

# Windows Server® 2008

## **SYSTEM ADMINISTRATION LABMANUAL**

Student Name: \_\_\_\_\_

Faculty Name: \_\_\_\_\_

Branch Name: \_\_\_\_\_

Batch Date : \_\_\_\_\_

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## INSTALLATION OF WINDOWS OPERATING SYSTEM

### Pre-requisites:

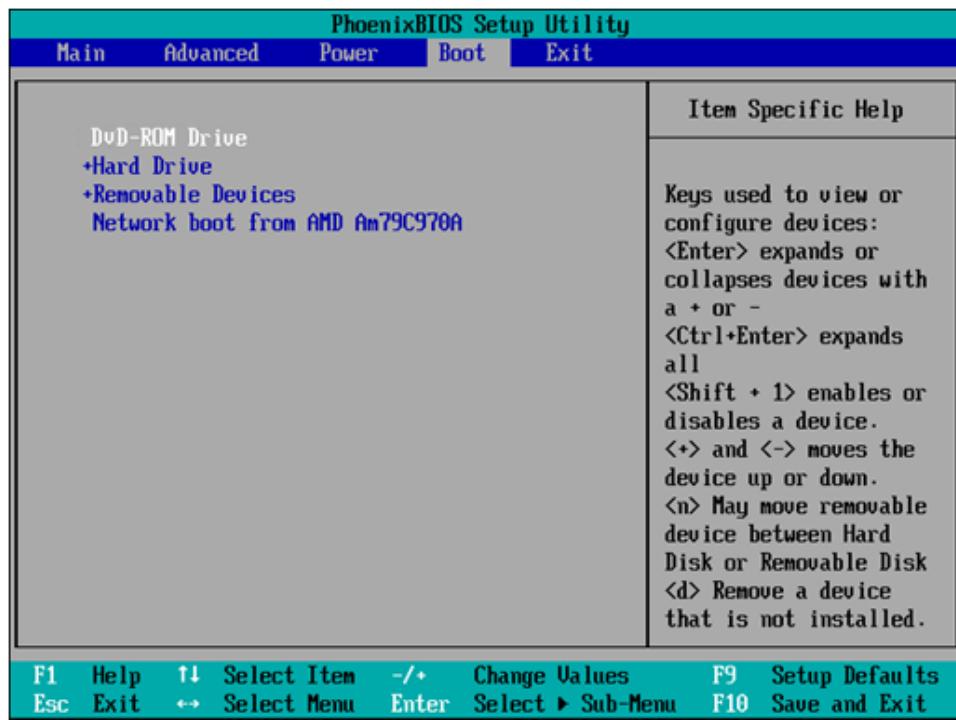
Before working on this lab, you must have

1. A Computer and Windows Server 2008 Operating System DVD.



### **Lab – 1: Installing Windows Server 2008 Operating System**

1. Restart the System and go to **BIOS**.
2. Set the First Boot Device as **DVD ROM**.

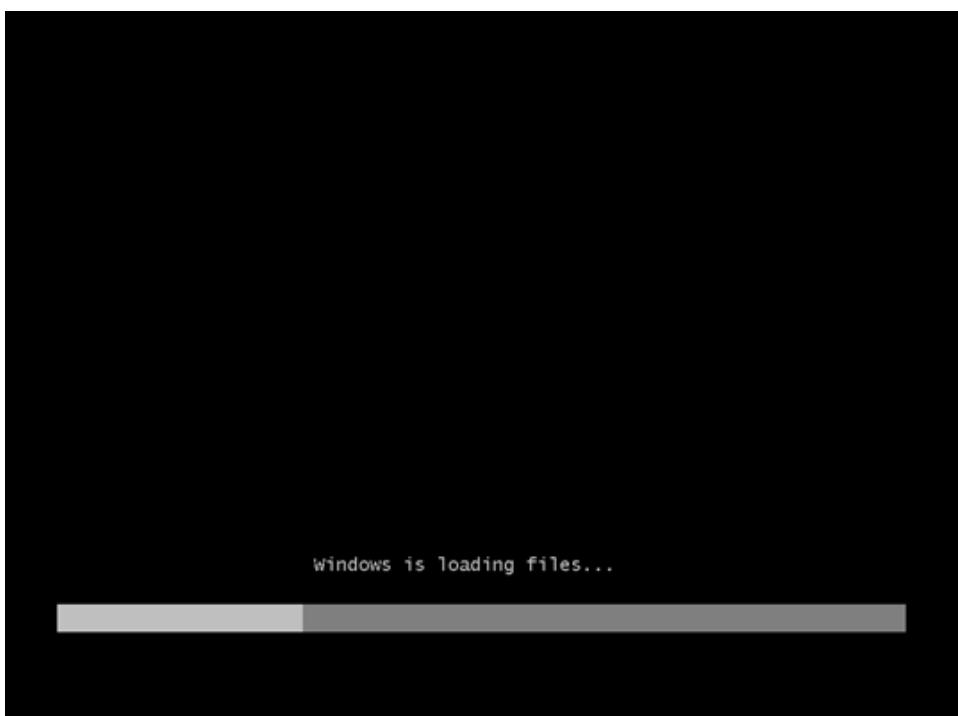


3. Save the settings by Pressing **F10** and click **YES**.
4. Insert **Windows Server 2008DVD** and Restart the system.

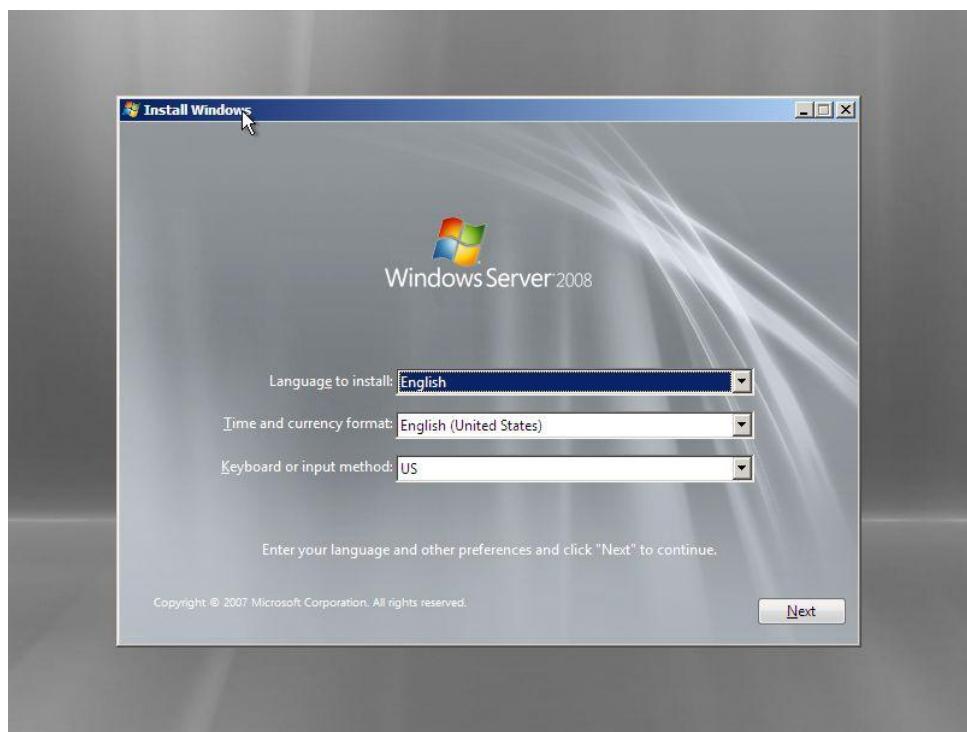
5. Press any key to boot from the CD or DVD.



6. System copies the files from DVD.



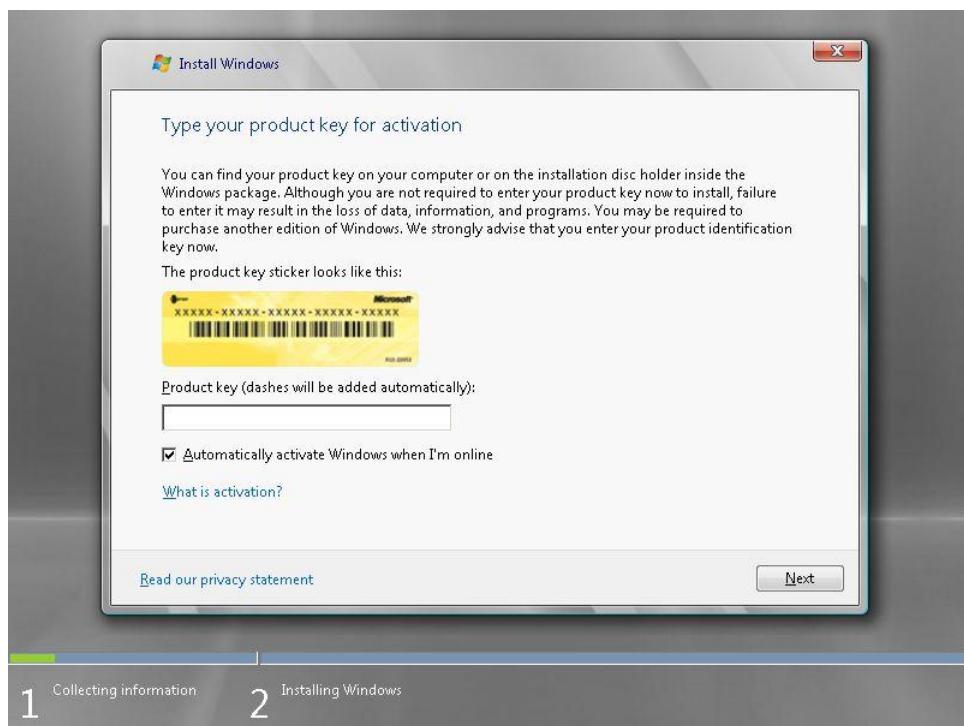
7. Select the language to install **English**.



8. Click **Install now**.



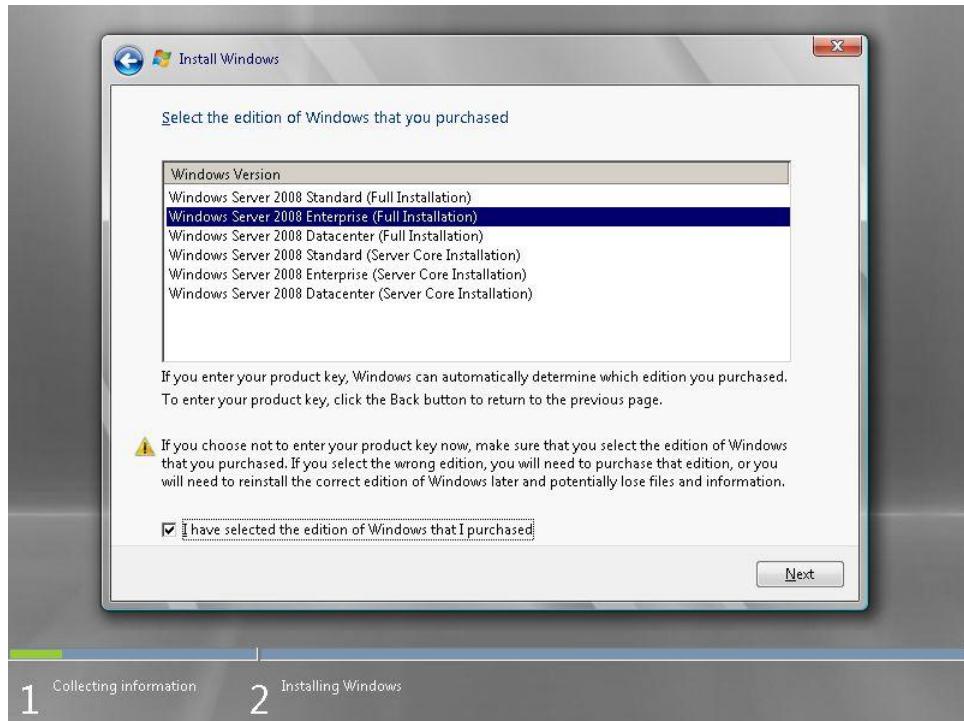
9. Leave the Product Key blank, and click **Next**. (Product key can be entered later.)



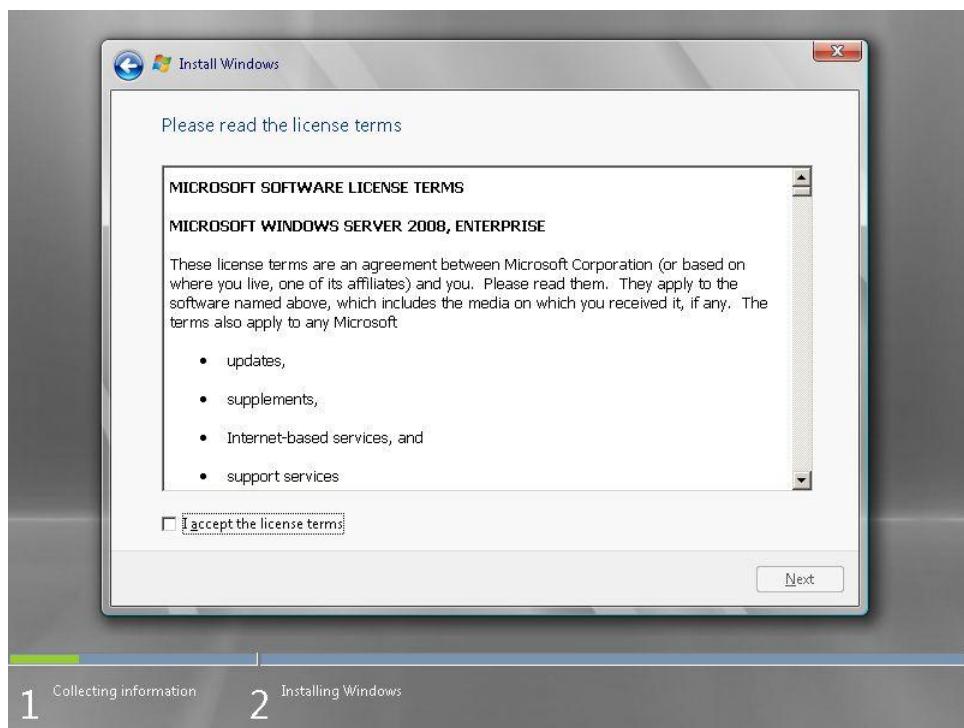
10. Click **NO**.

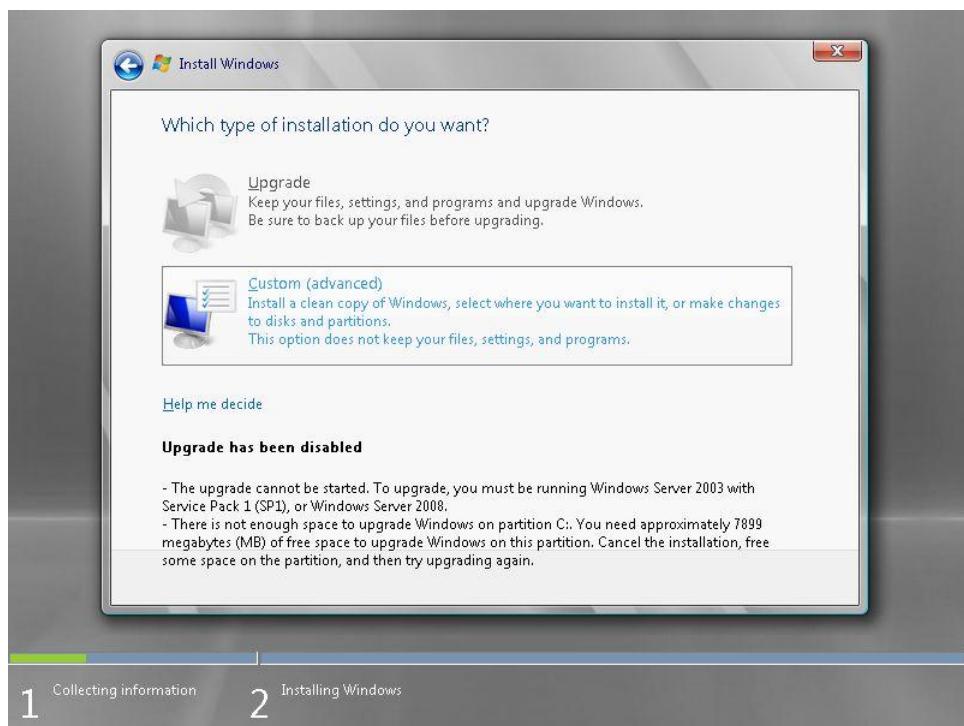
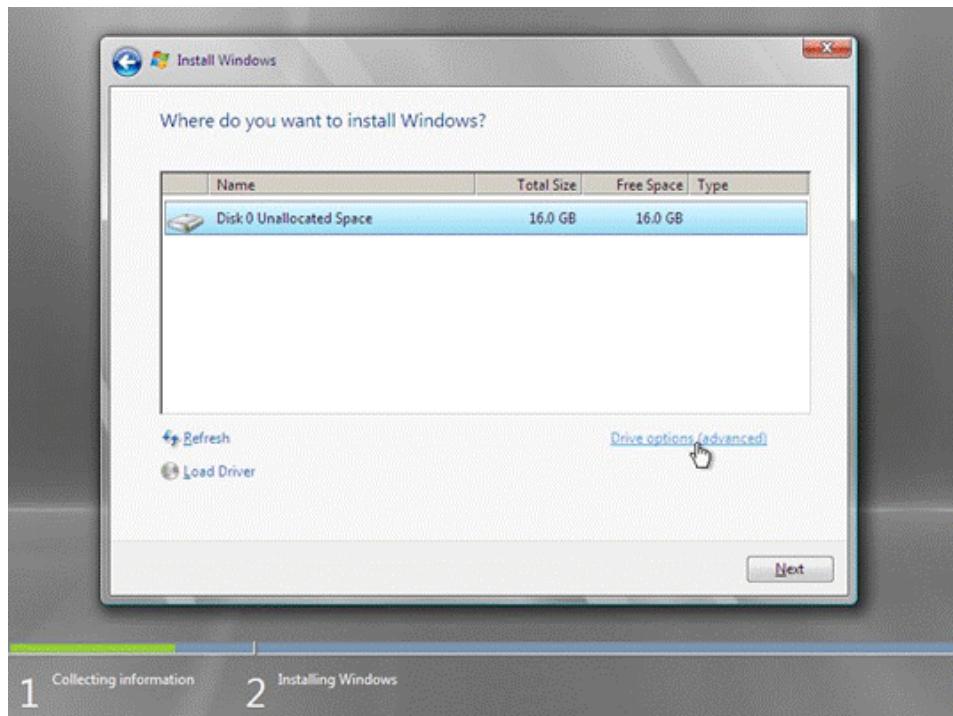


11. Select the edition of Windows-**Windows Server 2008 Enterprise(Full Installation)**and check the box **I have selected the edition of windows that I purchased.**

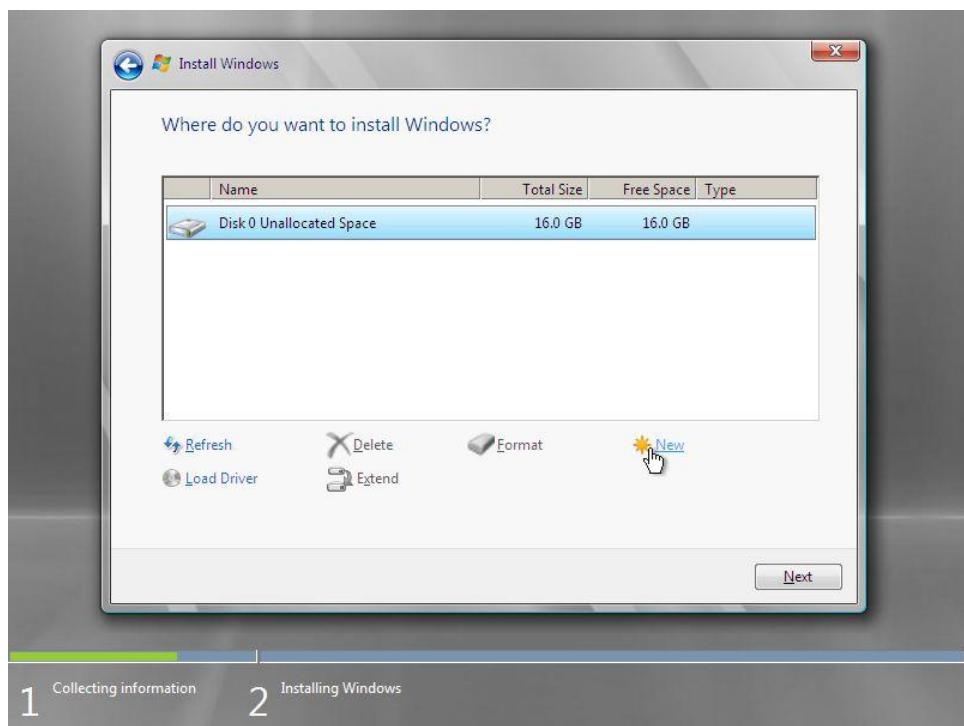


12. Check the box **I accept the license terms**

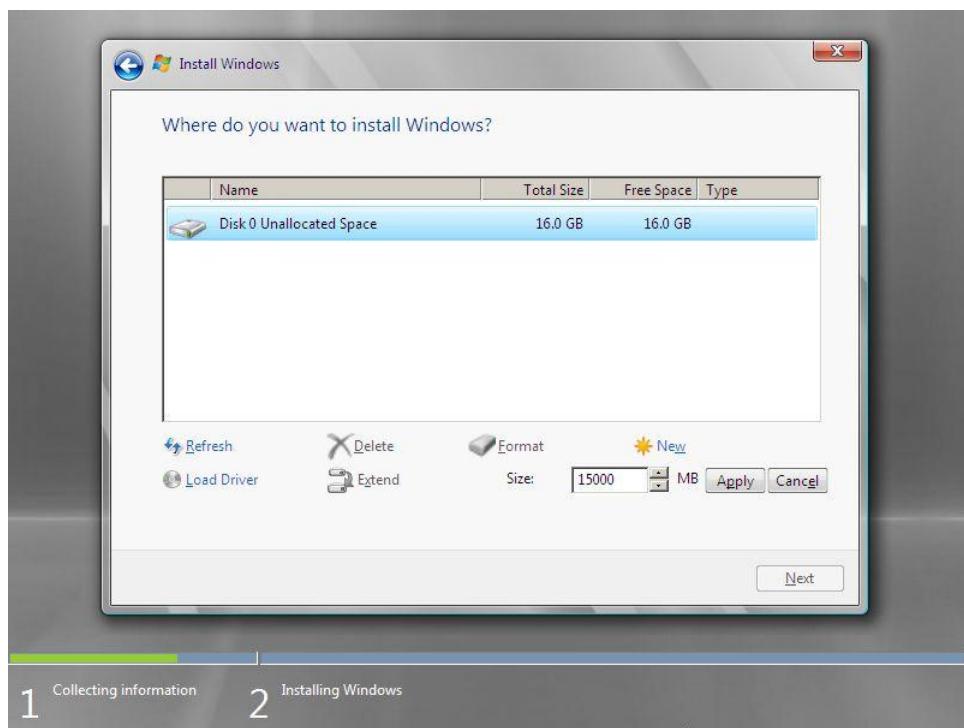


**13. Select Custom Installation.****14. Click Drive options.**

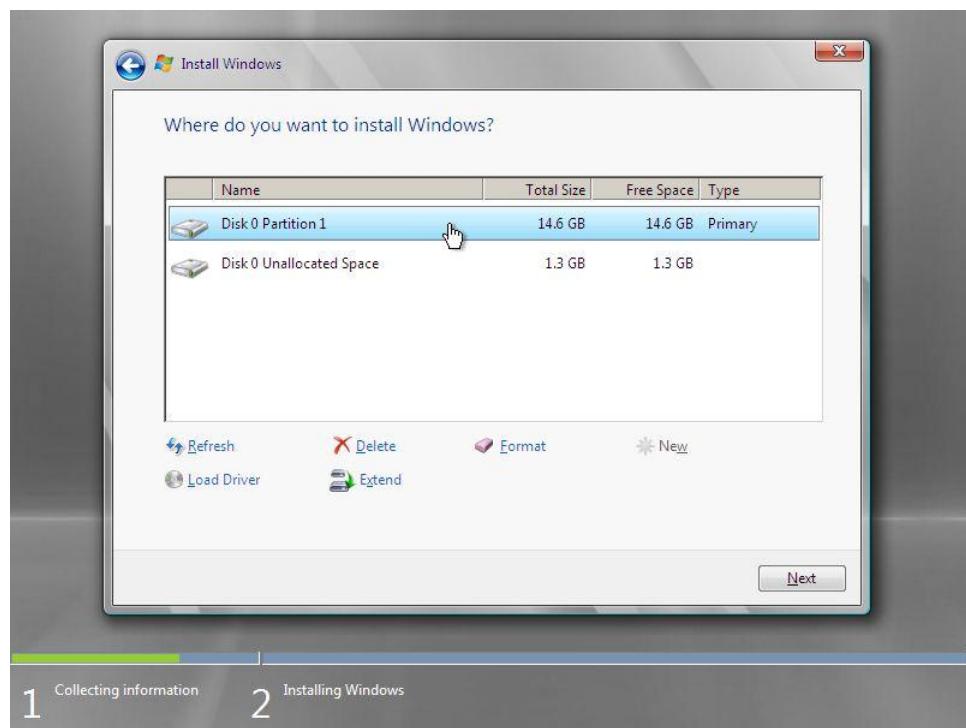
15. Select Unallocated Space and click **New**.



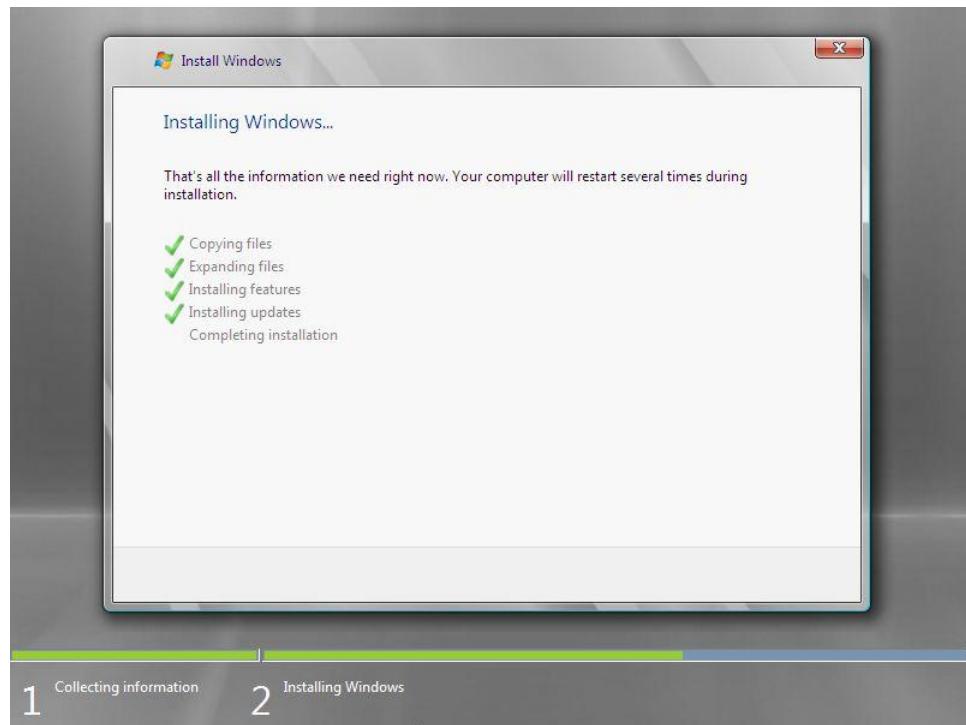
16. Enter the size for the partition, and click **Apply**.



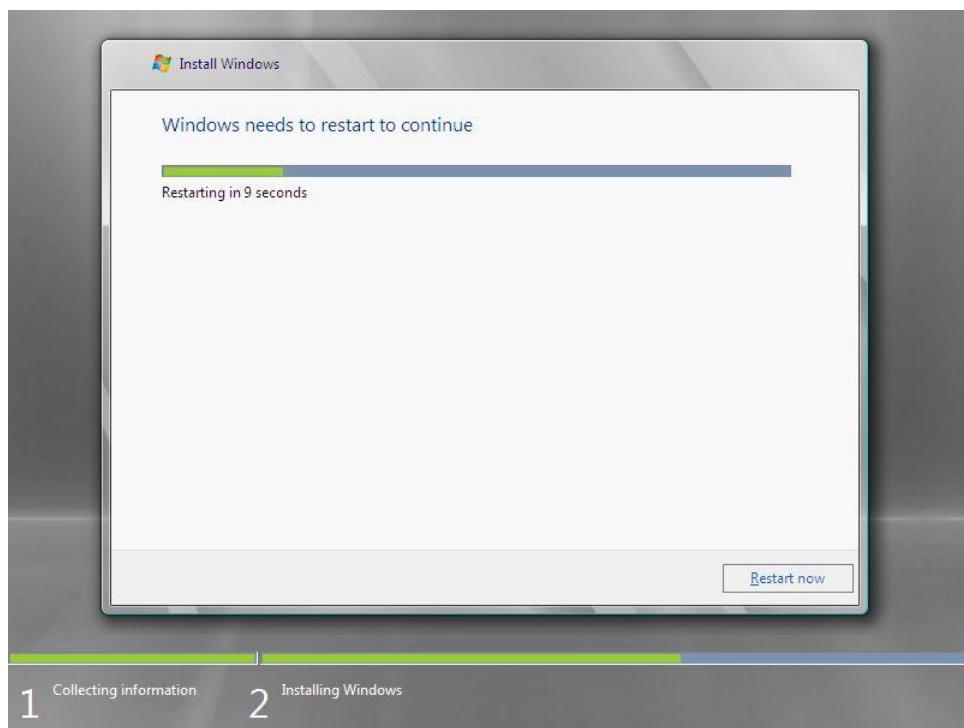
17. Select the **Partition** and click **Next**.



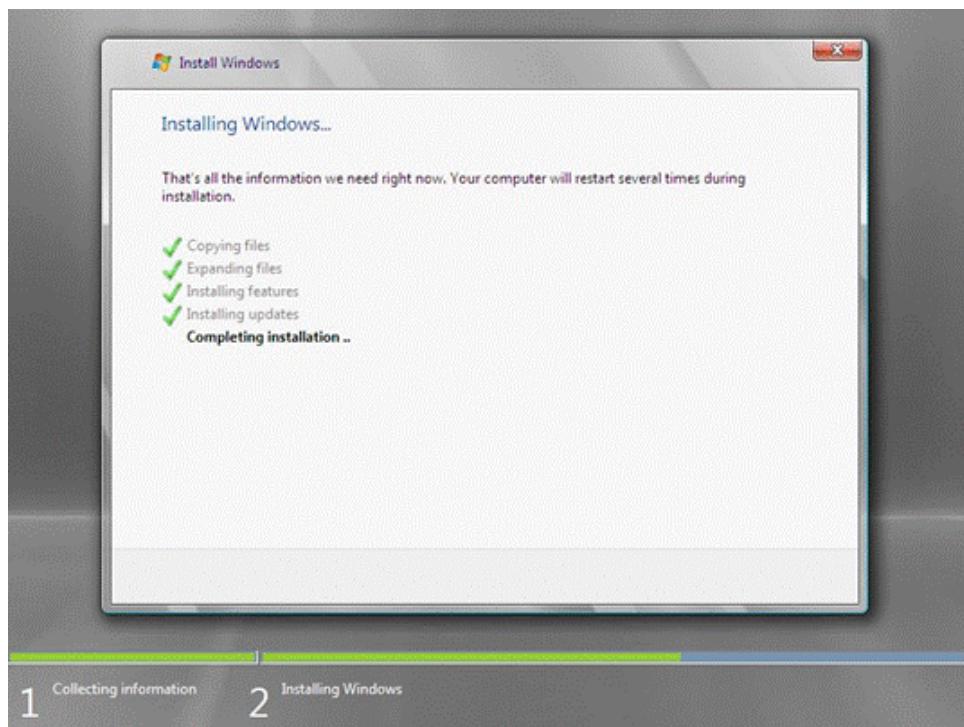
18. Windows Installation will start.



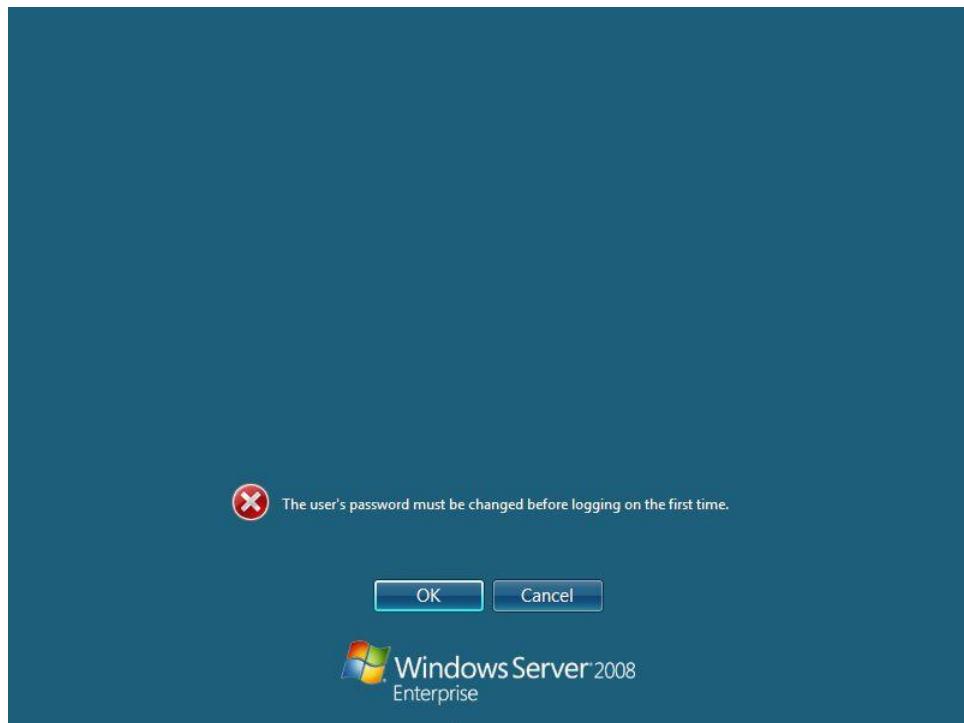
19. System Restarts.



20. Completes the Installation, and system will be restarted.



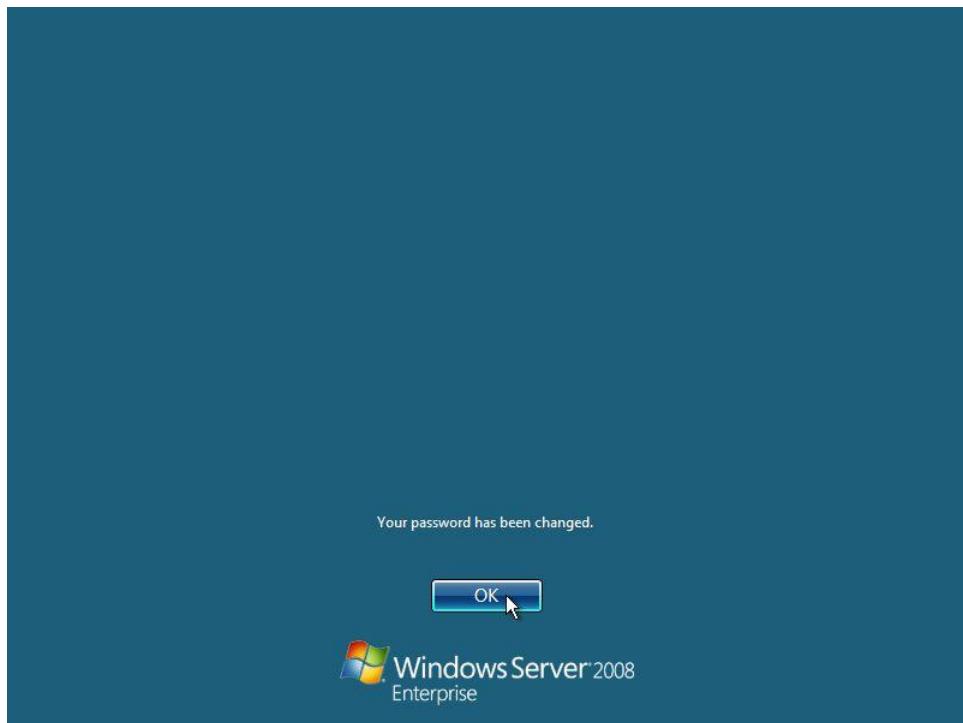
21. Click **OK**, (User's password must be changed before logging on the first time.)



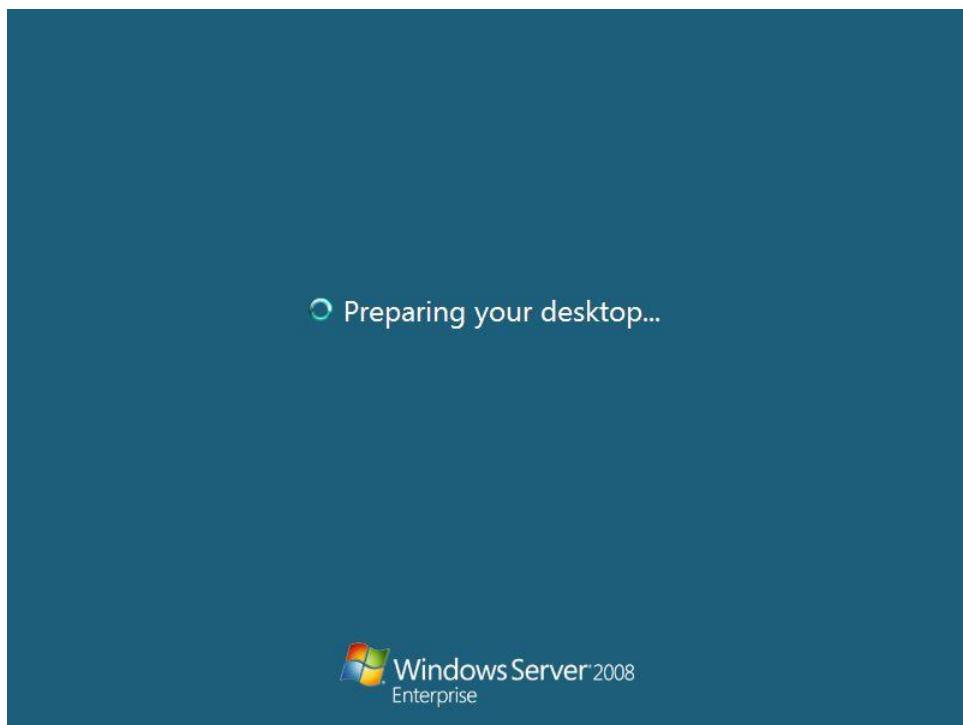
22. Enter the **New Password** and **Confirm the password** and Press **Enter**.



23. Click **OK**. (Your password has been changed.)



24. It Prepares the Desktop.



25. Finally Administrator has logged in.



## INSTALLATION OF WINDOWS 7 OPERATING SYSTEM

### Pre-requisites:

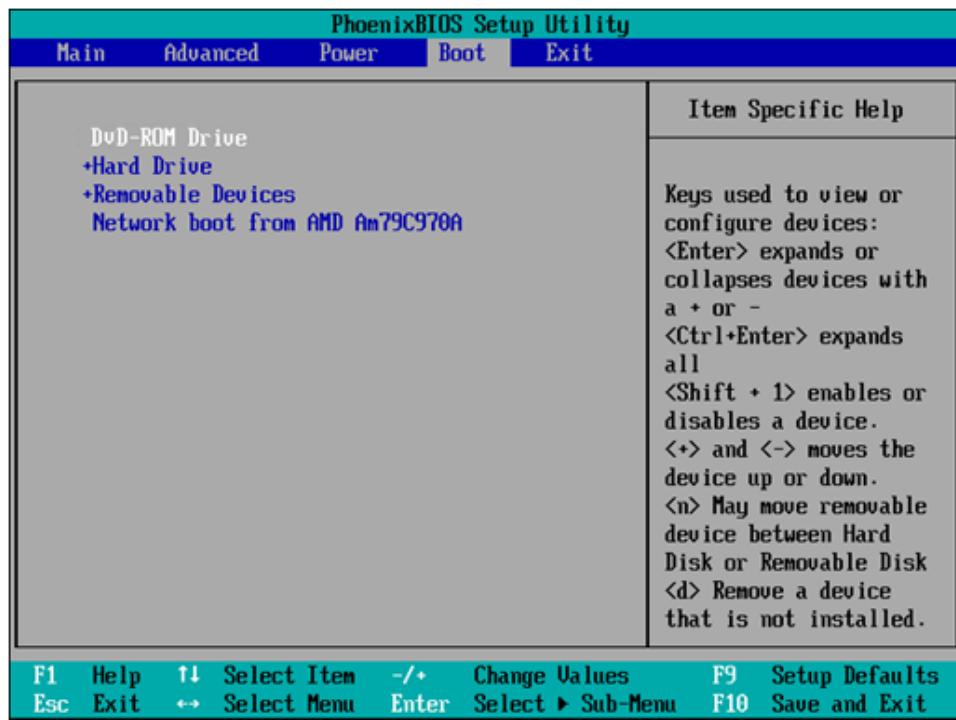
Before working on this lab, you must have

1. A Computer and Windows 7 Operating System DVD.



## Installing Windows 7 Operating System

1. Restart the System and go to **BIOS**.
2. Set the First Boot Device as **DVD ROM**.

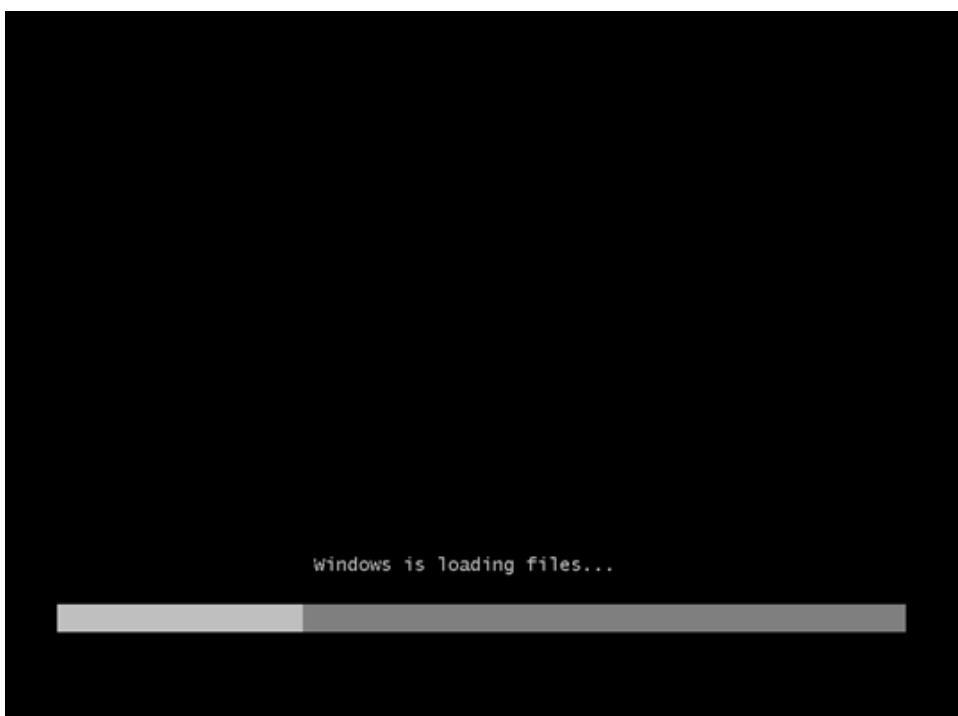


3. Save the settings by Pressing **F10** and click **YES**.
4. Insert **Windows 7DVD** and Restart the system.

5. Press any key to boot from the CD or DVD.



6. System copies the files from DVD.



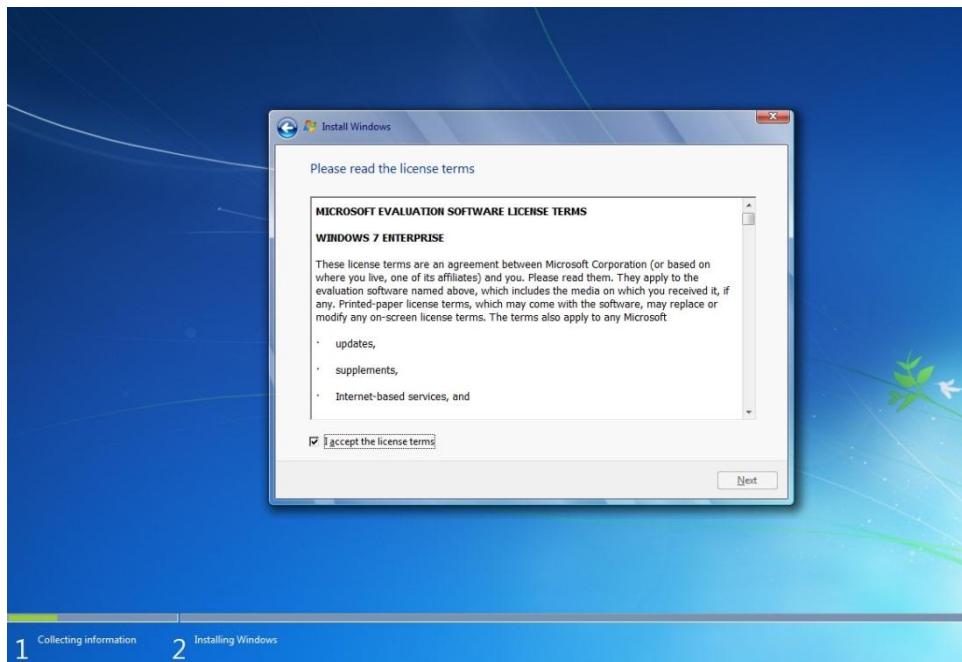
7. Select the language to install **English**.



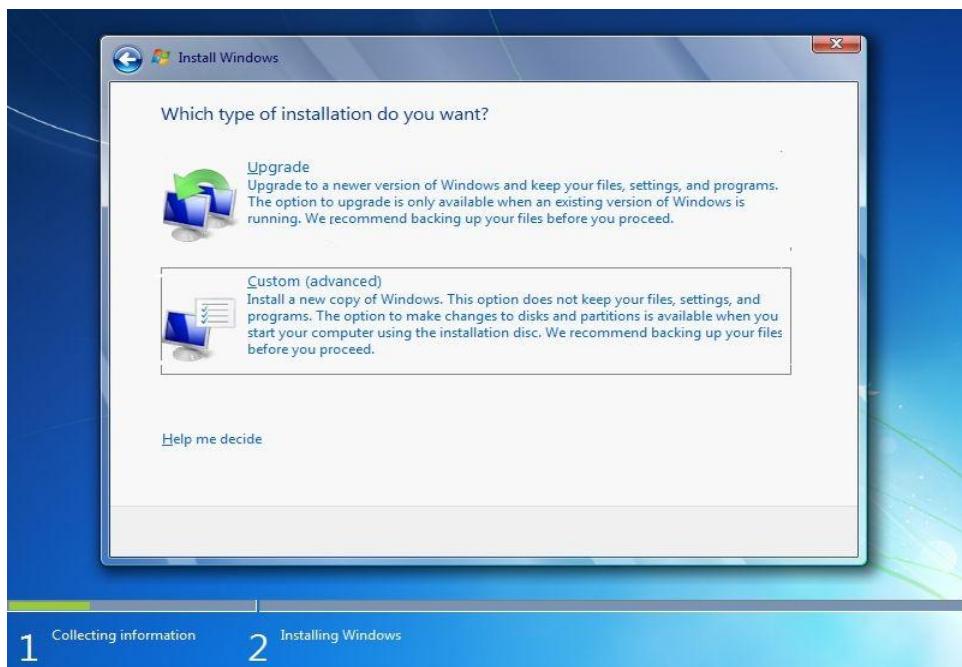
8. Click **Install now**.



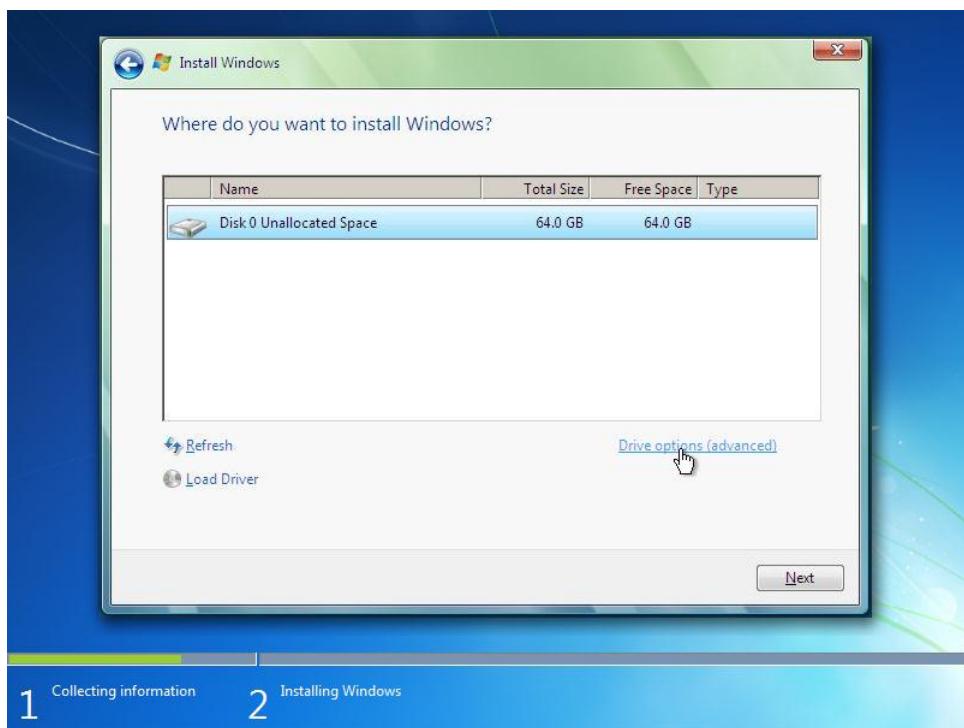
9. Check the box I accept the license terms



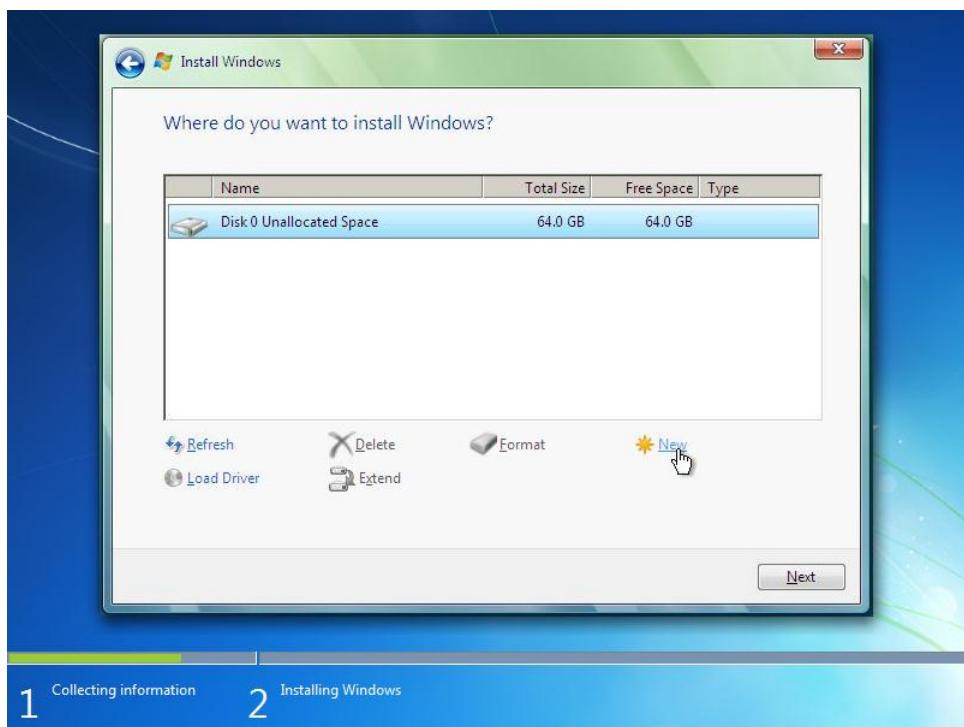
10. Select **Custom Installation**.



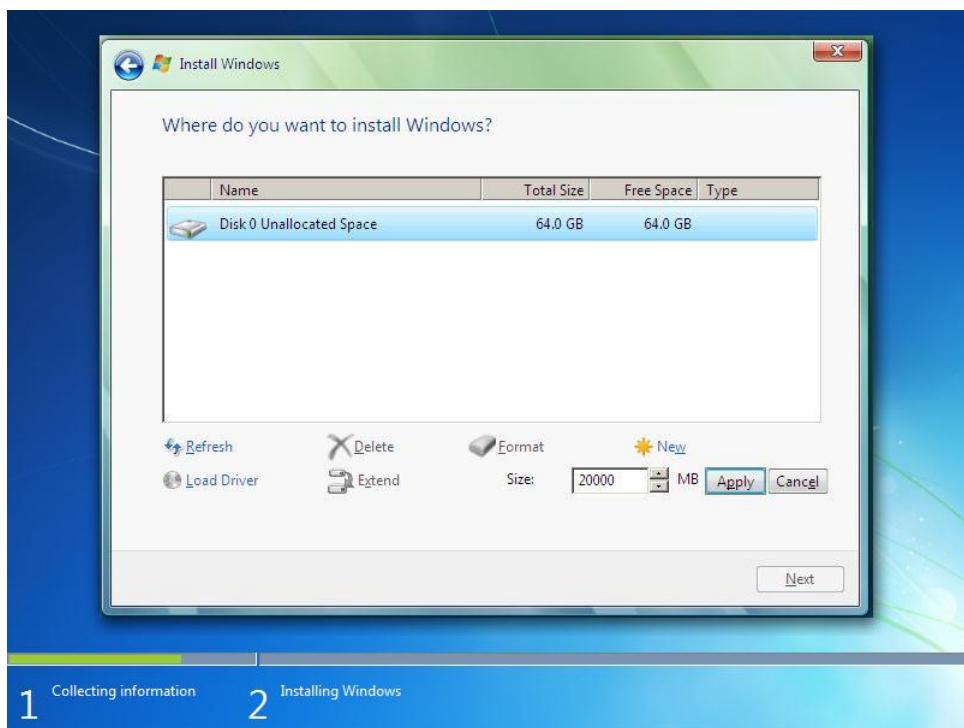
11. Click **Drive options.**



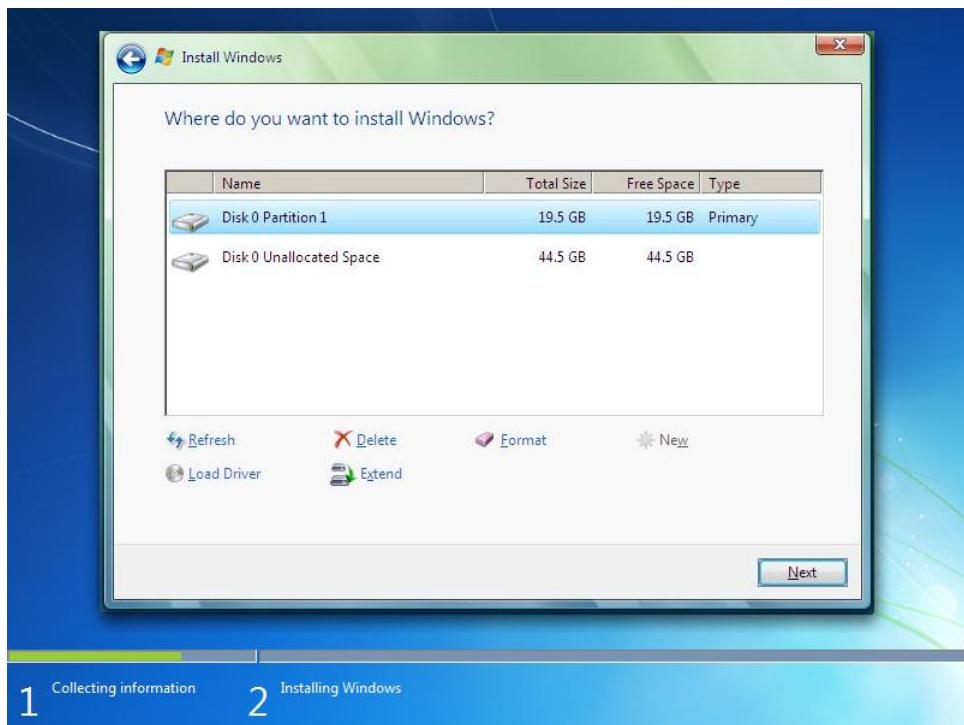
12. Select Unallocated Space and click **New.**



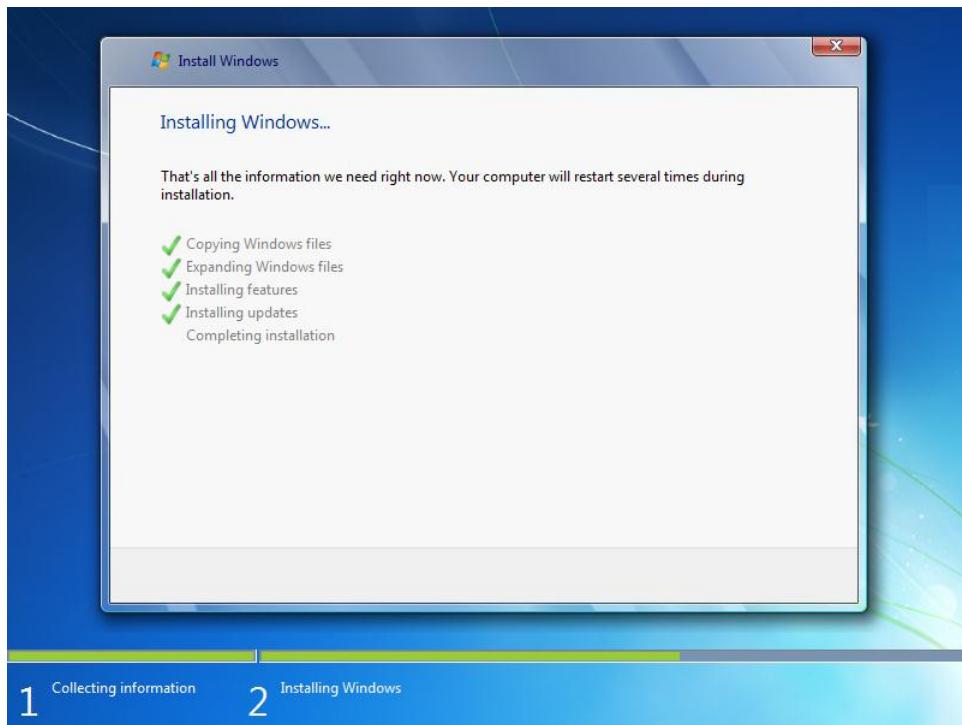
13. Enter the size for the partition, and click **Apply**.



