```
Command Prompt  
C:\Users\User>ipconfig /all  
Windows IP Configuration  
Host Name . . . . . : CLIENT1  
Primary Dns Suffix . . . . . : MSCCONU.IPA  
Node Type . . . . . : Hybrid  
IP Routing Enabled . . . . . : No  
WINS Proxy Enabled . . . . . : No  
DNS Suffix Search List . . . . . : MSCCONU.IPA  
Ethernet adapter Local Area Connection:  
Connection-specific DNS Suffix . . . . . : MSCCONU.IPA  
Description . . . . . : Intel(R) PRO/1000 MT Network Connection  
Physical Address . . . . . : 00-0C-29-62-39-0B  
DHCP Enabled . . . . . : Yes  
Autoconfiguration Enabled . . . . . : Yes  
IPv4 Address . . . . . : 192.168.0.100<Preferred>  
Subnet Mask . . . . . : 255.255.255.0  
Lease Obtained . . . . . : Sunday, May 26, 2013 5:27:28 PM  
Lease Expires . . . . . : Monday, June 03, 2013 5:27:28 PM  
Default Gateway . . . . . :  
DHCP Server . . . . . : 192.168.0.2  
DHCPv6 IAID . . . . . : 234884137  
DHCPv6 Client DUID . . . . . : 00-01-00-01-19-2C-84-17-00-0C-29-7D-3D-D2  
DNS Servers . . . . . : 192.168.0.1  
                       127.0.0.1  
NetBIOS over Tcpip . . . . . : Enabled  
Tunnel adapter isatap.MSCCONU.IPA:  
Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . . . . . : MSCCONU.IPA  
Description . . . . . : Microsoft ISATAP Adapter  
Physical Address . . . . . : 00-00-00-00-00-00-E0  
DHCP Enabled . . . . . : No  
Autoconfiguration Enabled . . . . . : Yes  
Tunnel adapter Local Area Connection* 9:  
Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . . . . . :  
Description . . . . . : Teredo Tunneling Pseudo-Interface  
Physical Address . . . . . : 00-00-00-00-00-00-E0  
DHCP Enabled . . . . . : No  
Autoconfiguration Enabled . . . . . : Yes
```

Step 21

Now go back to Server2(or whichever Server you have installed DHCP on). In the Server Manager click on DHCP then click stop to disable it.



Step 22

Then go back to Client1 and run ipconfig /all again. You will see that the IP address has changed to an APIPA address, as demonstrated below.

```
Media State . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : 
C:\Users\User>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection:
  Connection-specific DNS Suffix . . . . . : 
  Link-local IPv6 Address . . . . . : fe80::9147:8cdb:2da7:f9fd%11
  IPv4 Address . . . . . : 169.254.0.1
  Subnet Mask . . . . . : 255.255.0.0
  Default Gateway . . . . . : 

Tunnel adapter Local Area Connection* 9:
  Media State . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 
Tunnel adapter isatap.{6AEFAFB4-F573-4B05-ADE6-03FF0FB22B9D}:
  Media State . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 
C:\Users\User>
```

Task 1

Decommission Server 2 from the Active Directory system using a method which would be used if the server became unbootable.

Step 1