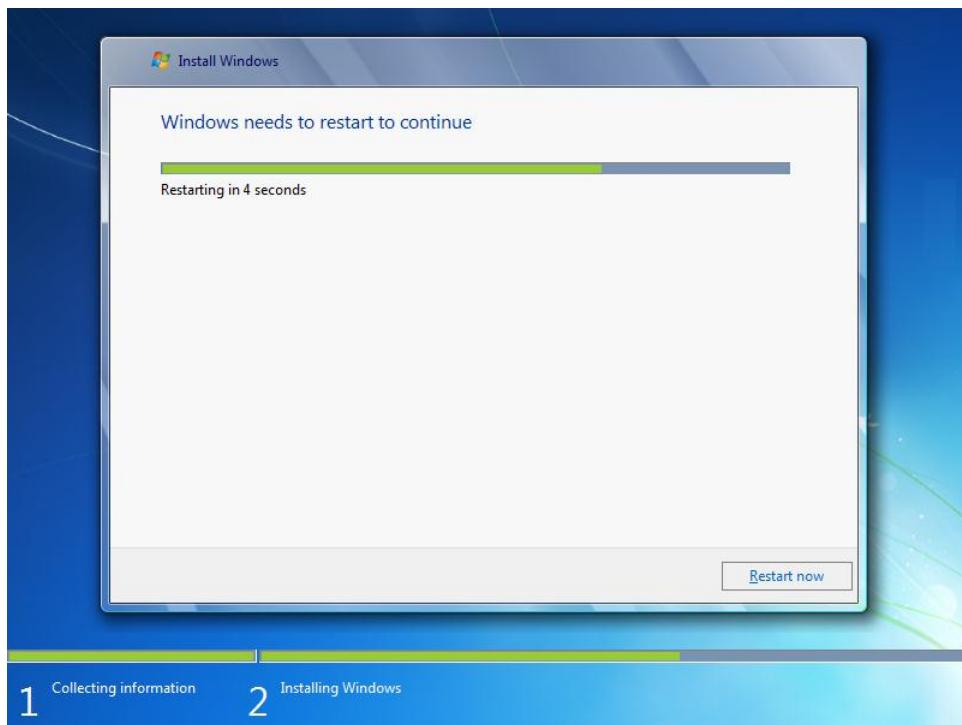
14. Select the **Partition** and click **Next**.



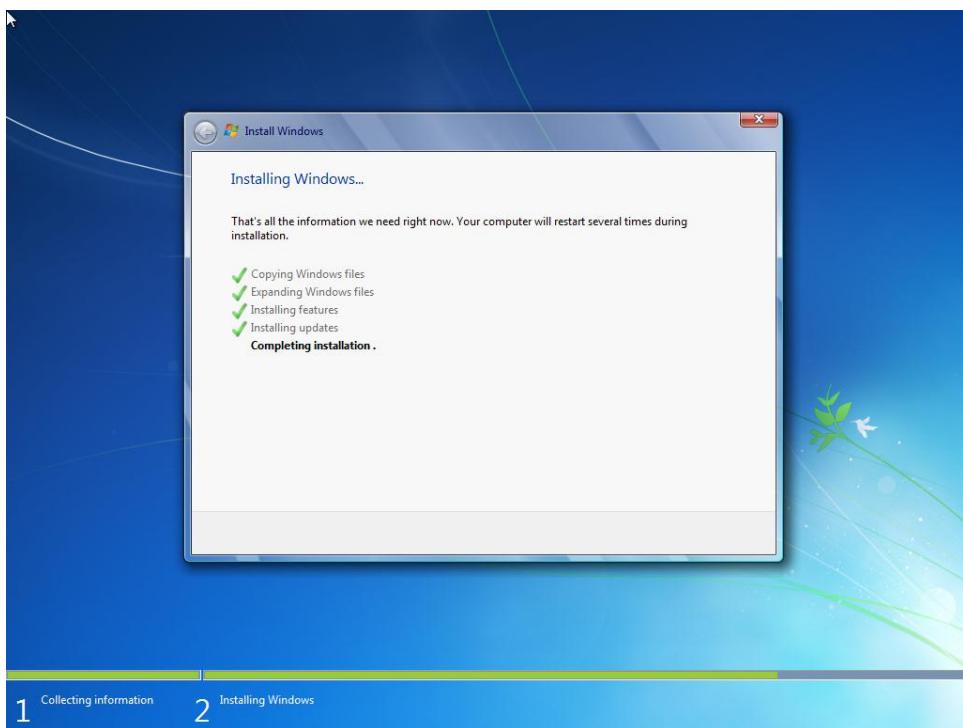
15. Windows Installation will start.



16. System Restarts.



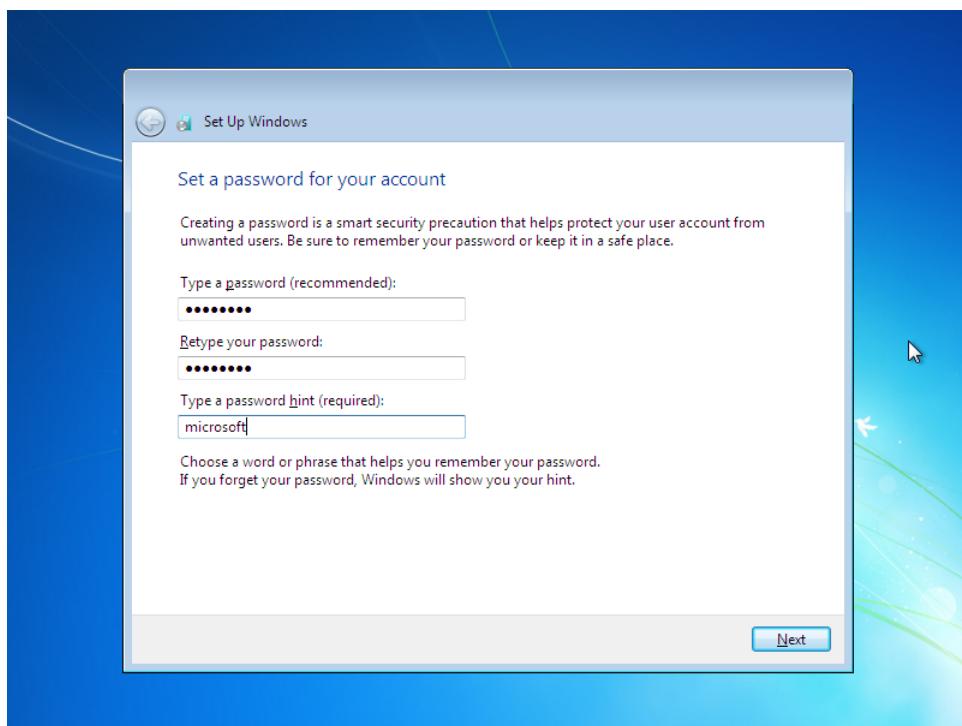
17. Completes the Installation, and system will be restarted.



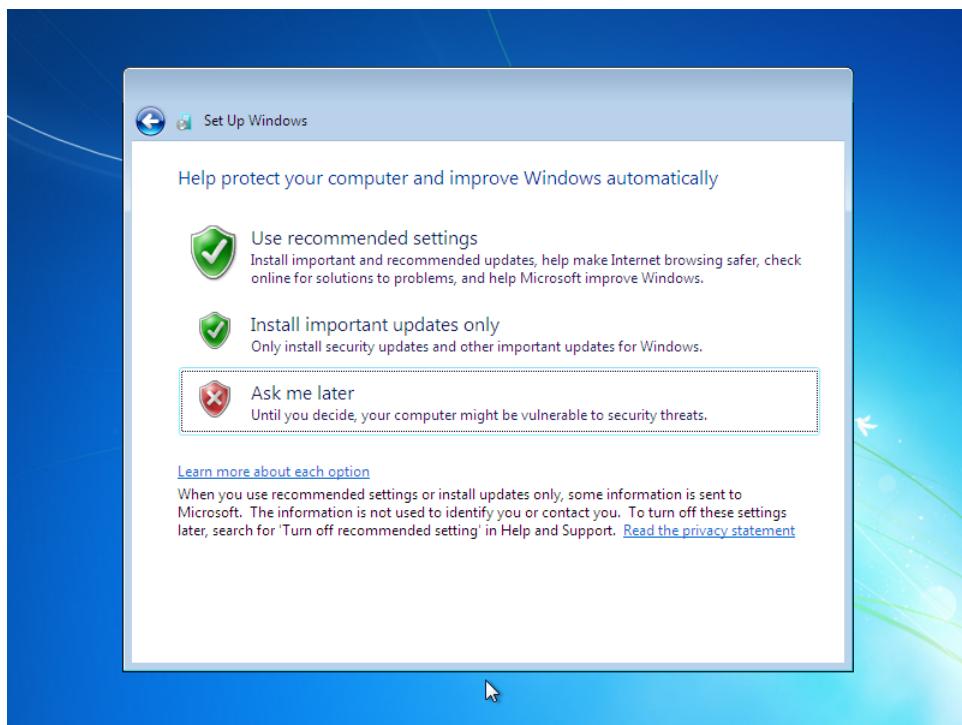
18. Enter the **User Name** and verify the **Computer Name**, click **Next**.



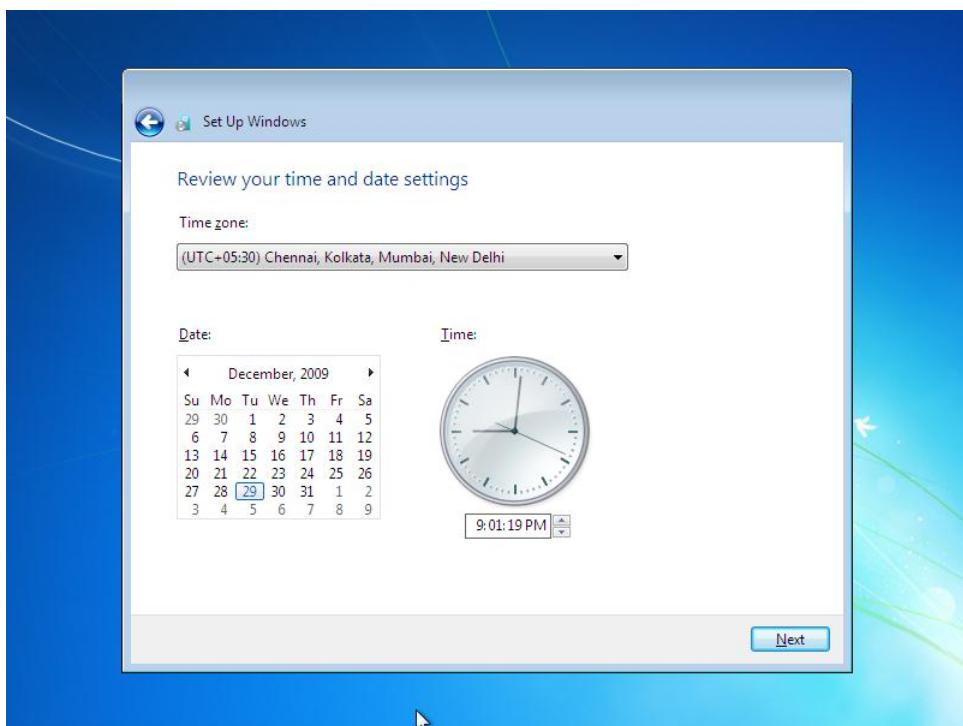
19. Enter the **Password** and **Confirm**, click **Next**.



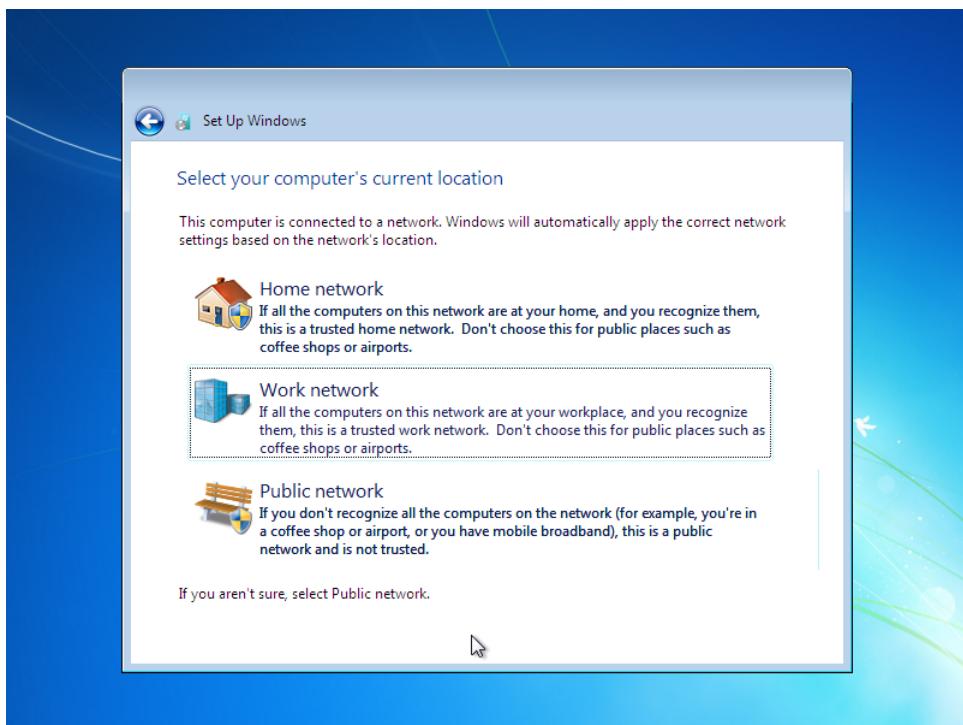
20. Configure Automatic Updates **Ask me later**.



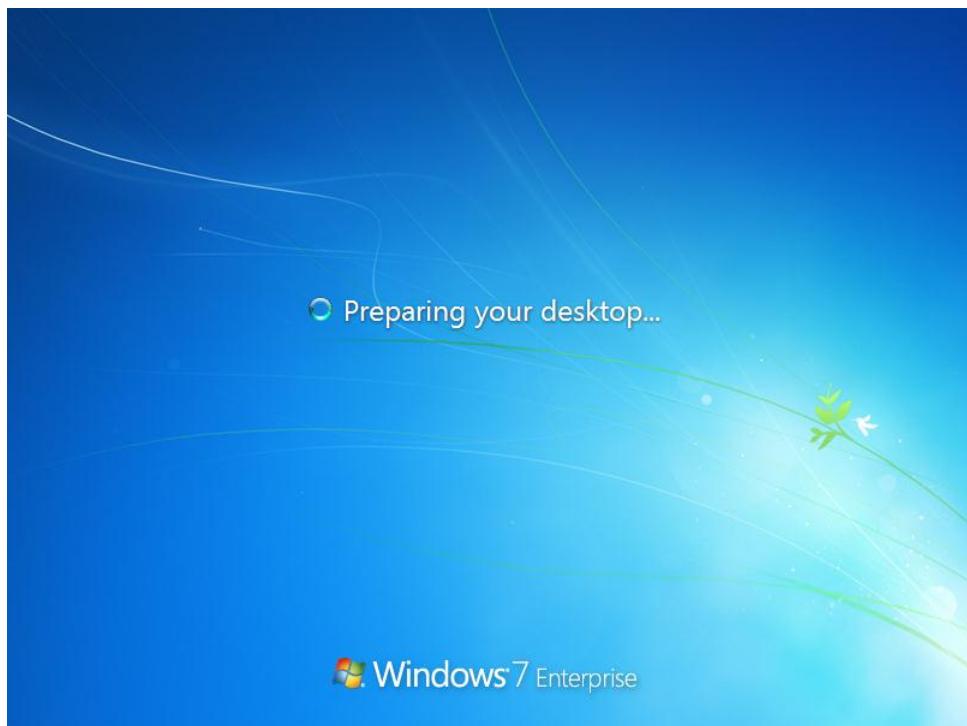
21. Select the **Time zone** and click **Next**.



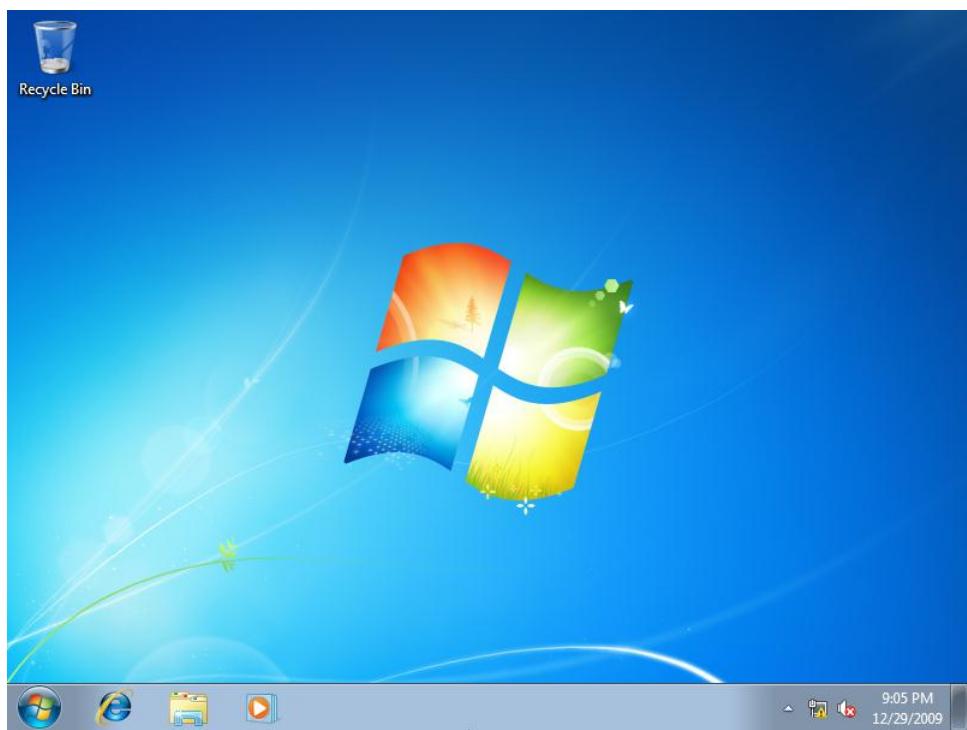
22. Select the location of your computer **Work network**.



23. It Prepares the Desktop.

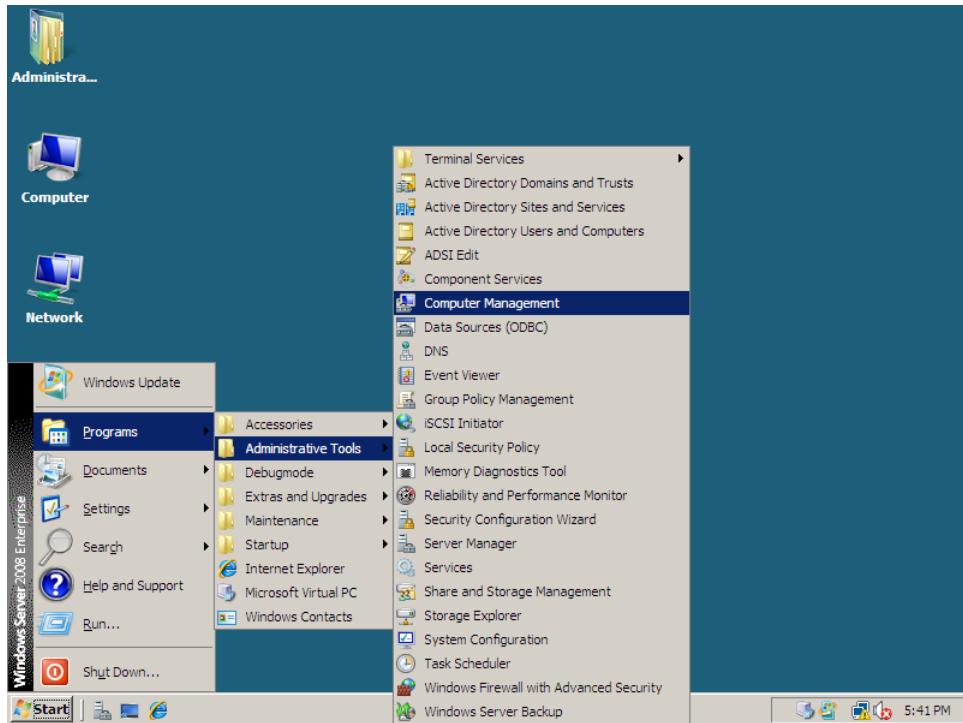


24. Finally Operating System is installed and the **User** has logged in.

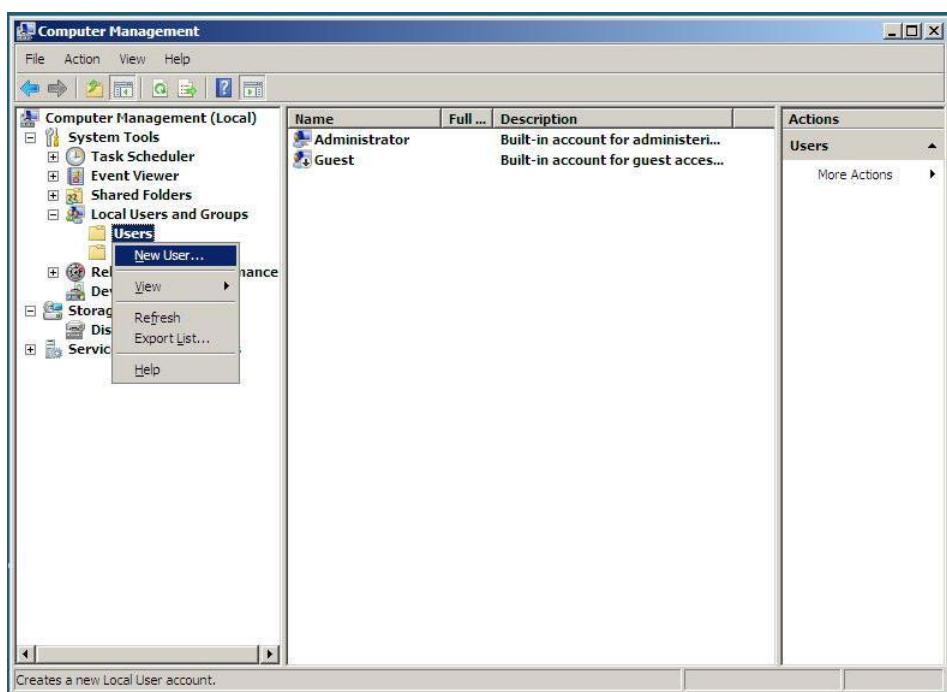


## Lab – 2: Creating Local User Accounts

1. Login as the **Administrator** to the **Computer**.
2. Click Start → Programs → Administrative Tools → Computer Management.



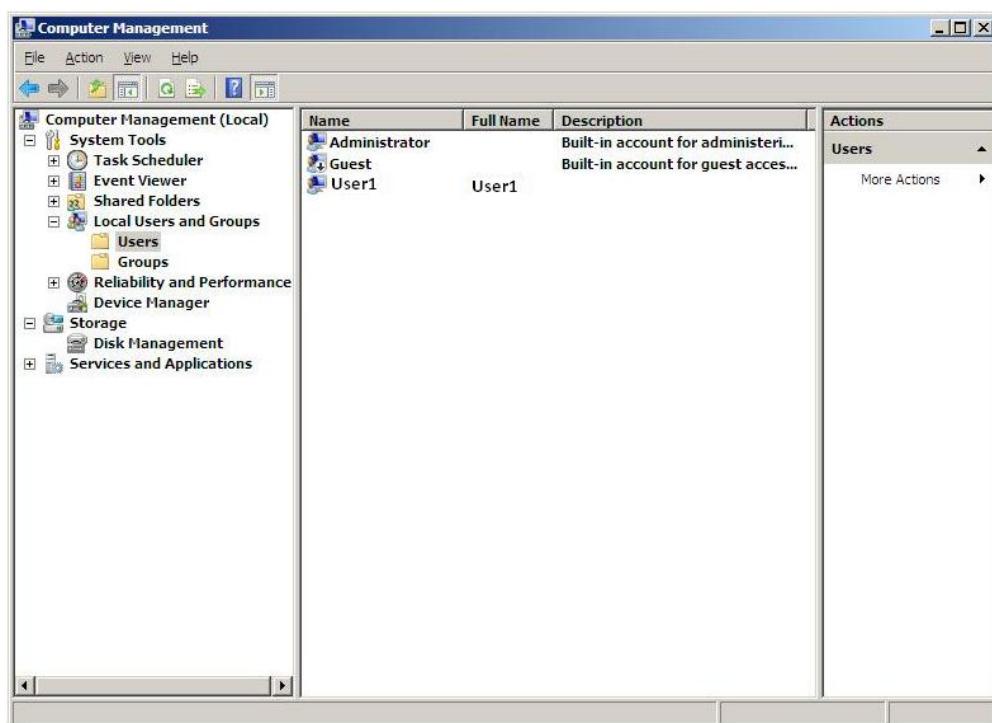
3. Expand **Computer Management** → Expand **System Tools** → Expand **Local Users and Groups** → Right click **Users** and then click **New User...**.



4. Enter **User Name** (User1) and set **Password, Confirm Password** and click **Create**.



5. Click **Close**, and then **Close Computer Management**.



### Verification:

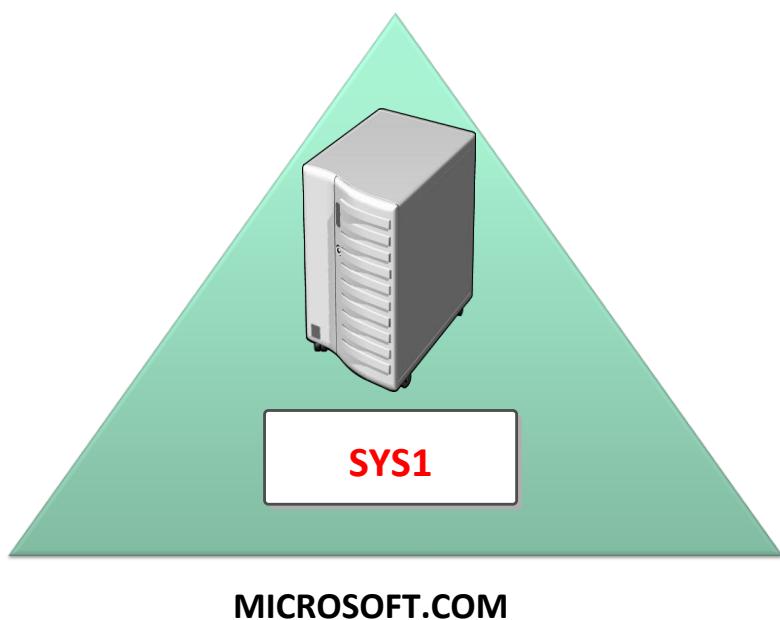
1. Press **Ctrl + Alt + Del** → Click **Switch User or Logoff Administrator**.
2. Login as User (**User1**) on same computer.

## ACTIVE DIRECTORY

### Pre-requisites:

Before working on this lab, you must have

1. A Computer with Windows Server 2008 Operating System and connected in the network.



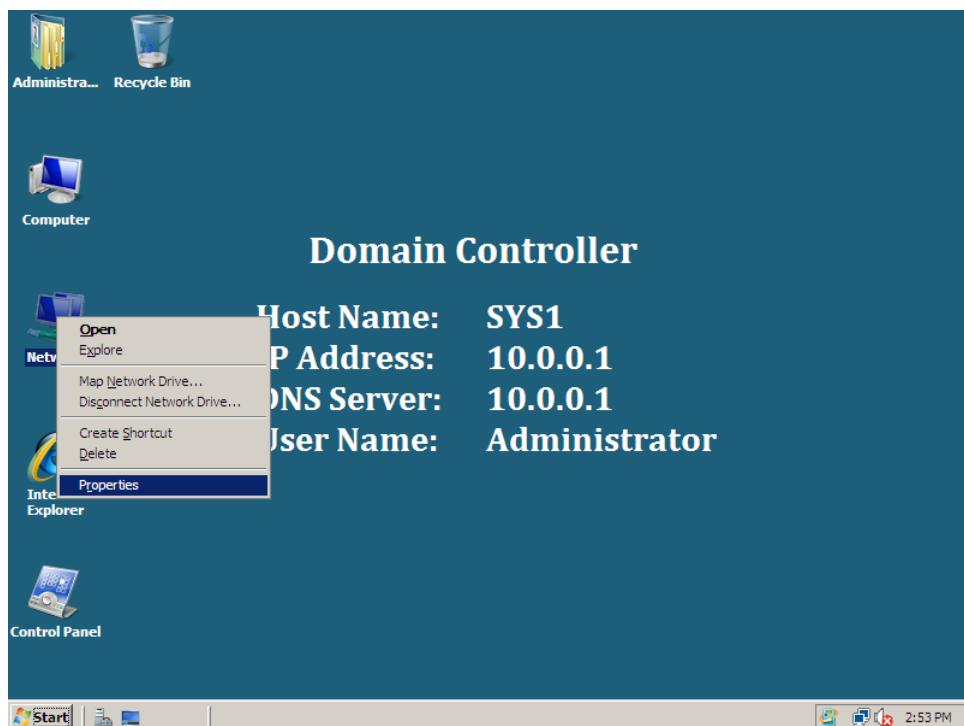
**SYS1**

**Domain Controller**

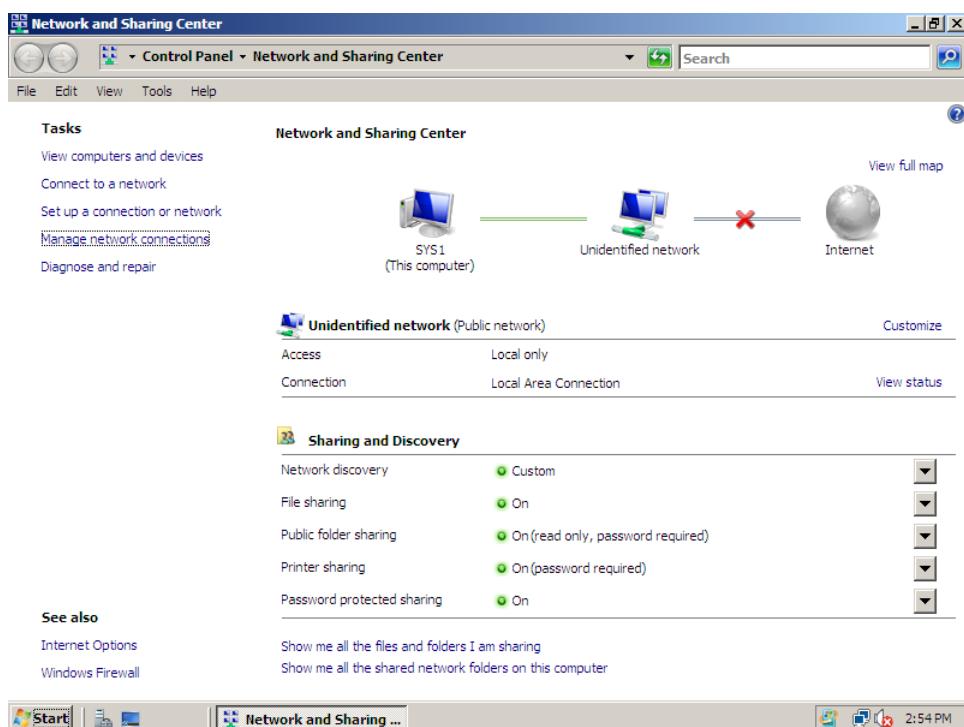
IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1

## Lab – 1: Assigning IP Address

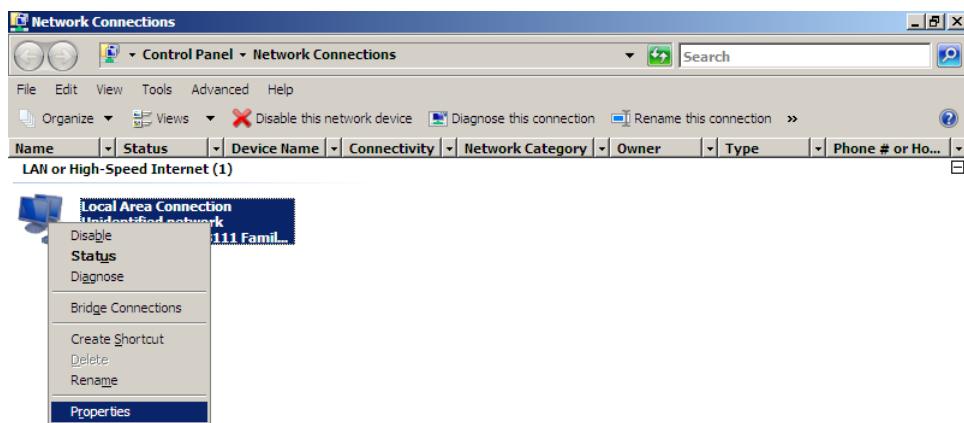
1. Right Click **Network Icon** and select **Properties**.



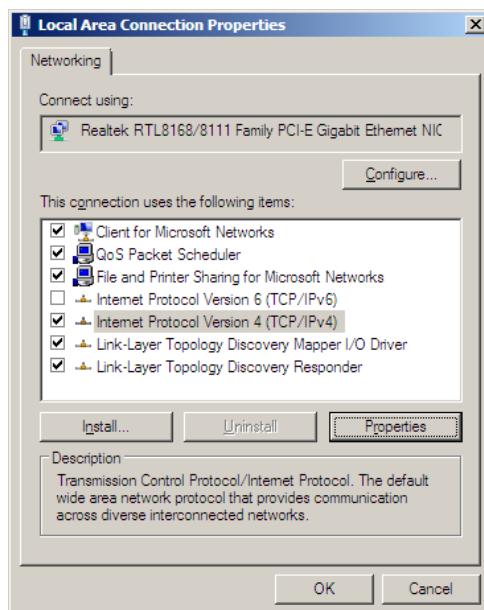
2. In the **Network and Sharing Center** window select **Manage Network Connections**



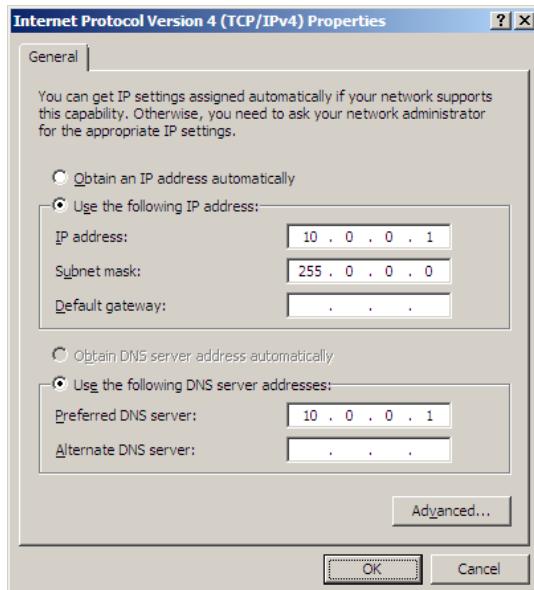
3. Right click **Local Area Connection** and Click **Properties**.



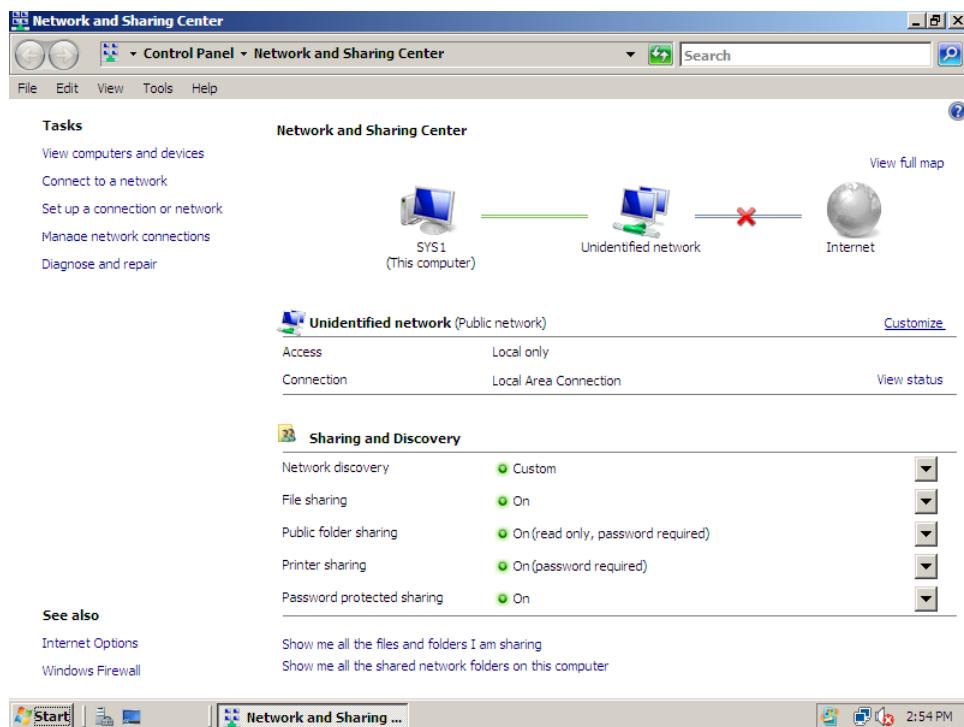
- 
4. Select **Internet Protocol Version 6 (TCP/IPv6)** and **unchecked** the box.  
5. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



6. Select **Use the following IP address** and enter the IP address and click Subnet mask, it will be entered automatically and select **Use the following DNS Server addresses** and enter the **Preferred DNS Server address** and Click **OK**, and **OK**.



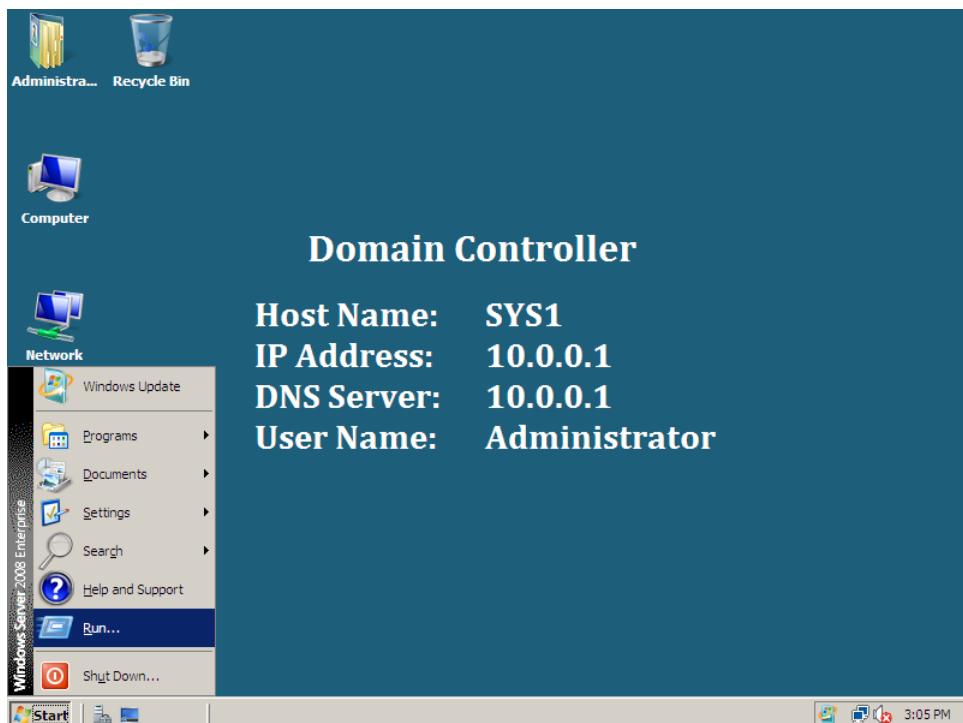
7. Go to **Network and Sharing Center**, select **Customize**.



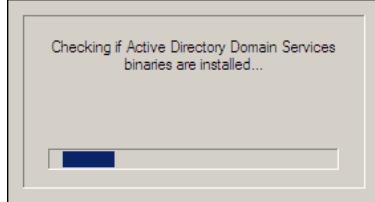
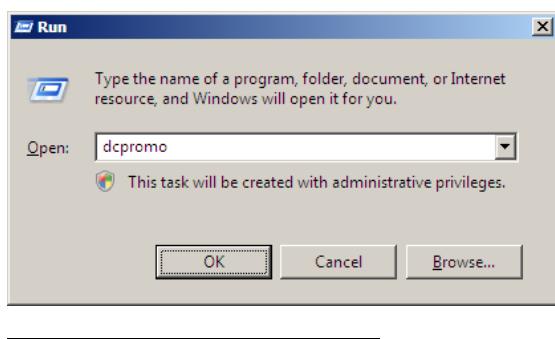
8. Select **Private Network** and click **Next→ Close** and verify for Network discovery and File sharing options are on.

## Lab – 2: Installing Active Directory

1. Log in as **Administrator** to the **Workgroup Computer**.
2. Assign **IP Address** and preferred **DNS Server Address**.
3. Click **Start**, and then click **Run**.



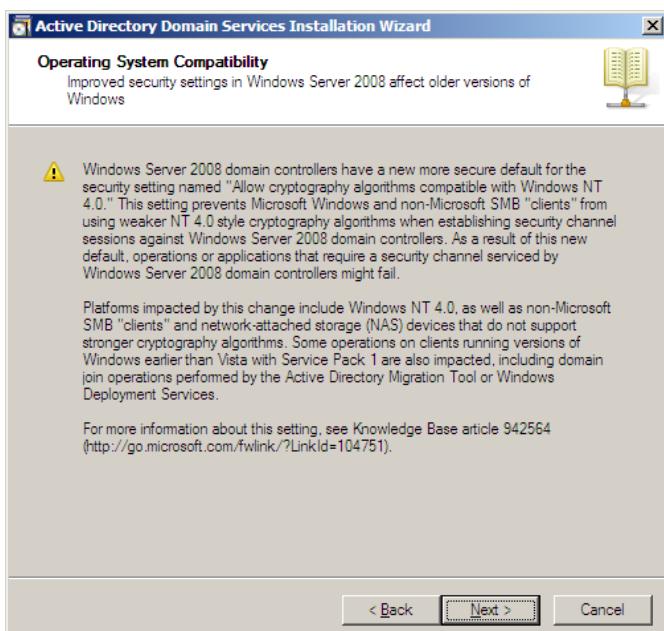
4. In the **Run** box, type “**DCPROMO**” and then click **OK**.



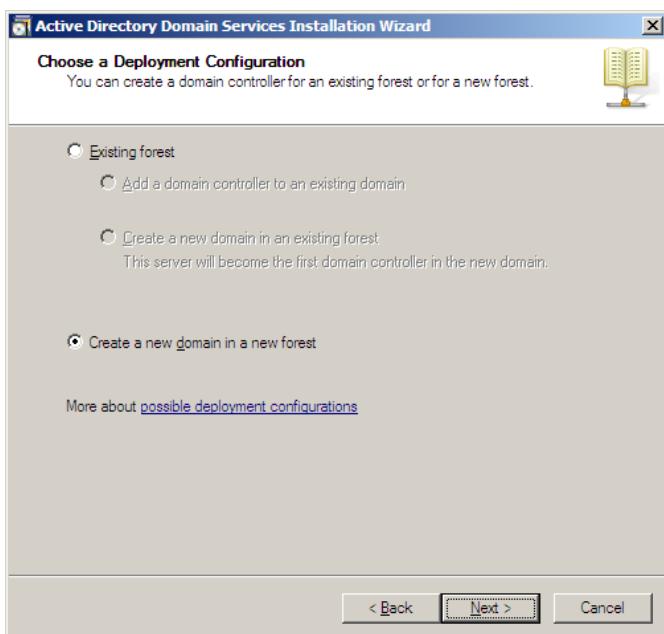
5. In **Welcome to the Active Directory Domain Services Installation Wizard**, click **Next**.



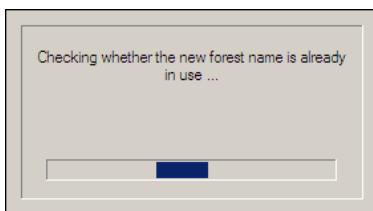
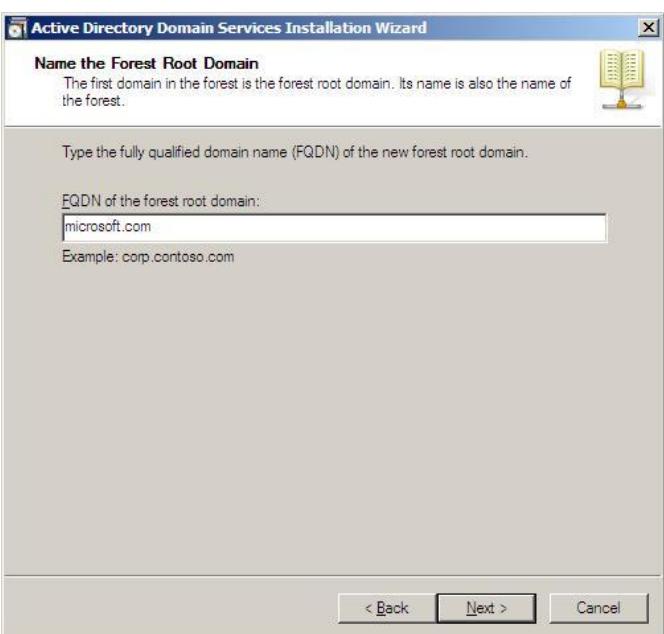
6. In **Operating system compatibility Wizard** click **Next**.



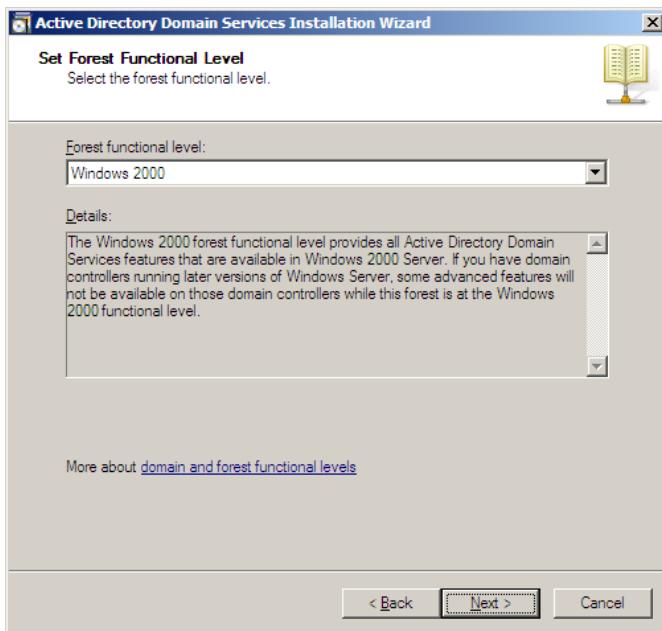
7. Select **Create a new domain in a new forest** and click **Next**.



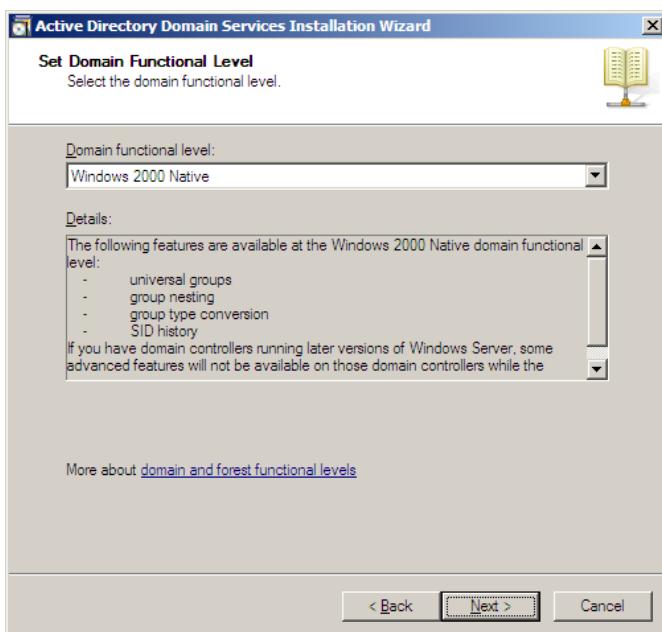
8. Enter the **DNS Domain Name** (Ex: **MICROSOFT.COM**) and click **Next**.



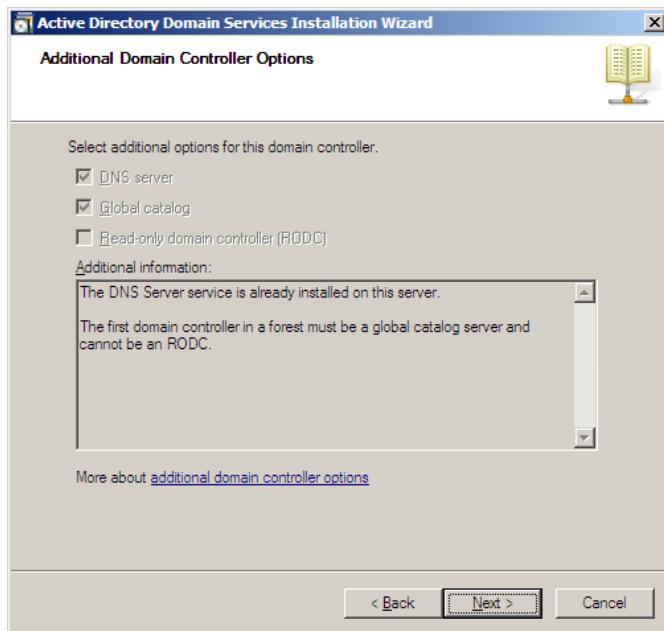
9. Select the **Forest Functional Level (Windows 2000)** and click **Next**.



10. Select the **Domain Functional Level (Windows 2000 Native)** and click **Next**.



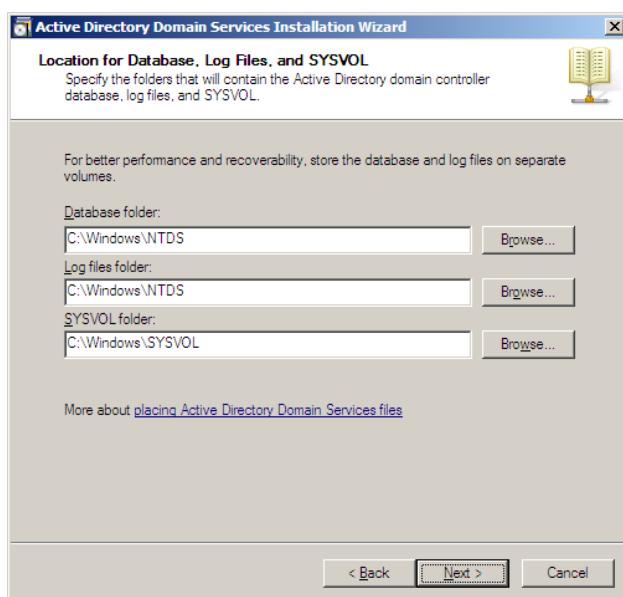
11. In Additional Domain Controller Options page, Click Next.



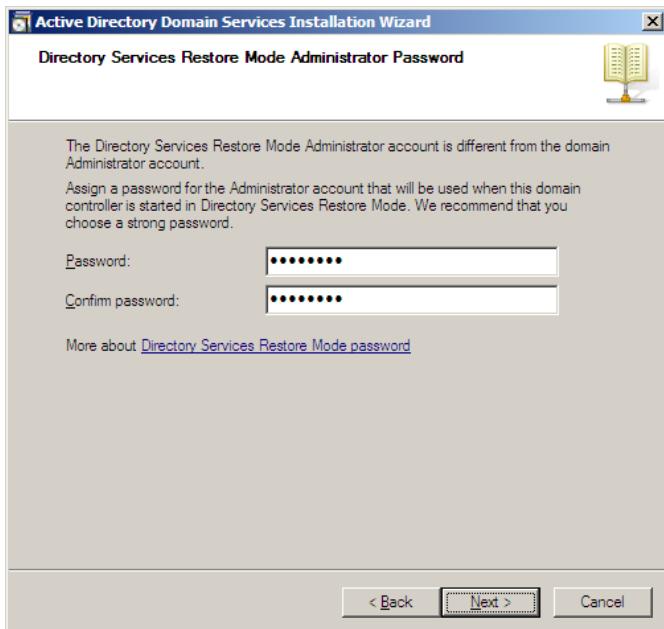
12. Click Yes to continue.



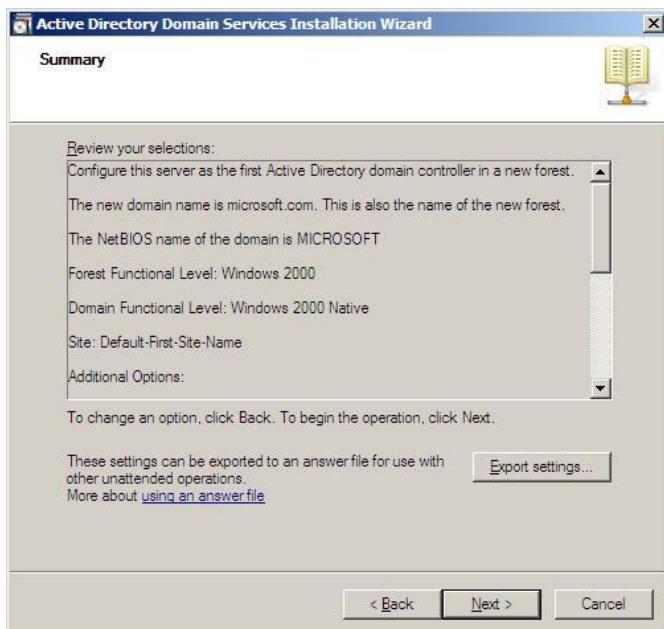
13. On Database and log locations page, accept the default locations and click Next.



14. On Directory Services Restore Mode Administrator Password page, enter the **password and confirm password** and click **Next**.



15. On **Summary** page, review the Options you selected and **Next**.



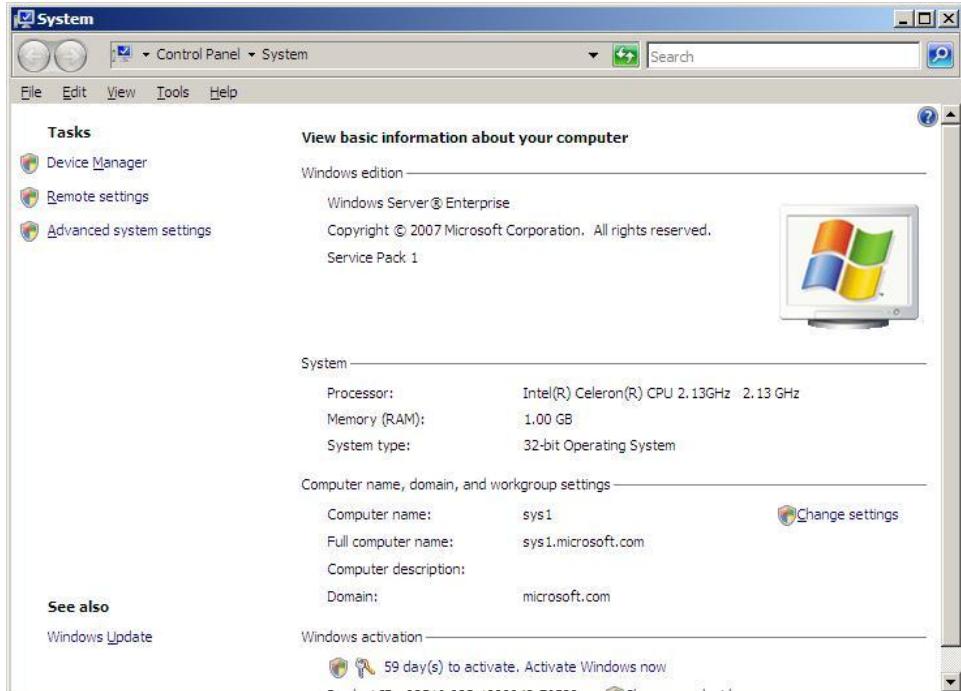
16. The **Active Directory Installation** starts and check box **Reboot on Completion**.



17. Computer restarts after the Installation of Active Directory Domain Services.
18. After restarting the computer, **Active directory** will be installed.

### **Verification:**

1. Right click **Computer Icon → Properties**.
2. In **Computer Name, domain, and workgroup settings** verify for the **domain name MICROSOFT.COM**.

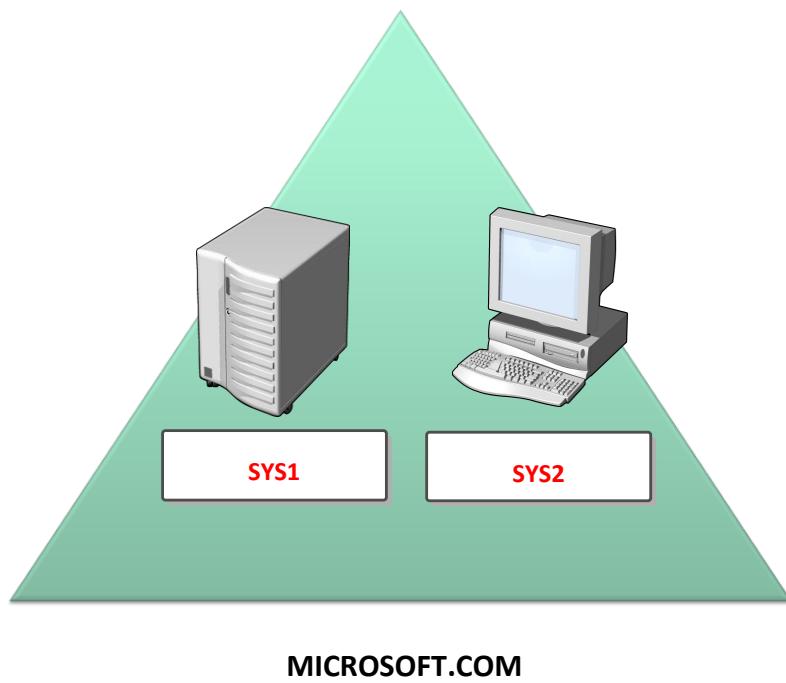


## MEMBER SERVER/CLIENT and USER MANAGEMENT

### Pre-requisites:

Before working on this lab, you must have

1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server or Windows 7.



SYS1

Domain Controller

IP Address 10.0.0.1

Subnet Mask 255.0.0.0

Preferred DNS 10.0.0.1

SYS2

Member Server / Client

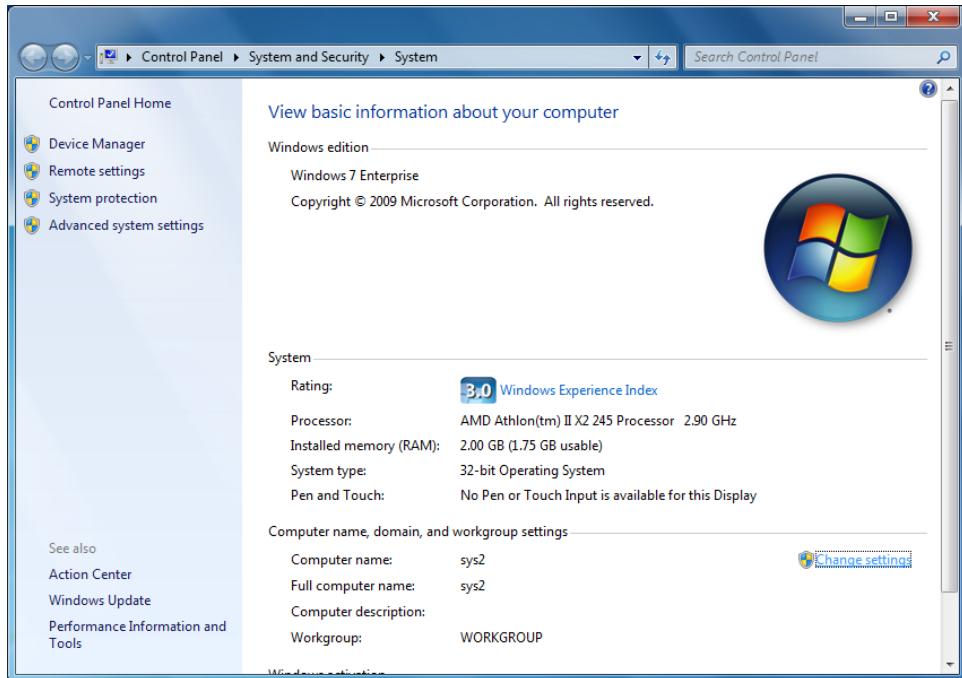
IP Address 10.0.0.2

Subnet Mask 255.0.0.0

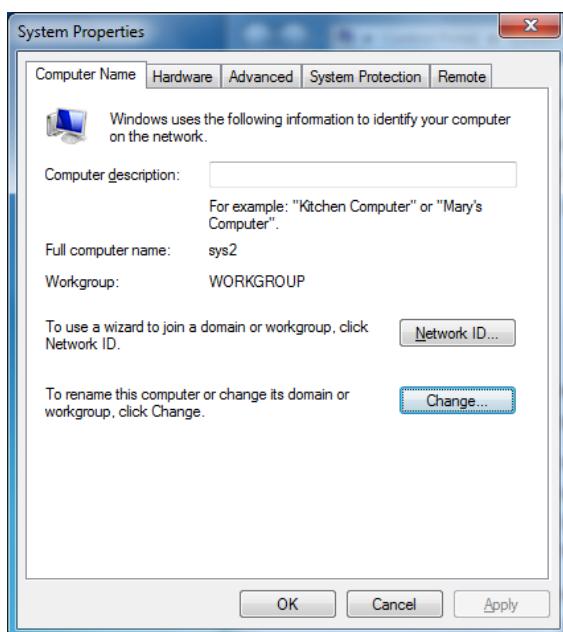
Preferred DNS 10.0.0.1

## Lab – 1: Configuring Client (Windows 7)

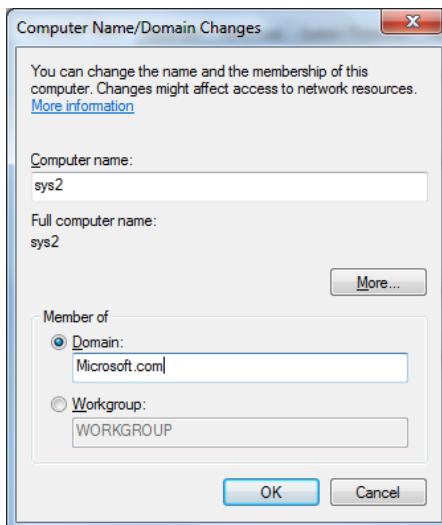
1. Log in as **Administrator** to **Workgroup Computer**.
2. Right click **Computer Icon** and click **Properties** and click **Change settings**.



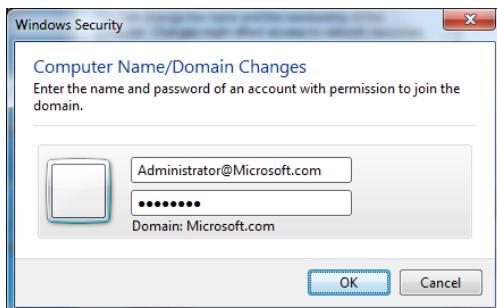
3. In the System properties dialog box click **Change**.



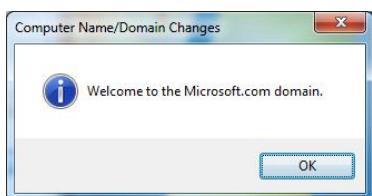
4. Select the Member of **Domain** and enter the Domain Name.(Ex:**Microsoft.com**).



5. Enter the user name **Administrator** and his **Password**, click **OK**.



6. Welcome Message appears indicating that the computer was successful in joining the Domain.



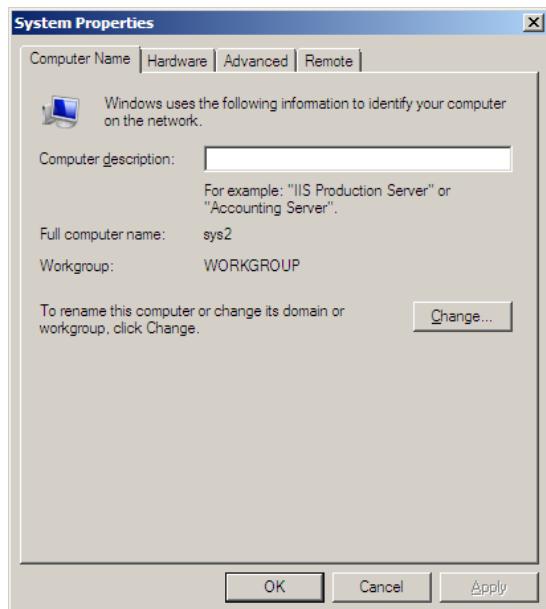
7. Click **OK** and click **Close** to close the System Properties dialog box. It will ask for restart, click **Yes**.
8. After restarting the computer, it will become **Client**.

### **Verification:**

1. Right click **Computer Icon** → **Properties**.
2. Click **Computer Name, domain, and workgroup settings** and verify for the **Domain Name MICROSOFT.COM**.

## Configuring Member server

1. Log in as **Administrator** to **Workgroup Computer**.
2. Right click **Computer** and click **Properties** and click **Change settings**.
3. In the System properties dialog box click **Change**.



4. Select Member of **DOMAIN** and enter the Domain Name.(Ex:**Microsoft.com**)



5. Enter the user name **Administrator** and his **Password**, click **OK**.



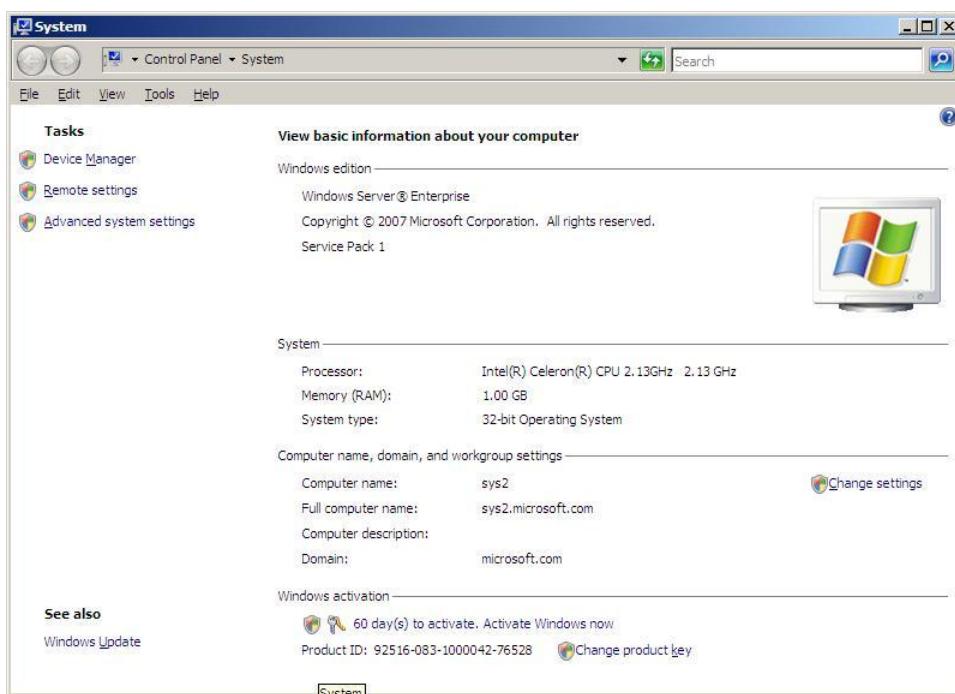
6. Welcome Message appears indicating that the computer was successful in joining the Domain, click **OK**.



7. Click **OK** → click **OK** and click **Close** to close the System Properties dialog box. It will ask for restart, click **Yes**.
8. After restarting the computer it will become **Member Server**.

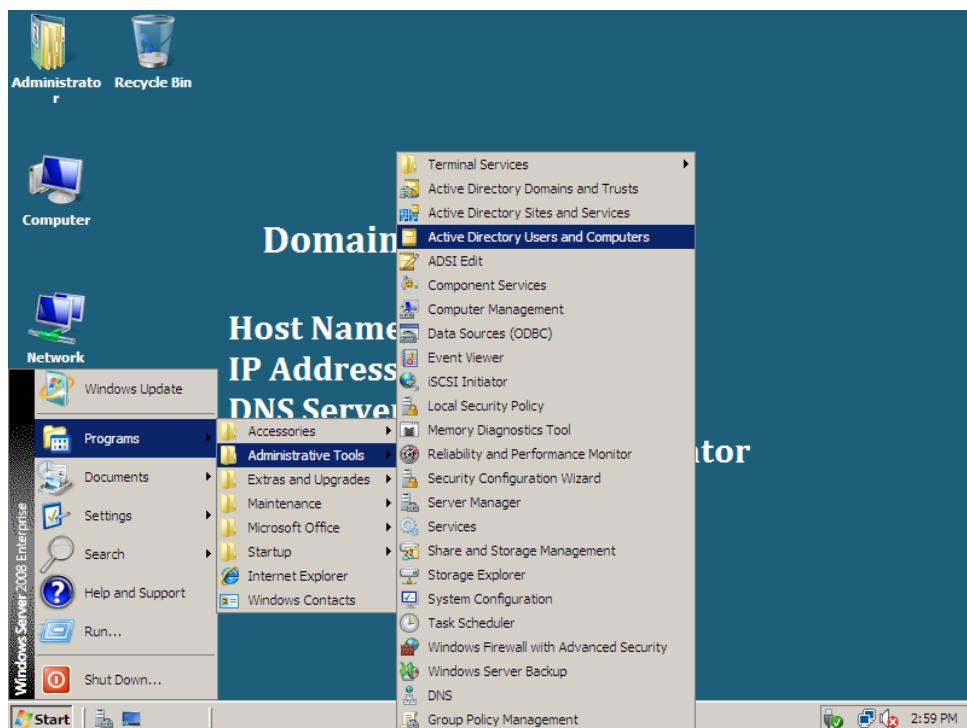
### **Verification:**

1. Right click **Computer Icon** → **Properties**.
2. Click **Computer Name, domain, and workgroup settings** and verify for the **Domain Name MICROSOFT.COM**.

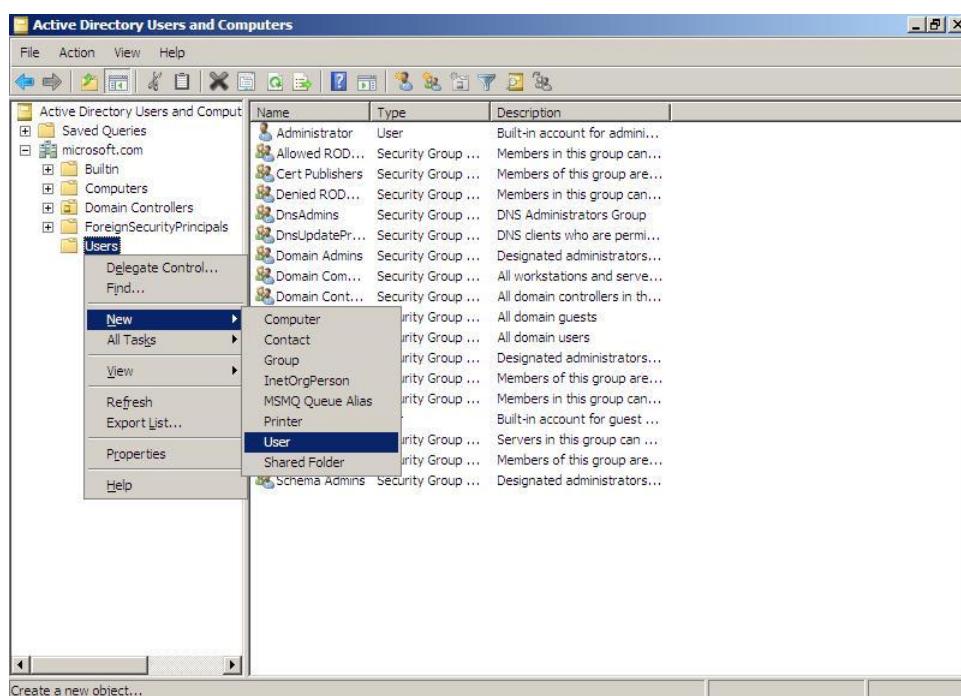


## Lab – 2:Creating Domain User Accounts

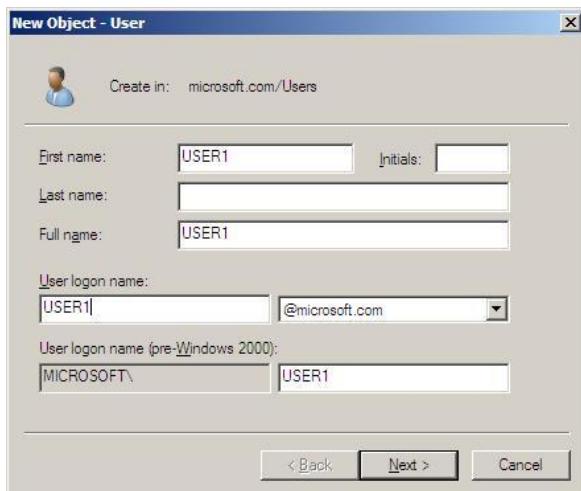
1. Log in as **Administrator** to the **Domain Controller**.
2. Click Start → Programs → Administrative Tools → Active Directory Users and Computers.



3. In the console tree, expand your domain **MICROSOFT.COM**, and then Right Click **Users Container**, select **New User**.



4. Specify the **First name**, and **User Logon name** and then click **Next**.



5. Enter the **Password** and **Confirm Password** for the User account, click **Next**.



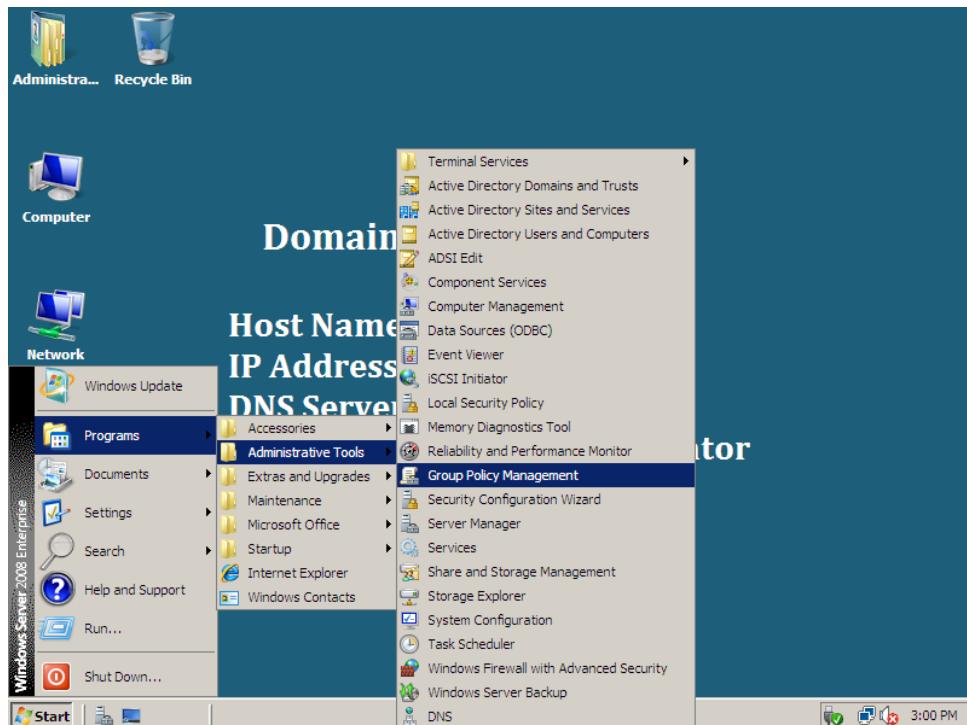
6. Review the configuration settings for the User Account and then click **Finish**.

### **Verification:**

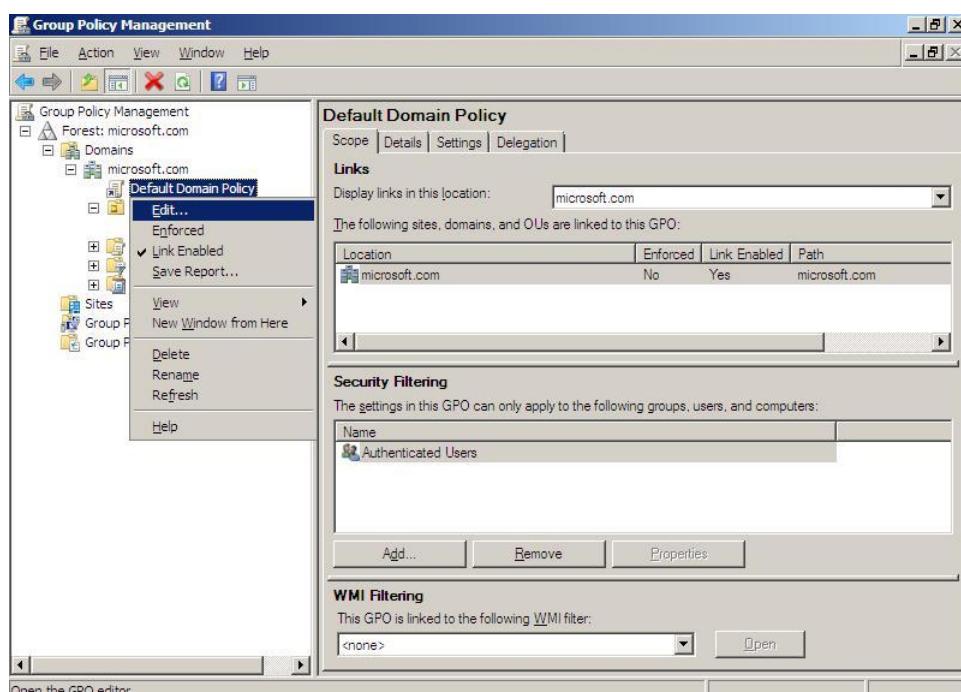
1. Login as User (**User1@Microsoft.com**) in Member Server or Client.

### Lab – 3: Changing Default Password Policy

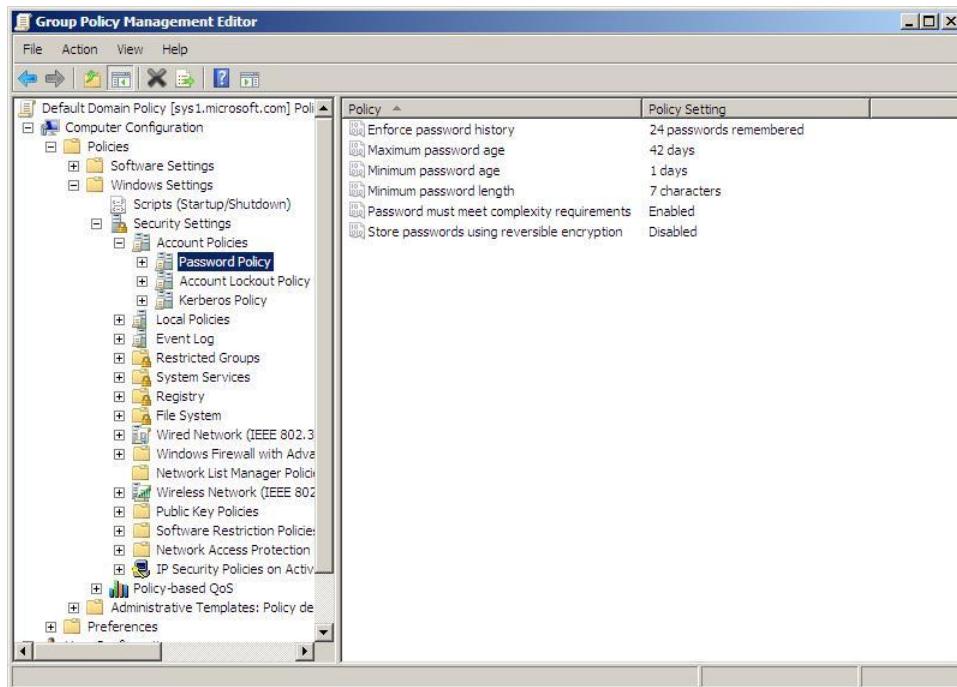
1. Log in as **Administrator** to the **Domain Controller**.
2. Click Start → Programs → Administrative Tools → **Group Policy Management Console**.



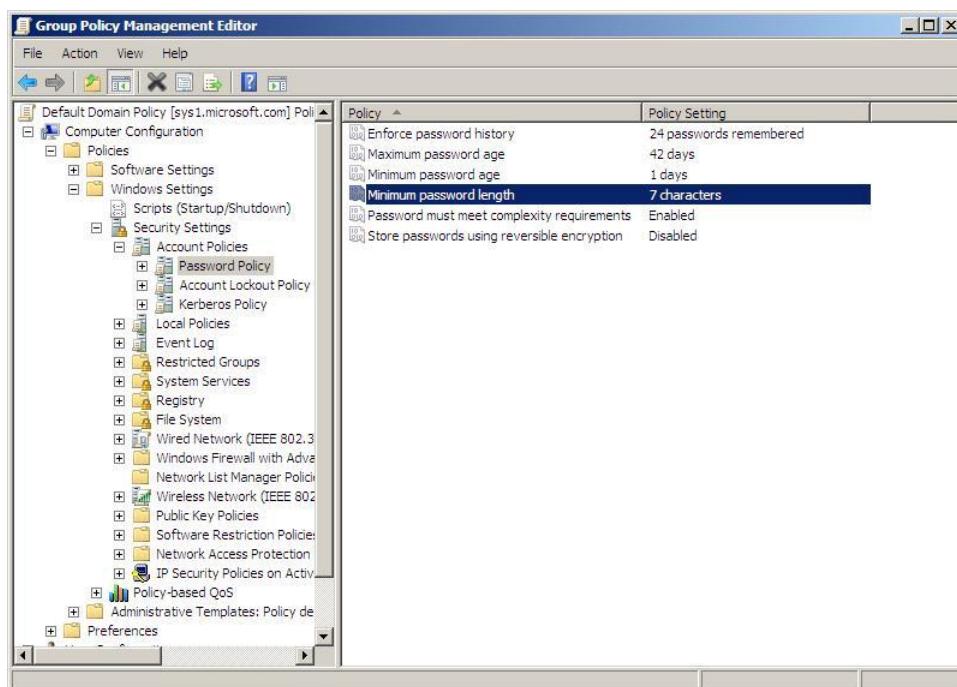
3. Expand Forest → Expand Domains → Expand Microsoft.com → Right click **Default Domain Policy** and select **Edit**.



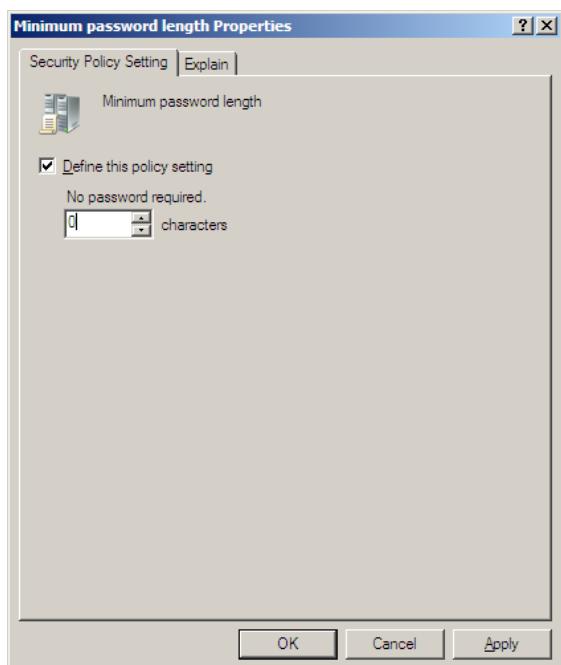
4. Expand Computer Configuration → Expand Policies → Expand Windows Settings  
 → Expand Security Settings → Expand Account Policies → Open Password Policy.



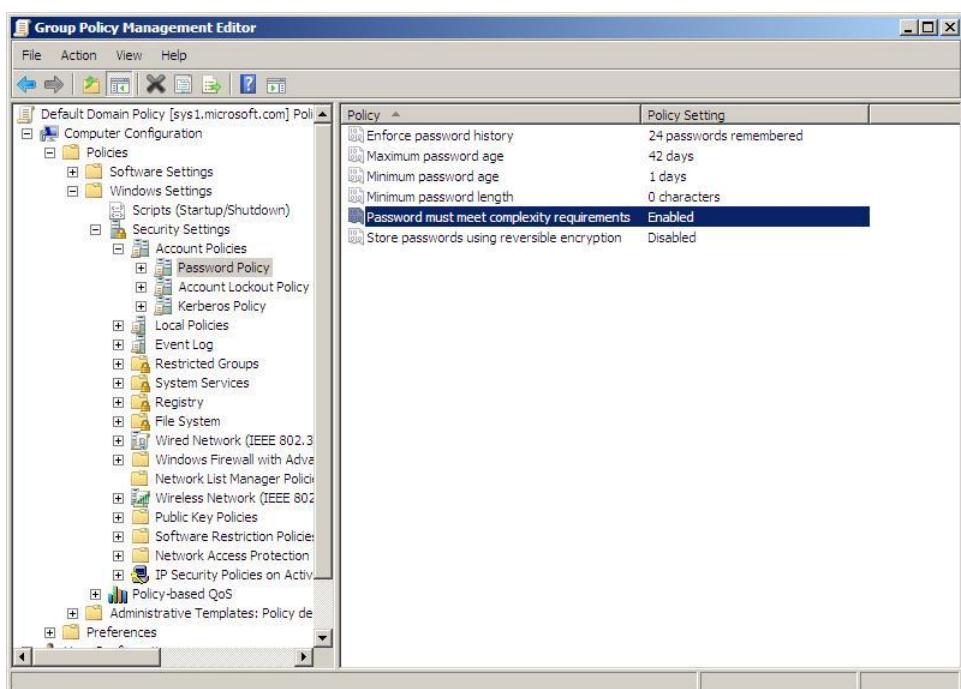
5. Double click Minimum Password Length.



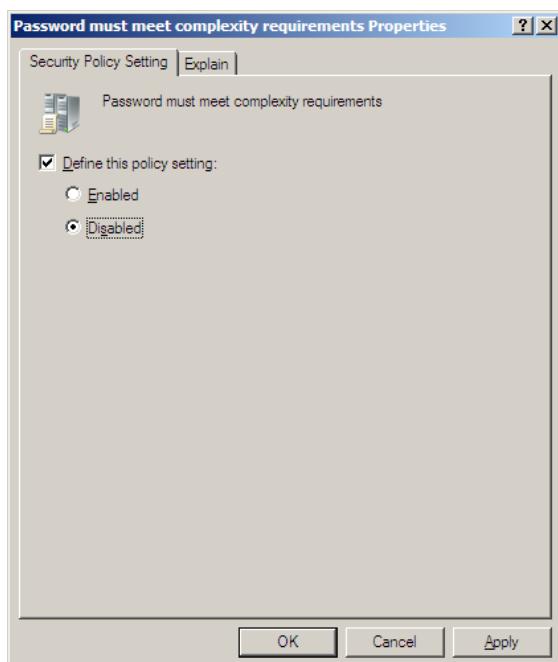
6. Change the length value from **(7 to 0)** and click **Apply** and **OK**.



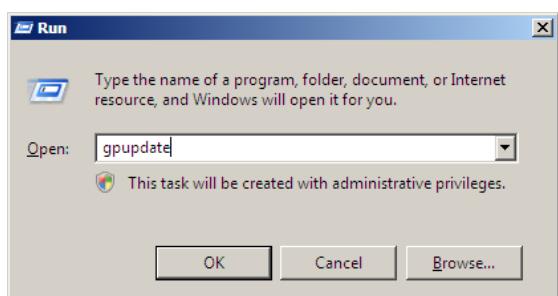
7. Double click **Password must meet complexity Requirements**.



8. Select **Disabled** and **Apply** and **OK**.



9. Click Start → Run and Type **GPUPDATE** and It refreshes the policy changes.

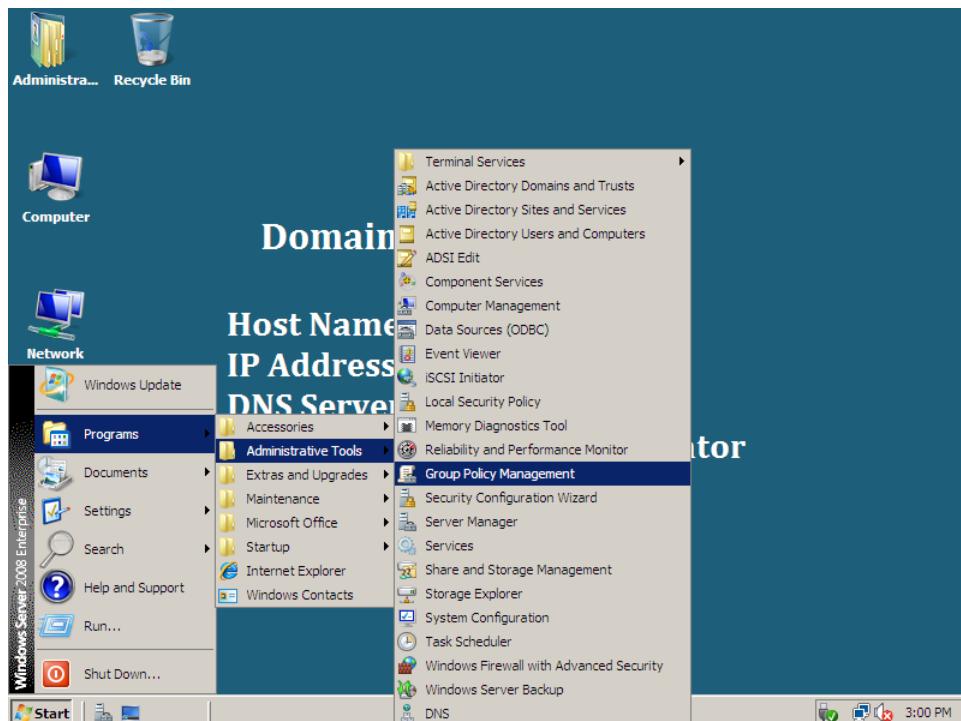


### Verification:

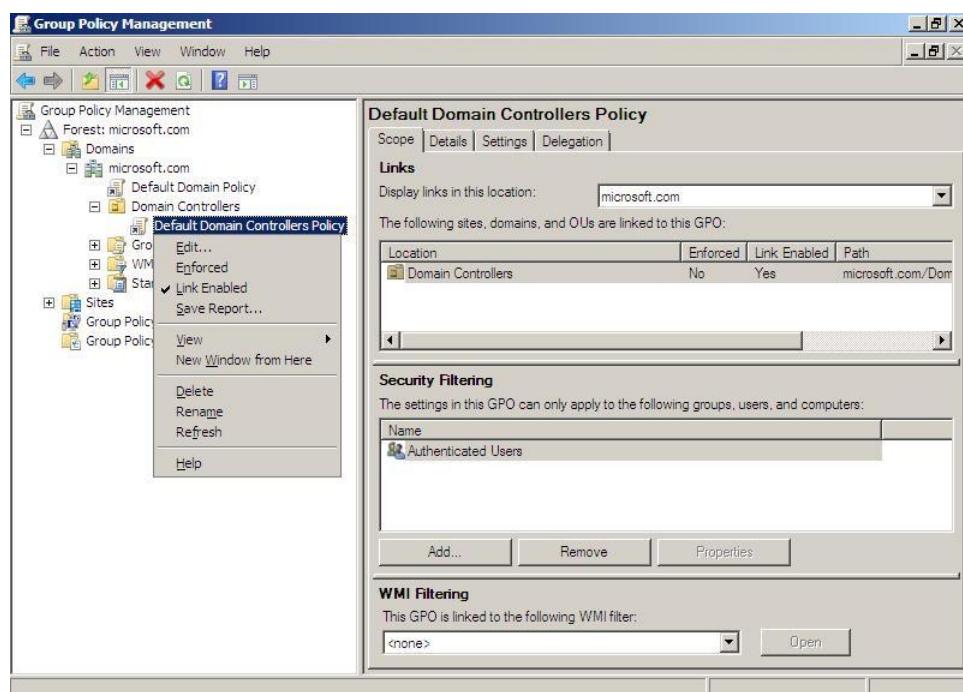
1. Go to **Active Directory Users and Computers** and Create a User **with any Password or without any Password**.

## **Lab – 4: Changing Allow Logon Locally Policy**

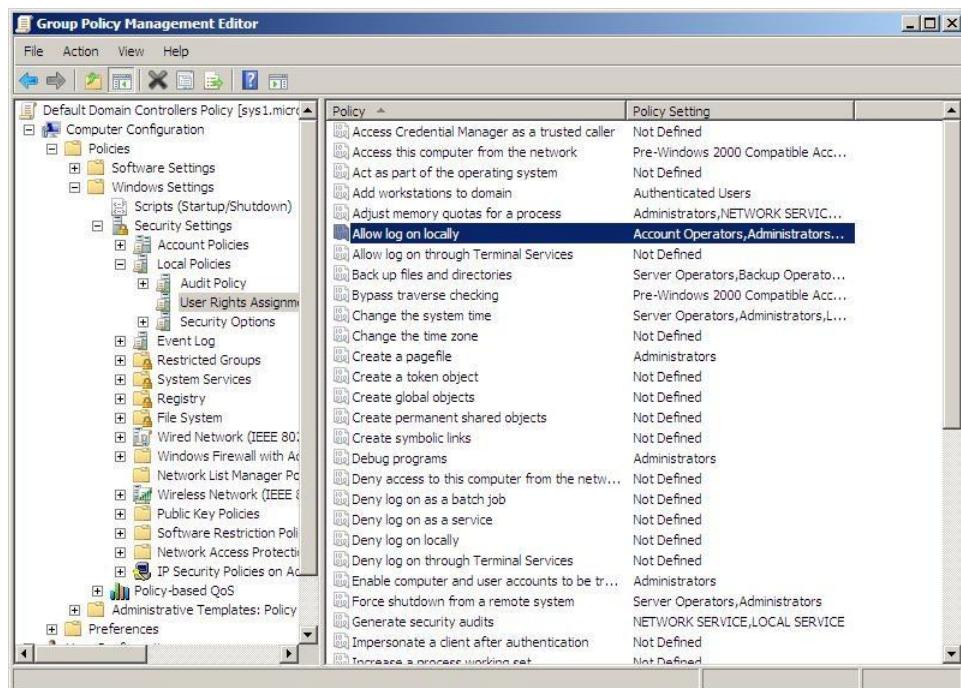
1. Log in as **Administrator** to the **Domain Controller**.
2. Click Start → Programs → Administrative Tools → **Group Policy Management Console**.



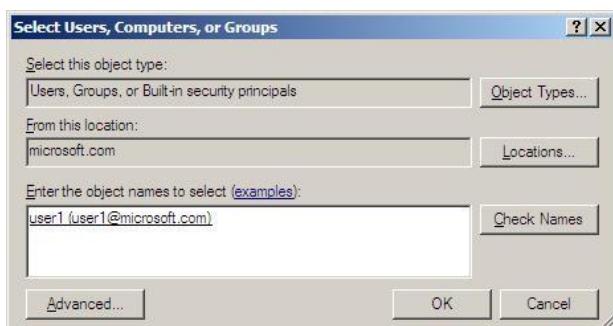
3. Expand **Forest** → **Expand Domains** → **Expand Microsoft.com** → **Expand Domain Controllers** → Right click **Default Domain Controller Policy** and select **Edit**.



4. Expand **Computer Configuration** → Expand **Policies** → Expand **Windows Settings**  
 → Expand **Security Settings** → Expand **Local Policies** → Select **User Rights Assignment** → Double click **Allow logon locally**.



5. Click **Add User or Group** → Click **Browse** → Enter the **User name** → Click **OK**.



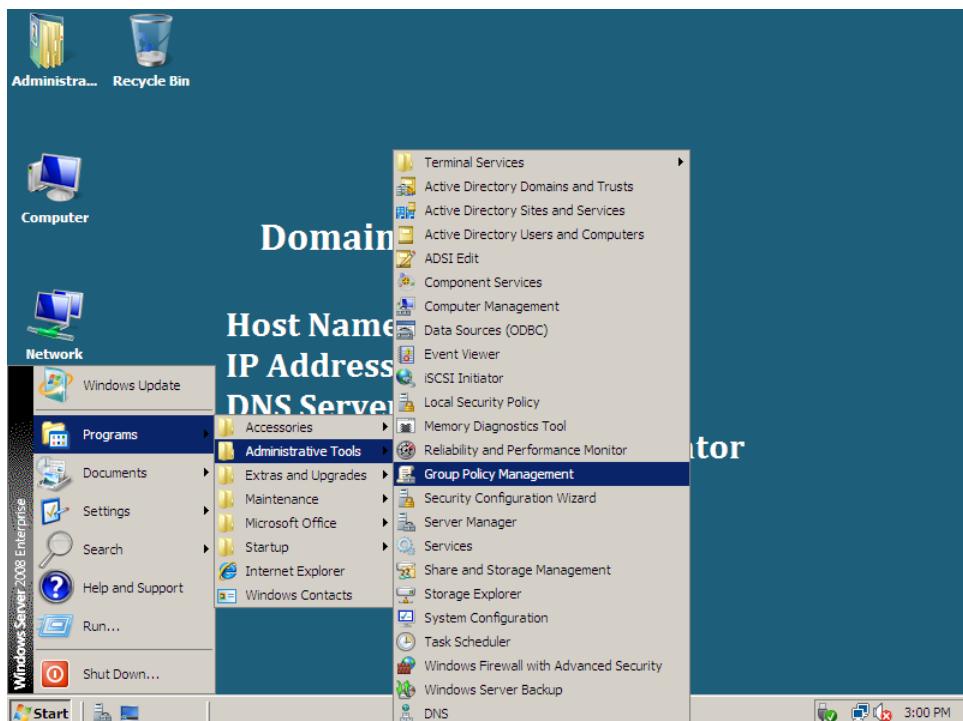
6. Click **OK** → **OK** → **Apply** and **OK**.
7. Click Start → RUN and Type **GPUPDATE** and It refreshes the policy changes.

### **Verification:**

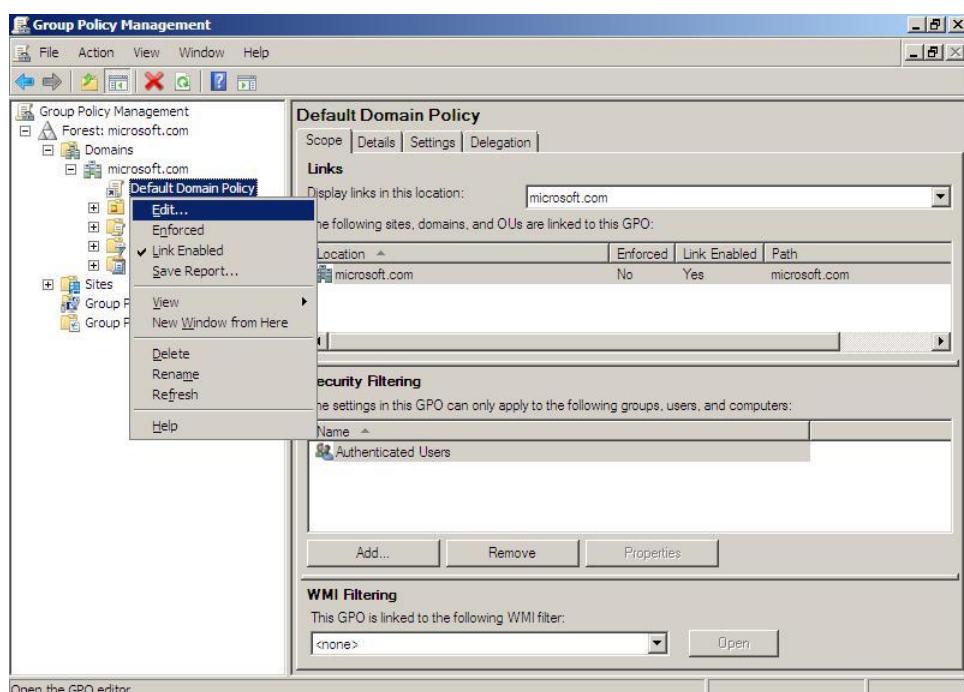
1. Log on to Domain Controller as **Domain User (User1)**.

### Lab – 5: Enabling Account Lockout policy

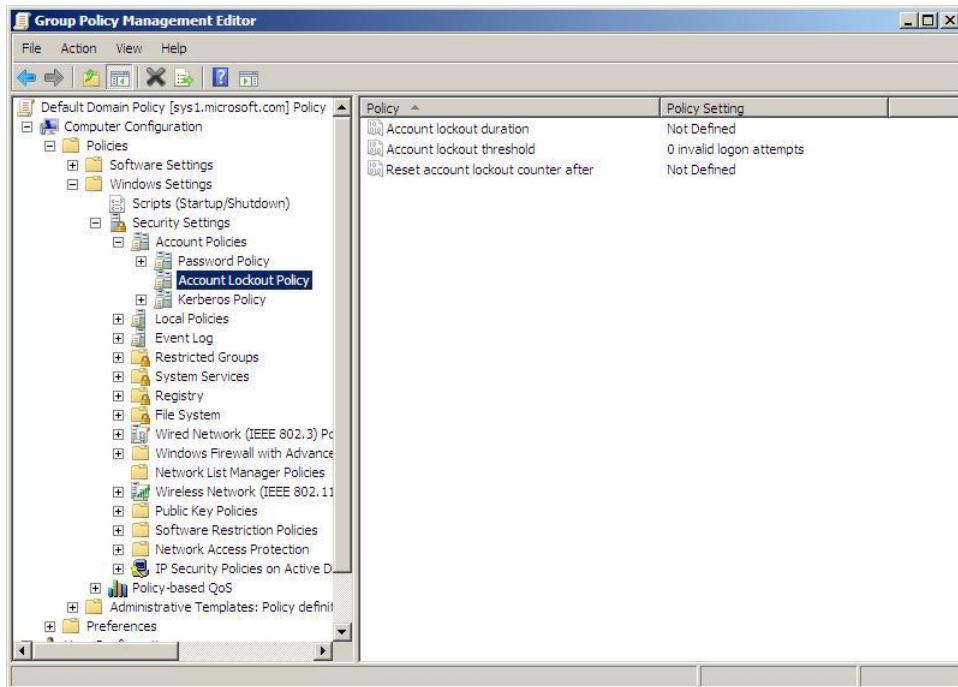
1. Log on to D.C as Administrator, click Start → Programs → Administrative Tools → Group Policy Management.



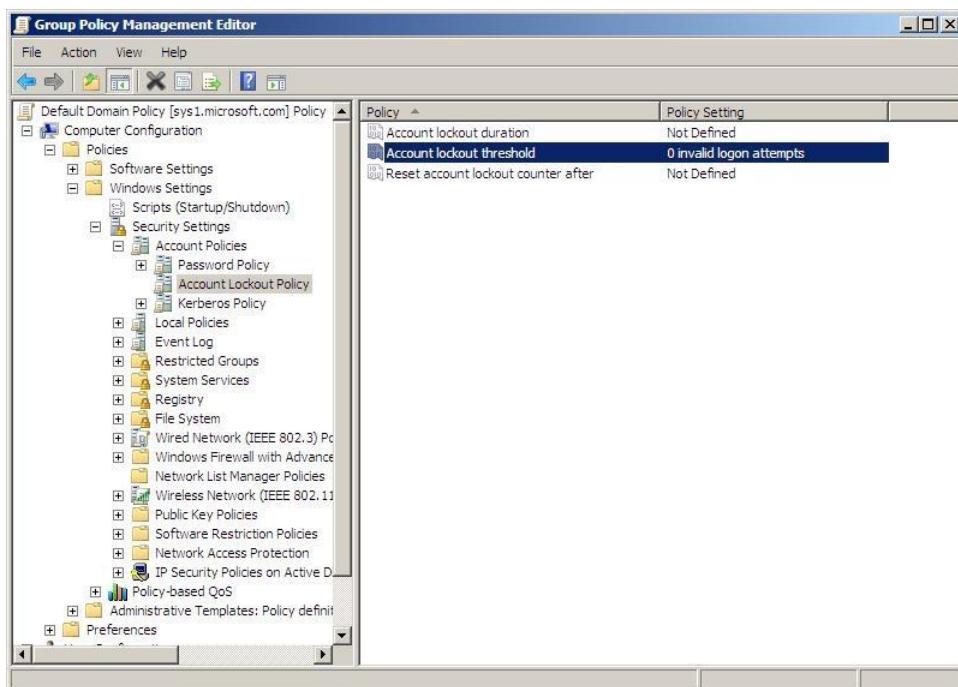
2. Expand Forest → Expand Domains → Expand Microsoft.com → Right click Default Domain policy and select Edit.



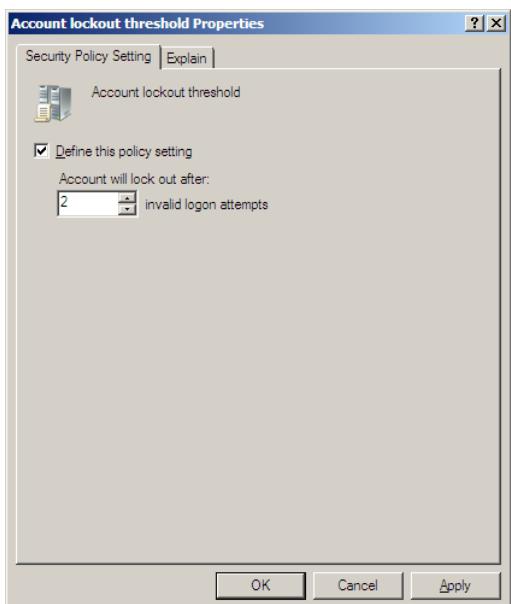
3. Expand **Computer Configuration** → Expand **Policies** → Expand **Windows Settings** → Expand **Security Settings** → Expand **Account Policies** → Open **Account Lockout Policy**.



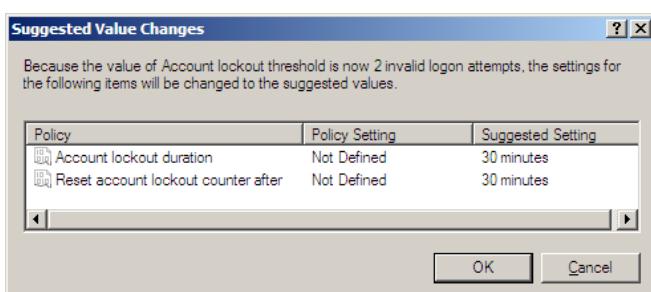
4. Double click **Account lockout threshold**.



5. Enter the Value for Number of **invalid logon attempts**(Ex: 2)



6. Set the **Account lockout duration** and click **OK**.



7. Close the **Group Policy Management** Window.

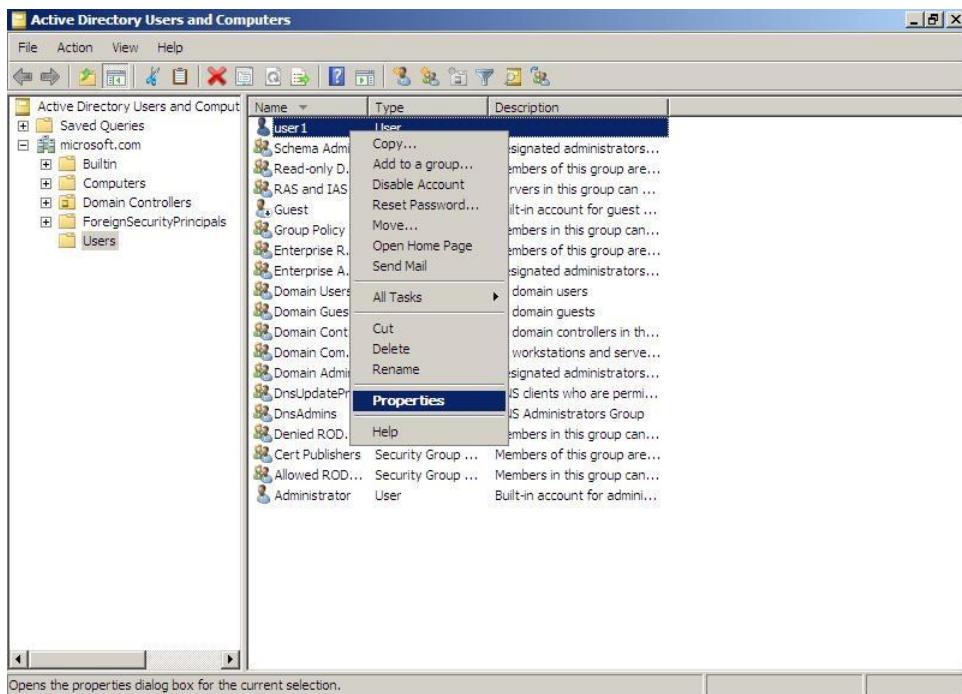
### **Verification:**

1. Enter the password for **user (User1)** wrongly for 2 times while logging in and the user account will be locked.

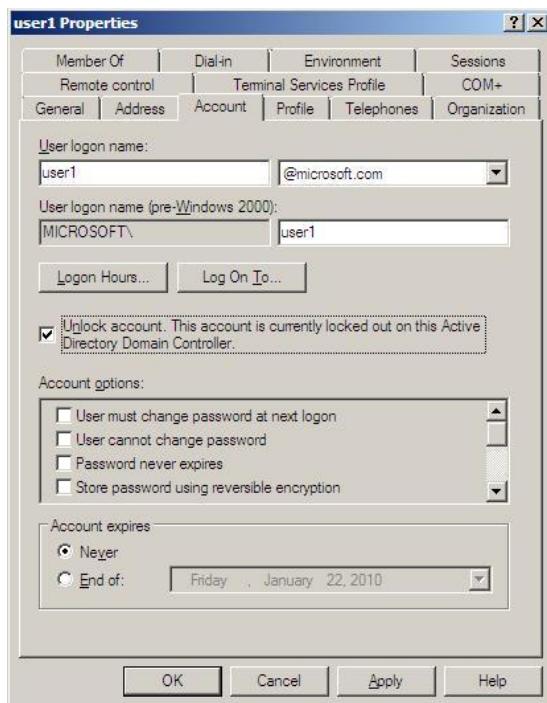
### **Unlocking the locked User account Manually**

1. Log on to D.C as Administrator, click Start → Programs → Administrative Tools → Active Directory Users and Computers.

2. Right click the User (**User1**) and select **Properties**.



3. Check the box **Unlock account** → click **Apply** and **OK**.



### **Verification:**

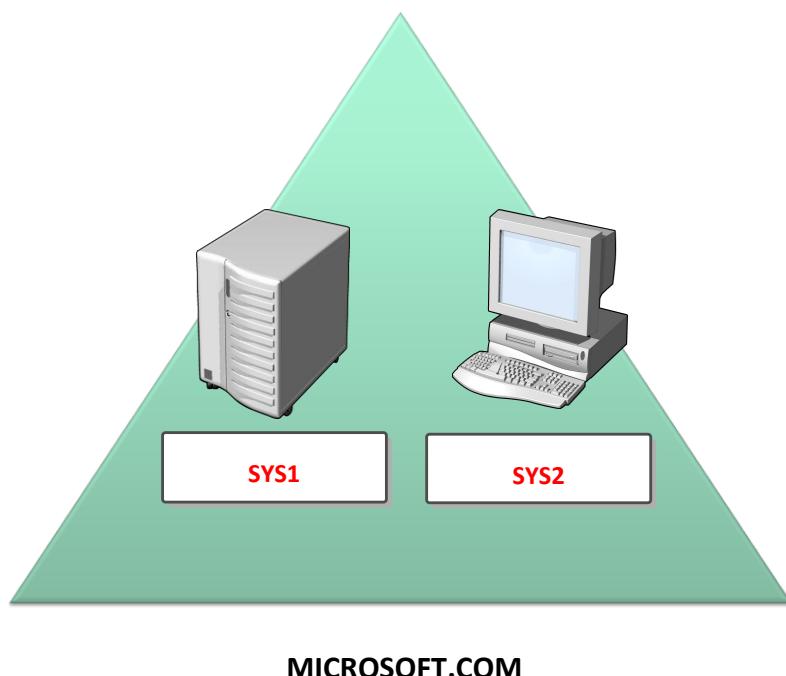
1. Log in as User (User1) in client or Member Server.

## PERMISSIONS

### Pre-requisites:

Before working on this lab, you must have

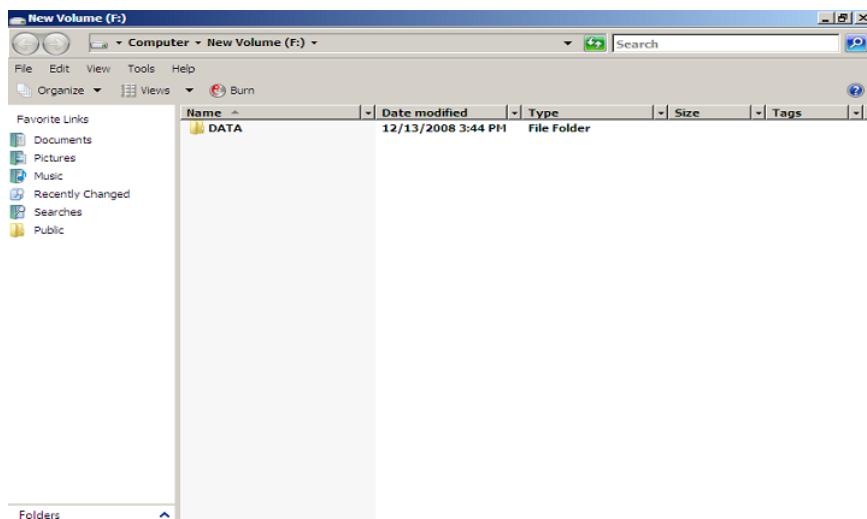
1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server or Windows 7.



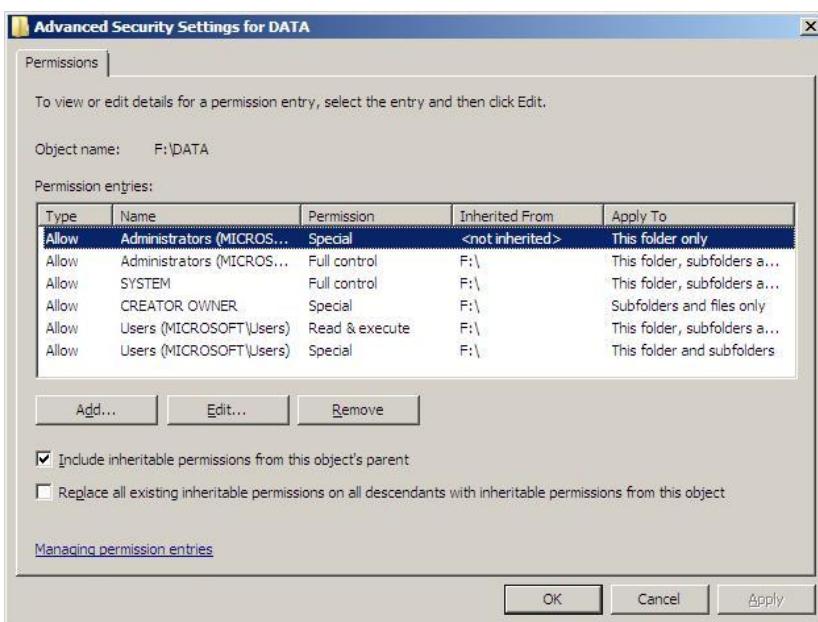
SYS1	SYS2
<b>Domain Controller</b>	
IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1
<b>Member Server / Client</b>	
IP Address	10.0.0.2
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1

## Lab – 1: Security Level Permissions

1. Open Computer → Go to any NTFS partition and create a folder (**DATA**), along with some files in it.

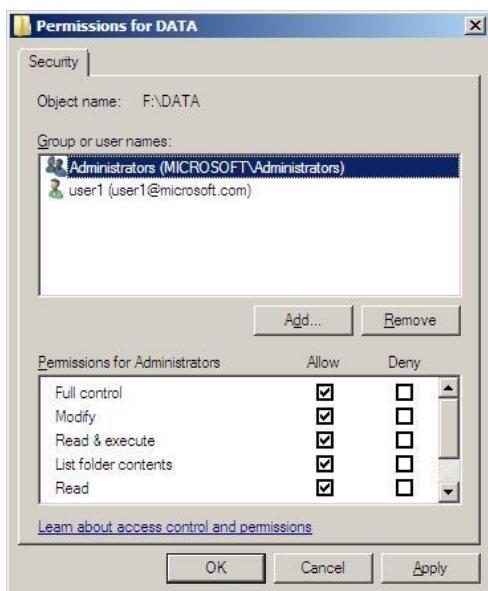


2. Right Click the folder (**DATA**) and Select Properties and Click **Security tab** → click **Advanced tab** → Click **Edit** → Clear the box on “**Include inherit permissions from this objects parent**”.



3. Click **Remove** → **Apply** → **OK** → **OK**
4. Click **Edit**

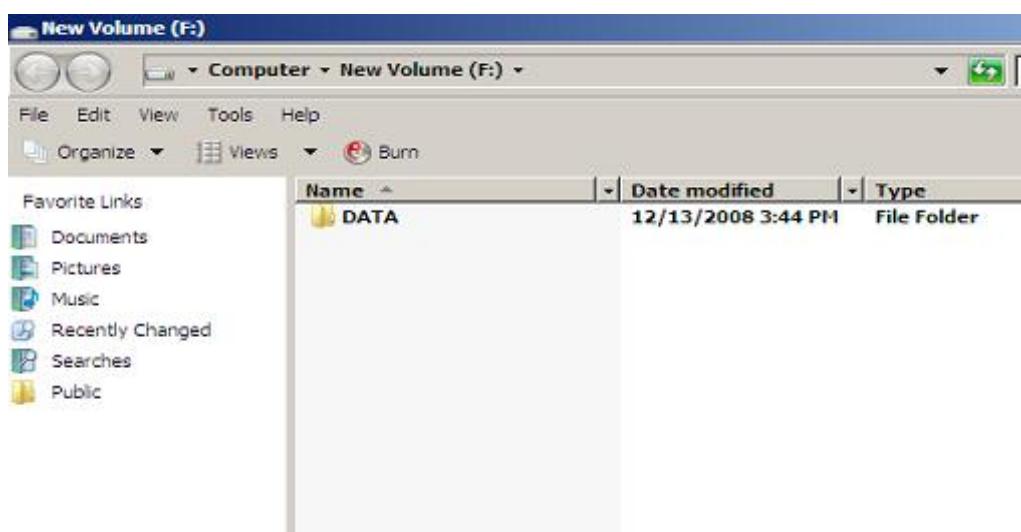
5. Add **Administrator** or **Administrators** and Allow **Full control** permission.



6. Then Add the **Users (User1)** and Allow **Read** permission.  
7. Click **Apply → OK → OK**

#### **Verification:**

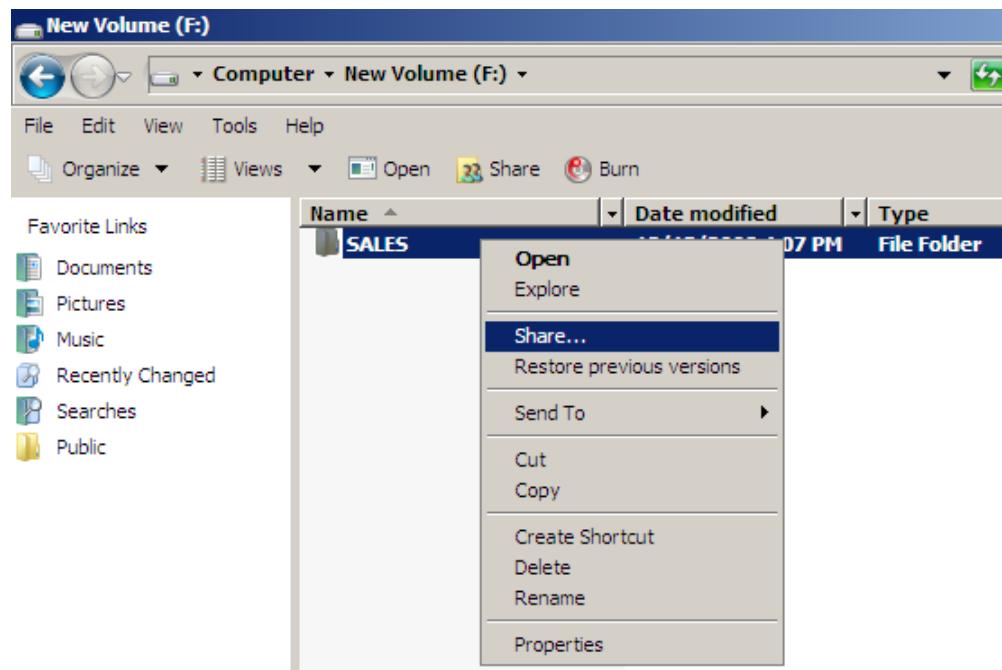
1. Login as **User(User1)** on the same computer, and Open Computer icon, and verify the respective permissions by accessing the folder.



2. The User can just read the Files and Folders.

## Lab – 2: Share Level Permissions

1. Logon to a Computer as **Administrator**, Open Computer → Open any drive and create a folder (**SALES**) along with some files in it.
2. Right Click the folder (**SALES**) and Select **Share**



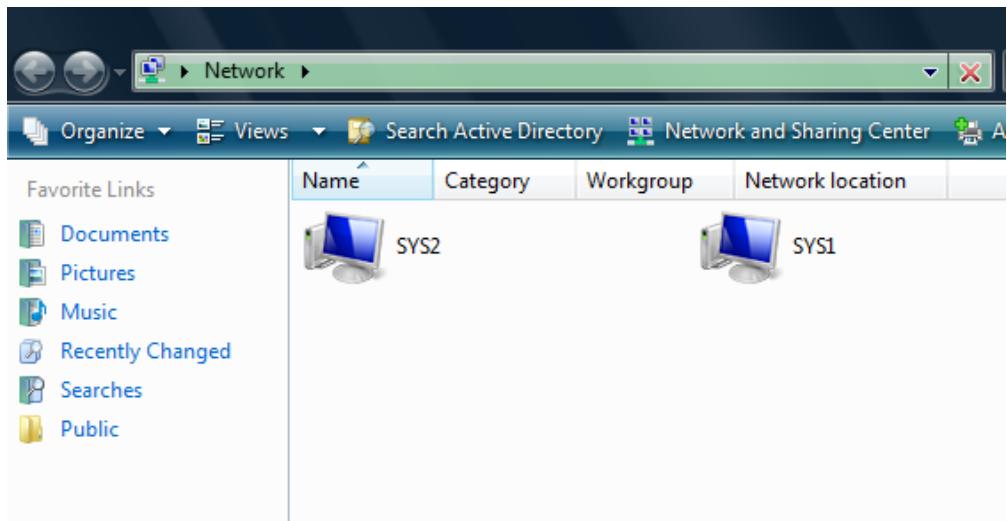
3. Select the drop down arrow mark and select **Find** → enter the User name (**User1**) → click **OK** → select the User(**User1**)and assign Permissions (Ex: **Co-Owner**) → click **Share** → click **Done**.



### **Verification:**

#### **Access the Shared folder**

1. Logon to Member Server or Client as User (**User1**) → Open Network.



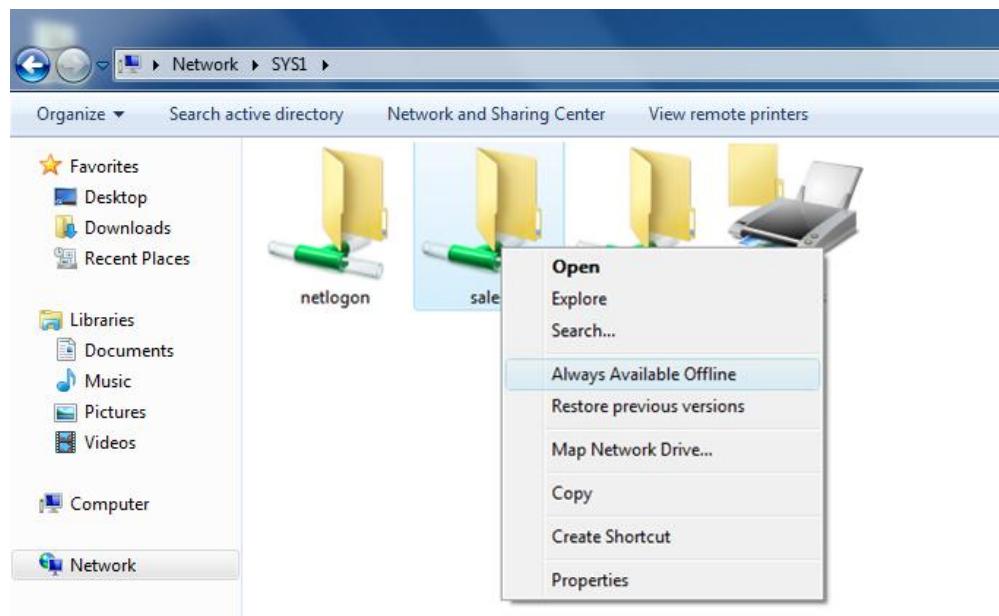
2. Open **System Name** in which the shared folder is present.
3. Access the shared folder (**SALES**) & verify the permissions by creating some files.

#### **Accessing Shared folders using UNC Path:**

1. Logon to Member server or Client as a User.
2. Click Start → click Run and type the Syntax <\\Servername\\Sharename>.  
Example: <\\SYS1\\SALES>

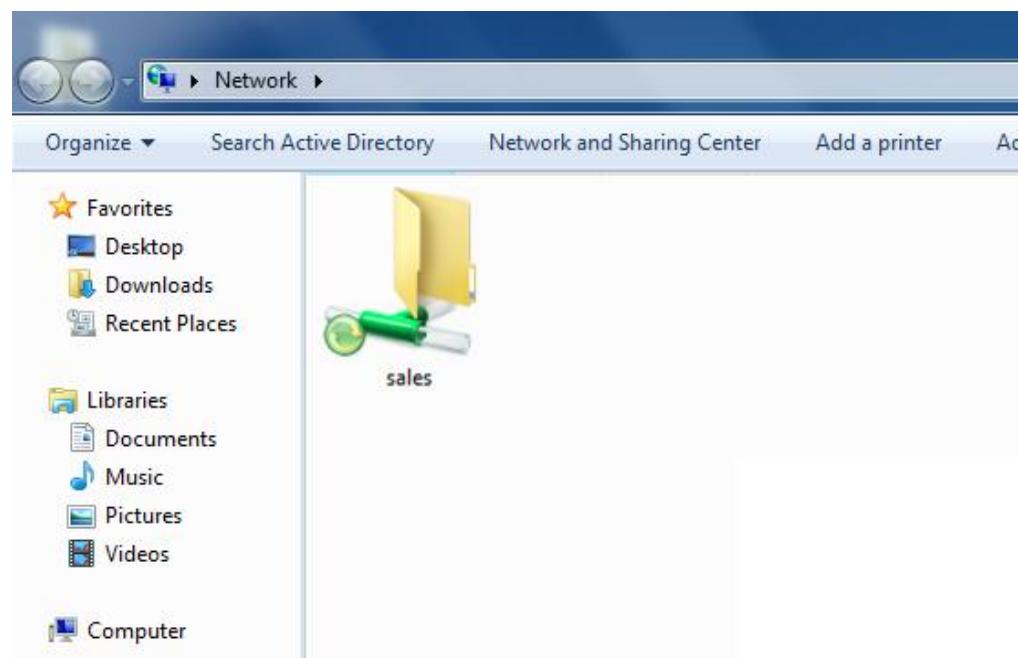
### **Lab – 3: Configuring Offline Files in Client (Windows 7)**

1. Log on to D.C as Administrator, Open **Computer** → Go to a drive and create a shared folder **Sales** with **Everyone** as **Co-owner** permission.
2. Log on to **Client (SYS2)** as Administrator → open Network → open the system name of DC (SYS1) → Right click the shared folder and select **Always Available Offline**.

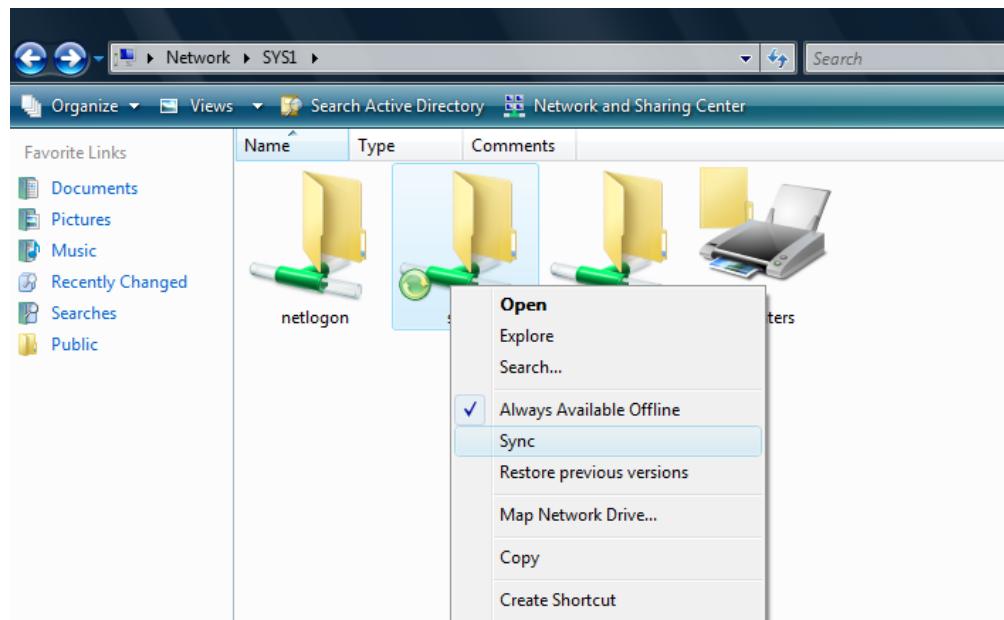


#### **Verification:**

1. **Disconnect or Disable the Network connection**, and try to access the shared folders from network and only **Sales** folder will be visible and accessible.



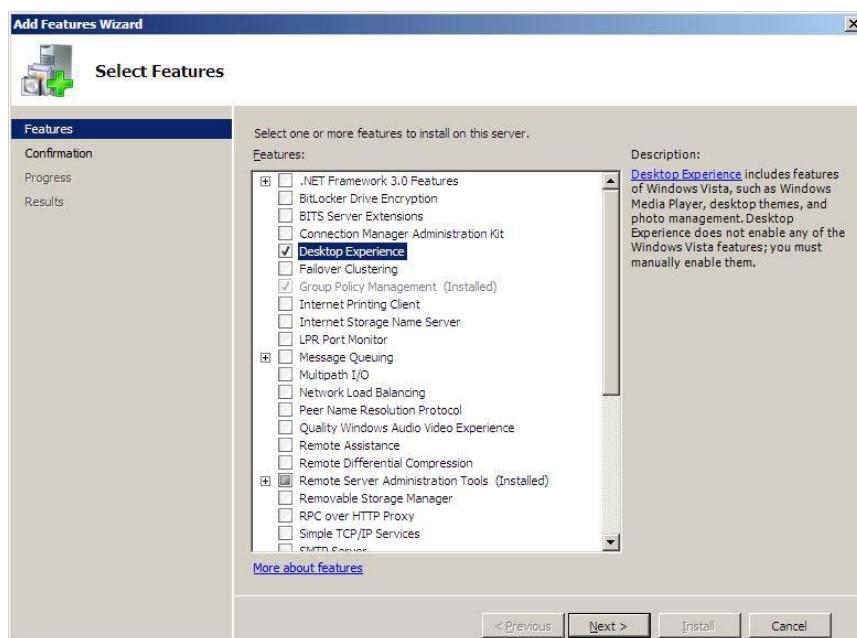
2. Open the **SALES** folder & make some modifications (Create some files in it).
3. Then **connect** or **Enable the Network connection**, then Right Click the shared folder & click **Sync**.



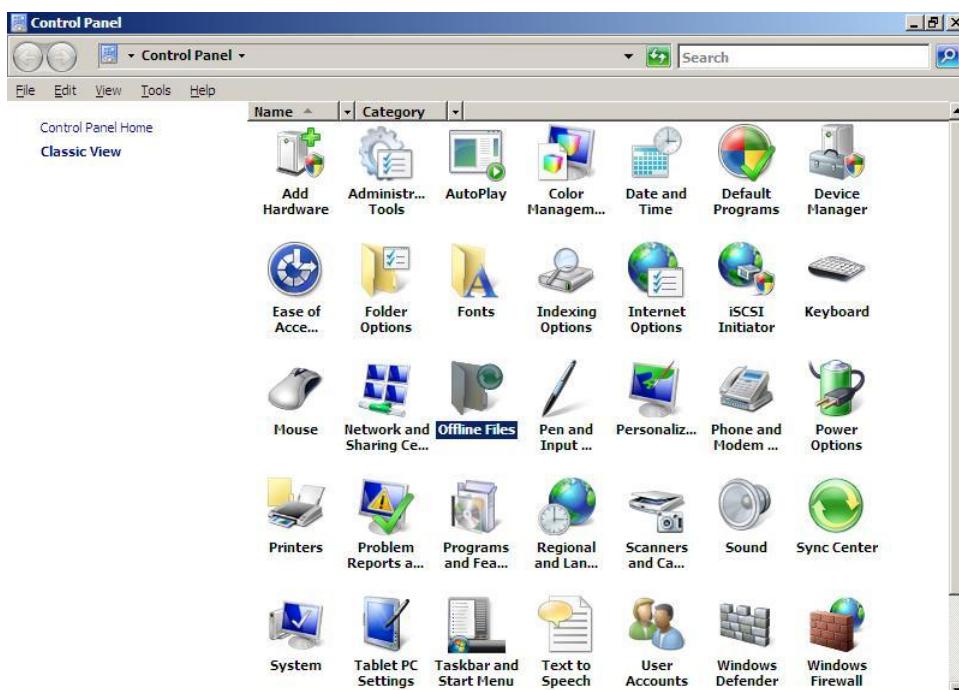
4. Modifications will be **updated** on the shared folder (In the server).

## Configuring Offline Files in Member Server (Windows 2008)

1. Log on to D.C as Administrator, Open **Computer** → Go to a drive and create a shared folder **Sales** with **Everyone** as **Co-owner** permission.
2. Log on to Member Server **SYS2** as Administrator, Open Server Manager → click Features → click Add Features → Next → Check the box for **Desktop experience** → Next → Click Install.



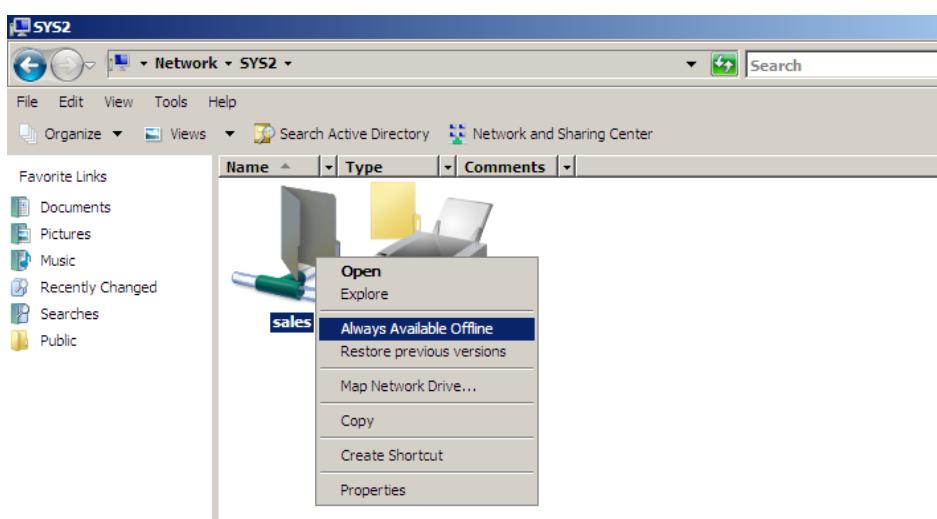
3. Click close → select Yes to restart the system.
4. Click Start → Settings → Control Panel → Double click the option **Offline Files**.



5. Click **Enable Offline Files** → click **OK** → Click **Yes** to restart the system.



6. Log on to **Member Server SYS2** as Administrator → Open Network → Open system name of DC → Right click the shared folder and select **Always Available Offline**.



### Verification:

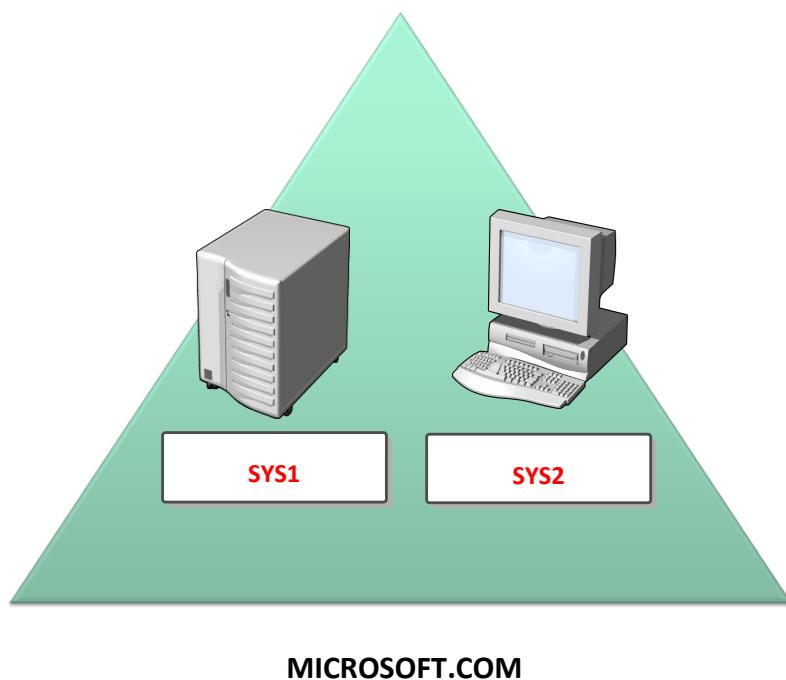
1. **Disconnect or Disable the Network connection**, and try to access the Shared Folders from network and only **SALES** folder will be visible and accessible.
2. Access the **SALES** folder & make some modifications (Create some files in it).
3. **Connect or Enable the Network connection**, then Right Click the shared folder & click **Sync**.
4. Modifications will be **updated** on the shared folder (In the server).

## PROFILES

### Pre-requisites:

Before working on this lab, you must have

1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server or Windows 7.



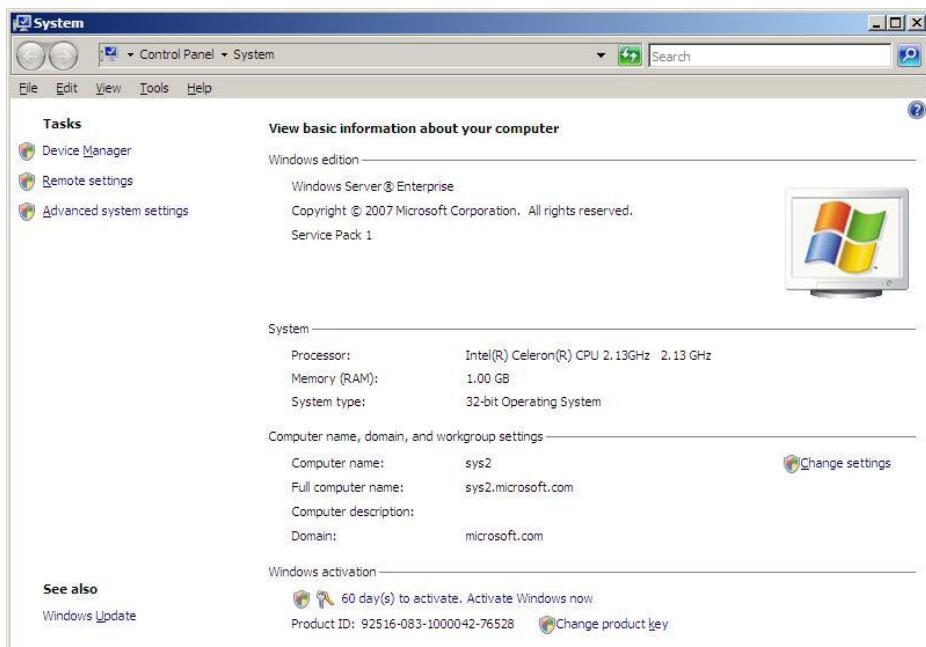
SYS1		SYS2	
Domain Controller		Member Server / Client	
IP Address	10.0.0.1	IP Address	10.0.0.2
Subnet Mask	255.0.0.0	Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1	Preferred DNS	10.0.0.1

## Lab – 1: Configuring Local Profiles

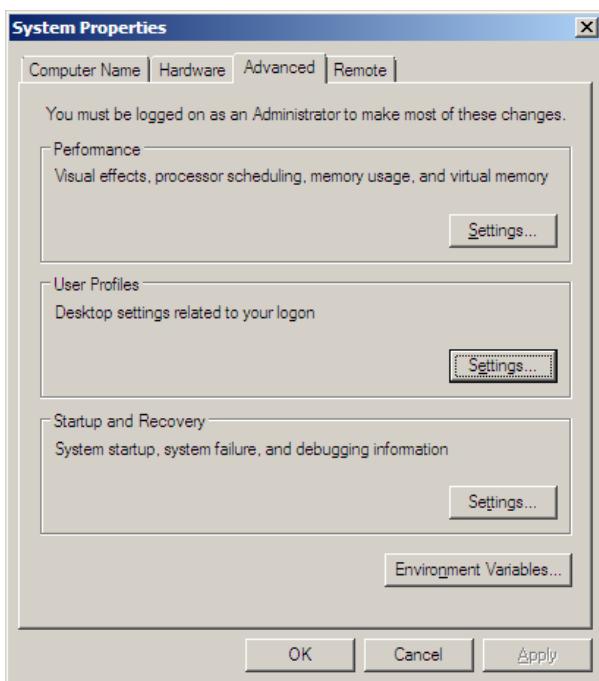
1. Log on to **Domain Controller** as **Administrator**.
2. Go to **Active Directory Users and Computers** and create **Users** (Ex:a1, a2).

### Verification:

1. Login as **User (a1)** on **Client or Member Server**.
2. Right click **Computer** → select **Properties**, click **Advanced System Settings**.



3. Select **Settings of User Profiles**.



4. Verify for User Profile Type and Status to be Local.



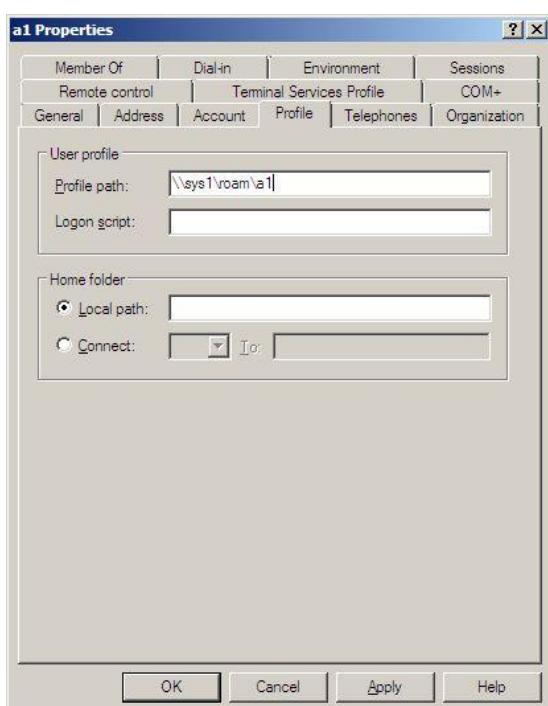
5. Create some files on desktop and go to C: drive → Open Users → Open the user profile(al) folder → open desktop folder → verify for the files created on Desktop.

## Lab – 2: Configuring Roaming Profiles

1. Log on to D.C as Administrator, Open **Computer** → Go to a drive and create a shared folder **roam** with **Everyone** as **Co-owner** permission.
2. Go to **Active Directory Users and Computers** → Expand the Domain Name (**MICROSOFT.COM**) → click **Users** → Right click the **User(a1)** and select **Properties** and select the **Profile tab**.
3. Under User profile → enter profile path as

Syntax:    \\Servername\\Shared Folder Name\\User Name

Example:    \\SYS1\\roam\\a1.

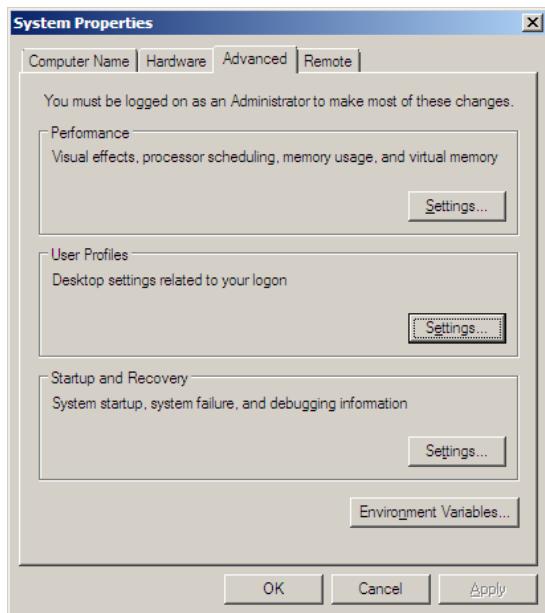


4. Click **Apply** and **OK**.

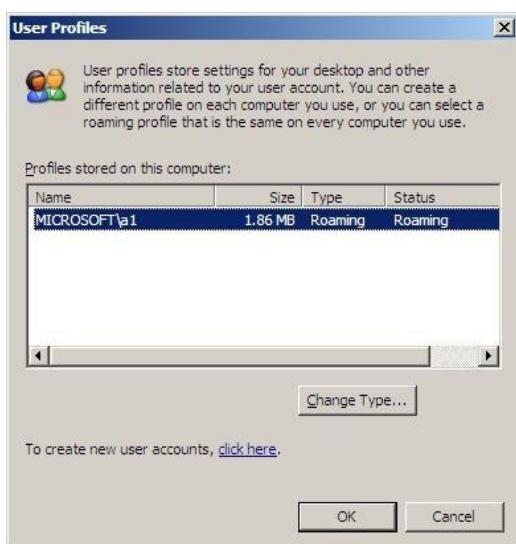
### Verification:

1. Login as **user a1** on **Client or Member Server** and **create some files on the Desktop**.
2. Then Right click **Computer Icon** and Click **Properties** and Select **Advanced System Settings**.

3. Click **Settings** of User Profiles.



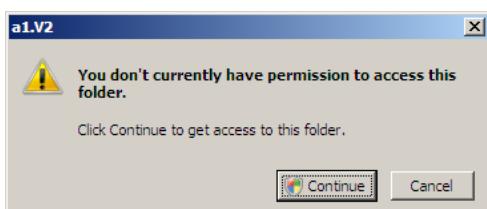
4. Verify for User Profile type and Status to be Roaming.



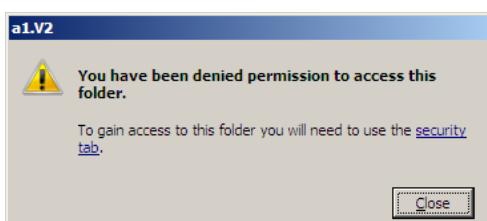
5. Logoff this user (**a1**)& login on another computer with the same user (**a1**), we can see the files which we have created on first computer.

### Lab – 3:Configuring Mandatory Profile

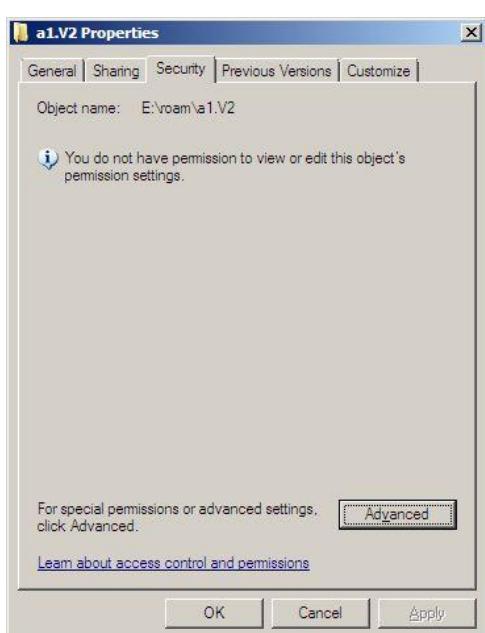
1. Configure a **User (a1) Profile** as **Roaming Profile** and **Login as the User (a1)** on a Client or Member Server, Create some files on Desktop and **Log off**.
2. Log on to Server (D.C) as Administrator and Open the shared folder **roam**.
3. In the shared folder you can find a folder with the user name (a1).
4. When you try to open the folder a1 you will get an error **You don't currently have permission to access this folder**, click **Continue**.



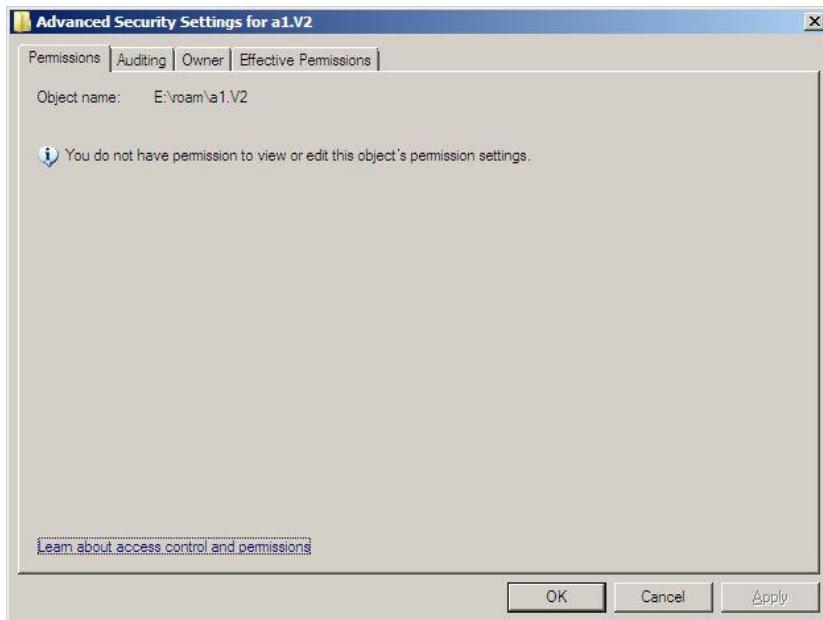
5. Click **Security tab**.



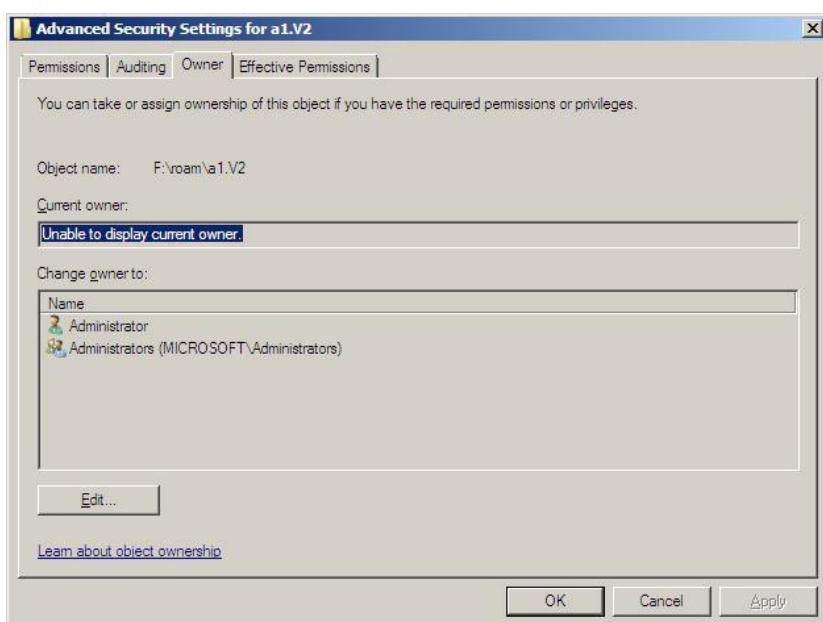
6. Click **Advanced**.



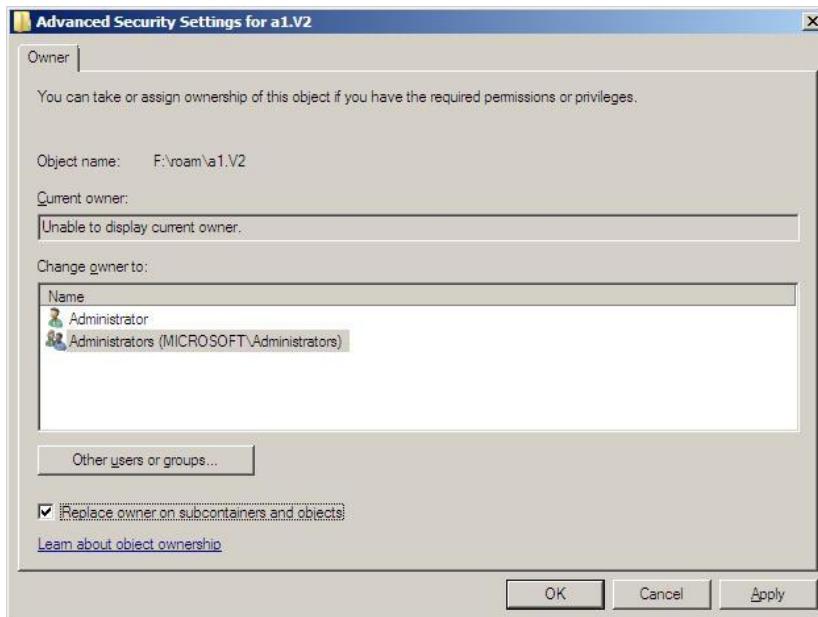
7. Select Owner tab



8. Click Edit.



9. Select **Administrators** and check the box **Replace owner on sub containers and objects**, click **Apply** and **Yes** → **OK** → **OK** → **OK**.



10. Now open the folder **a1** you can find some folders & files.

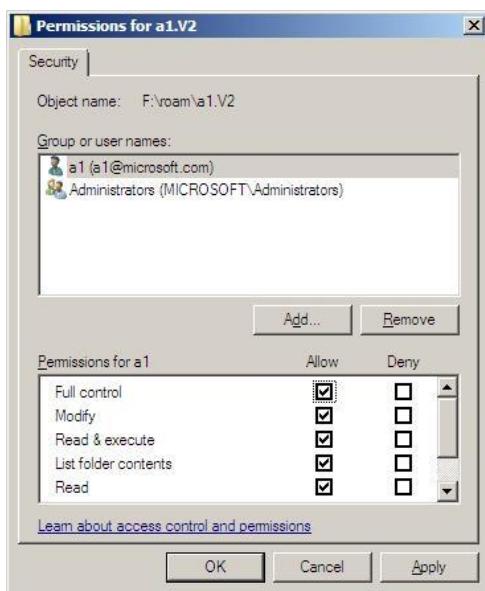
Name	Date modified	Type	Size	Tags
AppData	12/15/2008 1:24 PM	File Folder		
Contacts	12/15/2008 1:24 PM	File Folder		
Desktop	12/15/2008 1:24 PM	File Folder		
Documents	12/15/2008 1:24 PM	File Folder		
Downloads	12/15/2008 1:24 PM	File Folder		
Favorites	12/15/2008 1:24 PM	File Folder		
Links	12/15/2008 1:24 PM	File Folder		
Music	12/15/2008 1:24 PM	File Folder		
Pictures	12/15/2008 1:24 PM	File Folder		
Saved Games	12/15/2008 1:24 PM	File Folder		
Searches	12/15/2008 1:24 PM	File Folder		
Videos	12/15/2008 1:24 PM	File Folder		
NTUSER.DAT	12/15/2008 1:24 PM	DAT File	512 KB	
ntuser	12/15/2008 1:24 PM	Configuration Settin...	1 KB	

11. Select **NTUSER.DAT** file and **rename to NTUSER.MAN**, click **Yes** → **Yes**.

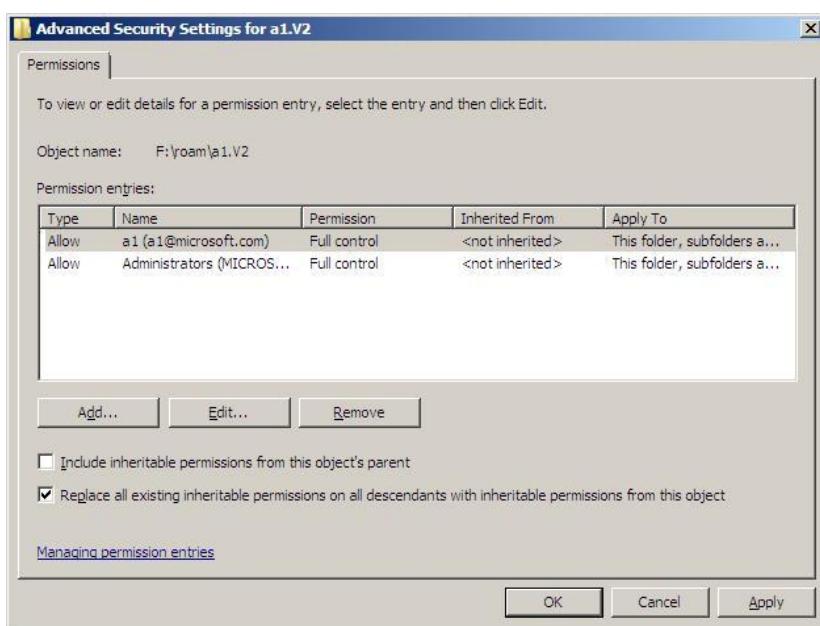
Name	Date modified	Type	Size	Tags
AppData	12/15/2008 1:24 PM	File Folder		
Contacts	12/15/2008 1:24 PM	File Folder		
Desktop	12/15/2008 1:24 PM	File Folder		
Documents	12/15/2008 1:24 PM	File Folder		
Downloads	12/15/2008 1:24 PM	File Folder		
Favorites	12/15/2008 1:24 PM	File Folder		
Links	12/15/2008 1:24 PM	File Folder		
Music	12/15/2008 1:24 PM	File Folder		
Pictures	12/15/2008 1:27 PM	File Folder		
Saved Games	12/15/2008 1:24 PM	File Folder		
Searches	12/15/2008 1:24 PM	File Folder		
Videos	12/15/2008 1:24 PM	File Folder		
ntuser	12/15/2008 1:24 PM	Configuration Settin...	1 KB	
NTUSER.MAN	12/15/2008 1:24 PM	MAN File	512 KB	

**Note:** NTUSER.DAT file is an operating system protected hidden file, it will not be visible directly, if it is not visible, then open computer icon → click on Tools Tab → Select Folder options → select View Tab → select Show Hidden Files and Folders → Clear the check box Hide extensions for Known File Types → Clear the Check box Hide protected Operating system Files → click Yes → click OK.

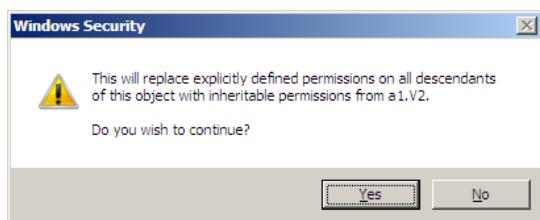
12. After renaming it go back to the folder a1, Right Click a1 → Properties.
13. Select the Security tab → Edit → Add the User a1 and check Allow Full control, click Apply and OK.



14. Click Advanced tab → Edit → Check the box Replace all existing inheritable permissions on all descendants with inheritable permissions from this object.



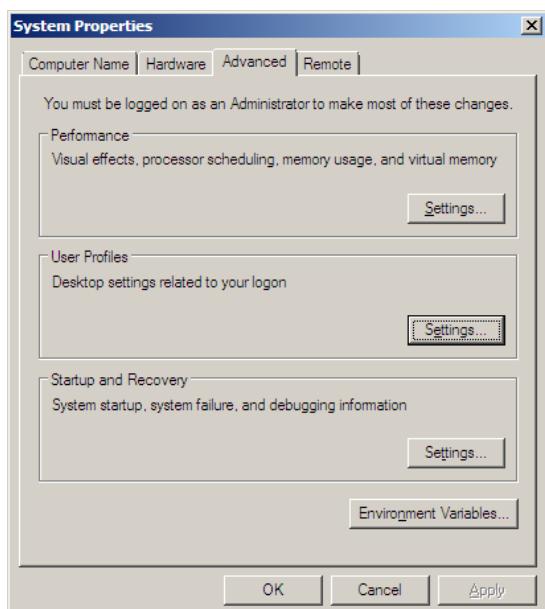
15. Click **Apply**, it will ask do you wish to continue, Click **YES** and **OK**.



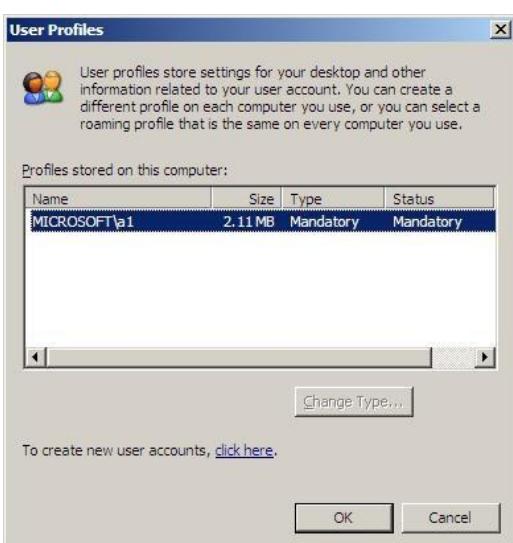
16. Click **Apply** and **OK**→**OK**.

### **Verification:**

1. Login as **User a1** on **Client or Member Server**.
2. Right click **Computer** and Click **Properties**, click **Advanced System Settings**.
3. Click **Settings of User Profiles**.



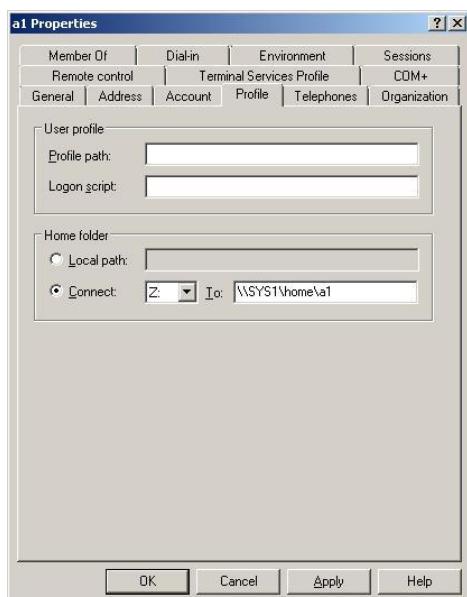
4. Verify for **Profile type** and **Status** to be **Mandatory Profile**.



## Lab – 4: Configuring Home Folder

1. Log on to D.C as Administrator, Open **Computer** → Go to a drive and create a shared folder **home** with **Everyone** as **Co-owner** permission.
2. Go to **Active Directory Users and Computers** → select **Users** and Right Click **User a1** and click **Properties**.
3. Select the **Profile tab** Under the **Home folder**, select **Connect** and Select a drive letter **Z:** and in **To:** enter **\Server Name\Share Name\User Name**.

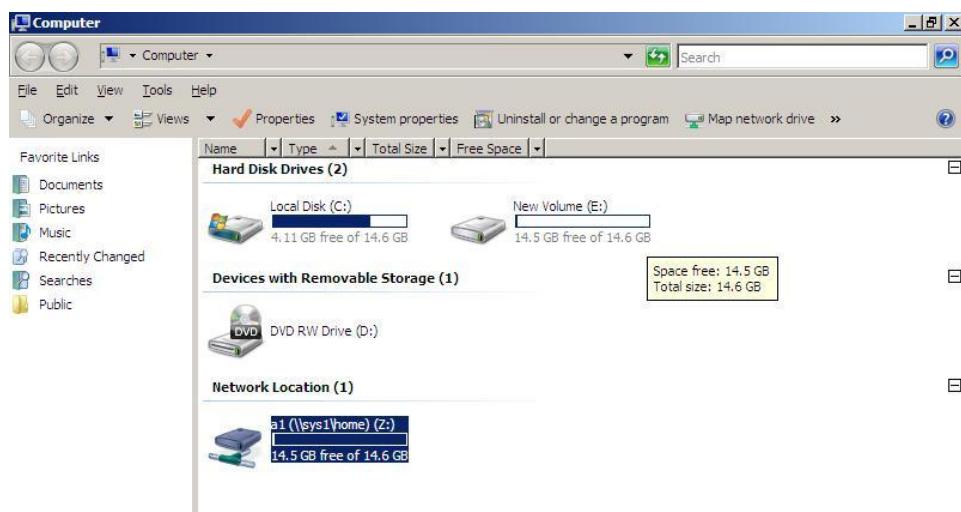
Example: **\\\SYS1\home\a1.**



4. Click **Apply** and **OK**.

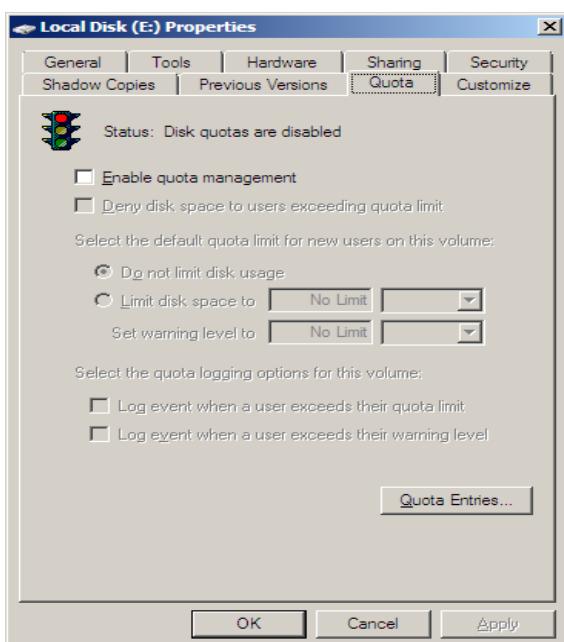
### Verification:

1. Login as **user a1** on **Client or Member Server**.
2. Open **Computer**, Locate Home folder under network drives.

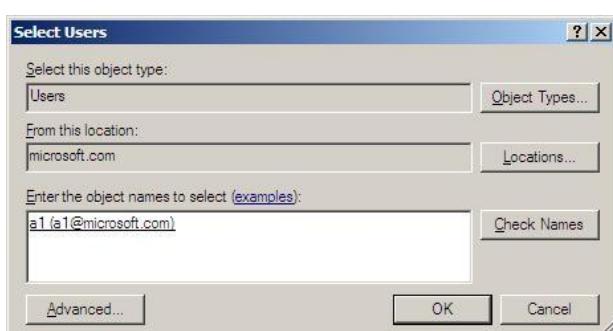


## **Lab – 5: Enabling Disk Quota**

1. Log on to the Computer (D.C) as **Administrator**.
2. Open **Computer** → Right click **NTFS Drive** (which contains Home Folder) → select **Properties**, Select **Quota** tab.



3. Check box the box **Enable quota management**, and check the box **Deny disk space to users exceeding quota limit**.
4. Click Quota Entries click Quota → New Quota Entry...
5. Enter the User Name (**a1**) and Click **Check names**, click **OK**.



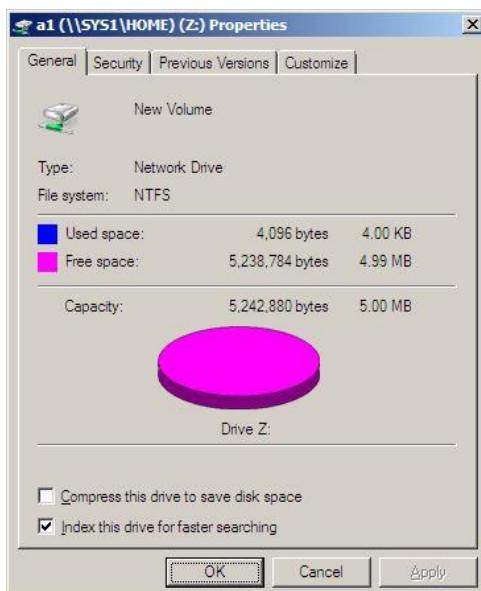
6. Select **Limit disk space to** and enter the quota limit for **a1** → Click **OK** → **Close**.



7. Click **Apply** and click **OK**.  
8. The user **a1** can use only **5 MB** from this **quota partition**.

### Verification:

1. Login as **User a1** on Member Server, Open **Computer**.
2. Right click **Network drive Z:** (Home Folder) → **Properties**.



3. Check the capacity as **5MB** and click **OK**.

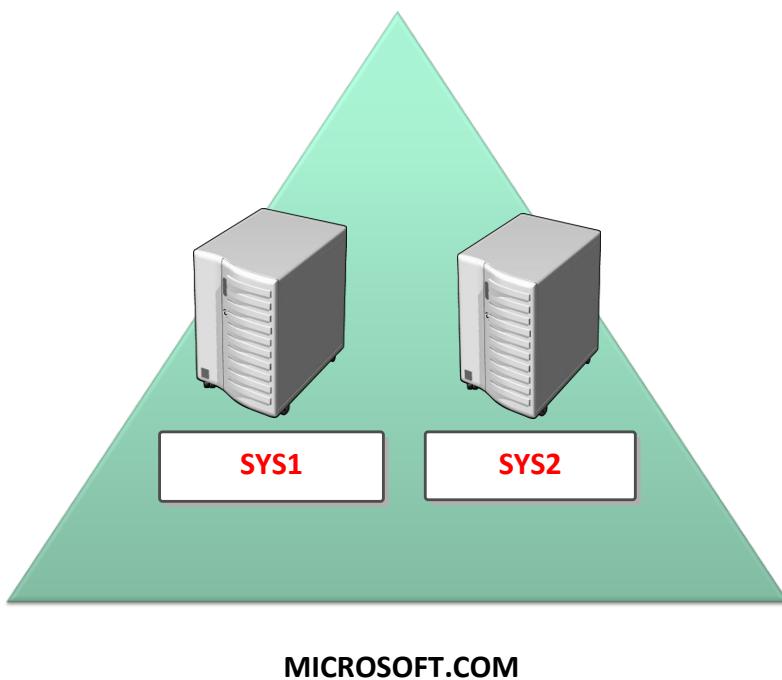
## LOGICAL STRUCTURE OF ACTIVE DIRECTORY

## CONFIGURING ADDITIONAL DOMAIN CONTROLLER

### Pre-requisites:

Before working on this lab, you must have

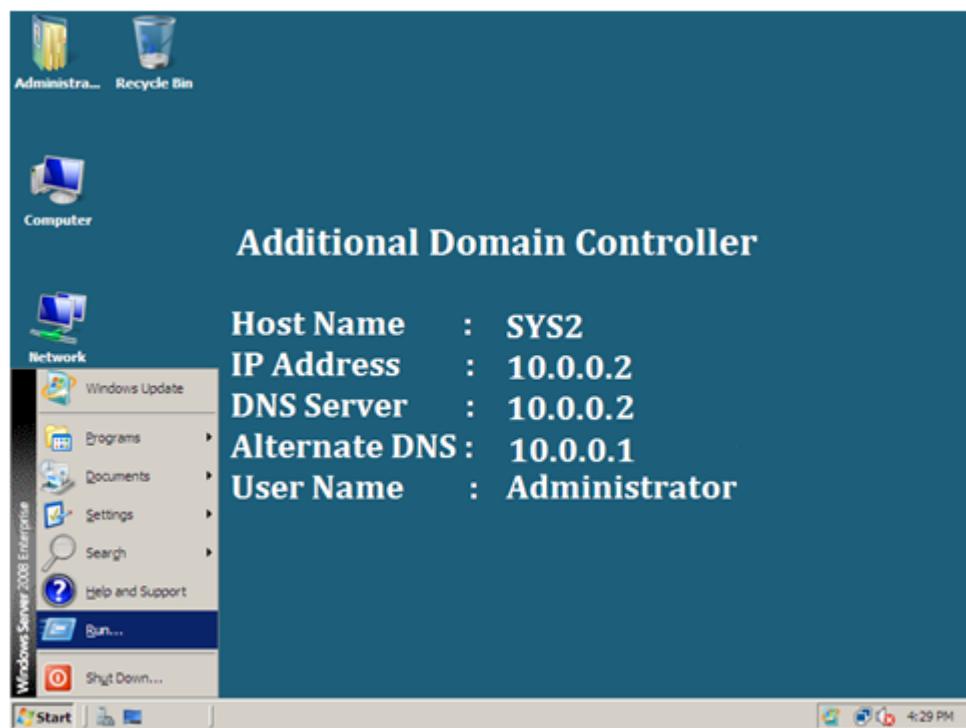
1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server.



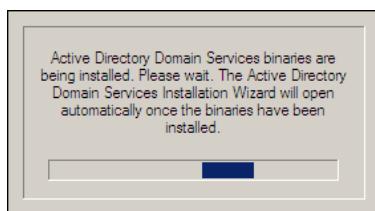
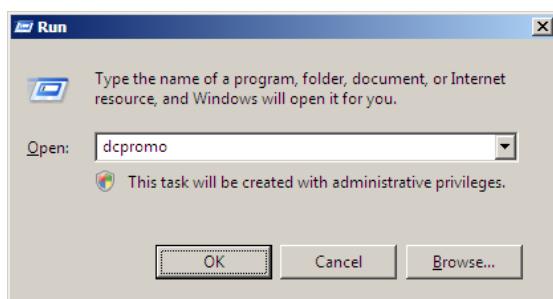
SYS1	SYS2
Domain Controller	
IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1
Alternate DNS	-----
Additional Domain controller	
IP Address	10.0.0.2
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.2
Alternate DNS	10.0.0.1

### **Lab – 1: Configuring Additional Domain Controller**

1. Log in as Administrator to the **Workgroup Computer**.
2. Assign **IP Address** and **DNS Server Addresses**.
3. Click Start, and then click **Run**.



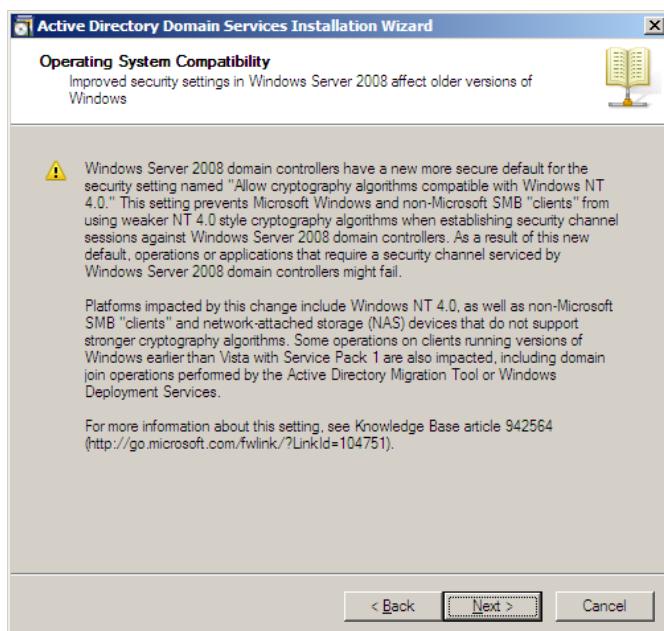
4. In the **Run** box, type “**DCPROMO**”, click **OK**.



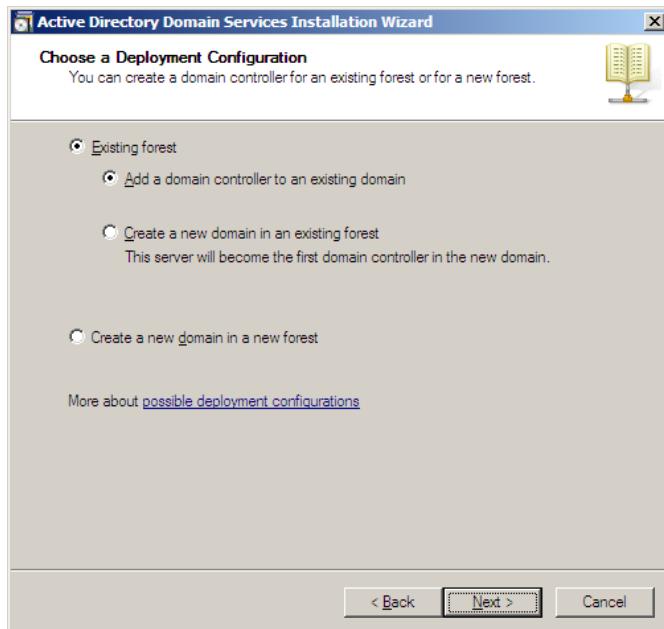
5. Welcome to the **Active Directory Installation Wizard** page appears, click **Next**.



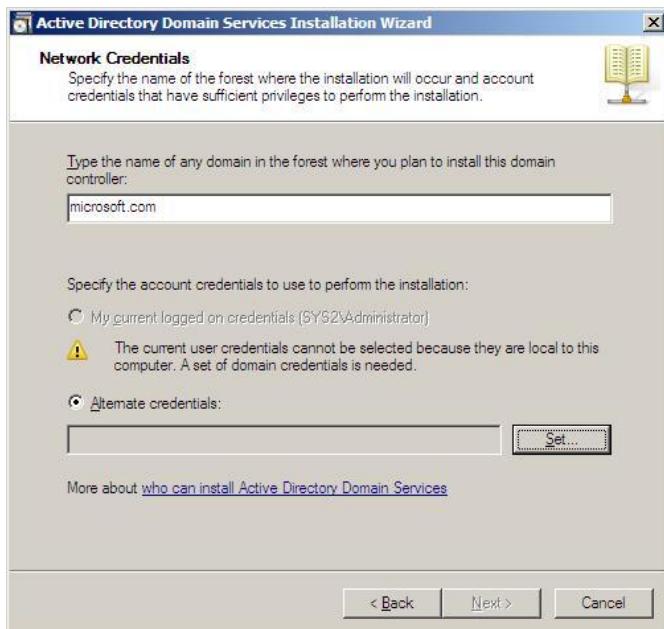
6. **Operating system compatibility Wizard** page appears, click **Next**.



7. Select **Existing forest** and select “**Add a Domain Controller to an existing domain**” and click **Next**.



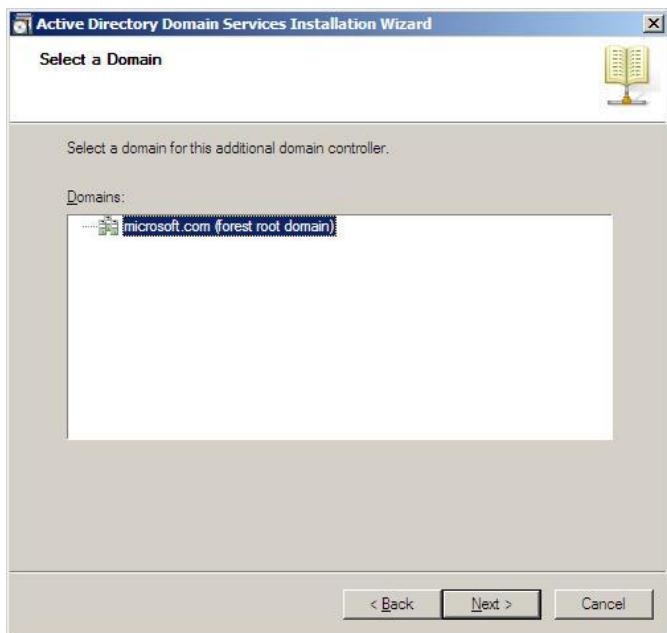
8. Enter the **Forest Domain Name** (Ex:**MICROSOFT.com**) and click **Set**.



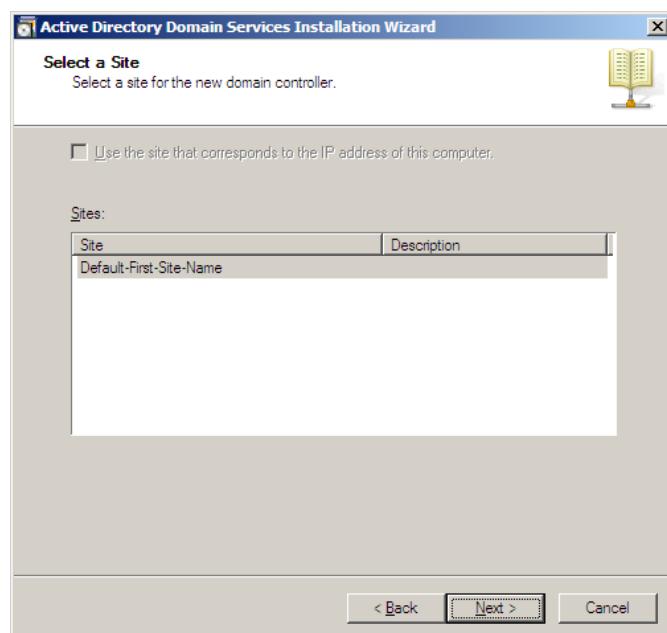
9. Enter **Administrator, Password** (DC Credentials) → click **OK** → click **Next**.



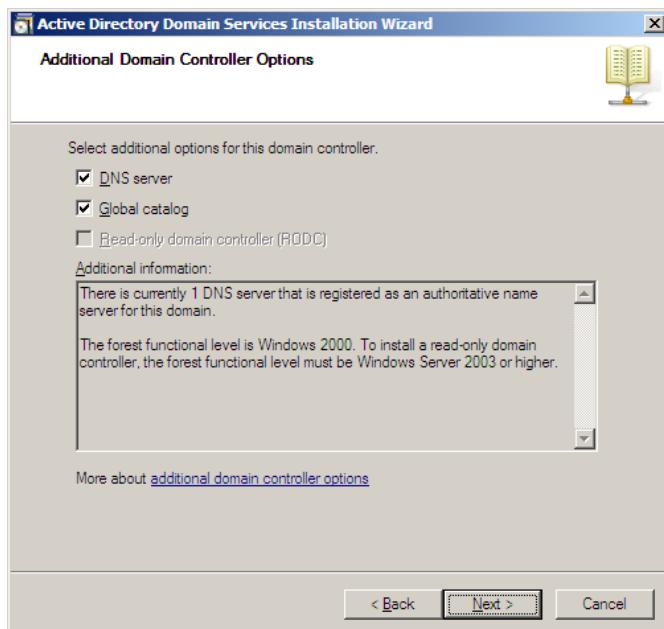
10. Select the Domain Name and click **Next**.



11. Select the Site (**Default-First-Site-Name**) and click **Next**.



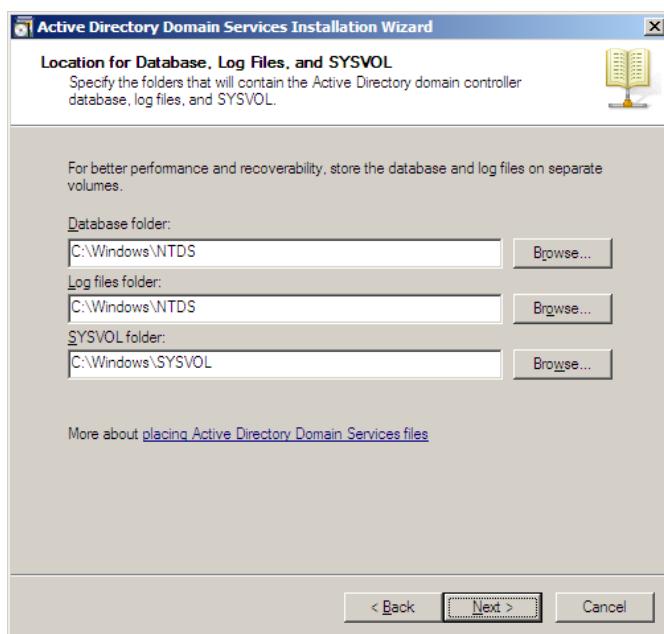
12. Verify for DNS server and Global Catalog check boxes, and click **Next**.



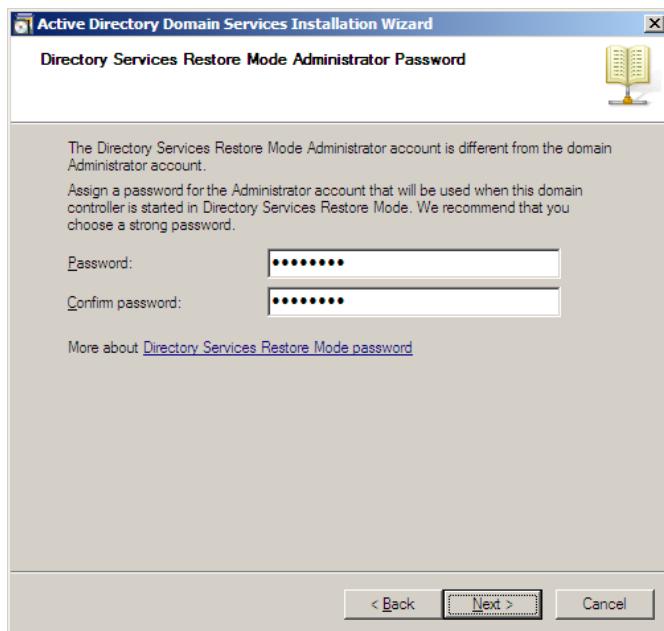
13. Click **Yes** to Continue.



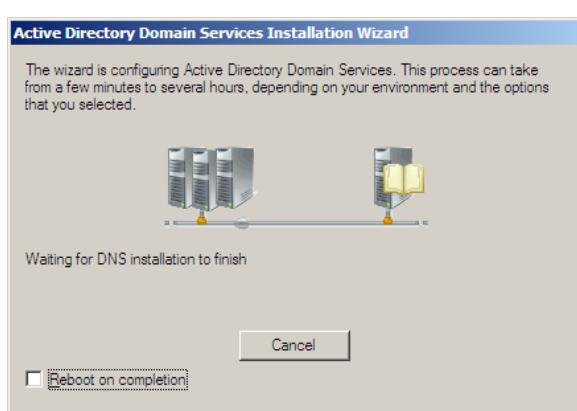
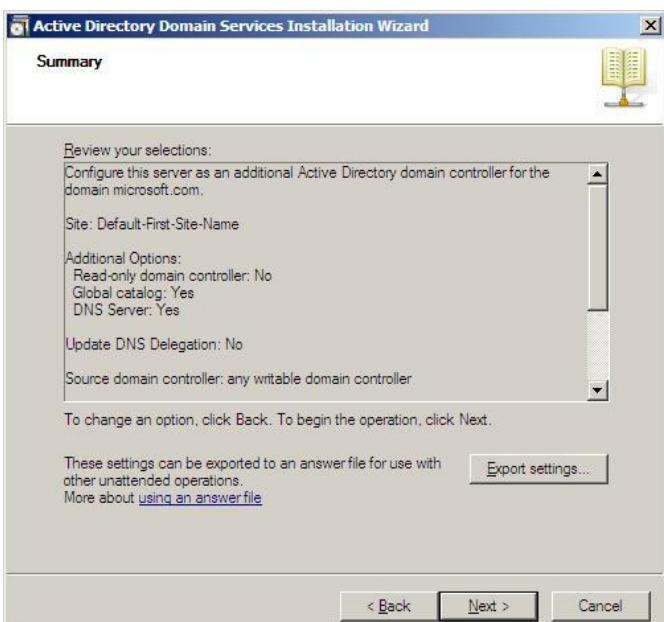
14. On **Database and log locations** page, accept the default locations and click **Next**.



15. Enter “Password and Confirm Password” and click **Next**.



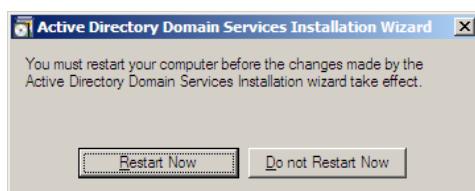
16. On **Summary** page, review the Options you selected, and click**Next**.



17. After the **Active Directory Installation wizard** is completed, then click **FINISH**.



18. Click **Restart Now**.



19. After restarting the computer **Active directory** will be installed.

### **Verification:**

1. Click Start → Run and type **CMD**.
2. Type **NET ACCOUNTS** and verify for **Backup** in Computer role.

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator.MICROSOFT>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

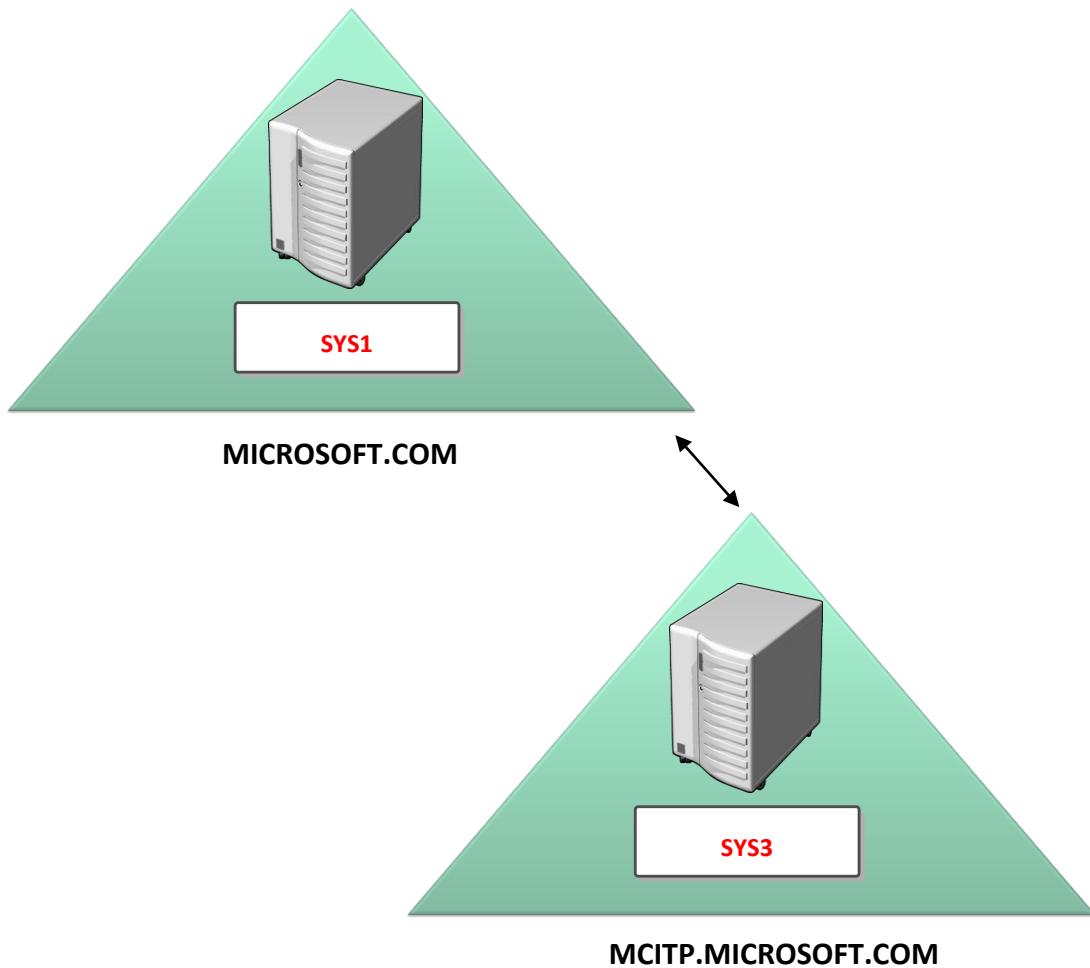
C:\Users\Administrator.MICROSOFT>
```

## CONFIGURING CHILD DOMAIN

### Pre-requisites:

Before working on this lab, you must have

1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server.



SYS1

**Domain Controller**

IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1
Alternate DNS	-----

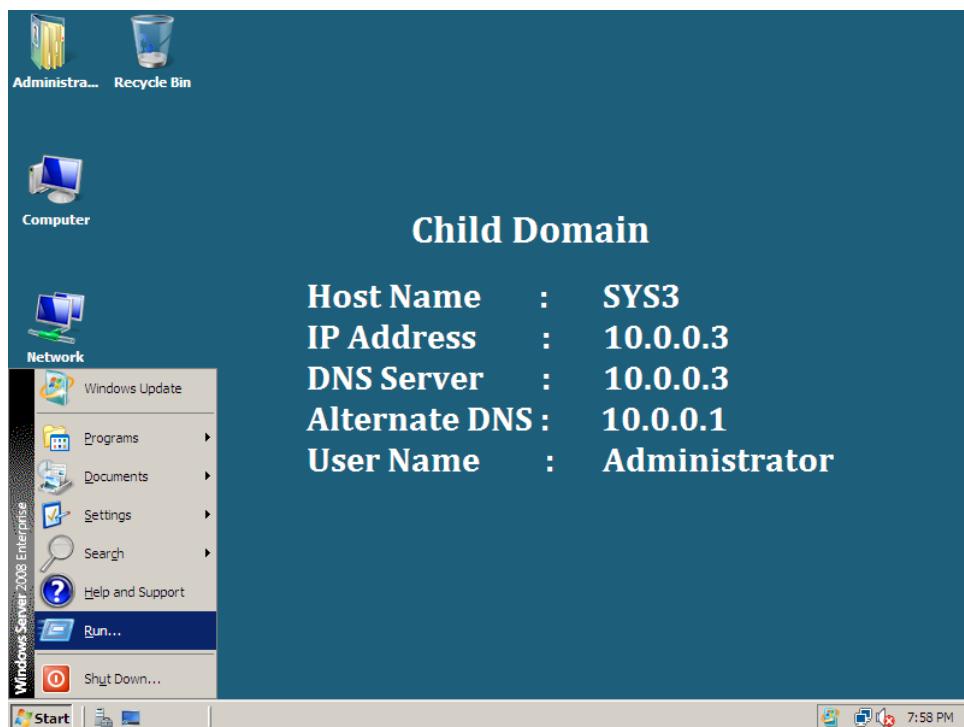
SYS3

**Child Domain controller**

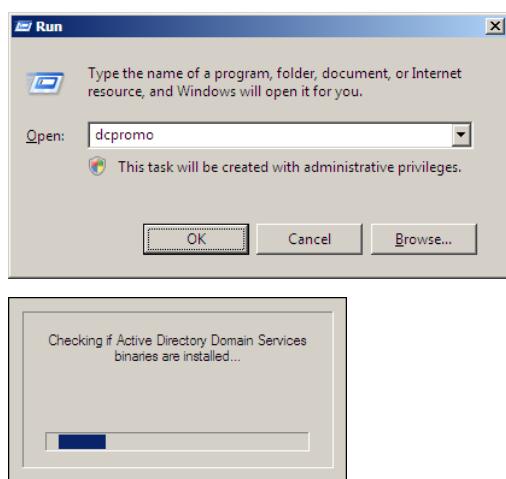
IP Address	10.0.0.3
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.3
Alternate DNS	10.0.0.1

## Lab – 2: Configuring Child Domain

1. Log in as Administrator to the **Workgroup Computer**.
2. Assign **IP Address** and **DNS Server Addresses**.
3. Click Start, and then click **Run**.



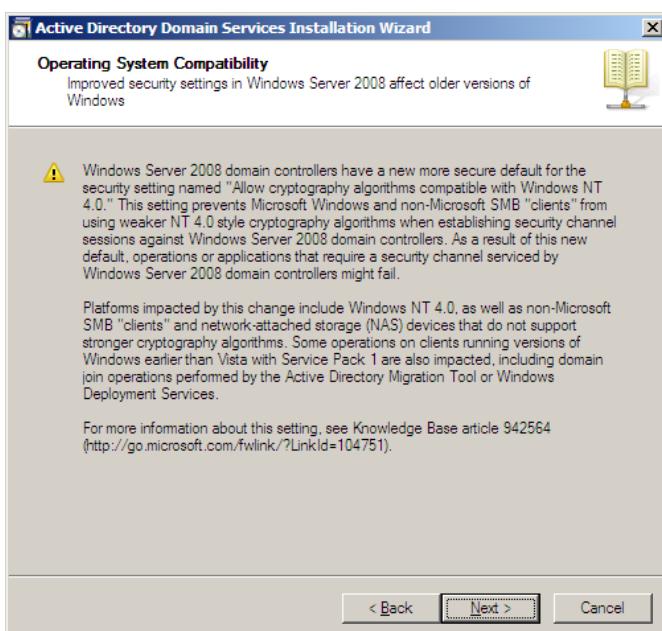
4. In the **Run** box, type “**DCPROMO**” and then click **OK**.



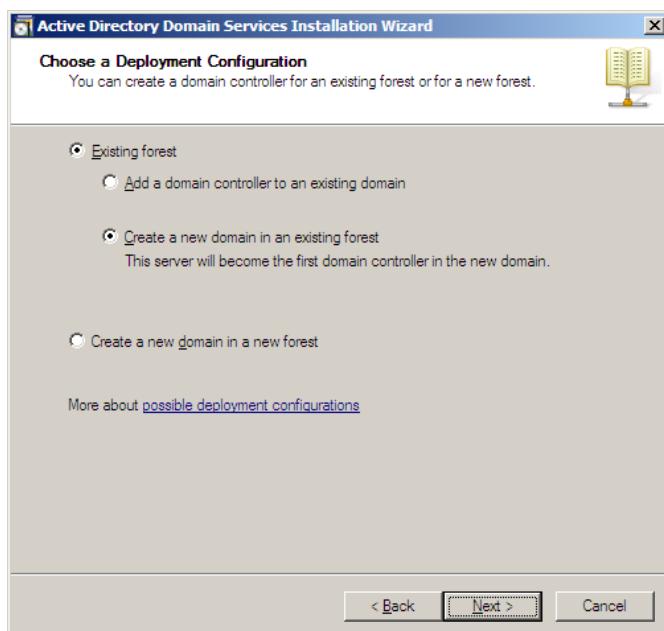
5. Welcome to the **Active Directory Installation Wizard** page appears, click **Next**.



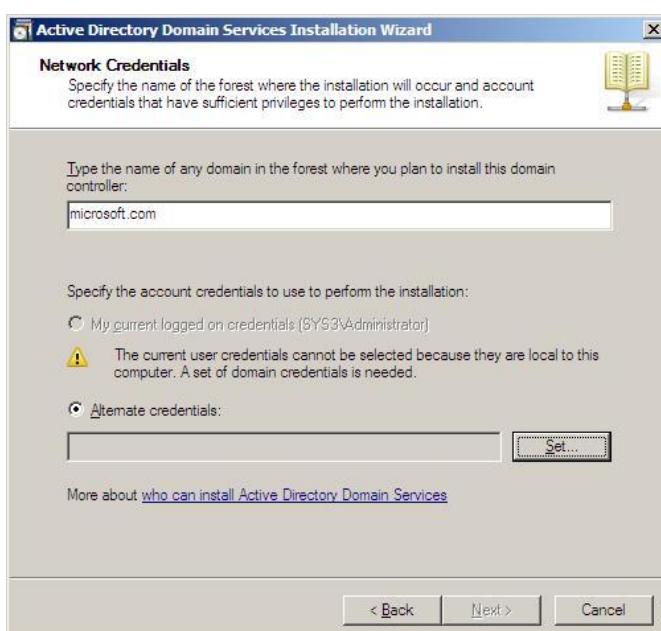
6. **Operating system compatibility Wizard** page appears, click **Next**.



7. Select Existing Forest, →Create a new domain in an existing forest →click Next.



8. Enter the Forest Domain Name (Ex: **MICROSOFT.COM**) and click Set.



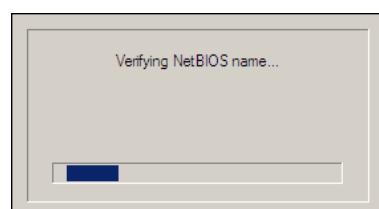
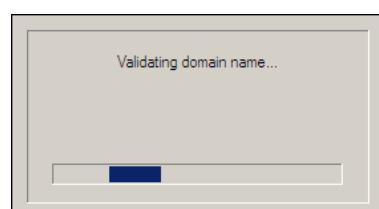
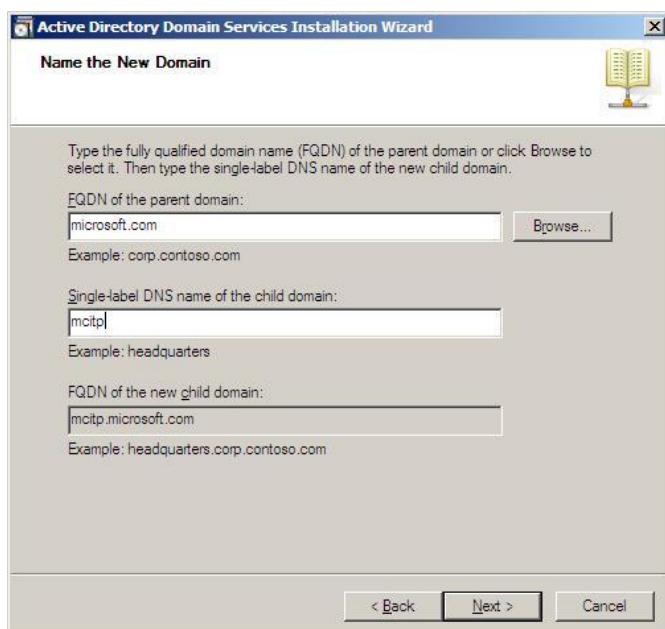
9. Enter Administrator, Password, (DC Credentials), click OK, click Next.



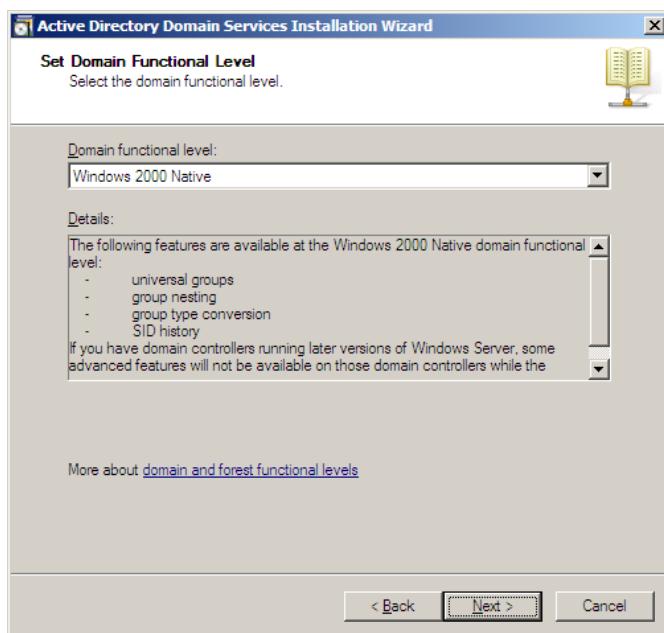
10. Click **Browse** and Select the **Parent Domain Name (MICROSOFT.COM)**.



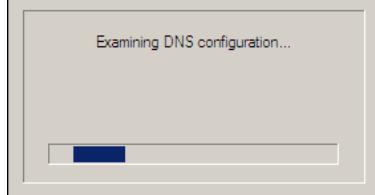
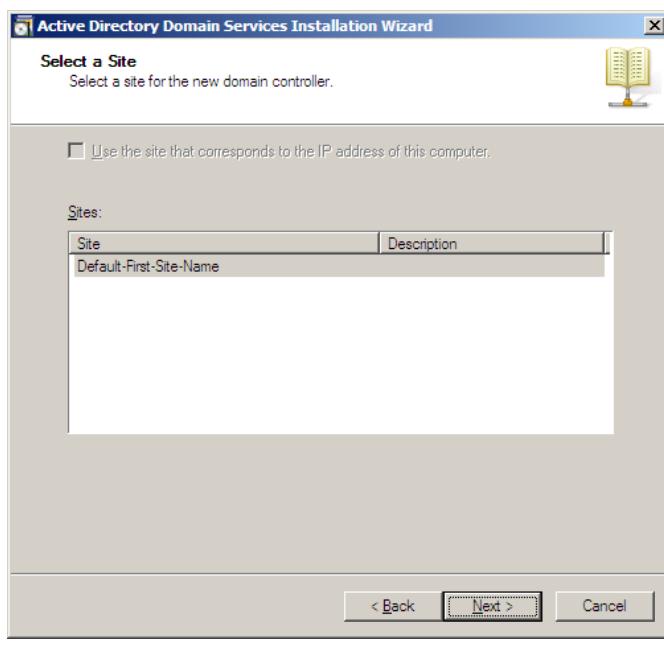
11. Enter the **Child Name (MCITP)** and Click **Next**.



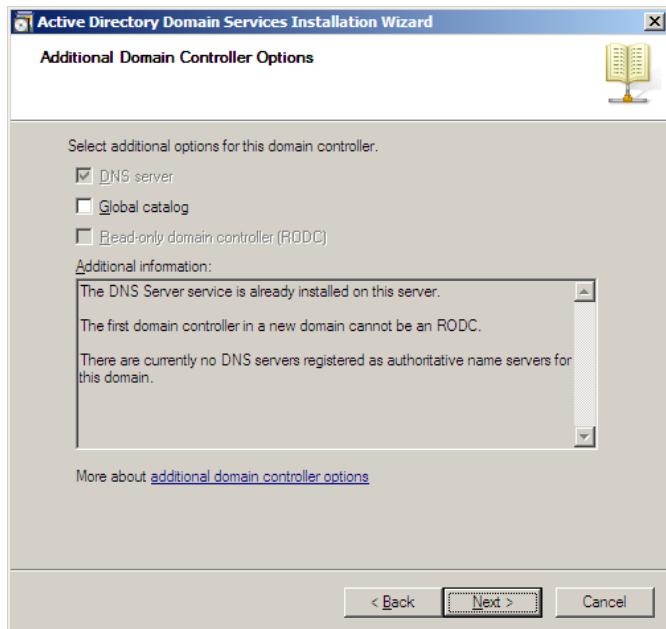
12. Select the **Domain Functional Level (Windows 2000 Native)** and click **NEXT**.



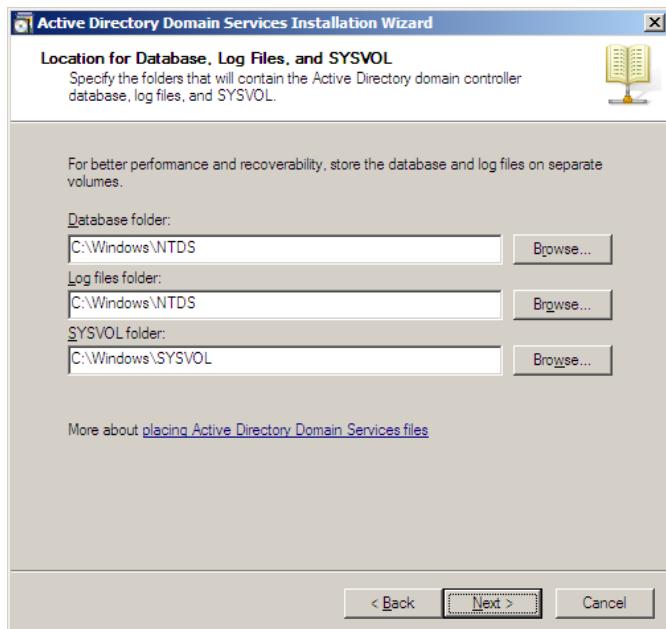
13. Select the **Site (Default-first-site-Name)** and click **Next**.



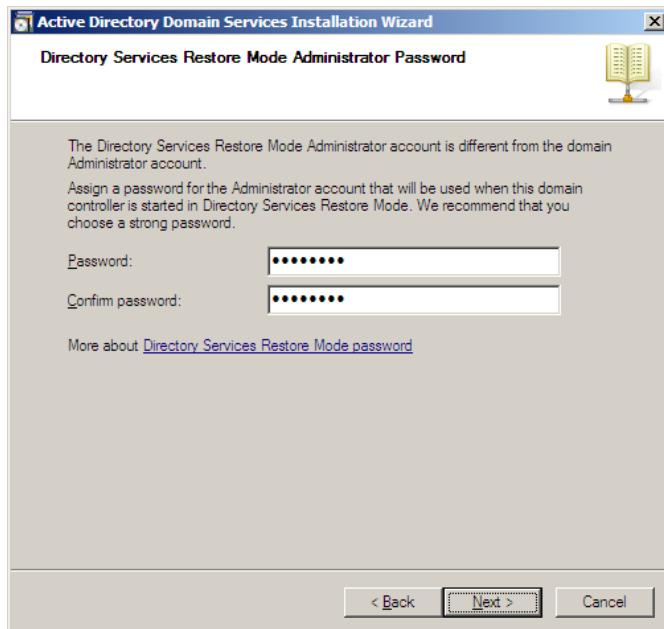
14. Verify for **DNS Server** check box and click **Next**.



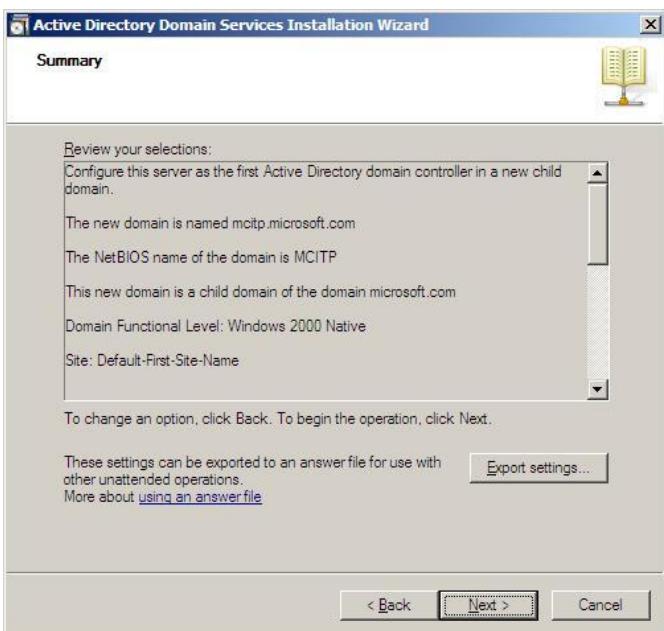
15. Click **Yes** to continue.
16. On **Database and log locations** page, accept the default locations and click **Next**.



17. On Directory Services Restore Mode Administrator Password page, enter the **password and confirm password** and click **Next**.



18. On **Summary** page, review the Options you selected and Click **Next**.



19. The **Active Directory Installation** starts.



20. After the **Active Directory Installation wizard** is completed, then click **FINISH**.



21. Click **Restart Now**.

22. After restarting the computer **Active Directory** will be installed.

### **Verification:**

1. Right click **Computer Icon** → **Properties**.
2. In **Computer Name** verify for the **Domain name MCITP.MICROSOFT.COM**
3. Select Start → Programs → Administrative Tools → **Active Directory Domains and Trusts**.
4. Expand parent domain name and verify for child domain.

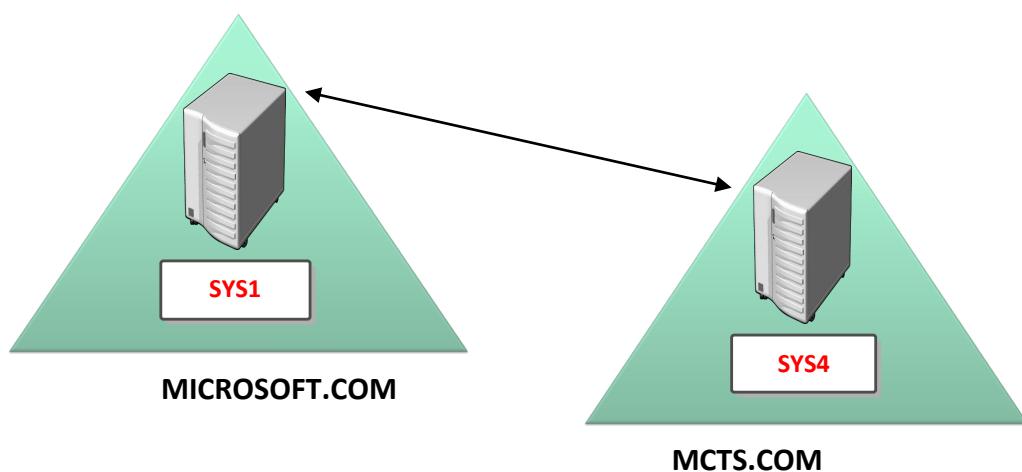
Example: **MICROSOFT.COM** and **MCITP.MICROSOFT.COM**.

## CONFIGURING NEW DOMAIN TREE IN EXISTING FOREST

### Pre-requisites:

Before working on this lab, you must have

1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server.



**SYS1**

**Domain Controller**

IP Address 10.0.0.1

Subnet Mask 255.0.0.0

Preferred DNS 10.0.0.1

Alternate DNS -----

**SYS4**

**New Domain Tree**

IP Address 10.0.0.4

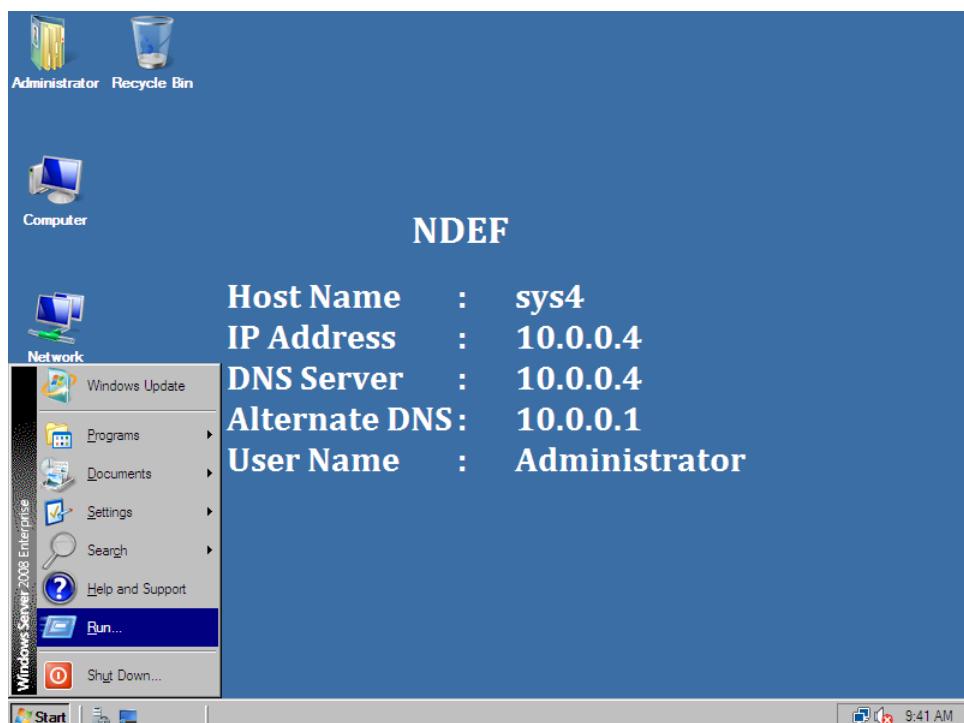
Subnet Mask 255.0.0.0

Preferred DNS 10.0.0.4

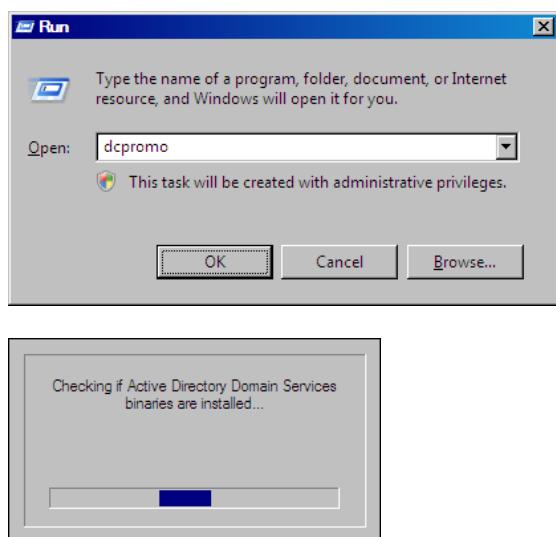
Alternate DNS 10.0.0.1

### Lab – 3: Configuring New Domain Tree in Existing Forest

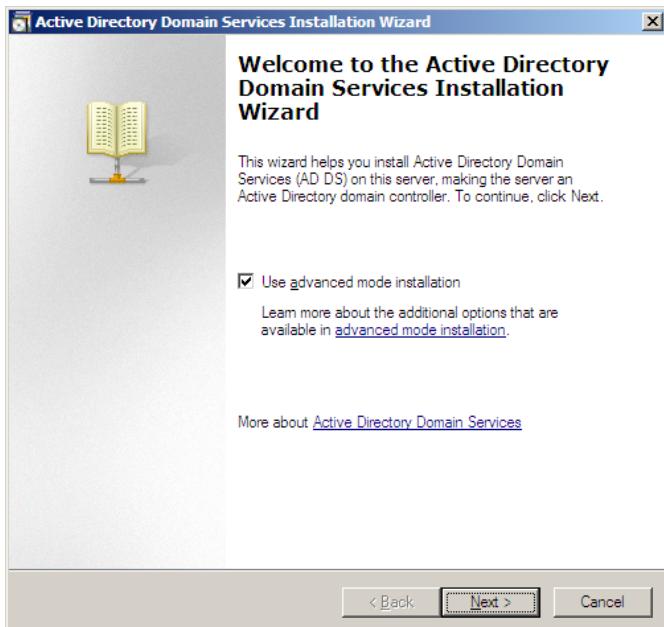
1. Log in as Administrator to the **Workgroup Computer**.
2. Assign **IP Address** and **DNS Server Addresses**.
3. Click Start, and then click **Run**.



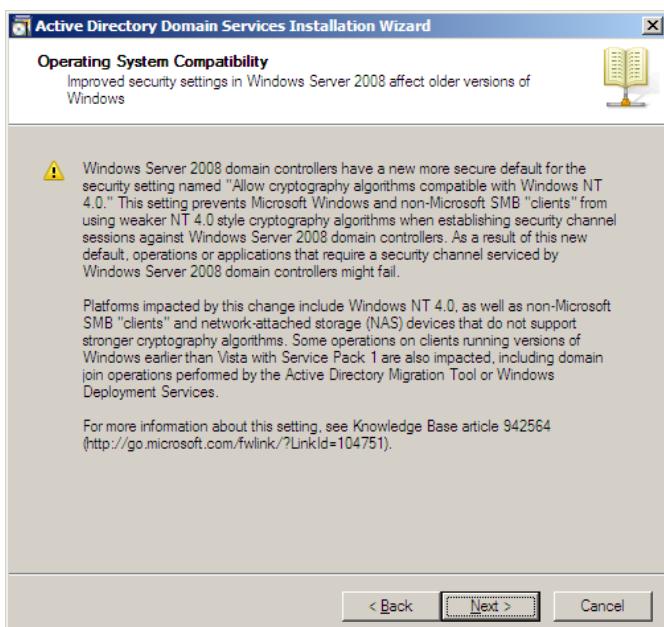
4. In the **Run** box, type “**DCPROMO**” and click **OK**.



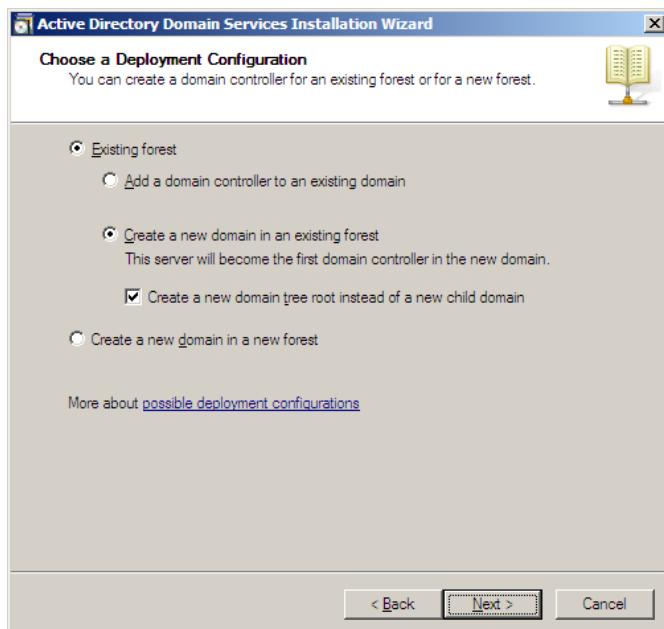
5. Welcome to the **Active Directory Installation Wizard** page appears, check the box **Use advanced mode installation** and click **Next**.



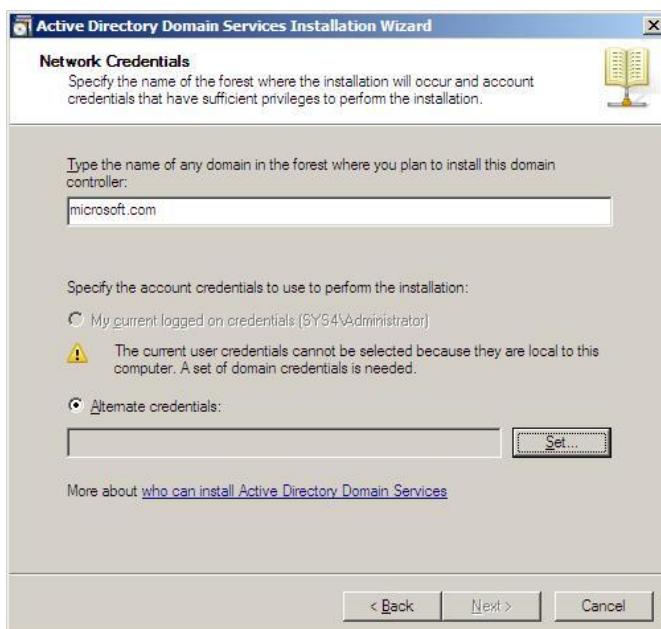
6. **Operating system compatibility Wizard** page appears, click **Next**.



7. Select **Existing Forest**, Select **Create a new domain in an existing forest** and check the box **Create a new domain tree root instead of a new child domain**, click **Next**.



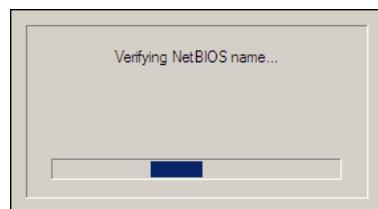
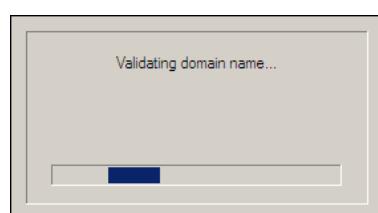
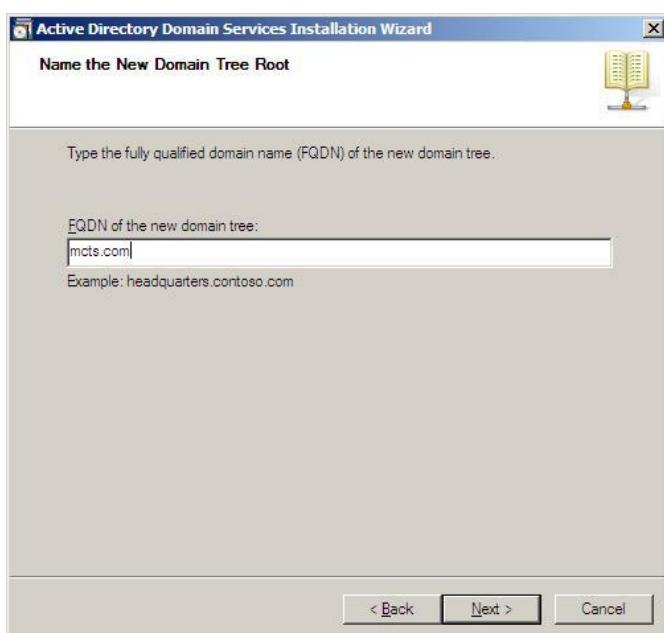
8. Enter the **Forest Domain Name** (Ex: **MICROSOFT.com**) and click **Set**.



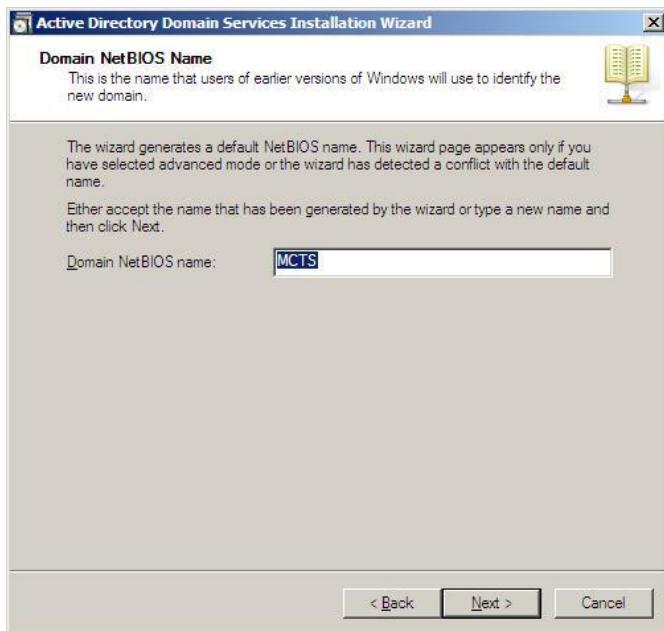
9. Enter **Administrator**, **Password**, **Domain Name** (DC Credentials) and click **OK** and click **Next**.



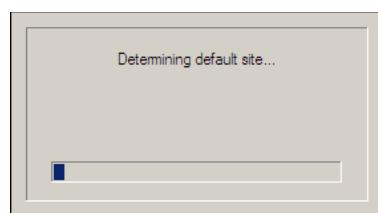
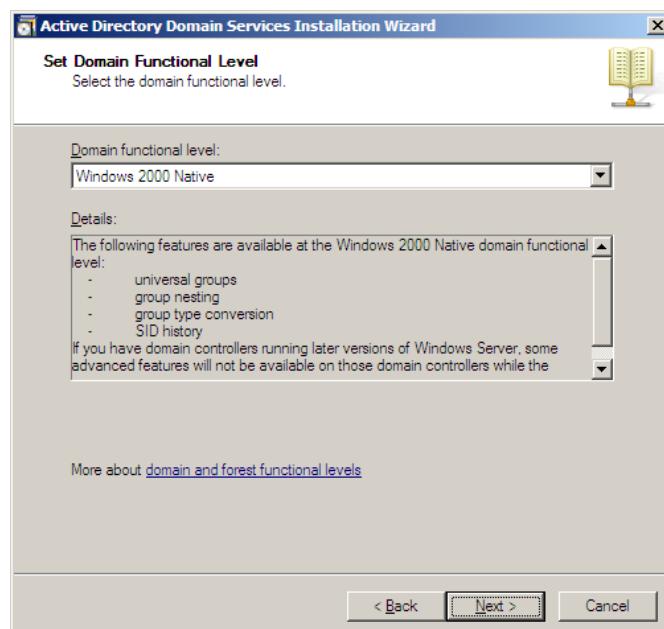
10. Enter the **New Domain Tree Name**(Ex:MCTS.COM) and click **Next**.



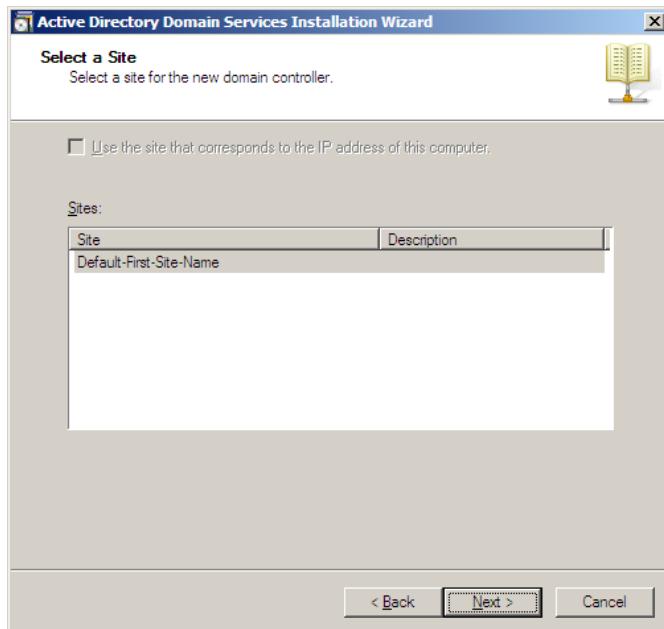
11. On NetBIOS Domain name page, **Domain NetBIOS Name** appears, click **Next**.



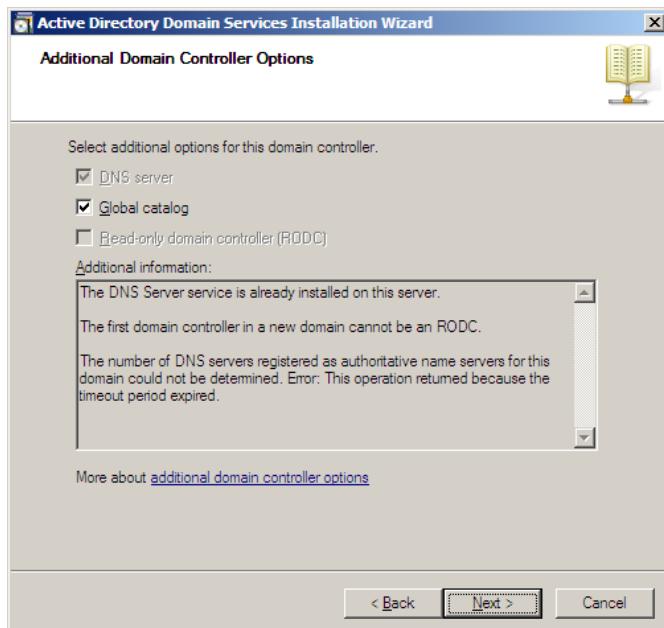
12. Select the **Domain Functional Level (Windows 2000 Native)** and click **Next**.



13. Select the **Site (Default-first-site-Name)** and click **Next**.



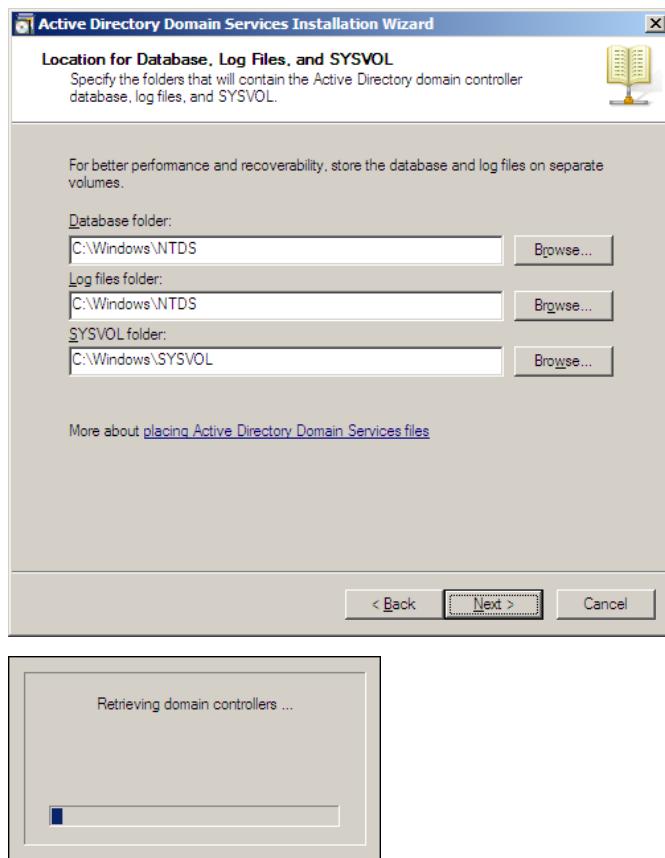
14. Verify for **DNS Server** and **Global catalog** check box and click **Next**.



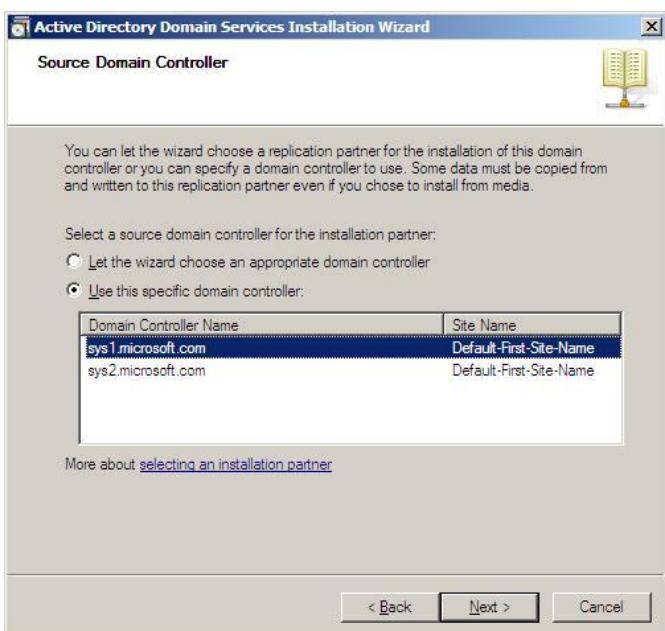
15. Click **Yes** to continue.



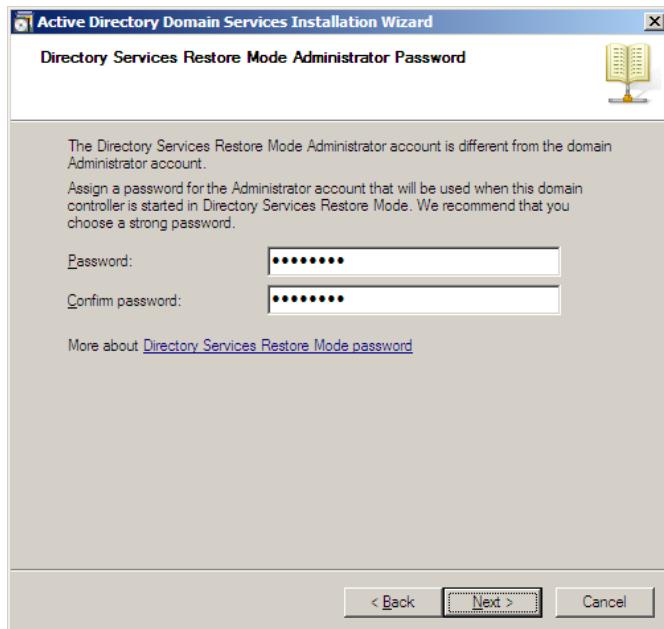
- 16.** On **Database and log locations** page, accept the default locations, click **Next**.



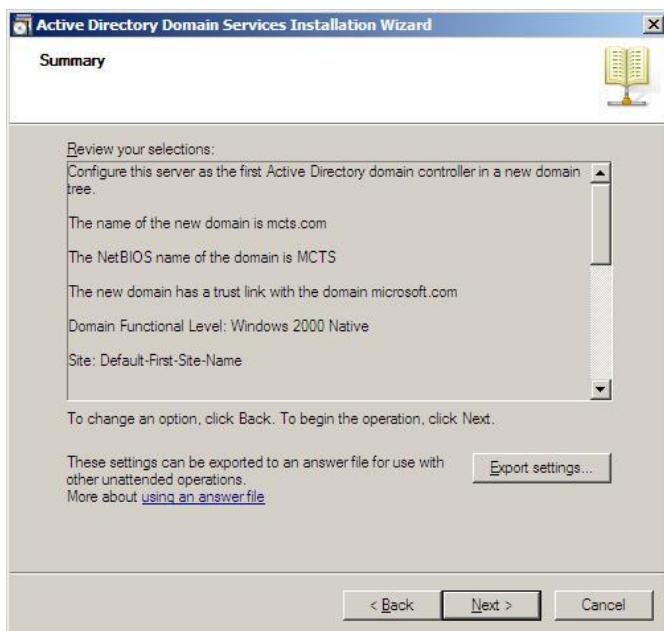
- 17.** Select **Use this specific domain controller** and select **SYS1.MICROSOFT.COM**  
→click **Next**.



18. On Directory Services Restore Mode Administrator Password page, enter **Password and confirm password** → click **Next**.



19. On **Summary** page, review the Options you selected and Click **Next**.



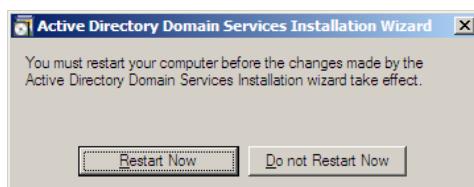
20. The **Active Directory Installation** starts.



21. After the **Active Directory Installation wizard** is completed, click **FINISH**.



22. Click **Restart Now**.



23. After restarting the computer **Active Directory** will be installed.

### **Verification:**

1. Right click **Computer Icon** → **Properties**.
2. In **Computer Name** verify for the **Domain name MCTS.COM**
3. Select Start → Programs → Administrative Tools → **Active Directory Domains and Trusts**.
4. Expand Forest Domain Name and verify for **New Domain Tree in Existing Forest**.

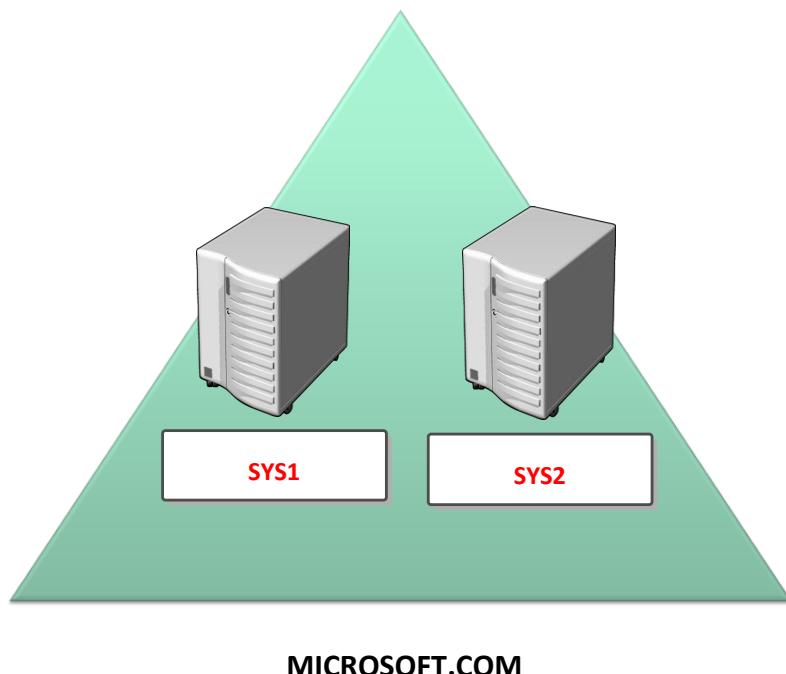
Example: **MICROSOFT.COM** and **MCTS.COM**.

## ROLES OF ACTIVE DIRECTORY

### Pre-requisites:

Before working on this lab, you must have

1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server Additional Domain controller.



SYS1	SYS2
<b>Domain Controller</b>	
IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1
Alternate DNS	-----
<b>Additional Domain controller</b>	
IP Address	10.0.0.2
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.2
Alternate DNS	10.0.0.1

### Lab – 1: Transfer of Roles

1. Log on to **Domain Controller** as **Administrator**
2. Click Start → Run → type **CMD**
3. Type **Net accounts** and Verify for **Primary** in Computer role.

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>
```

4. Type **Ntdsutil** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>ntdsutil
```

5. Type **Roles** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
```

6. Type **Connections** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
```

7. Type **Connect to server SYS2 (ADC System name)**and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
server connections: connect to server sys2
```

8. Type: **Quit**

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
server connections: connect to server sys2
Binding to sys2 ...
Connected to sys2 using credentials of locally logged on user.
server connections: quit
```

9. Type **Help** (or) **?To** see the available syntax.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
server connections: connect to server sys2
Binding to sys2 ...
Connected to sys2 using credentials of locally logged on user.
server connections: quit
fsmo maintenance: ?
```

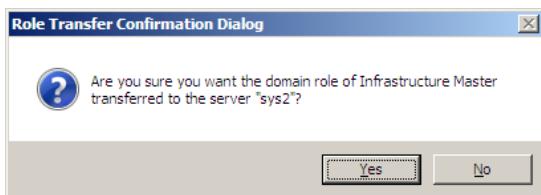
10. Type **Transfer infrastructure master** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
fsmo maintenance: ?

?
Connections - Show this help information
Help - Connect to a specific AD DC/LDS instance
Quit - Show this help information
Seize infrastructure master - Return to the prior menu
Overwrite infrastructure role on connected server
Seize naming master - Overwrite Naming Master role on connected server
r Seize PDC - Overwrite PDC role on connected server
Seize RID master - Overwrite RID role on connected server
Seize schema master - Overwrite schema role on connected server
Select operation target - Select sites, servers, domains, roles, and naming contexts
Transfer infrastructure master - Make connected server the infrastructure master
Transfer naming master - Make connected server the naming master
Transfer PDC - Make connected server the PDC
Transfer RID master - Make connected server the RID master
Transfer schema master - Make connected server the schema master

fsmo maintenance: Transfer infrastructure master
```

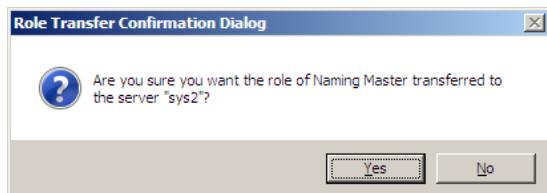
11. Click **YES**.



12. Type **Transfer naming master** and Press Enter.

Administrator: C:\Windows\system32\cmd.exe - ntdsutil  
fsmo maintenance: Transfer infrastructure master  
Server "sys2" knows about 5 roles  
Schema - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Site  
,CN=Configuration,DC=Microsoft,DC=com  
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,  
N=Sites,CN=Configuration,DC=Microsoft,DC=com  
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Sites,C  
=Configuration,DC=Microsoft,DC=com  
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Sites,C  
=Configuration,DC=Microsoft,DC=com  
Infrastructure - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name  
CN=Sites,CN=Configuration,DC=Microsoft,DC=com  
fsmo maintenance: Transfer naming master■

13. Click **YES**



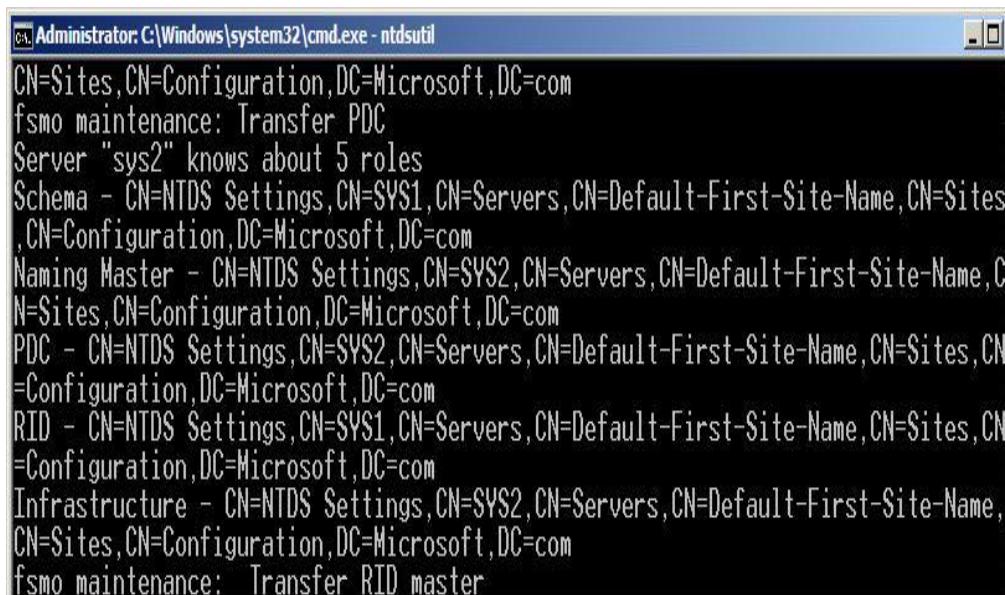
14. Type **Transfer PDC** and Press Enter.

Administrator: C:\Windows\system32\cmd.exe - ntdsutil  
fsmo maintenance: Transfer naming master  
Server "sys2" knows about 5 roles  
Schema - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Site  
,CN=Configuration,DC=Microsoft,DC=com  
Naming Master - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name  
N=Sites,CN=Configuration,DC=Microsoft,DC=com  
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name  
=Configuration,DC=Microsoft,DC=com  
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name  
=Configuration,DC=Microsoft,DC=com  
Infrastructure - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name  
CN=Sites,CN=Configuration,DC=Microsoft,DC=com  
fsmo maintenance: Transfer PDC■

## 15. Click Yes

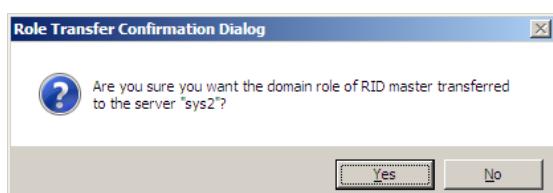


## 16. Type Transfer RID Master and Press Enter.



```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Transfer PDC
Server "sys2" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Transfer RID master
```

## 17. Click YES

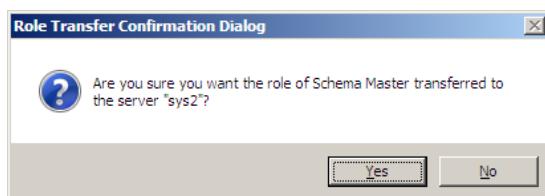


18. Type **Transfer Schema Master** and Press Enter.

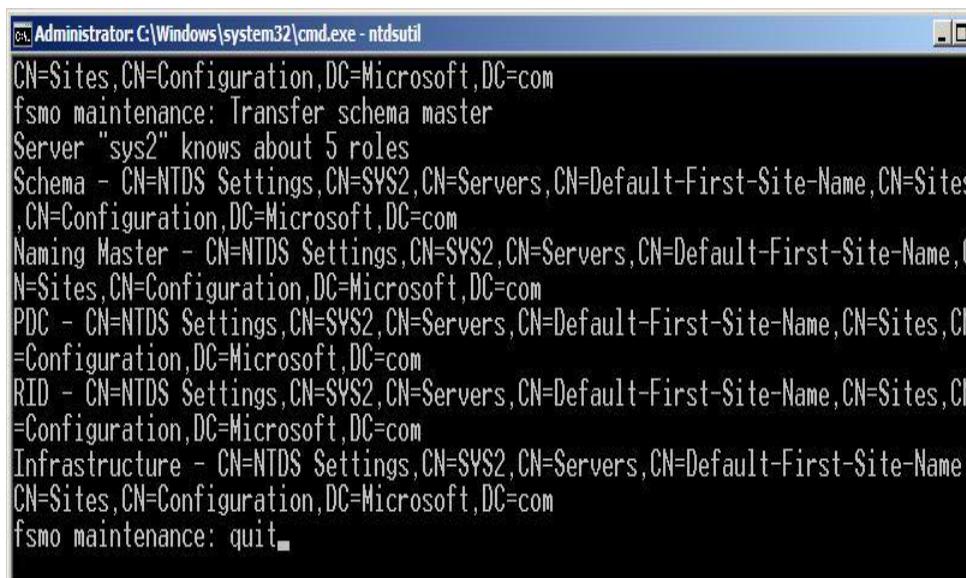


```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
fsmo maintenance: Transfer RID master
Server "sys2" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site
, CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-Fir
N=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Na
=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Na
=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-Fi
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Transfer schema master
```

19. Click **YES**

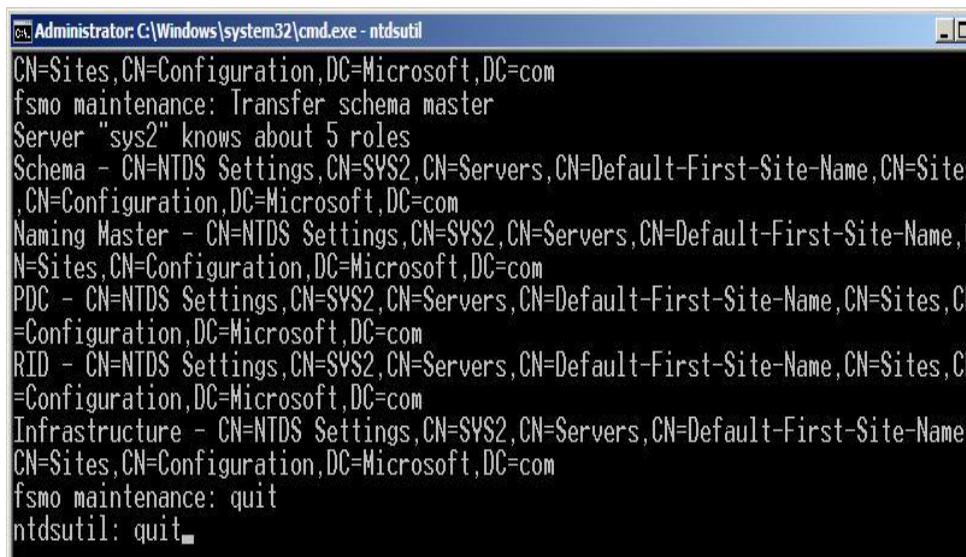


20. Type **Quit** and press Enter



```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Transfer schema master
Server "sys2" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites
, CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites
, CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configurati
=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configurati
=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Co
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: quit
```

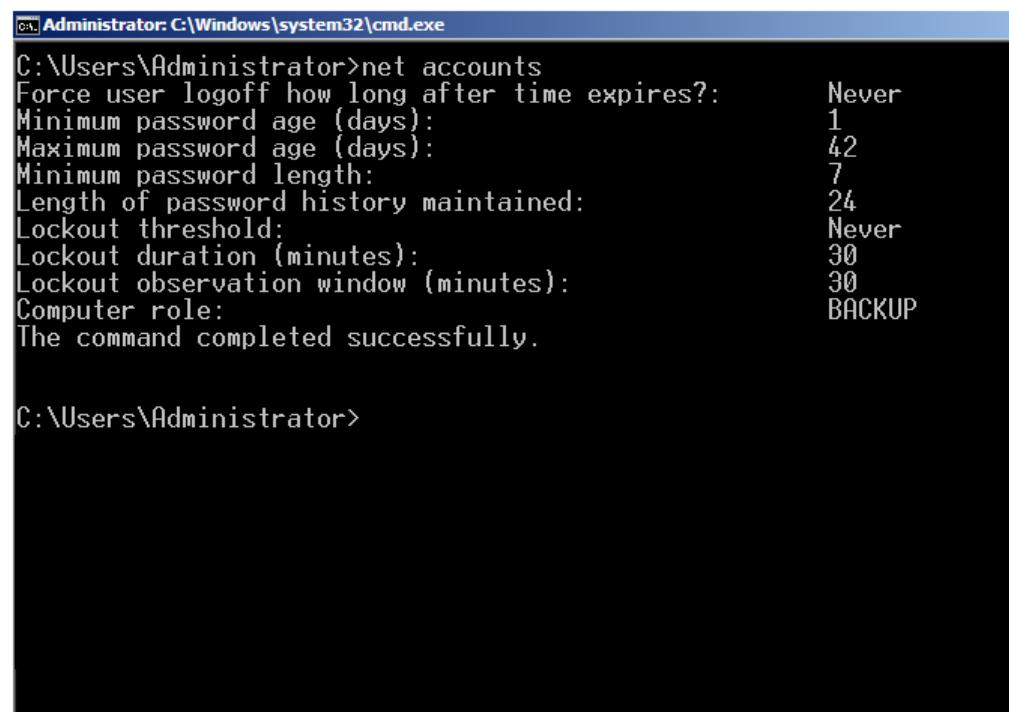
21. Type **Quit** and Press Enter.



```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Transfer schema master
Server "sys2" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: quit
ntdsutil: quit
```

### **Verification:**

1. Type **Net accounts** and Press Enter
2. Computer role of **Domain Controller** will be converted to **Backup** and **Additional Domain Controller** will be converted to **Primary**.

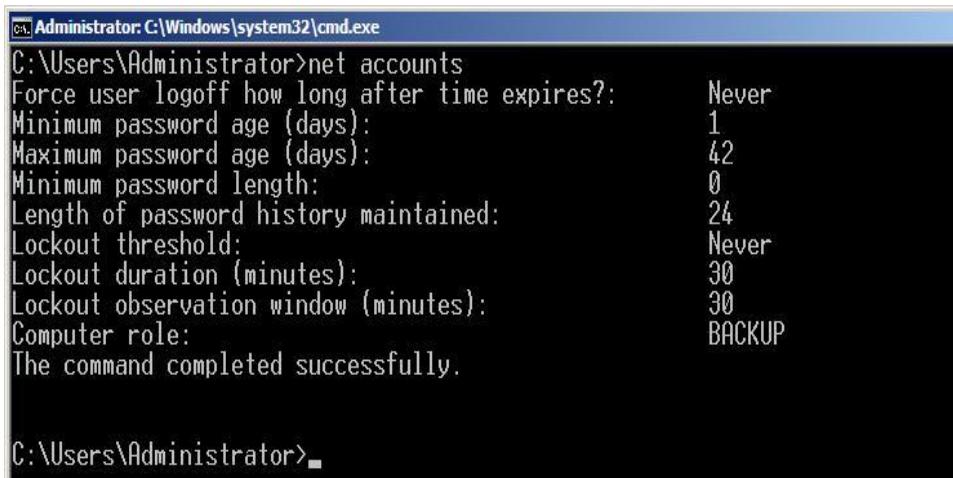


```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 7
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>
```

## Lab – 2: Seizing of Roles

1. Log on to **Additional Domain Controller** as **Administrator**
2. **Shutdown the Domain Controller**
3. Click Start → Run → type **CMD**
4. Type **Net accounts** and Verify for **BACKUP** in Computer role.



```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>
```

5. Type **Ntdsutil** and Press Enter.



```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil:
```

6. Type **Roles** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
```

7. Type **Connections** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Copyright (c) 2006 Microsoft Corporation. All rights reserved

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
```

8. Type **Connect to server SYS1(ADC System name)** and Press Enter.

```
C:\Administrator: C:\Windows\system32\cmd.exe - ntdsutil

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
server connections: connect to server sys1
```

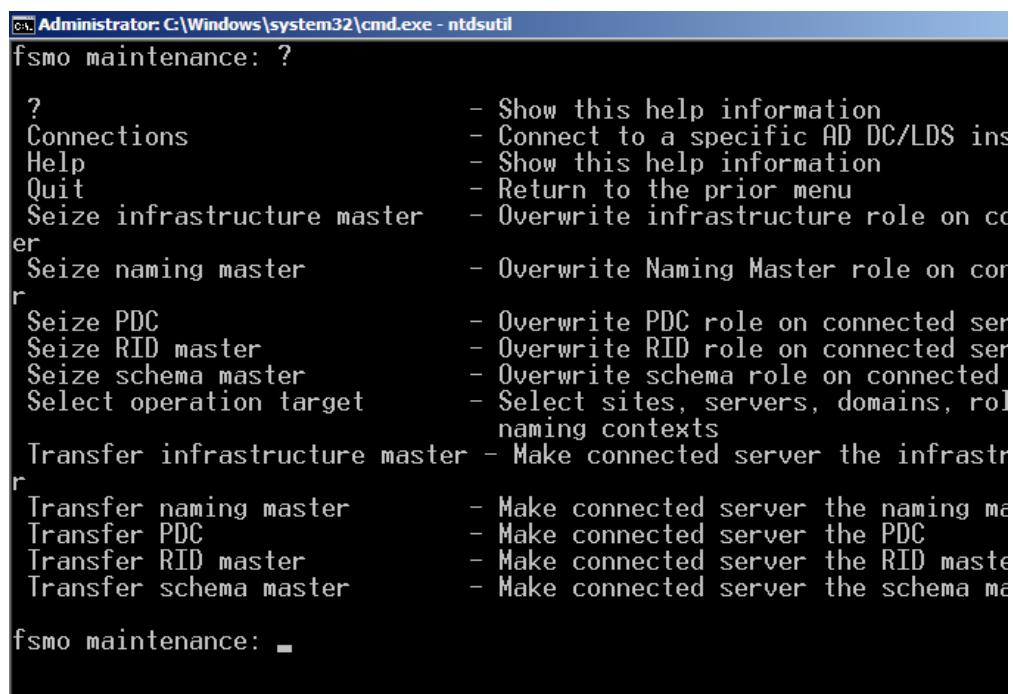
9. Type: **Quit**

```
C:\Administrator: C:\Windows\system32\cmd.exe - ntdsutil

C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: BACKUP
The command completed successfully.

C:\Users\Administrator>ntdsutil
ntdsutil: roles
fsmo maintenance: connections
server connections: connect to server sys1
Binding to sys1 ...
Connected to sys1 using credentials of locally logged on user.
server connections: quit
```

10. Type **Help** (or)? To view the available syntax.



```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
fsmo maintenance: ?

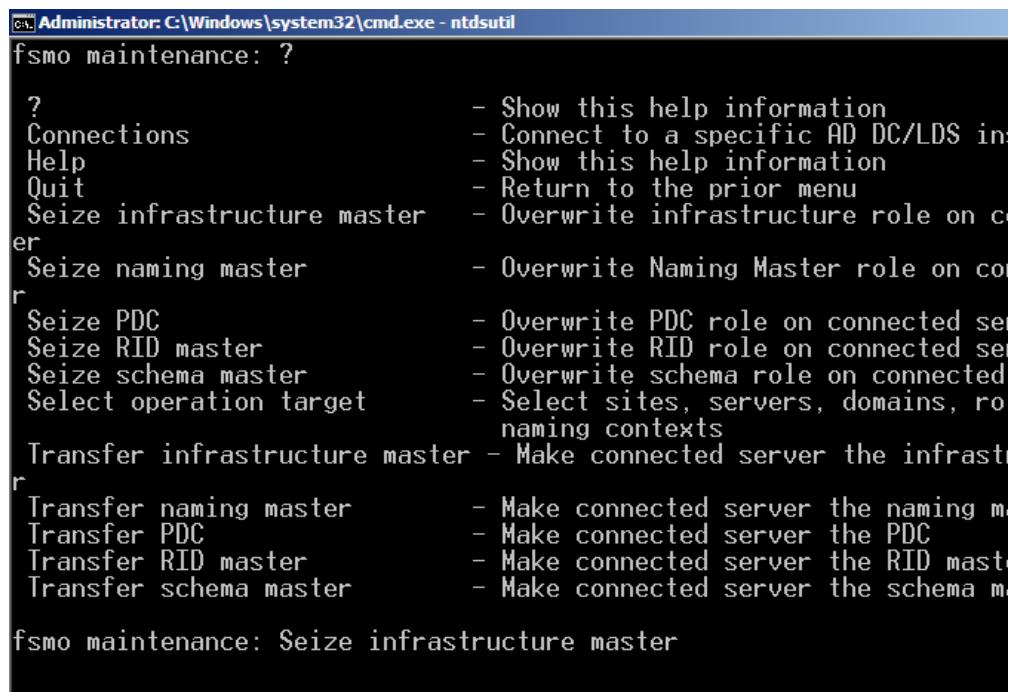
?
Connections
Help
Quit
Seize infrastructure master
Seize naming master
Seize PDC
Seize RID master
Seize schema master
Select operation target
Transfer infrastructure master
Transfer naming master
Transfer PDC
Transfer RID master
Transfer schema master

fsmo maintenance: ■
```

The screenshot shows a Windows Server 2008 Command Prompt window with the title "Administrator: C:\Windows\system32\cmd.exe - ntdsutil". The user has typed "fsmo maintenance:" followed by a question mark. A list of options appears, each preceded by a short description:

- Show this help information
- Connect to a specific AD DC/LDS instance
- Show this help information
- Return to the prior menu
- Overwrite infrastructure role on connected server
- Overwrite Naming Master role on connected server
- Overwrite PDC role on connected server
- Overwrite RID role on connected server
- Overwrite schema role on connected server
- Select sites, servers, domains, roles, and naming contexts
- Make connected server the infrastructure master
- Make connected server the naming master
- Make connected server the PDC
- Make connected server the RID master
- Make connected server the schema master

11. Type **Seize infrastructure master** and Press Enter.



```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
fsmo maintenance: ?

?
Connections
Help
Quit
Seize infrastructure master
Seize naming master
Seize PDC
Seize RID master
Seize schema master
Select operation target
Transfer infrastructure master
Transfer naming master
Transfer PDC
Transfer RID master
Transfer schema master

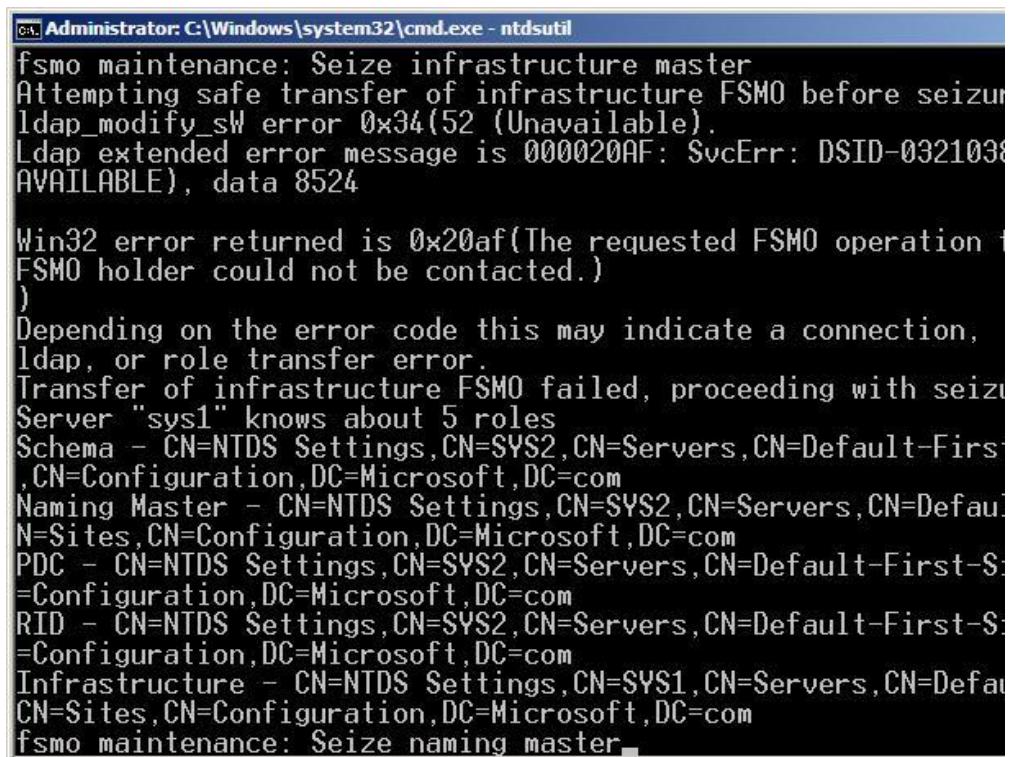
fsmo maintenance: Seize infrastructure master
```

The screenshot shows the same Command Prompt window as the previous one, but the "Seize infrastructure master" option is highlighted with a blue selection bar. The user has pressed the Enter key, and the command "Seize infrastructure master" is now at the bottom of the list.

12. Click **YES**.



13. Type **Seize naming master** and Press Enter.



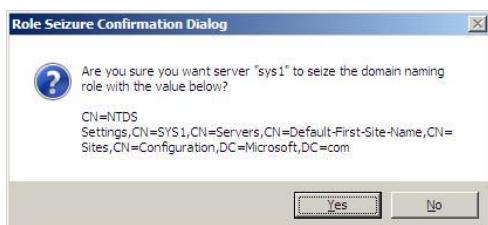
```

Administrator: C:\Windows\system32\cmd.exe - ntdsutil
fsmo maintenance: Seize infrastructure master
Attempting safe transfer of infrastructure FSMO before seizure
ldap_modify_sW error 0x34(52 (Unavailable)).
Ldap extended error message is 000020AF: SvcErr: DSID-0321038
AVAILABLE), data 8524

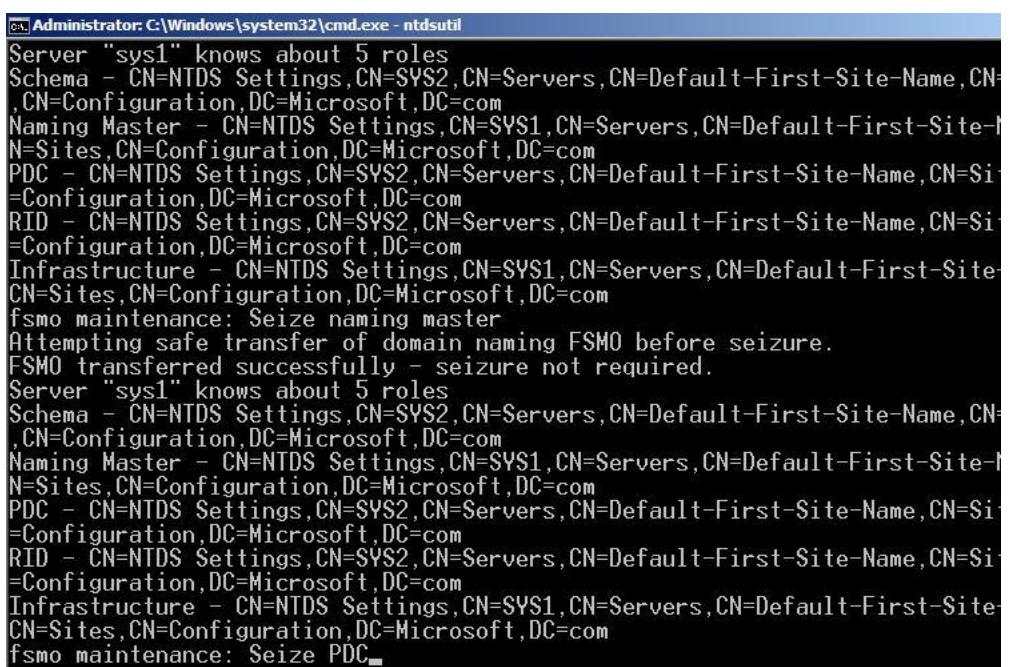
Win32 error returned is 0x20af(The requested FSMO operation +
FSMO holder could not be contacted.)
)
Depending on the error code this may indicate a connection,
ldap, or role transfer error.
Transfer of infrastructure FSMO failed, proceeding with seizure
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Seize naming master

```

14. Click **YES**



15. Type **Seize PDC** and Press Enter.

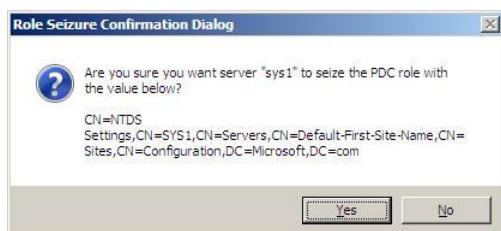


```

Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Seize naming master
Attempting safe transfer of domain naming FSMO before seizure.
FSMO transferred successfully - seizure not required.
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Seize PDC

```

## 16. Click Yes

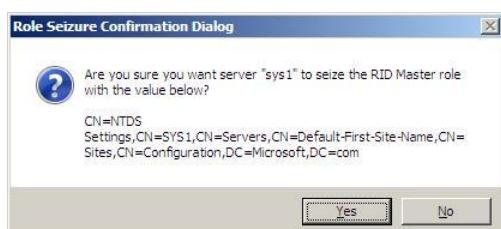


## 17. Type Seize RID Master and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
Attempting safe transfer of PDC FSMO before seizure.
ldap_modify_sw error 0x34(52 (Unavailable).
Ldap extended error message is 000020AF: SvcErr: DSID-03210575, problem
AVAILABLE), data 8524

Win32 error returned is 0x20af(The requested FSMO operation failed. The
FSMO holder could not be contacted.)
)
Depending on the error code this may indicate a connection,
ldap, or role transfer error.
Transfer of PDC FSMO failed, proceeding with seizure ...
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name
,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration
,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Name,CN=Configuration
,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: Seize RID master.
```

## 18. Click YES

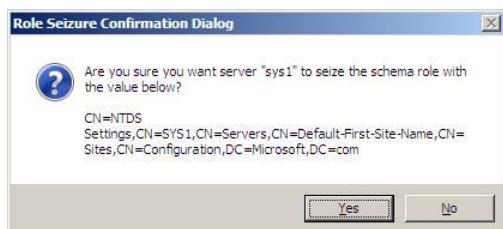


19. Type **Seize Schema Master** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
fsmo maintenance: Seize RID master
Attempting safe transfer of RID FSMO before seizure.
ldap_modify_sw error 0x34(52 (Unavailable)).
Ldap extended error message is 000020AF: SvcErr: DSID-03210B34, problem
AVAILABLE), data 8524

Win32 error returned is 0x20af(The requested FSMO operation failed. The
FSMO holder could not be contacted.)
)
Depending on the error code this may indicate a connection,
ldap, or role transfer error.
Transfer of RID FSMO failed, proceeding with seizure ...
Searching for highest rid pool in domain
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS2,CN=Servers,CN=Default-First-Site-Nam
,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-S
N=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,C
=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,C
=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance:Seize schema master
```

20. Click **YES**



21. Type **Quit** and press Enter

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance:
fsmo maintenance: Seize schema master
Attempting safe transfer of schema FSMO before seizure.
ldap_modify_sw error 0x34(52 (Unavailable)).
Ldap extended error message is 000020AF: SvcErr: DSID-03210380, problem
AVAILABLE), data 8524

Win32 error returned is 0x20af(The requested FSMO operation failed. The
FSMO holder could not be contacted.)
)
Depending on the error code this may indicate a connection,
ldap, or role transfer error.
Transfer of schema FSMO failed, proceeding with seizure ...
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Nam
,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-S
N=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,C
=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,C
=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: quit
```

22. Type **Quit** and Press Enter.

```
Administrator: C:\Windows\system32\cmd.exe - ntdsutil
CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance:
fsmo maintenance: Seize schema master
Attempting safe transfer of schema FSMO before seizure.
ldap_modify_sw error 0x34(52 (Unavailable).
Ldap extended error message is 000020AF: SvcErr: DSID-03210380, problem
AVAILABLE), data 8524

Win32 error returned is 0x20af(The requested FSMO operation failed. The
FSMO holder could not be contacted.)
)
Depending on the error code this may indicate a connection,
ldap, or role transfer error.
Transfer of schema FSMO failed, proceeding with seizure ...
Server "sys1" knows about 5 roles
Schema - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration
,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration
,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: quit
ntdsutil: quit
```

### Verification:

1. Type **Net accounts** and Press Enter
2. Computer role of **Additional Domain Controller will be converted to Primary**.

```
Administrator: C:\Windows\system32\cmd.exe
,CN=Configuration,DC=Microsoft,DC=com
Naming Master - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
PDC - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration
,CN=Configuration,DC=Microsoft,DC=com
RID - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name,CN=Configuration
,CN=Configuration,DC=Microsoft,DC=com
Infrastructure - CN=NTDS Settings,CN=SYS1,CN=Servers,CN=Default-First-Site-Name
,CN=Sites,CN=Configuration,DC=Microsoft,DC=com
fsmo maintenance: quit
ntdsutil: quit

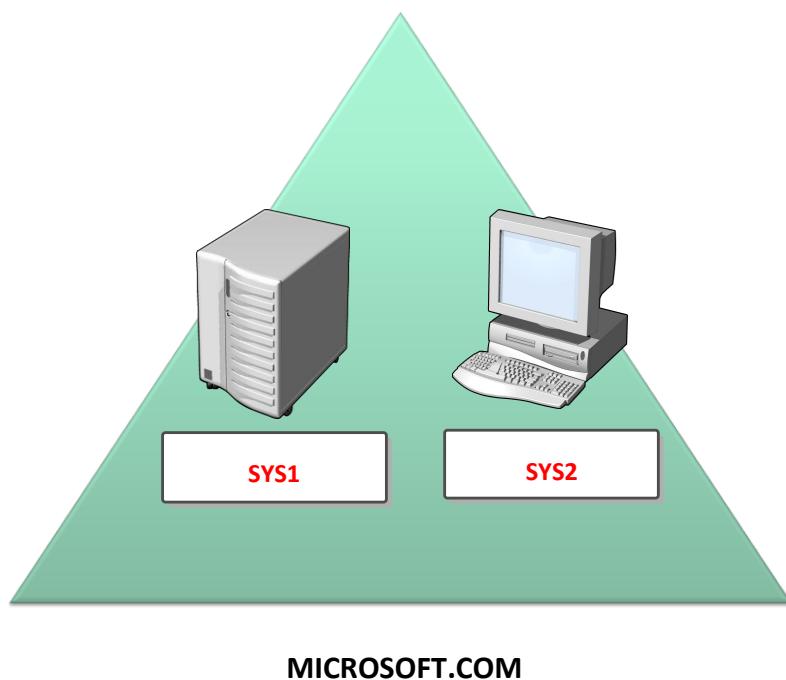
C:\Users\Administrator>net accounts
Force user logoff how long after time expires?: Never
Minimum password age (days): 1
Maximum password age (days): 42
Minimum password length: 0
Length of password history maintained: 24
Lockout threshold: Never
Lockout duration (minutes): 30
Lockout observation window (minutes): 30
Computer role: PRIMARY
The command completed successfully.
```

## GROUP POLICIES

### Pre-requisites:

Before working on this lab, you must have

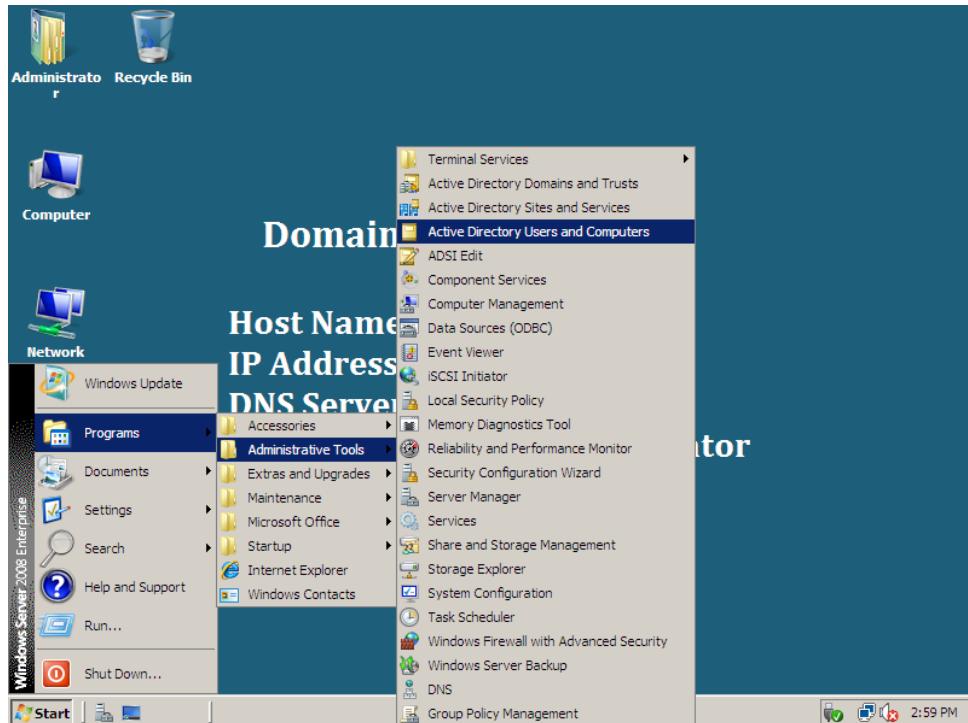
1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server or Windows 7.



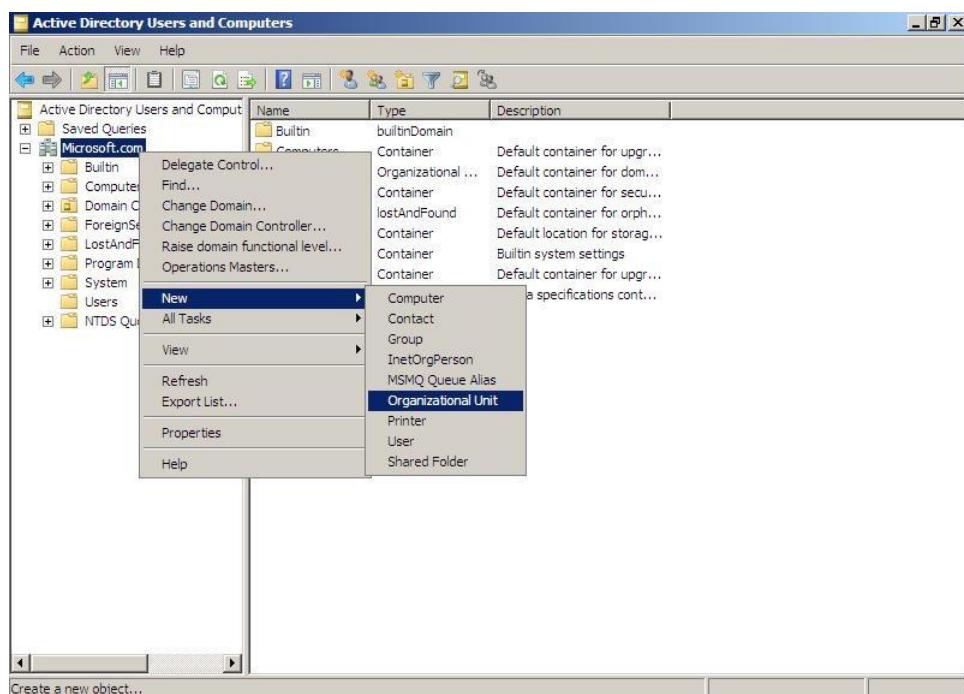
SYS1	SYS2
<b>Domain Controller</b>	
IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1
<b>Member Server / Client</b>	
IP Address	10.0.0.2
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1

### **Lab – 1: Creating an Organizational Unit (OU)**

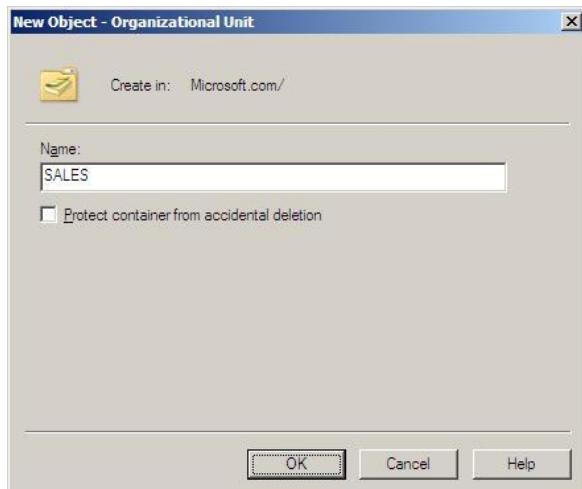
1. Start → Programs → Administrative Tools → Active Directory Users and Computers



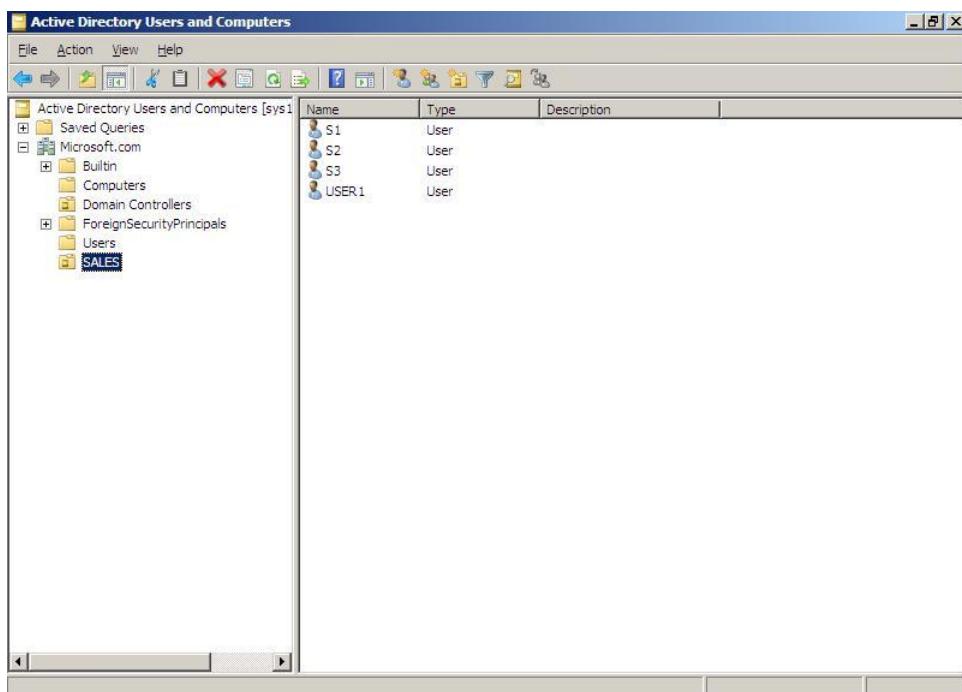
2. Right click Domain Name → New → Organizational Unit.



3. Enter the name for OU (Ex: **Sales1**) and (for lab) uncheck **Protect container from accidental deletion** and click **OK**.

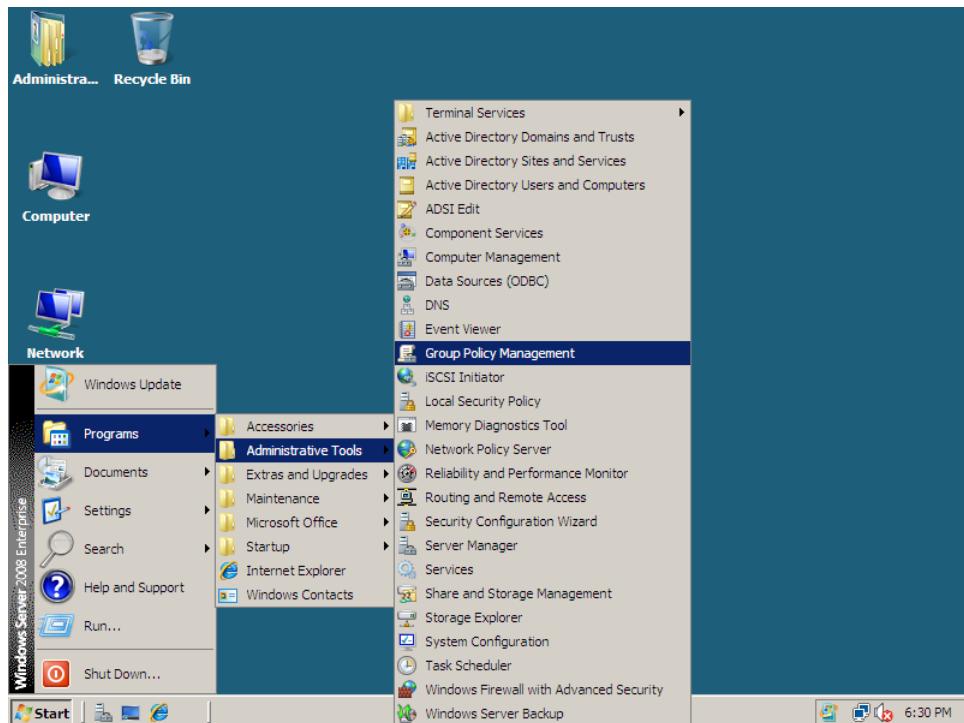


4. Create Users in the **Sales1** OU(Ex: **User1, S1, S2, S3**)

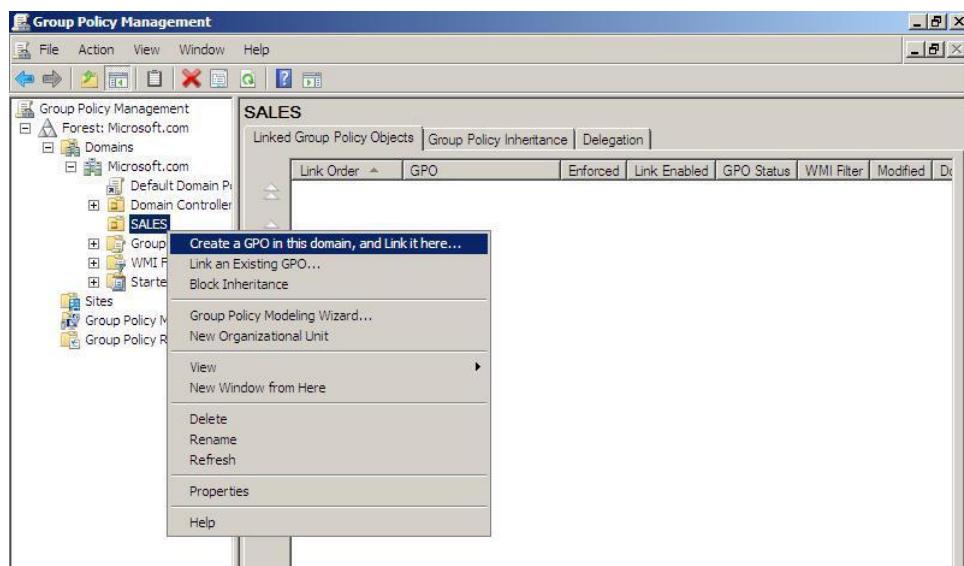


## **Lab – 2: Applying Group Policy on Organizational Unit Level**

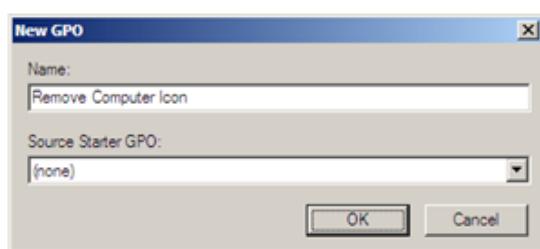
1. Start → Programs → Administrator tools → Group Policy Management



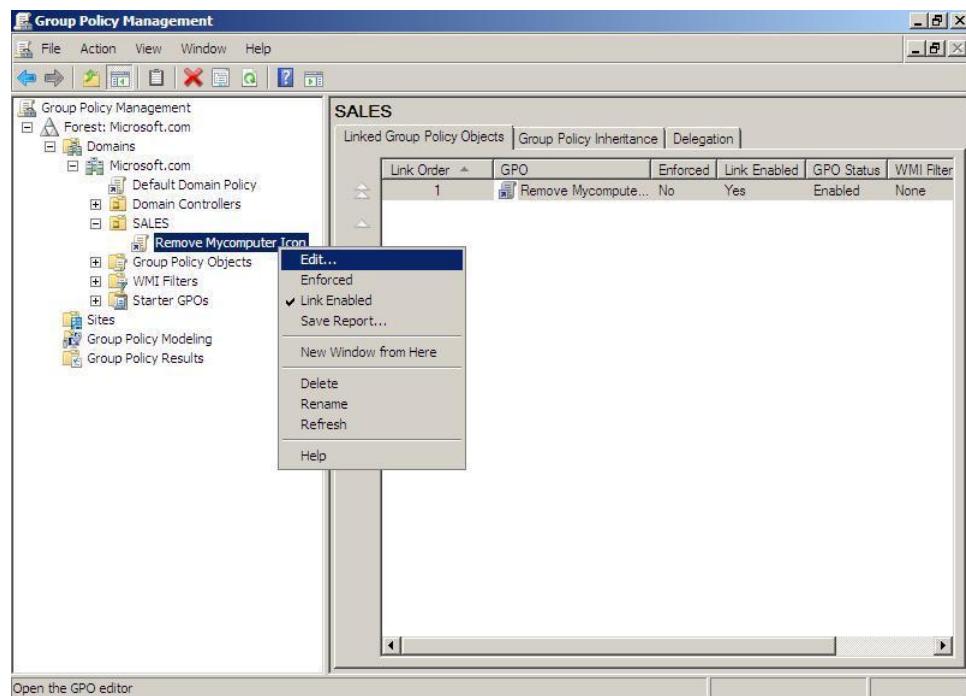
2. Right click OU (Sales1) → Create a GPO in this domain and Link it here.



3. Enter any name to GPO Link (Ex: Remove Computer Icon) and click OK.

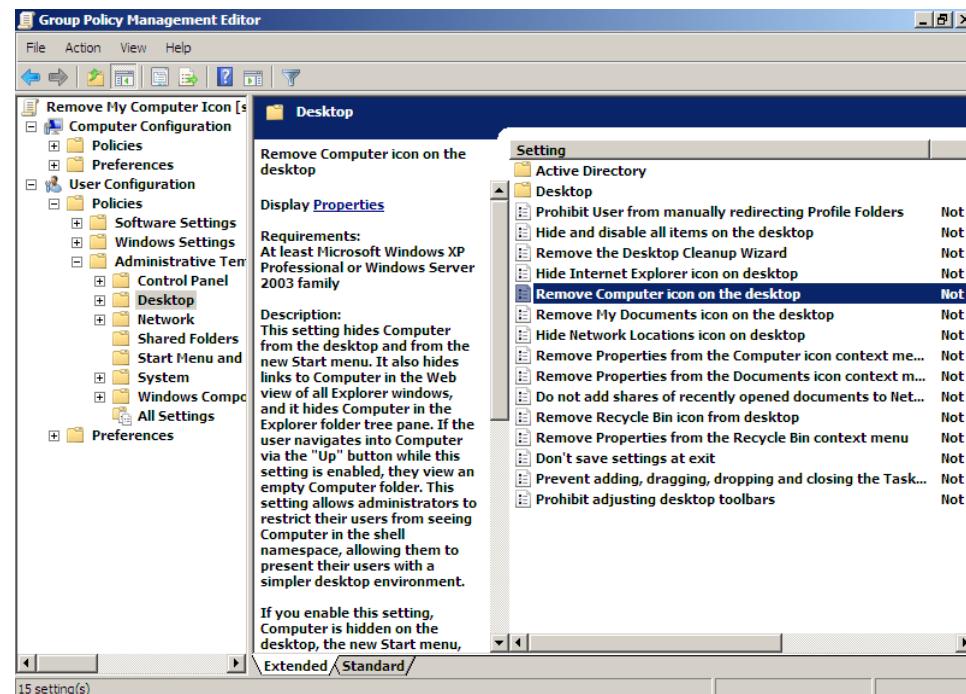


**4. Right Click created GPO Link → Edit**

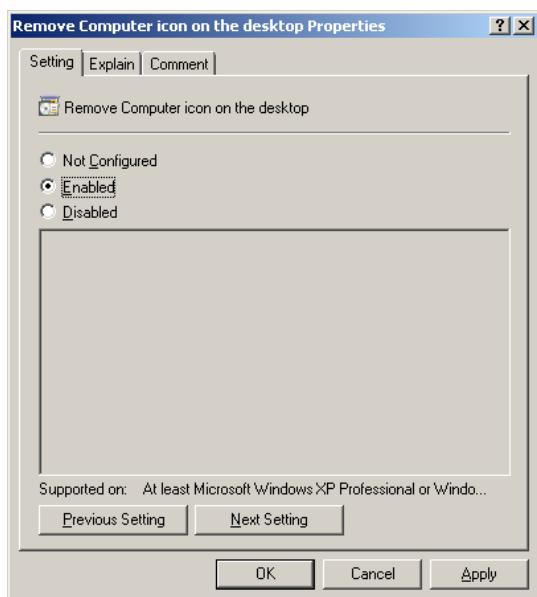


**5. In Group Policy Management Editor Window, Go to **User Configuration** → Policies → Administrative Templates → Desktop.**

**6. Select a policy (**Remove Computer icon on the Desktop**) on right side of the screen, Right Click and select **Properties**.**

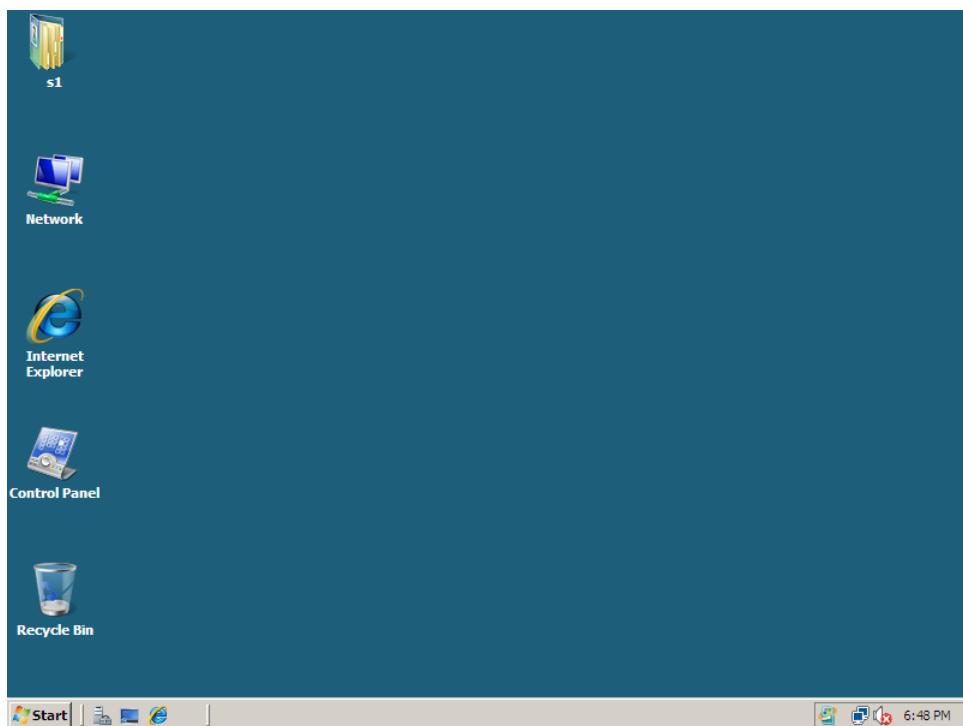


7. Select **Enabled** option and click **Apply** and **OK**.



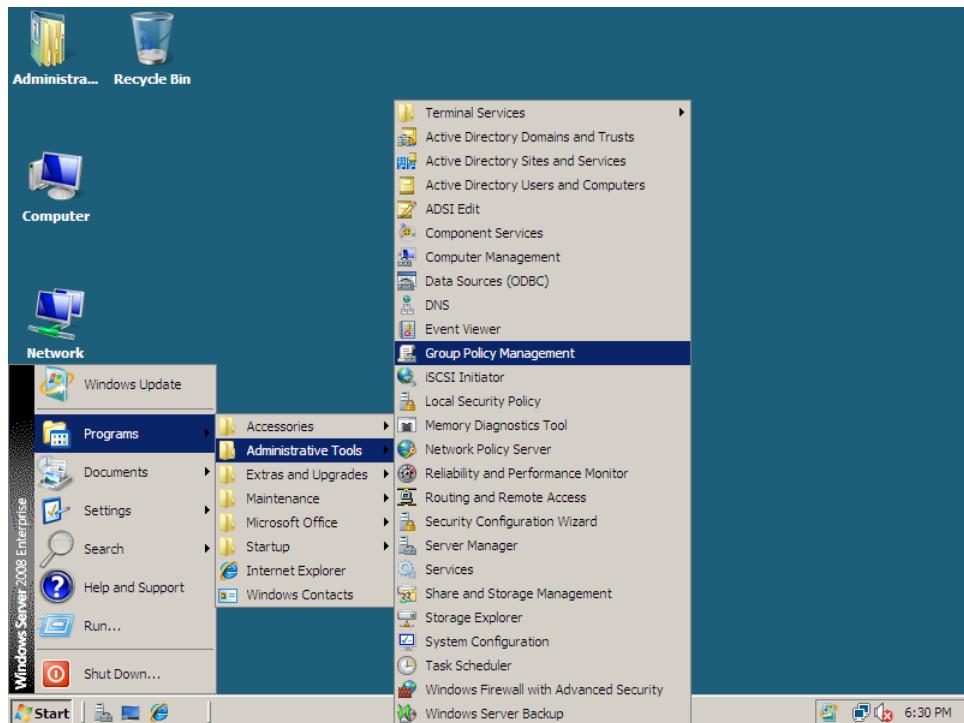
### **Verification:**

1. Logon to client system as Sales1ou user (**s1**) and verify the changes because of the policy.

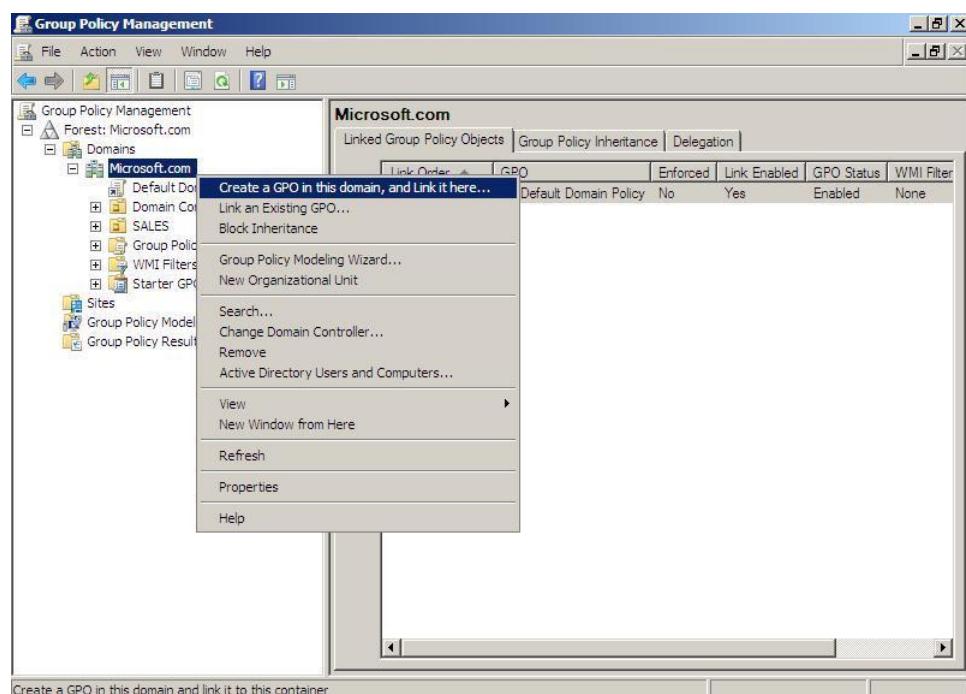


### Lab – 3: Applying Group Policy on Domain Level

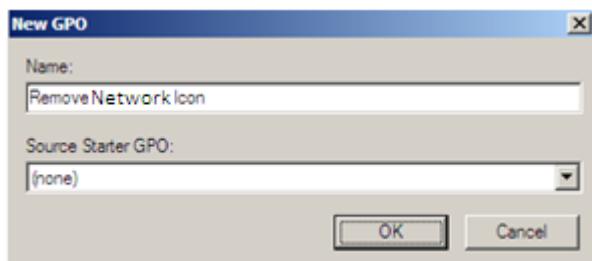
1. Start → Programs → Administrative Tools → Group Policy Management



2. Right click Domain name (**MICROSOFT.COM**) and select **Create a GPO in this domain and Link it here.**



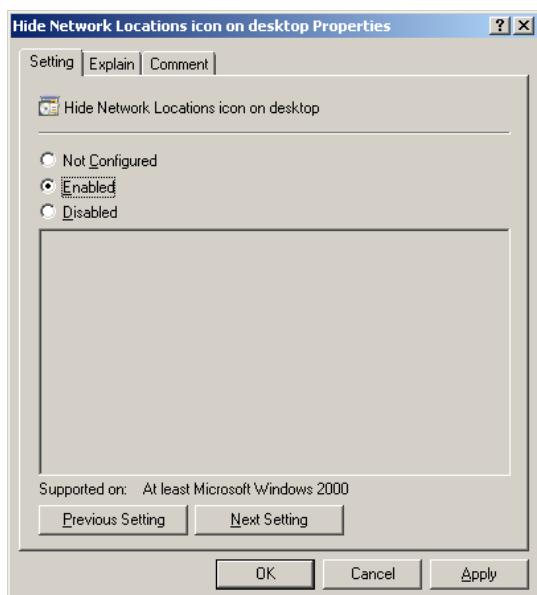
3. Enter New GPO Link name Ex: **Remove Network Icon** and click **OK**.



4. Select the Created GPO → Right Click Created GPO → Select **Edit**.
5. In the Group Policy Management editor window, Go to **User Configuration** → **Policies** → **Administrative Templates** → **Desktop**
6. Select a policy (**Hide Network Icon on desktop**) right side of the screen, Right Click and select **Properties**.

Setting	State	Comment
Active Directory	Not configured	No
Desktop	Not configured	No
Prohibit User from manually redirecting Profile Folders	Not configured	No
Hide and disable all items on the desktop	Not configured	No
Remove the Desktop Cleanup Wizard	Not configured	No
Hide Internet Explorer icon on desktop	Not configured	No
Remove Computer icon on the desktop	Not configured	No
Remove My Documents icon on the desktop	Not configured	No
<b>Hide Network Locations icon on desktop</b>	<b>Not configured</b>	<b>No</b>
Remove Properties from the Computer icon context menu	Not configured	No
Remove Properties from the Documents icon context menu	Not configured	No
Do not add shares of recently opened documents to Net...	Not configured	No
Remove Recycle Bin icon from desktop	Not configured	No
Remove Properties from the Recycle Bin context menu	Not configured	No
Don't save settings at exit	Not configured	No
Prevent adding, dragging, dropping and closing the Task...	Not configured	No
Prohibit adjusting desktop toolbars	Not configured	No

7. Select **Enabled** option and click **Apply** and **OK**



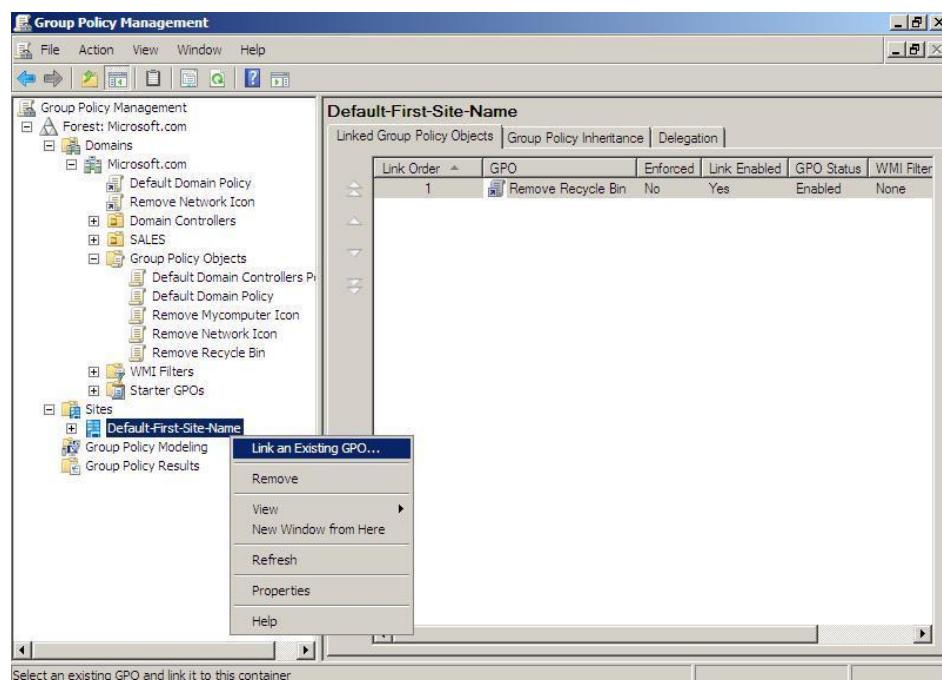
**Verification:**

1. Login as User (**S1**) to **Client or Member Server** and Verify for the changes.

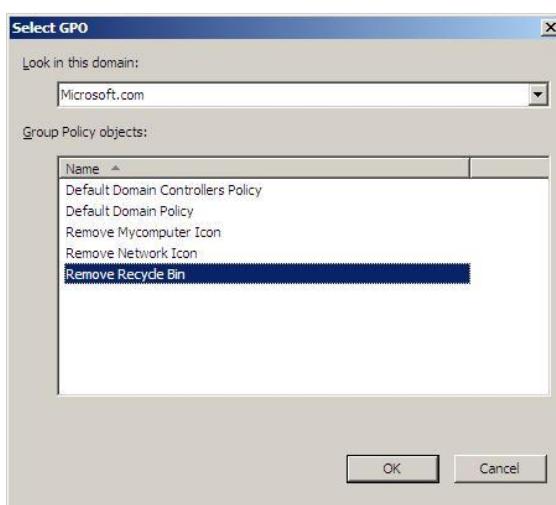


### Lab – 4: Applying Group Policy on Site Level

1. Start → Programs → Administrative Tools → **Group Policy Management** → Right click **Group Policy Objects** → Select **New Group Policy Object**.
2. Enter the name (**Remove Recycle Bin**) → Edit → User Configuration → Policies → Administrative Templates → Desktop → Right click **Remove Recycle Bin** icon from Desktop → Properties → Enabled → OK → Close.
3. Right click **Sites** → select **Show Sites** → check **Default-First-Site-Name** → click **OK** → Right Click **Default-First-Site-Name** → select **Link an Existing GPO....**



4. Select an existing GPO, (**Remove Recycle Bin**) click **OK**.

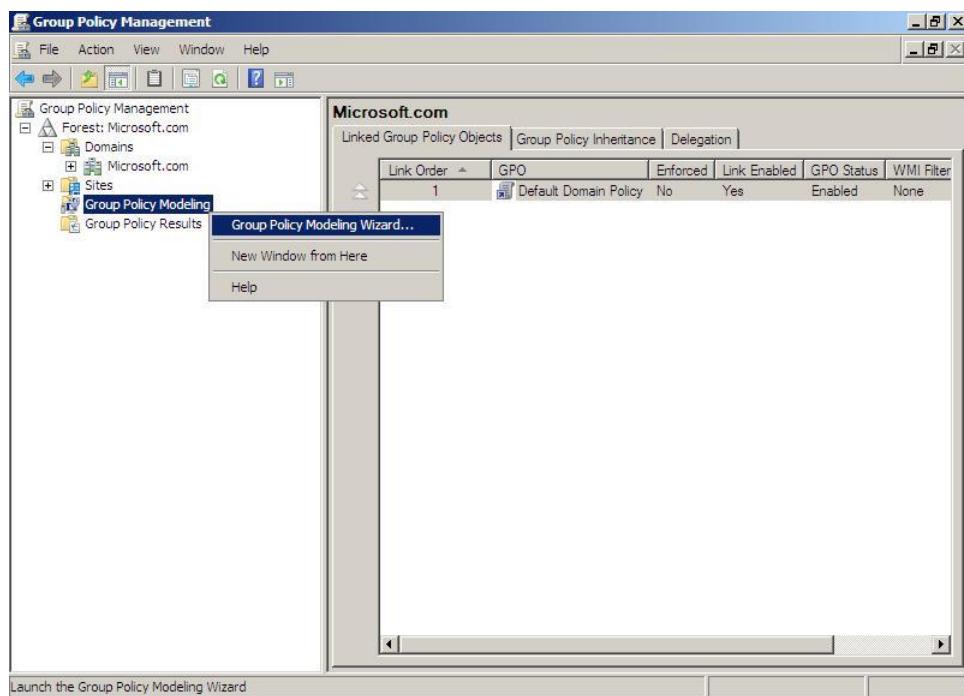


#### Verification:

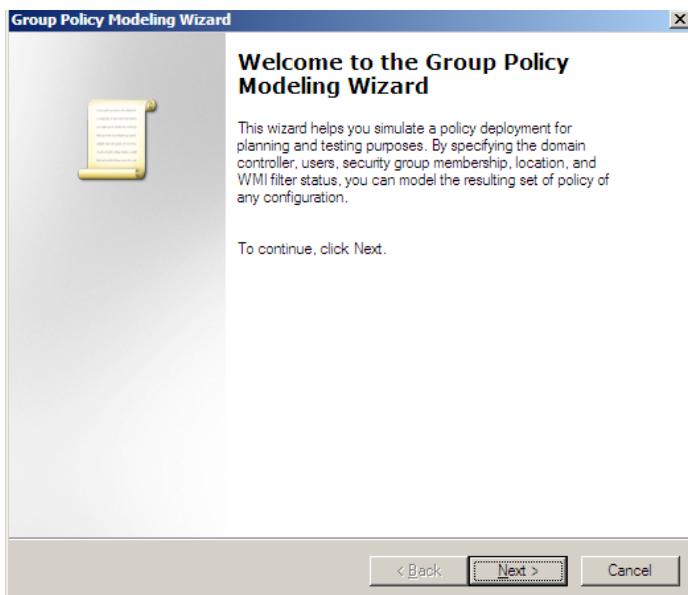
1. Login as a user to **Client or Member Server**, and Verify for the changes.

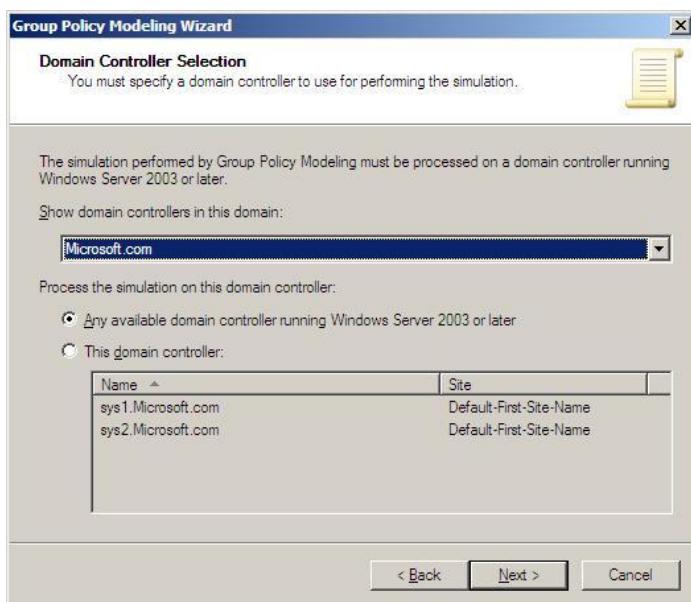
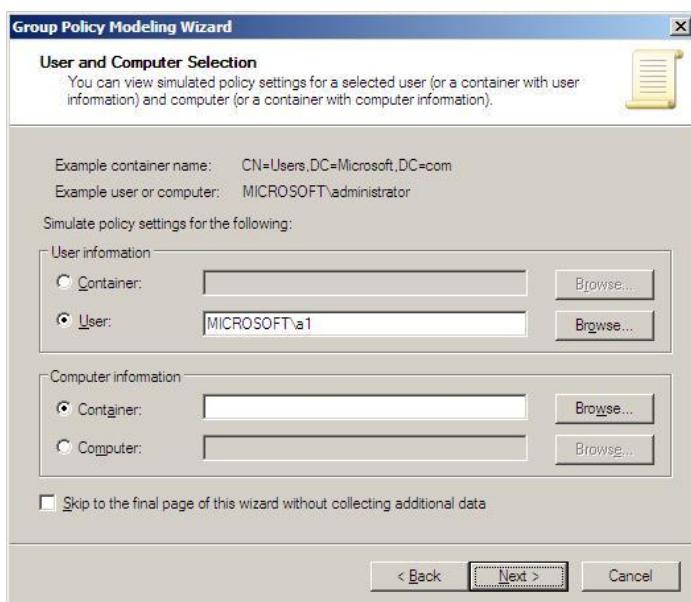
### **Lab – 5: Applying Group Policy Modeling**

1. Start → Programs → Administrative Tools → Group Policy Management → Right Click **Group Policy Modeling** and Select **Group Policy Modeling Wizard**.

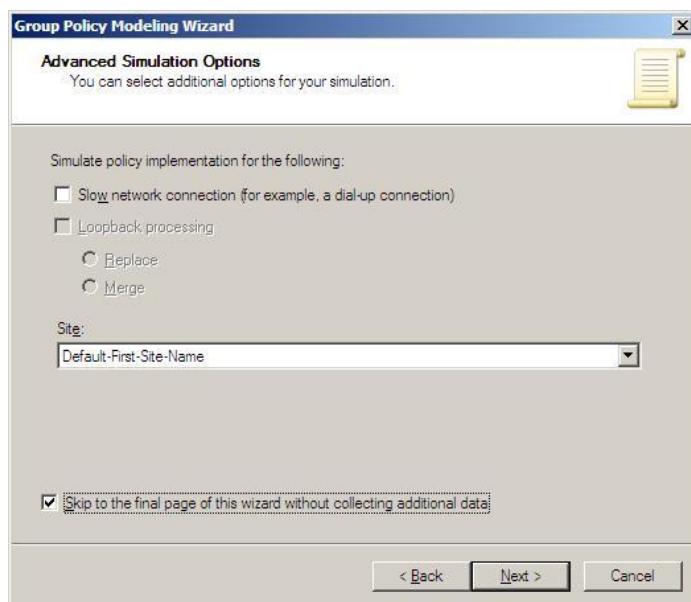


2. Click **Next**.



3. Select the domain name and click **Next**.4. Select User and click Browse → enter the Username (**S1**)→click **OK** and **Next**.

5. Select the site (**Default-First-site-Name**) and check skip to final page, click **Next**.



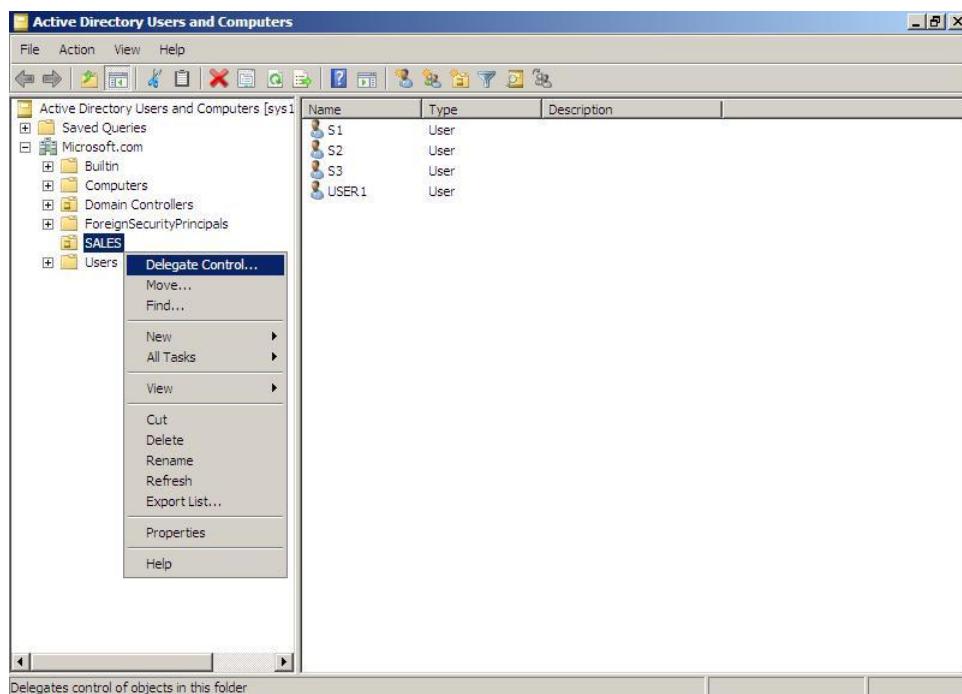
6. Click **Next** → **Finish**.

**Verification:**

1. Click Settings on the summary page and verify the policies applied on the User.

## Lab – 6: Delegating Control to a User

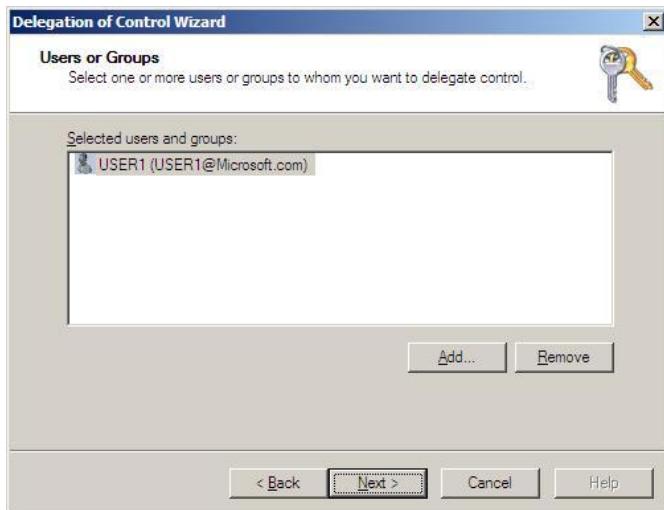
1. Start → Programs → Administrative Tools → Active Directory Users and Computers  
→ Right Click OU → Select Delegate Control



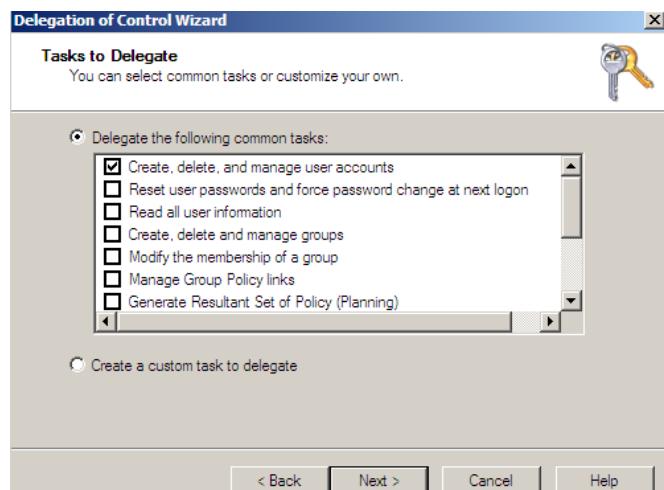
2. Click Next.



3. Click **Add** → Add the User (User1).



4. Check the Box **Create, delete and manage user accounts** and **Next**.



5. Click **Finish**.

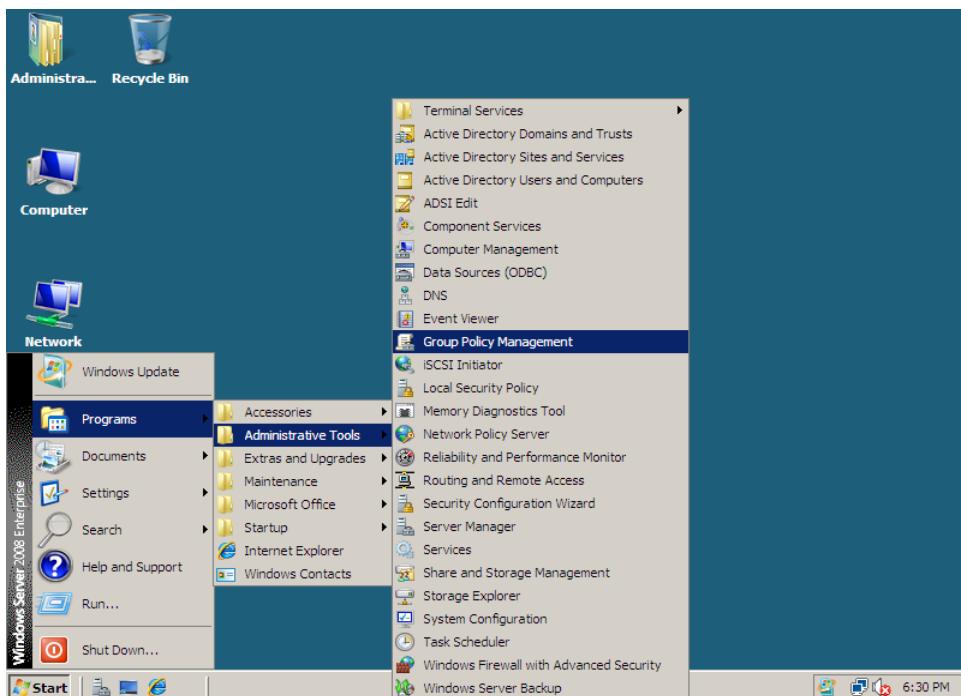


### **Verification:**

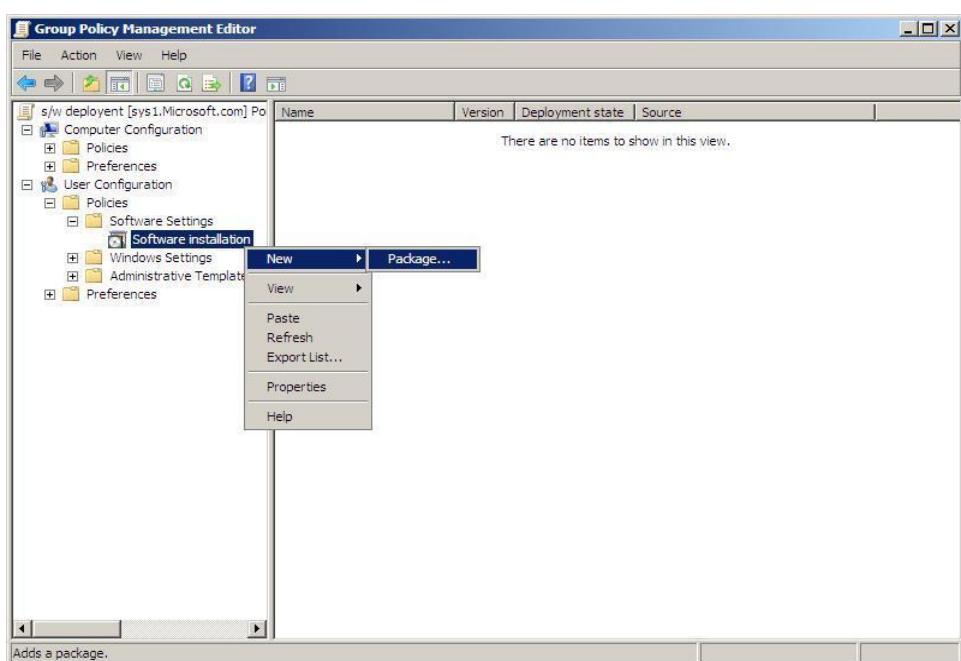
1. Log on to D.C as User (User1), Start → Run → Dsa.msc → Create User in OU.

## Lab – 7: Applying Software Deployment Policy

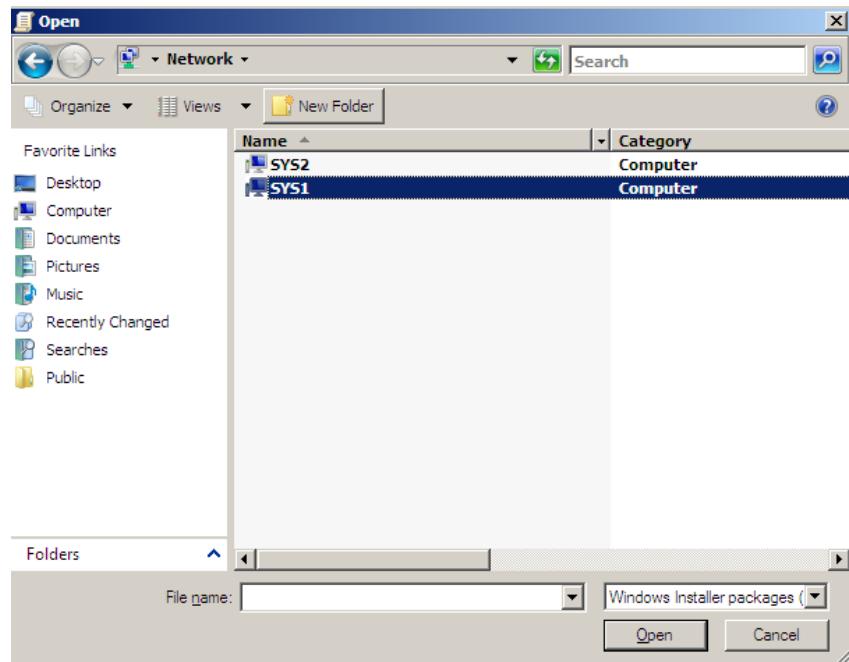
1. Logon to D.C as Administrator, Create a Shared folder with (.msi) applications in it
2. Start → Programs → Administrative Tools → Group Policy Management.



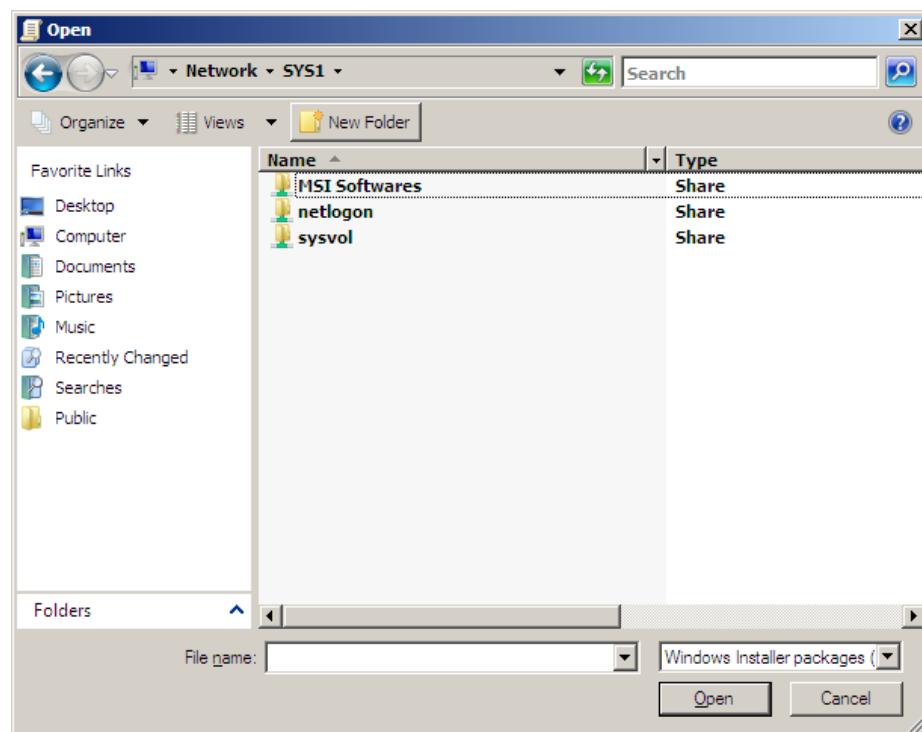
3. Create OU(**Sales1**) along with Users.
4. Right click OU (**Sales1**) → Create a GPO in this domain and Link it here → Enter the name (Software Deployment) → click OK, Right click the policy and click **Edit**.
5. **User Configuration** → **Expand Policies** → **Expand Software settings** → Right click **Software Installation** → **Select New** → **Package**



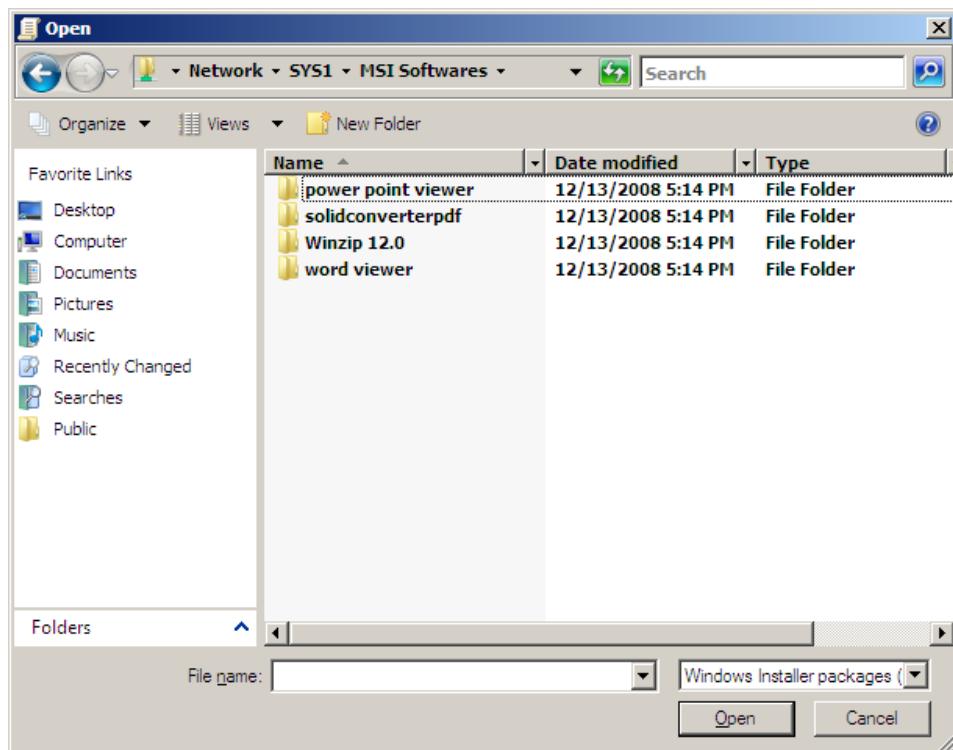
6. Click Desktop → Open Network → Open **SYS1** (Server name containing shared folder).



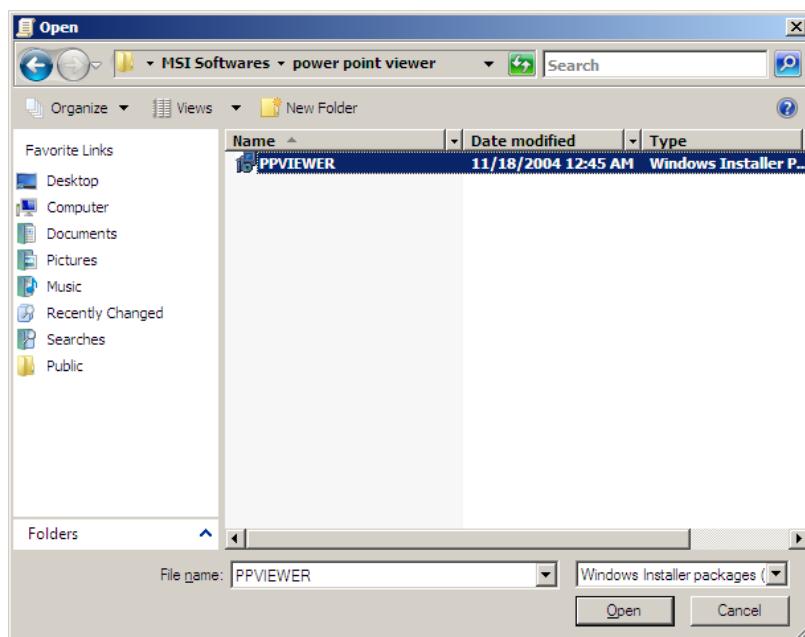
7. Select the **MSI Softwares** Shared Folder → click **Open**.



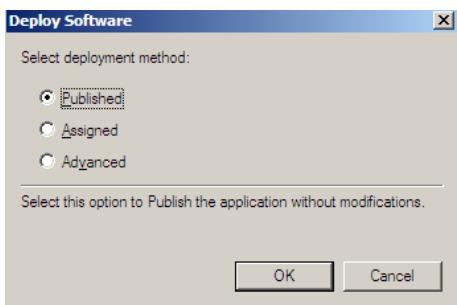
8. Select the Application **Folder (Power Point viewer)** → click **Open**.



9. Select the Application (**PPVIEWER**) → click **Open**.

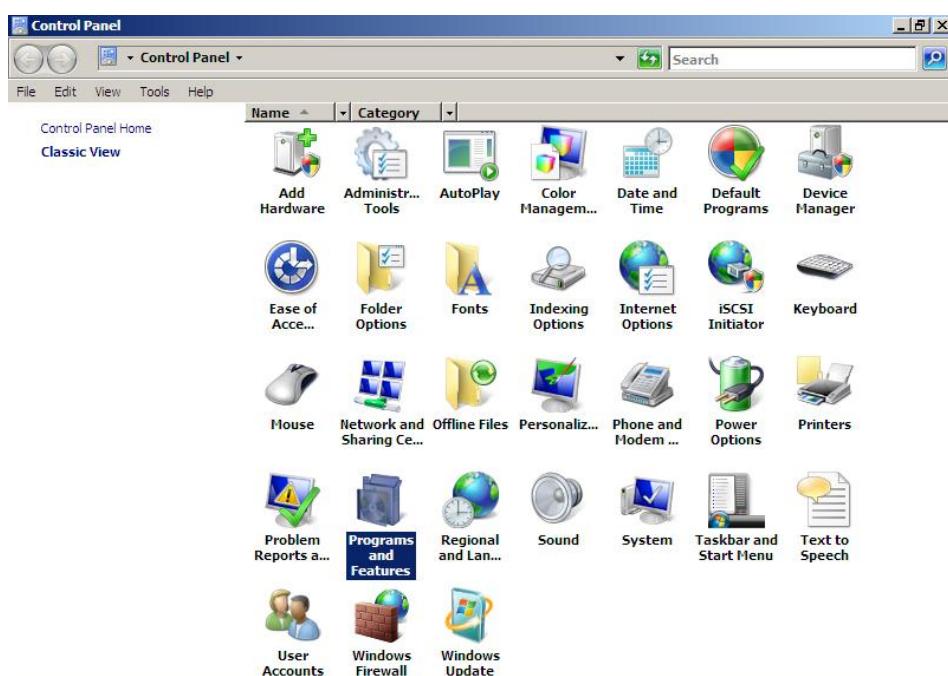


10. Select the **Method to Deploy Application (Published)** and click **OK**.



**Verification:**

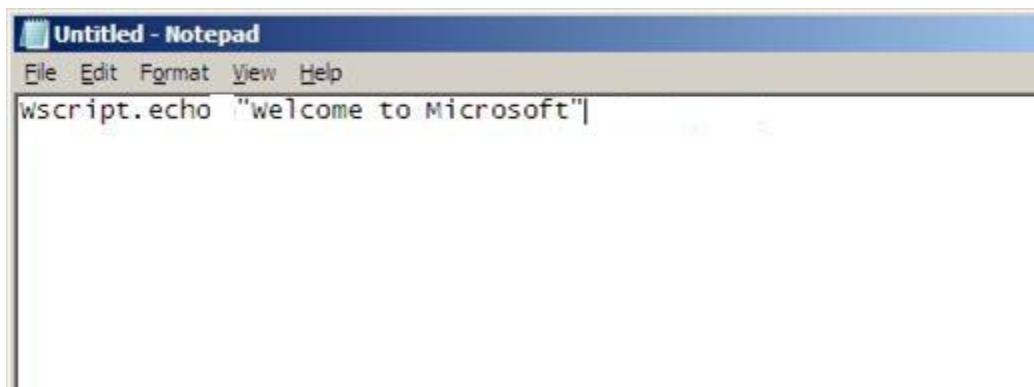
1. Go to Member Server and login as **user1**.
2. Start → Settings → Control Panel → Double click **Program and Features**.



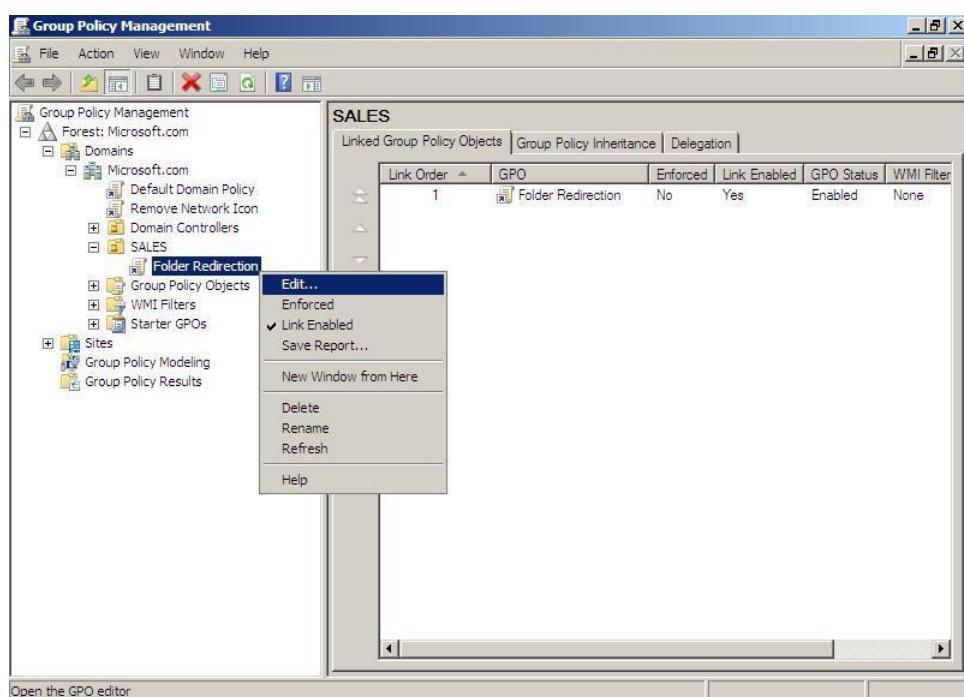
3. Click **Install a Program from the Network** → Select the **Application** and **Install**

### **Lab – 8: Applying Scripts using Group Policy.**

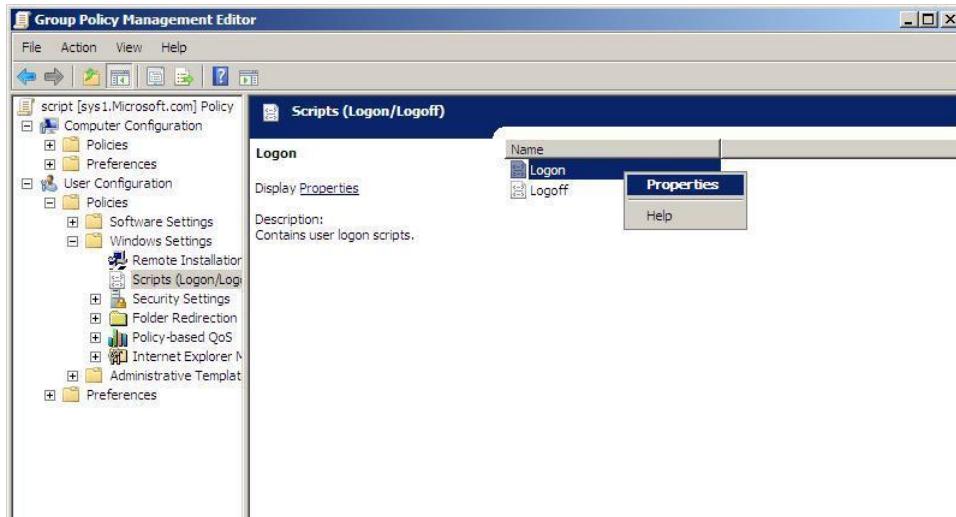
1. Log on to D.C, create a Shared Folder UserScripts with Everyone as co-owner.
2. Start → Run → type **Notepad**.
3. Enter the text **wscript.echo "Welcome to Microsoft"**



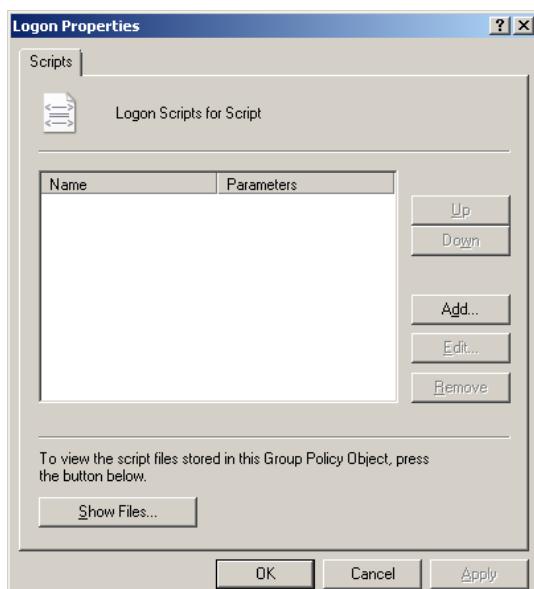
4. Save the file in the Shared folder **User Scripts** as **Logon.vbe**
5. Go to Group Policy Management → Right click **OU (Sales1)** → **Create a GPO in this domain and Link it here** and enter the name **Script**, click **OK**, Select the GPO Right Click and select **Edit**.



6. Expand User Configuration → Expand Policies → Windows Settings → Scripts → Logon → Properties.



7. Click Add.



8. Enter the UNC path for the Script in the shared folder \\SYS1\Userscripts\logon.vbe and click OK → Apply and OK.

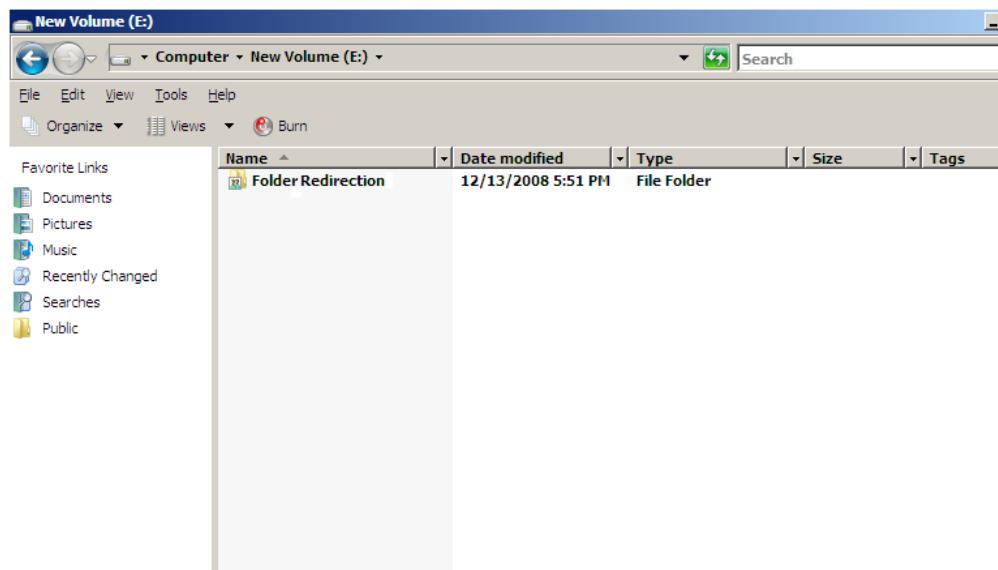
#### **Verification:**

1. Go to Member Server and login as USER1 and verify for the Message.

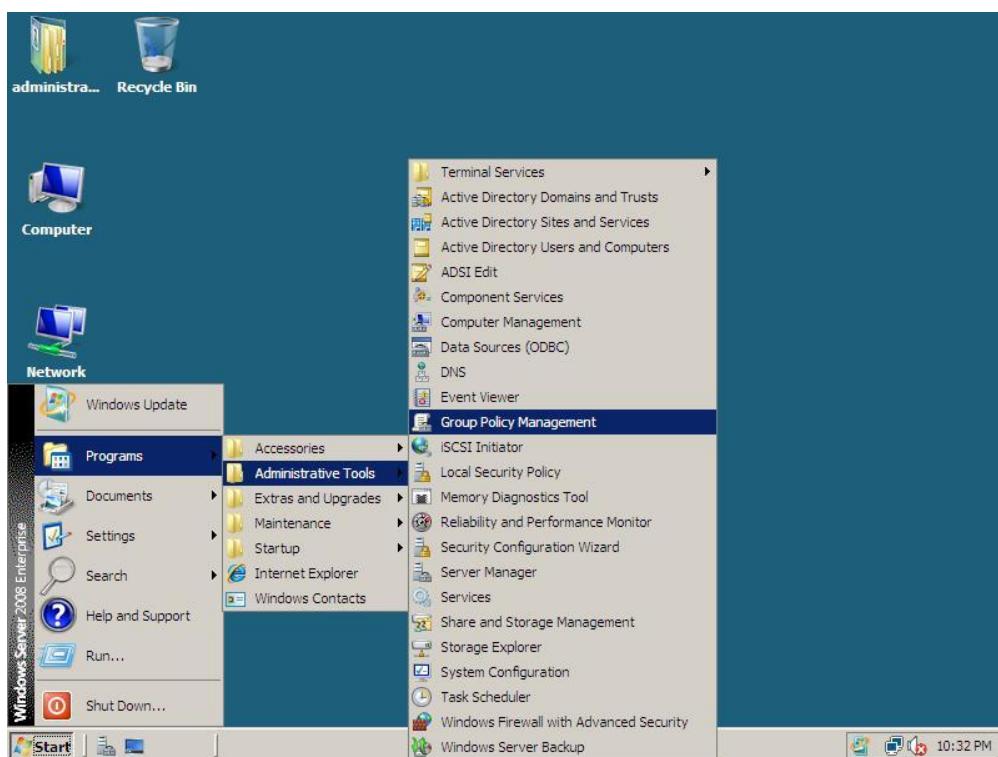


## Lab – 9: Applying Folder Redirection

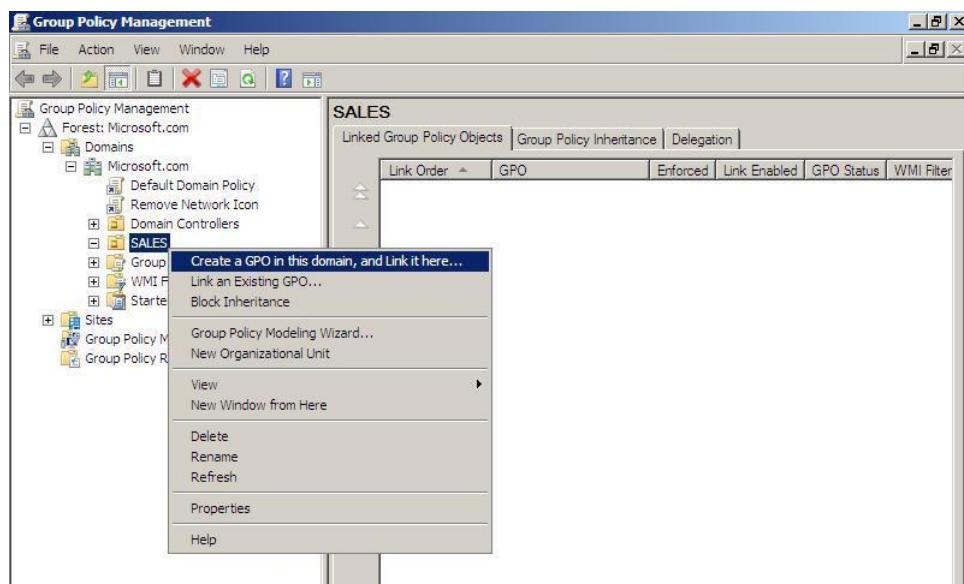
1. Go to D.C, create a Shared Folder (Folder Redirection) with everyone Co-Owner.



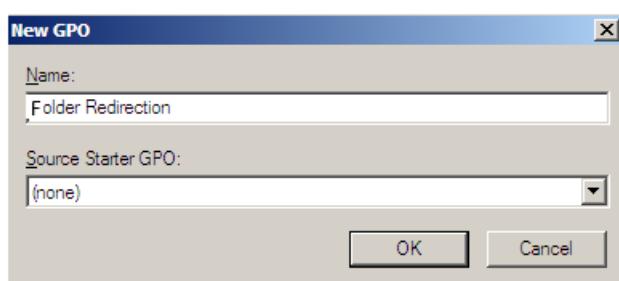
2. Start → Programs → Administrative Tools → Group Policy Management.



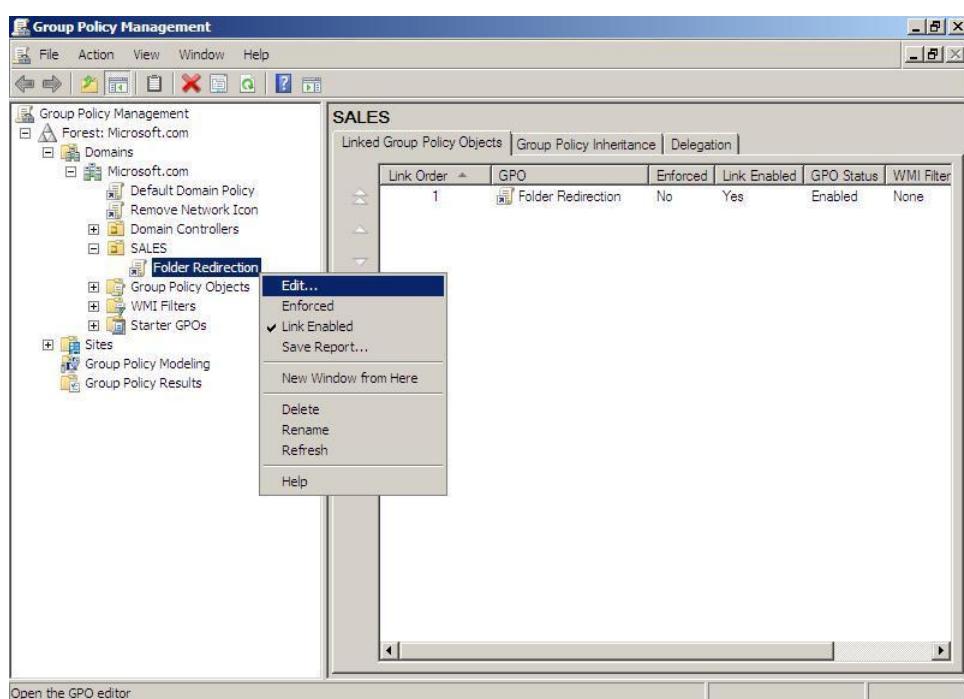
3. Right click OU (**Sales1**) → Select **Create a GPO...**



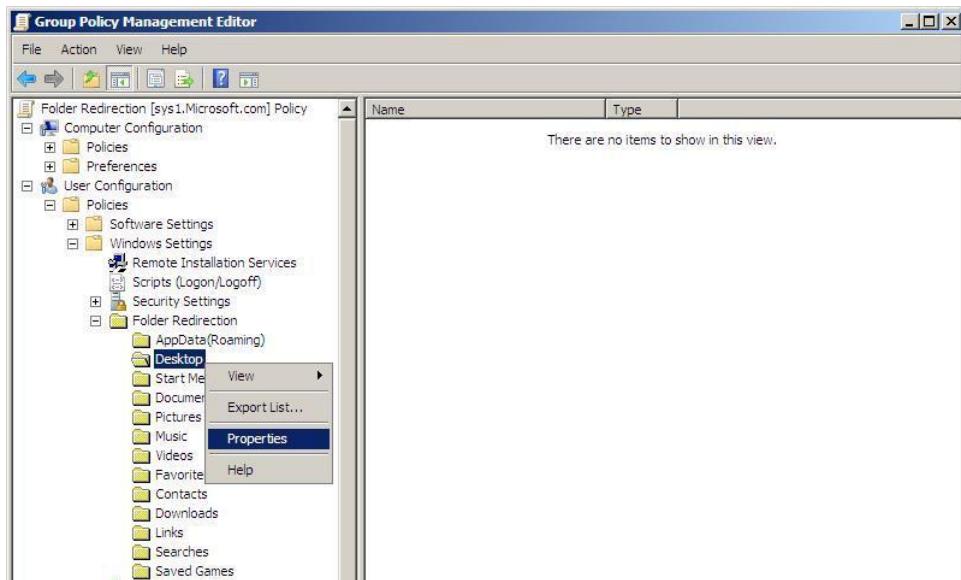
4. Enter name (Ex: **Folder Redirection**) and click **OK**.



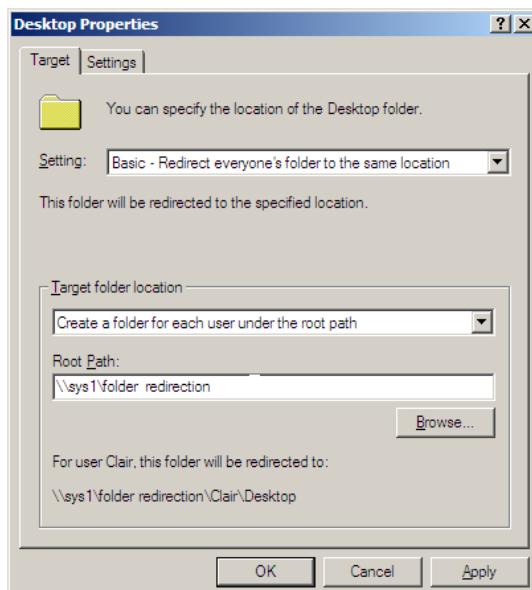
5. Right Click created GPO, select **Edit**.



6. Expand User configuration → Policies → Windows Settings → Folder Redirection → Select Desktop → Right click **Desktop** → Select **Properties**



7. Select **Basic** Redirection, select **Create a folder for each user under the root path**, click **Browse** → select the shared folder from Network, **\\\SYS1\Folder Redirection**, click **Apply** and **OK**.



### **Verification:**

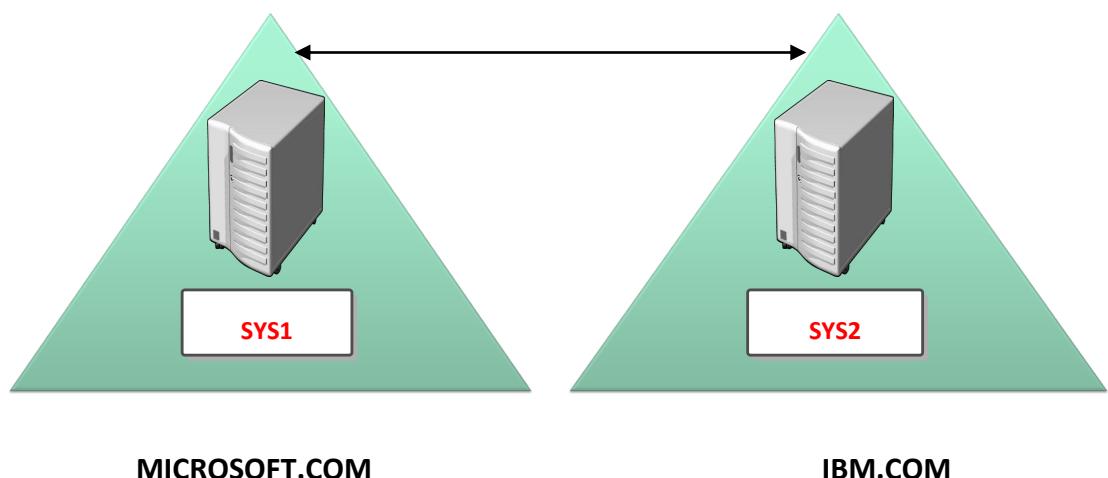
1. Login as user (**S1**) in client system.
2. Create a folder on desktop, Right Click on the folder → **properties** and check the path, it should show **Network path (\\\SYS1\Folder Redirection\S1\Desktop)**.

## TRUST RELATIONSHIP

### Pre-requisites:

Before working on this lab, you must have

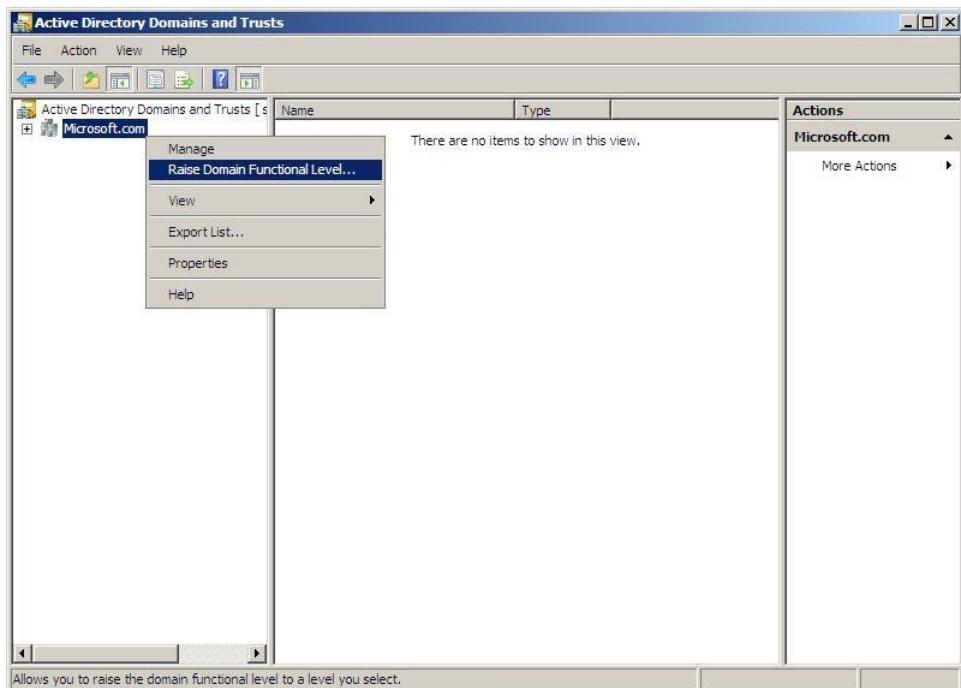
1. A computer running Windows Server 2008 Domain Controller MICROSOFT.COM.
2. A computer running Windows Server 2008 Domain Controller for IBM.COM.



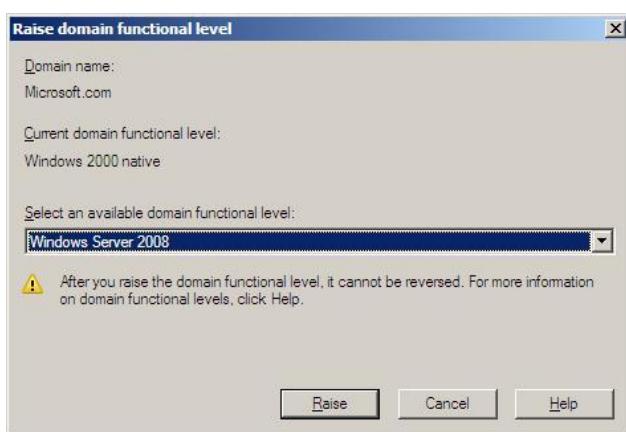
SYS1		SYS2	
Domain Controller-MICROSOFT.COM		Domain Controller-IBM.COM	
IP Address	10.0.0.1	IP Address	10.0.0.2
Subnet Mask	255.0.0.0	Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1	Preferred DNS	10.0.0.2
Alternate DNS	10.0.0.2	Alternate DNS	10.0.0.1

### Lab – 1: Raising Functional Levels

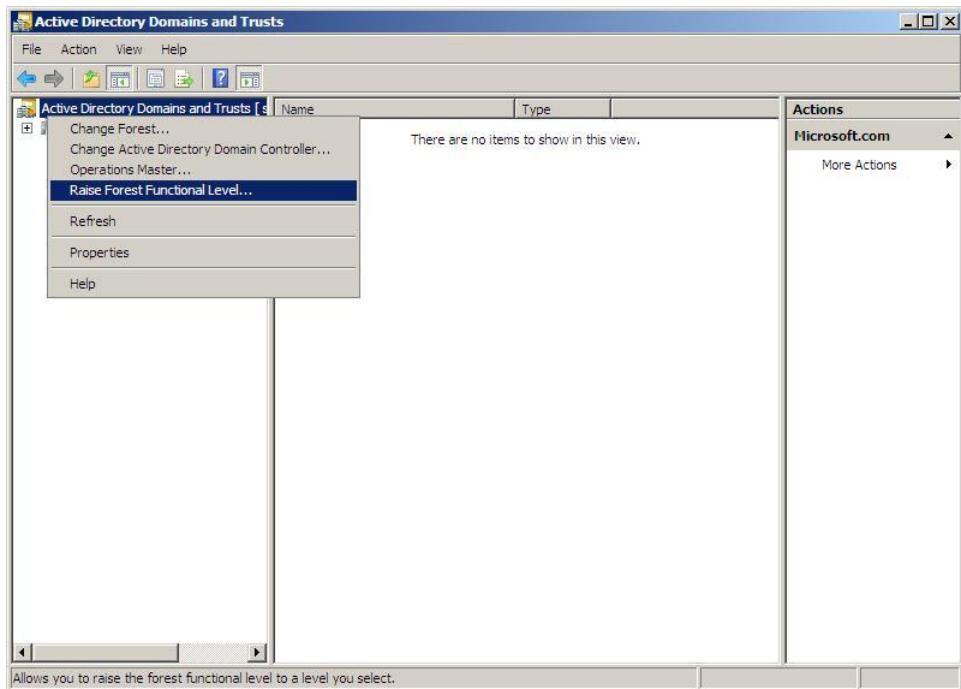
1. Log on to **Domain Controller** of **MICROSOFT.com** as **Administrator**
2. Start → Programs → Administrative Tools → Active Directory Domains and Trusts.
3. Right click Domain name (**MICROSOFT.COM**) → Select **Raise Domain Functional level**.



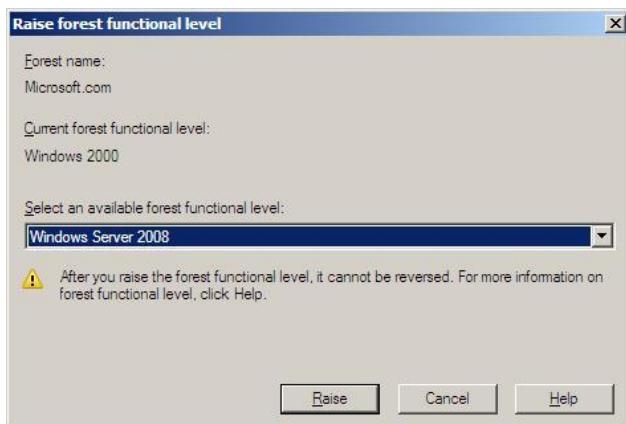
4. Select **Windows Server 2008** and click **Raise** → click **OK** → click **OK**.



5. Right click **Active Directory Domains and Trusts** and Select **Raise Forest Functional Level.**



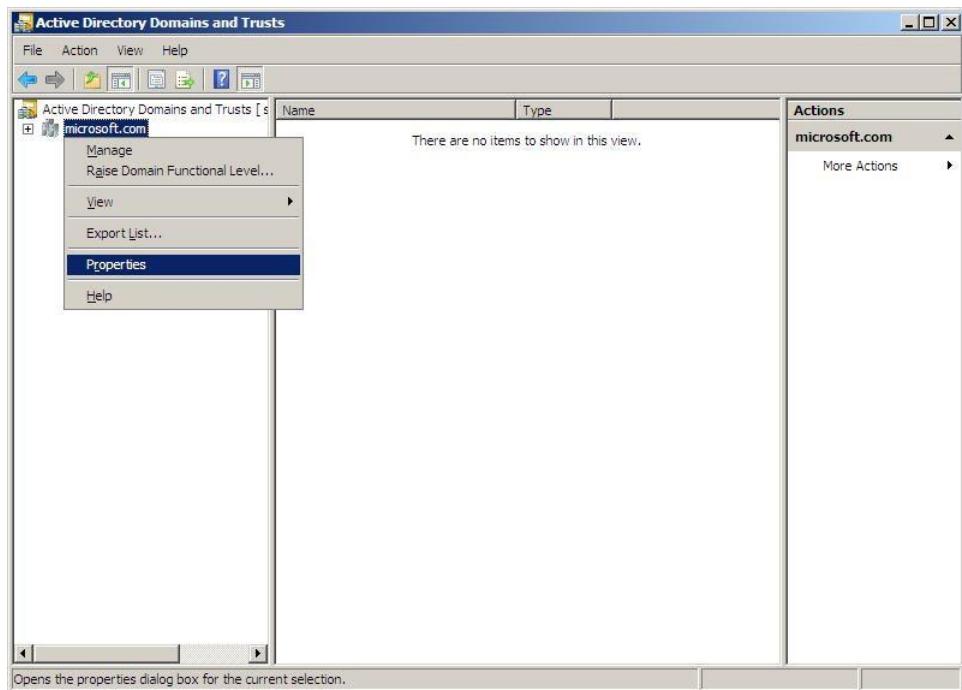
6. Select **Windows Server 2008** and click **Raise** → click **OK** → click **OK**.



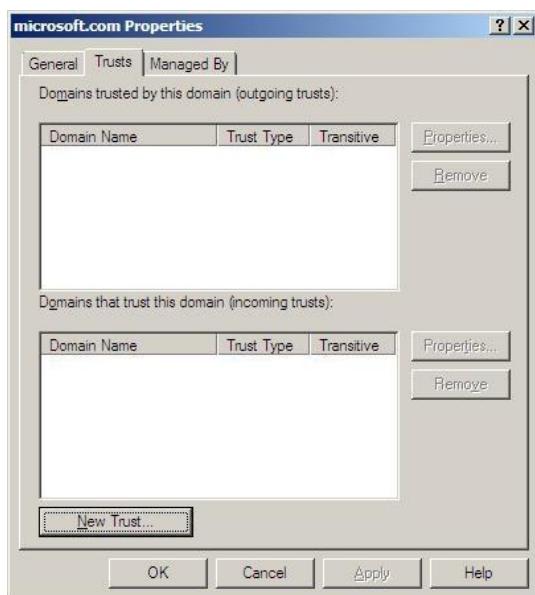
**Note:** Repeat the Lab1on SYS2 (IBM.COM – Domain Controller) and Raise Domain and Forest Functional Levels.

## Lab – 2:Creating Forest Trust

1. Go to **Active Directory Domains and Trusts**, Right click the **Domain name** and select **Properties**.



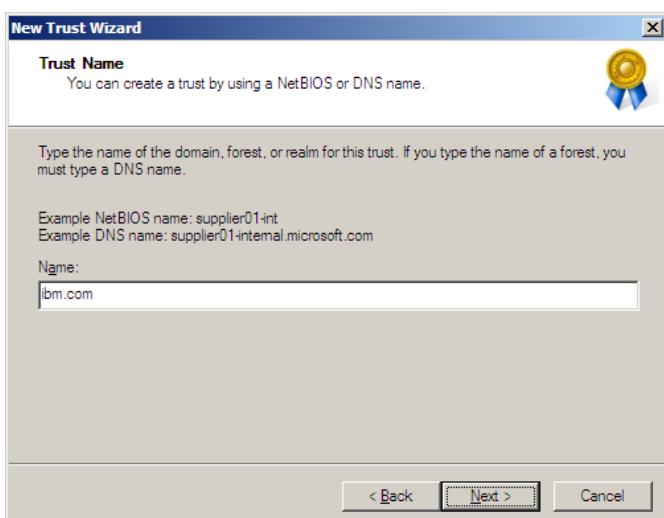
2. Select **Trusts tab**, Click **New Trust**.



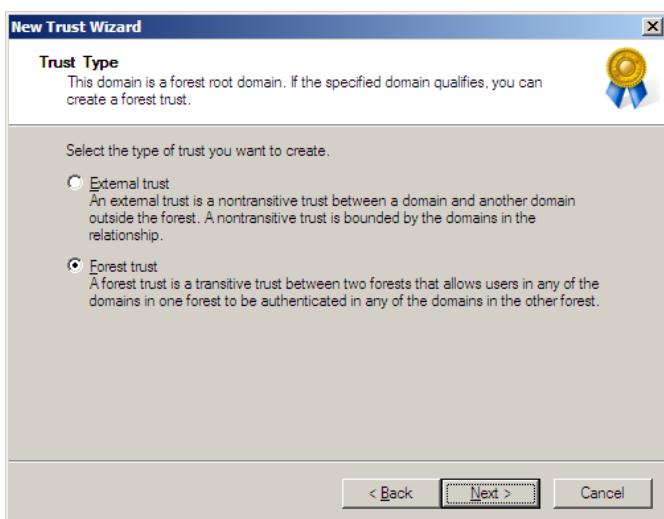
3. On Welcome wizard, click **Next**.



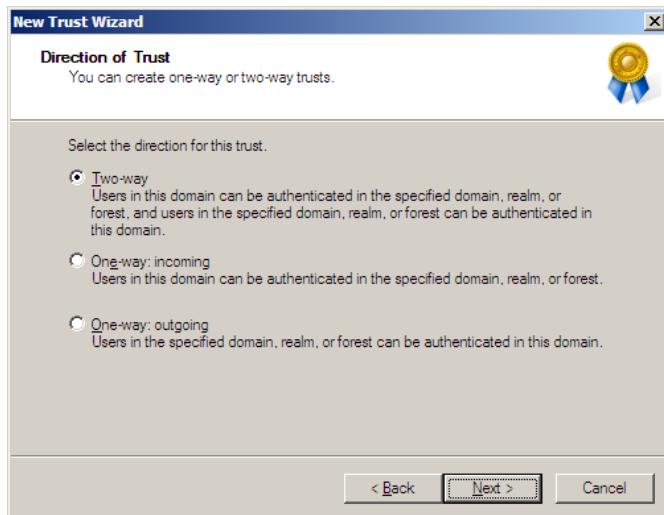
4. In Trust Name, enter name of other Forest **IBM.COM** and click **Next**.



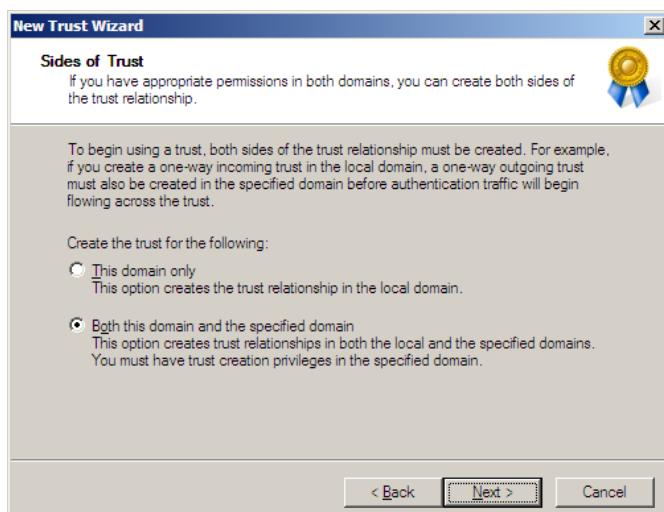
5. Select **Forest trust** and click **Next**



6. Select **Two-way** and click **Next**.



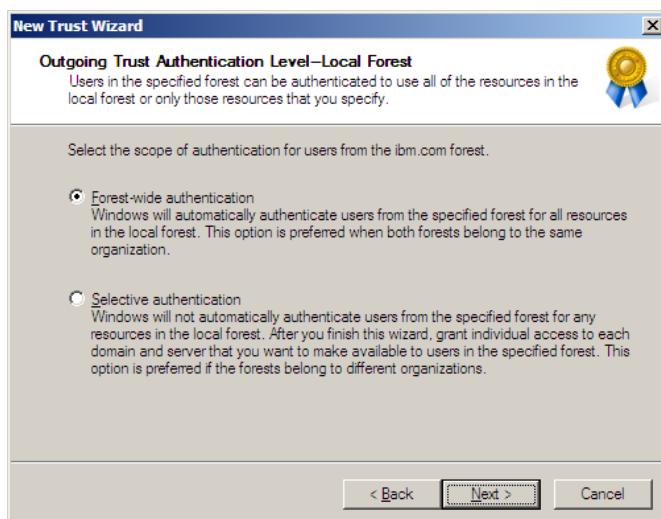
7. Select **Both this domain and the specified domain** and click **Next**.



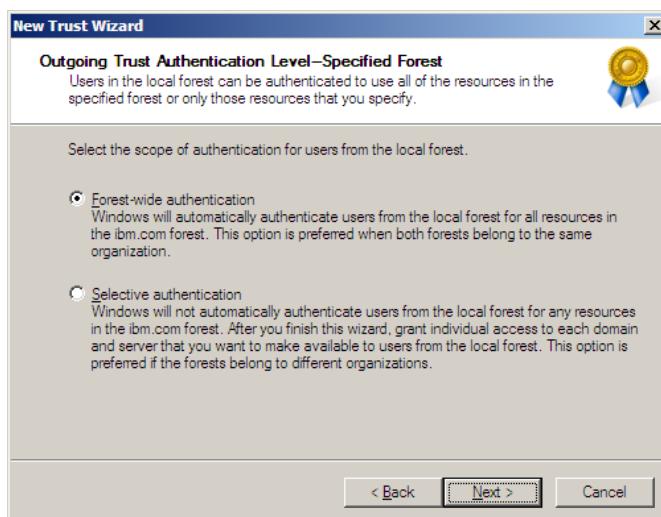
8. Enter **Administrator** and **Password of Specified domain:IBM.COM** and click **Next**



9. Select **Forest-wide authentication** for **Local Forest** and click **Next**.



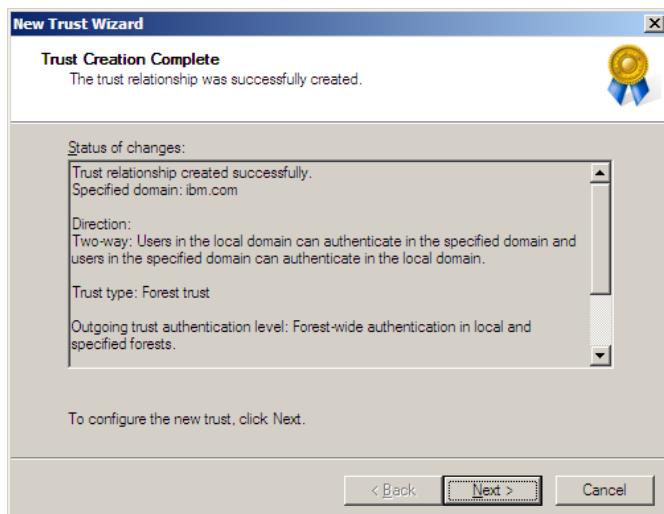
10. Select **Forest-wide authentication** for **Specified Forest** and click **Next**.



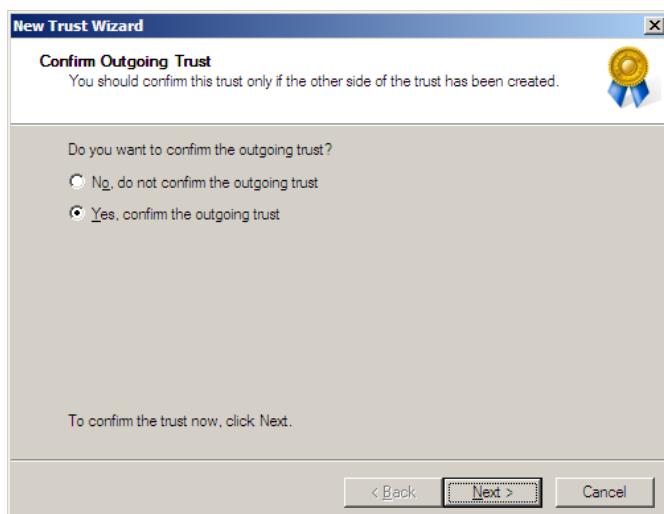
11. Verify the **Trust Selections** and click **Next**.



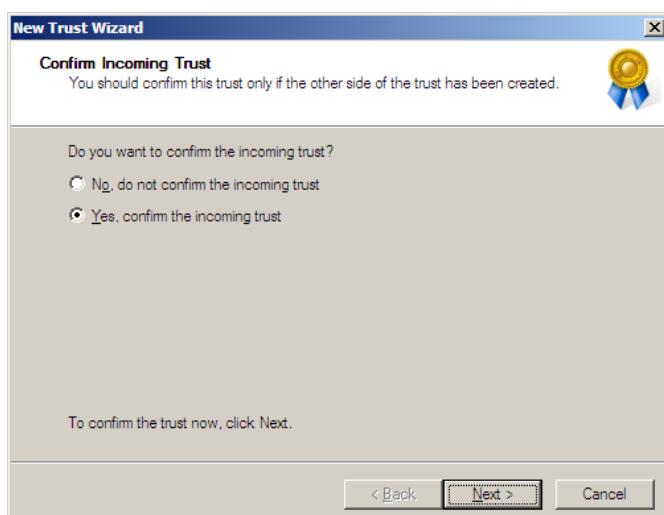
12. Verify the **Summary** and click **Next**.



13. Select **Yes**, confirm the outgoing trust and click **Next**.



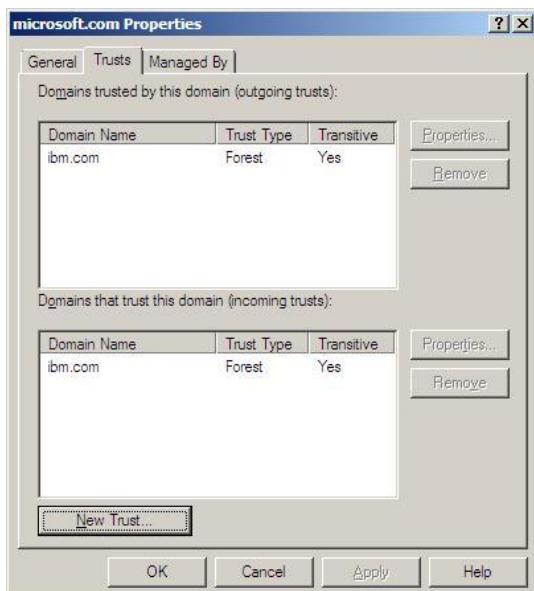
14. Select **Yes**, confirm the incoming trust and click **Next**.



**15. Click **Finish**.**



**16. Check Outgoing and Incoming Trusts and click **OK..****



**Verification:**

1. Try to Logon on to MICROSOFT.COM domain computers or IBM.COM domain computers as other Domain Users.

**Note: By default Users cannot log on to D.C.**

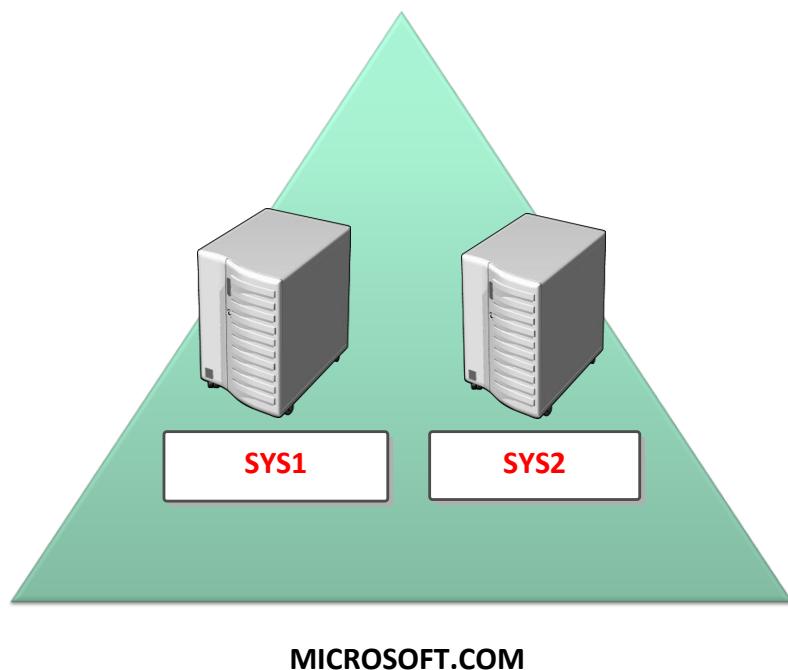
1. Log in as MICROSOFT Administrator to MICROSOFT.COM D.C and allow IBM users to log on to D.C using **Domain Controller Security Policy** in **Group Policy Management.(Allow Logon Locally Policy)**
2. Similarly allow MICROSOFT.COM users to log on to IBM.COM D.C using Domain Controller Security Policy of IBM.COM D.C.

## GLOBAL CATALOG, SITES, and READ ONLY DOMAIN CONTROLLER

### Pre-requisites:

Before working on this lab, you must have

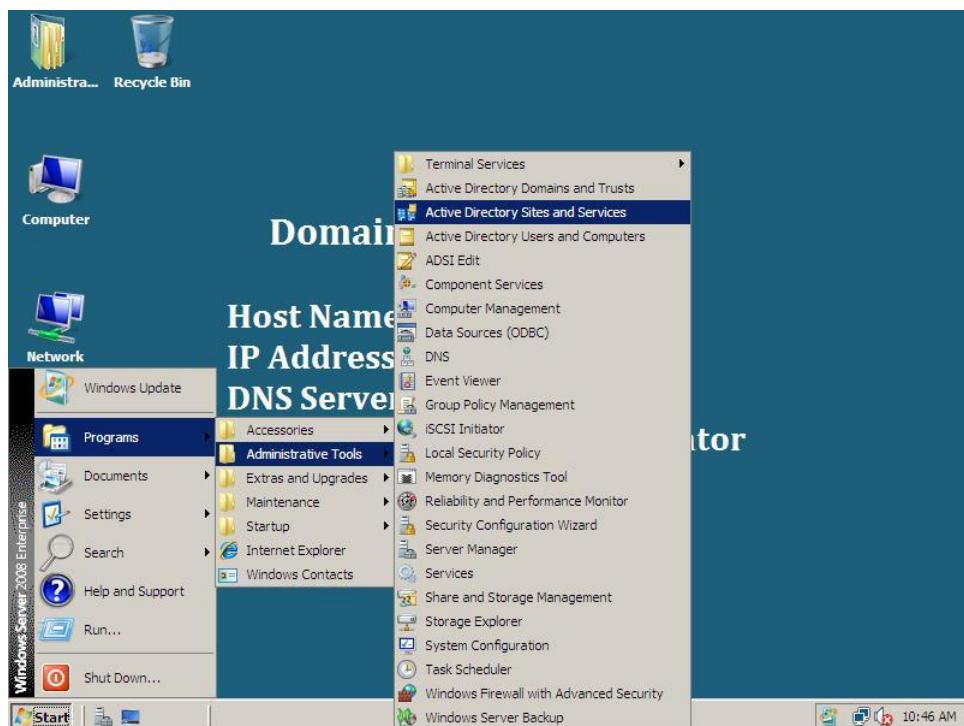
1. A computer running windows 2008 server Domain Controller.
2. A computer running windows 2008 server.



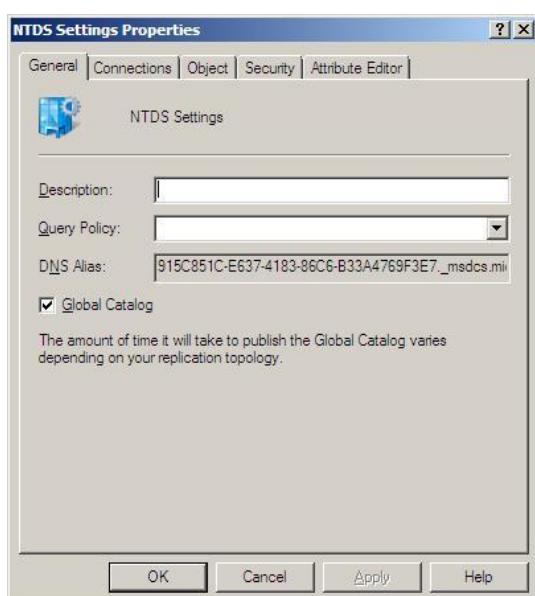
SYS1	SYS2
Domain Controller	
IP Address	10.0.0.1
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.1
Alternate DNS	-----
IP Address	10.0.0.2
Subnet Mask	255.0.0.0
Preferred DNS	10.0.0.2
Alternate DNS	10.0.0.1

## Lab – 1: Configuring Global Catalog Server

1. Start → Programs → Administrative tools → Active Directory Sites and Services.

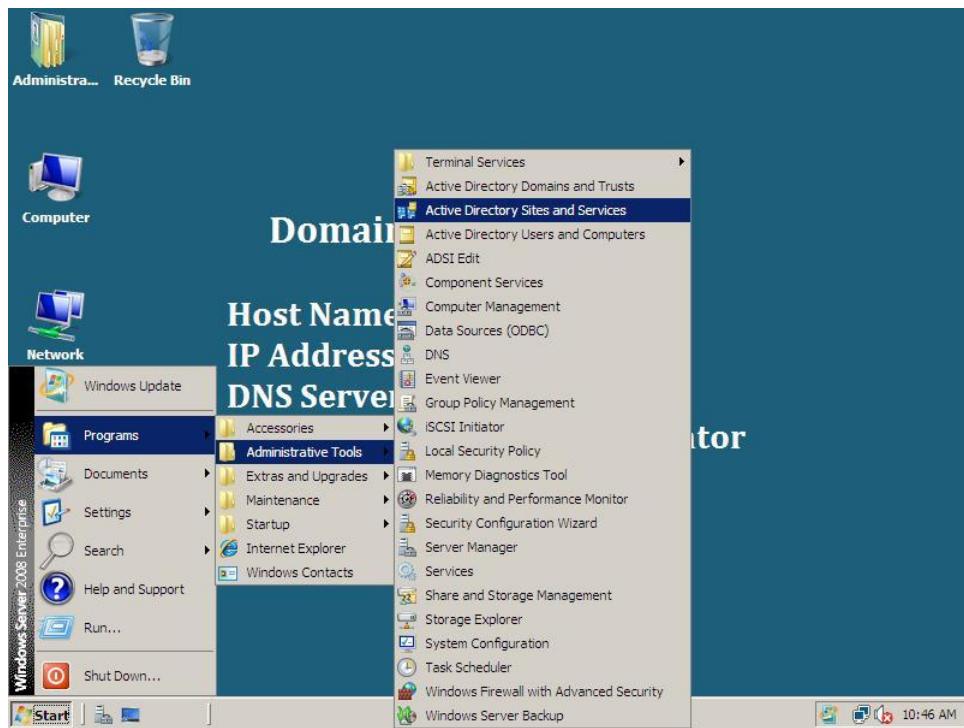


2. Expand the Sites → Default-First-Site-Name → Servers → Server Names → NTDS Settings.
3. Right Click **NTDS Setting** and **Properties**, if the Checkbox **Global Catalog** is checked, then it is a **Global Catalog Server**.

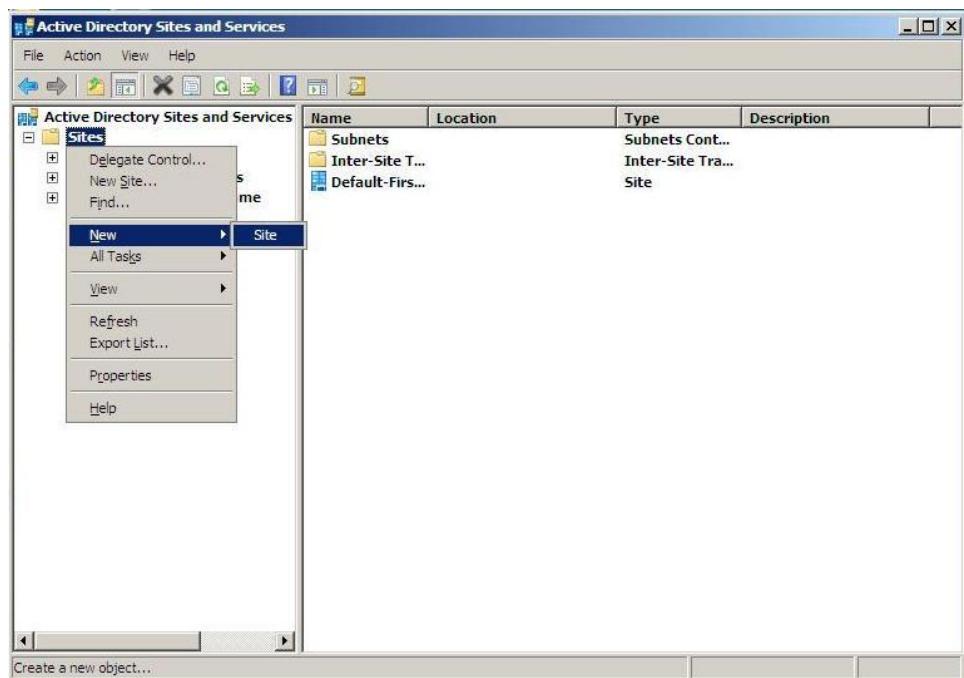


## Lab – 2: Creating Active Directory Sites

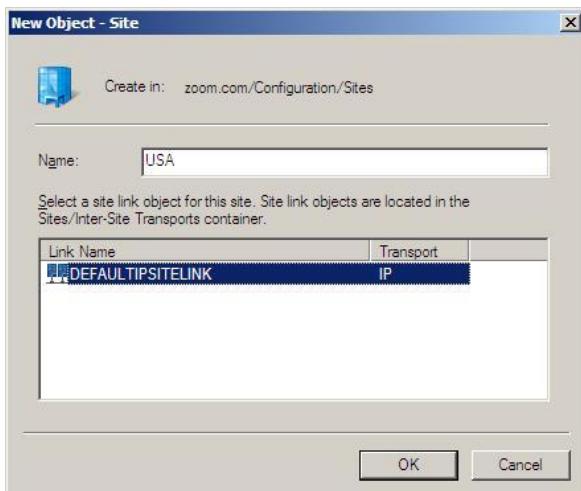
1. Logon to Domain Controller as Administrator, go to Start → Programs → Administrative Tools → Active Directory Sites and Services.



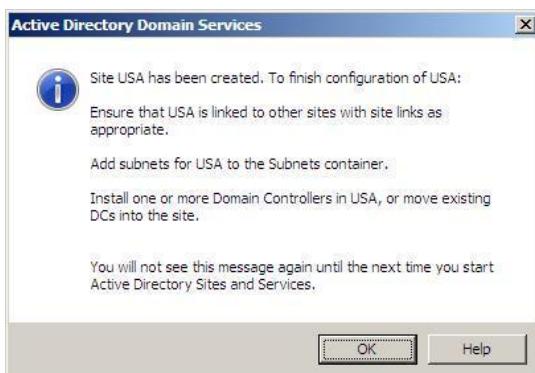
2. Right click **Sites** → **New Site**.



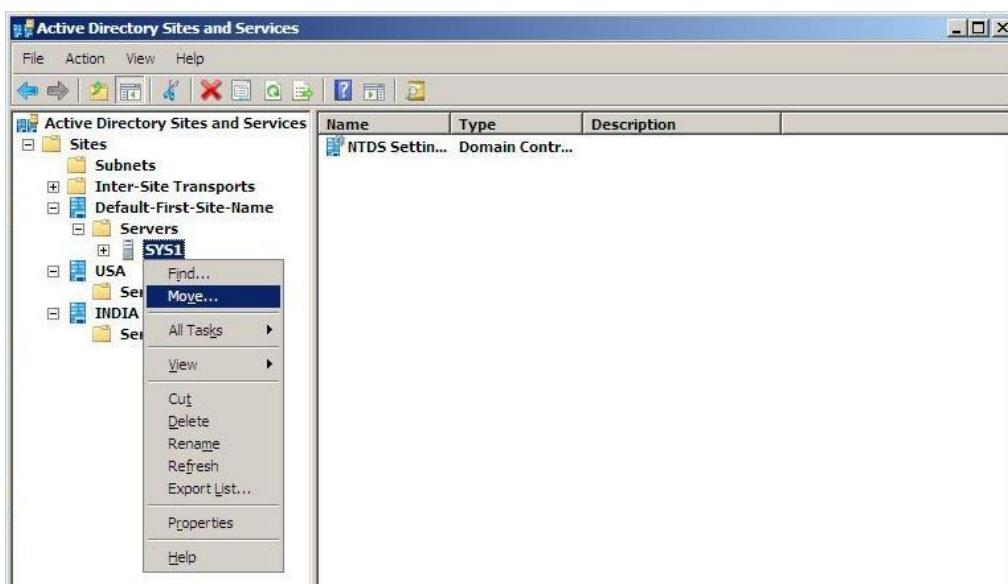
3. Enter the site name (**USA**) and select **DEFAULT IP SITE LINK** and click **OK**.



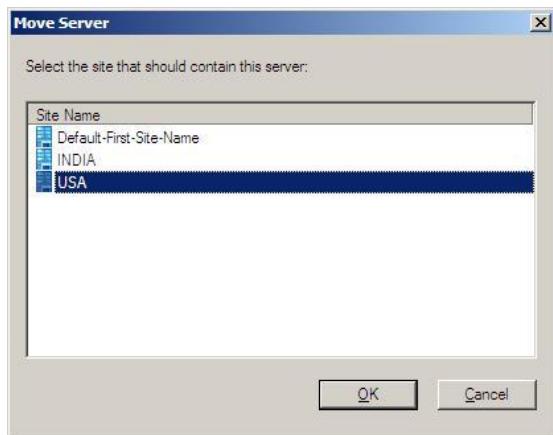
4. Site USA will be created, click **OK**.



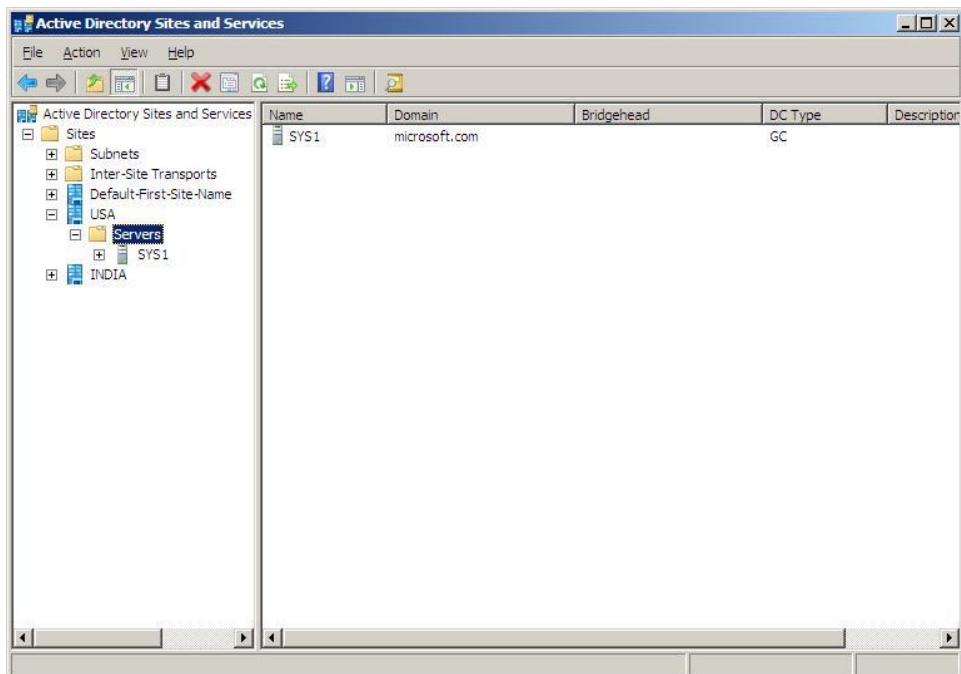
5. Similarly create another site (**INDIA**)
6. Expand **Default-First-Site-Name** → Expand **Servers** → Right click **Server (SYS1)** → **Move**



7. Select the Site (**USA**) and click **OK**.

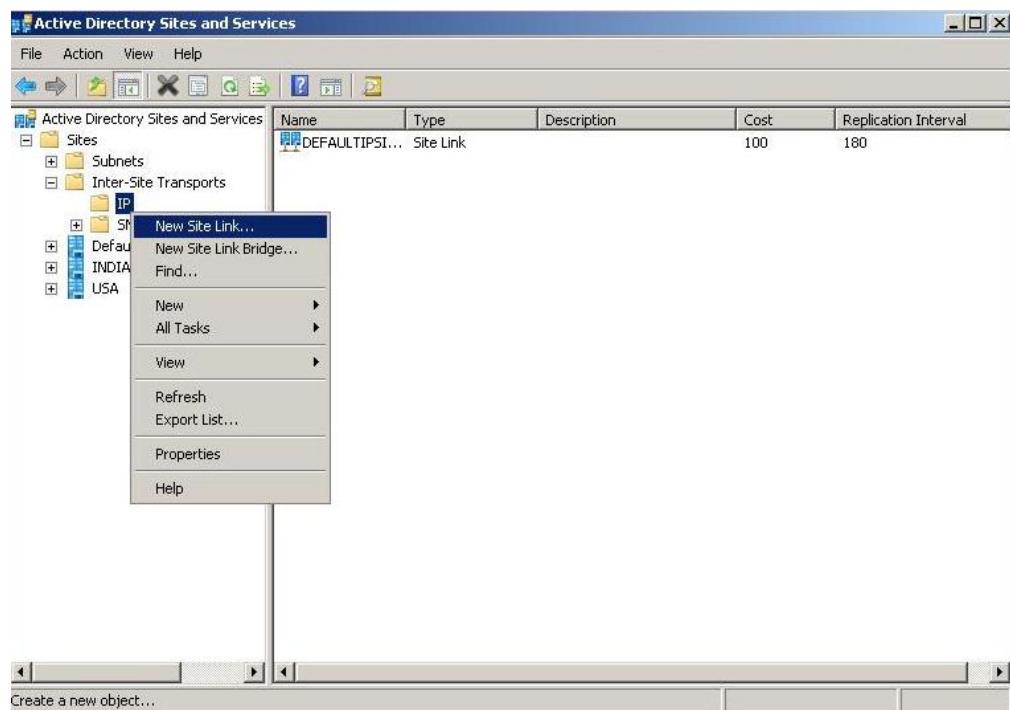


8. Server is now moved under **USA** site.

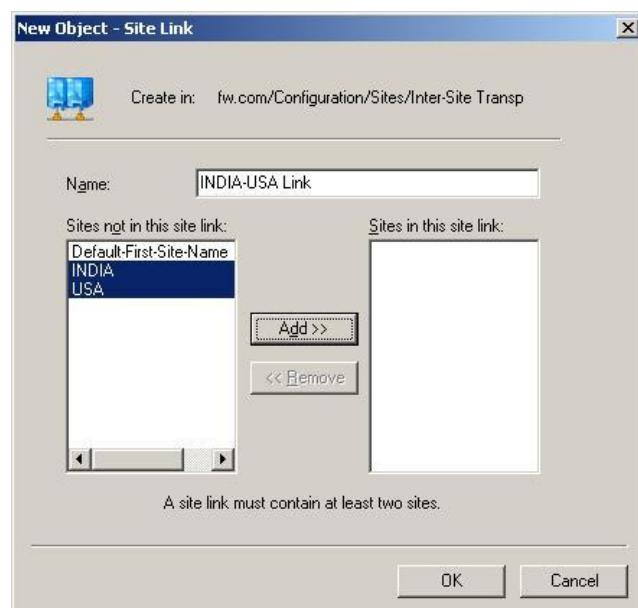


### Lab – 3: Creating Active Directory Site-Links

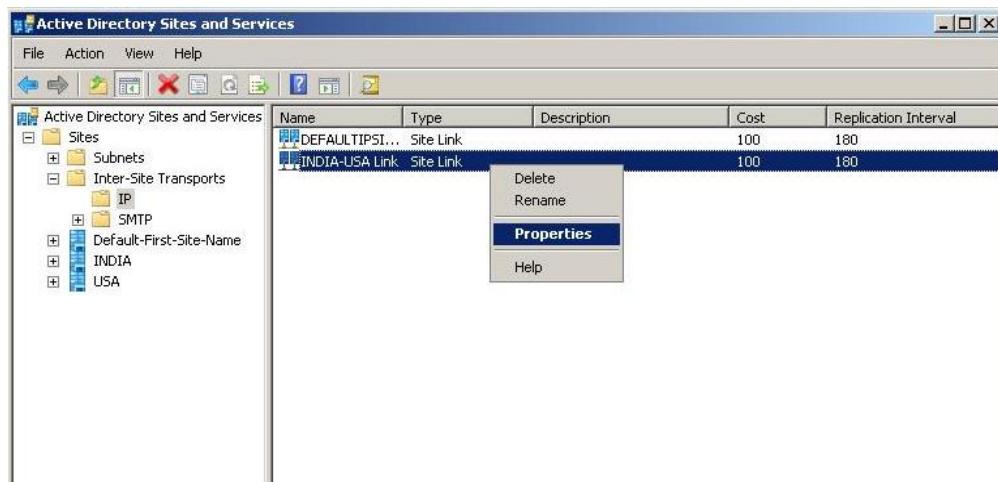
1. Log on to D.C as Administrator, Start → Programs → Administrative Tools → Active Directory Sites and Services → Expand Sites → Expand Inter-Site Transports → Right click IP → select New Site Link.



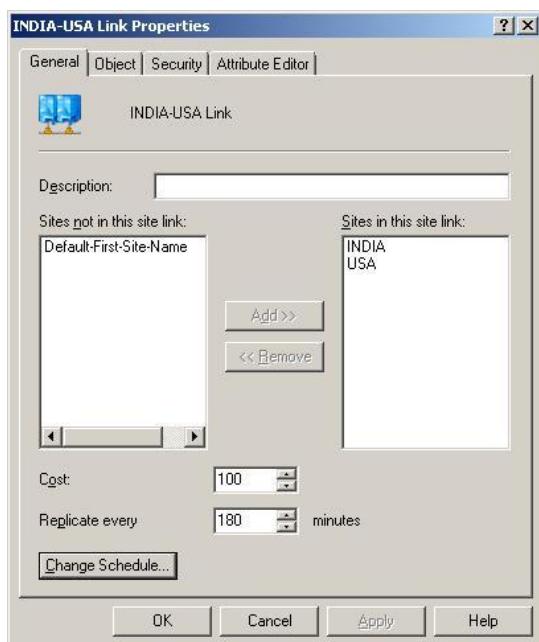
2. Enter the name (**INDIA-USA Link**), select INDIA and USA sites and click **Add** → click **OK**.



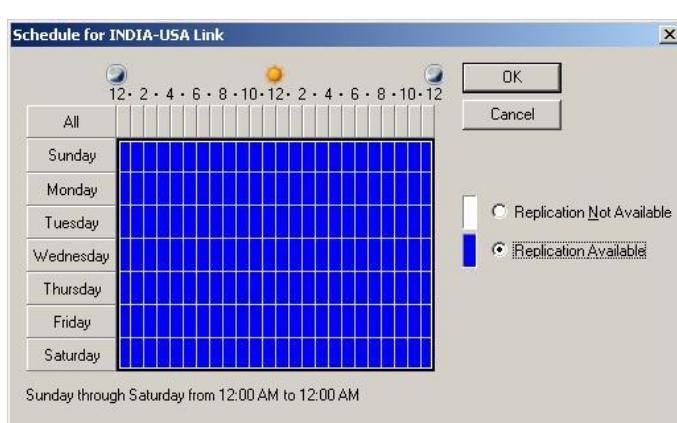
3. Right click **INDIA-USA Link**, select **Properties**.



4. Click **Change Schedule**.

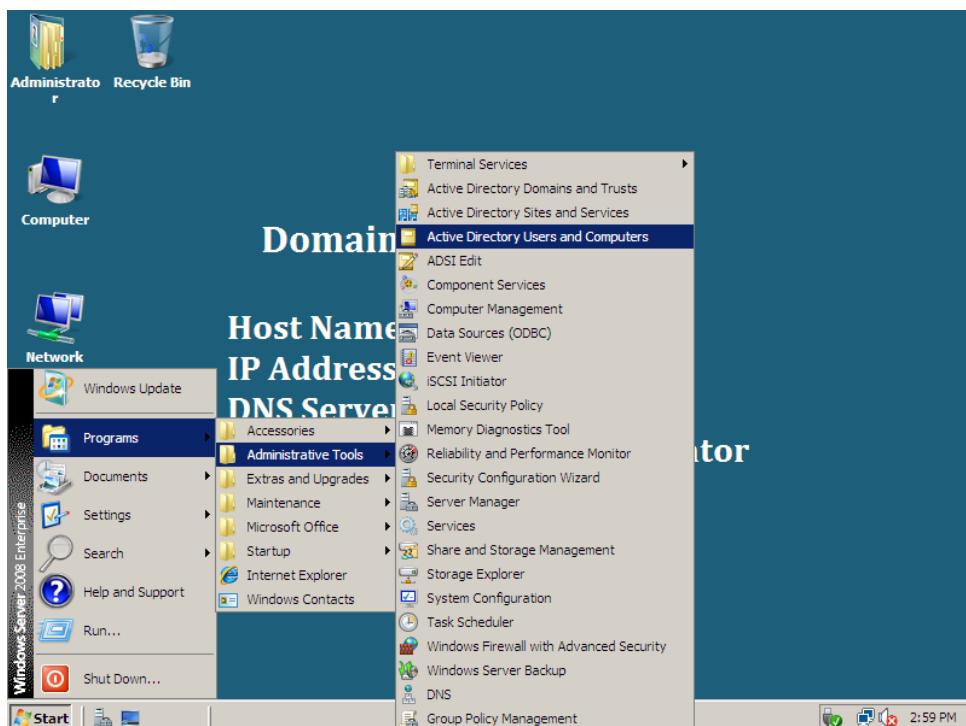


5. Select the Interval of Time for **Replication Available**, click **OK**→**OK**.

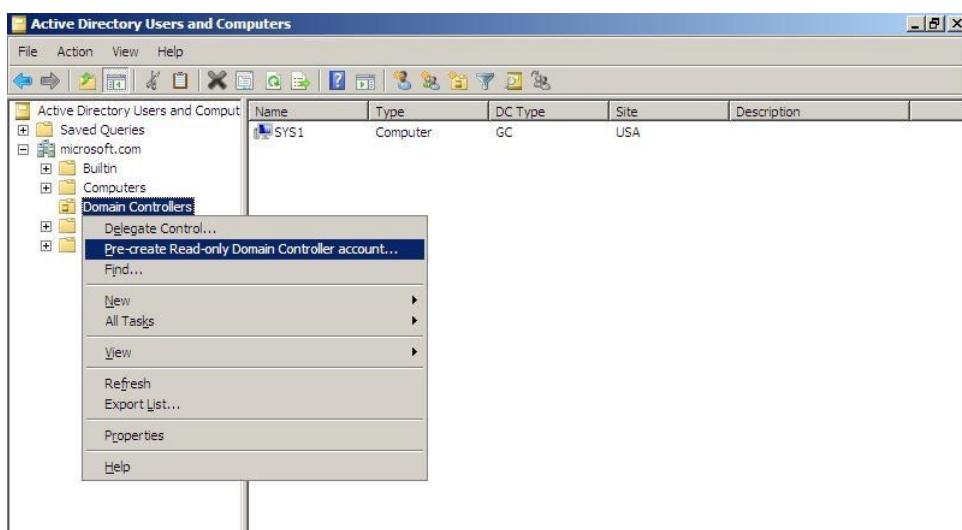


### **Lab – 4: Creating a Pre-Create Read Only Domain Controller Account**

1. Log in as **Administrator** to the **Domain Controller (SYS1)**.
2. Raise Domain and Forest Functional Levels to Windows Server 2003 or 2008.
3. Click Start → Programs → Administrative Tools → Active Directory Users and Computers.



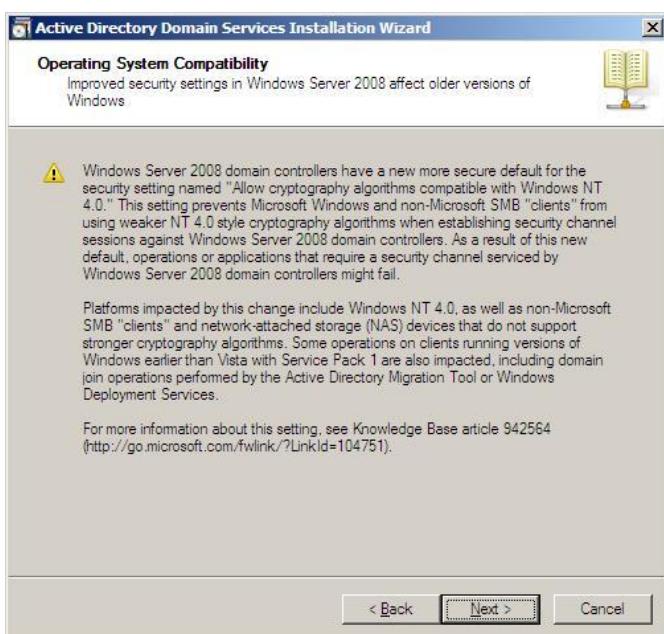
4. Create Users (Ex: User1, User2, User3, User4, User5).
5. Right click **Domain Controllers** → Select **Pre-create Read-only Domain Controller account**.



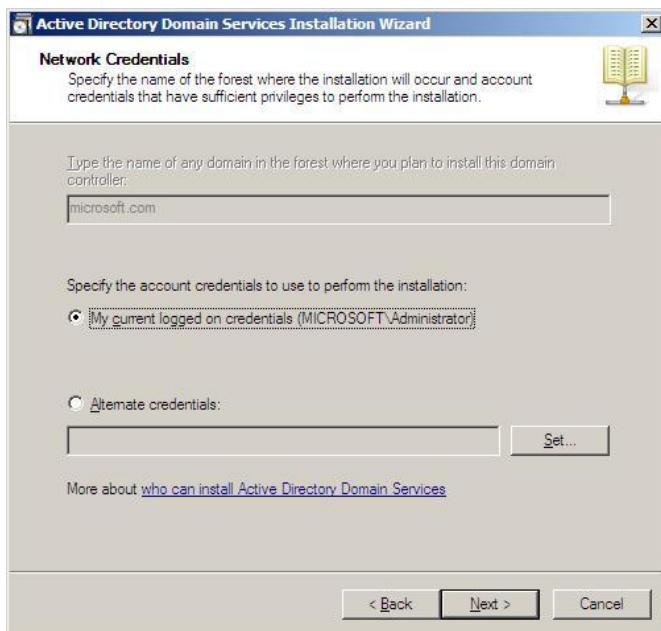
6. Check the box **Use advanced mode installation** and click **Next**.



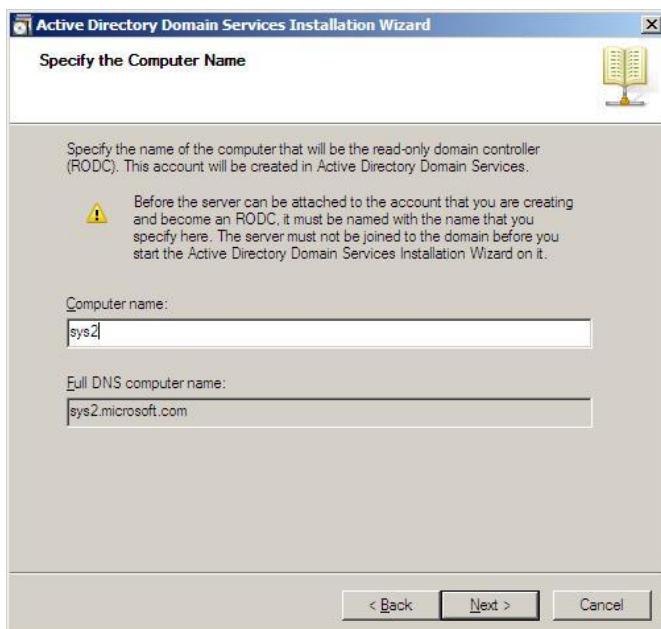
7. In Operating System Compatibility, Click Next



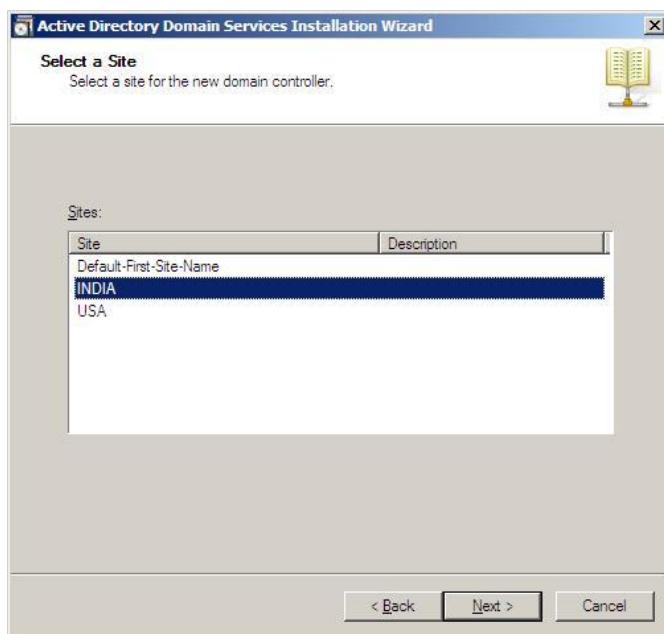
8. Select **My current logged on credentials (MICROSOFT\Administrator)** and click **Next.**



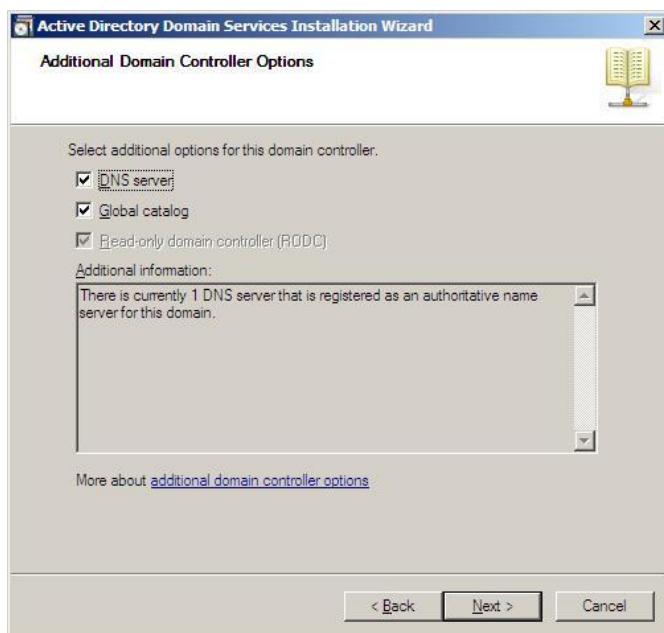
9. Enter the **Computer Name(SYS2)** of Read Only Domain Controller.

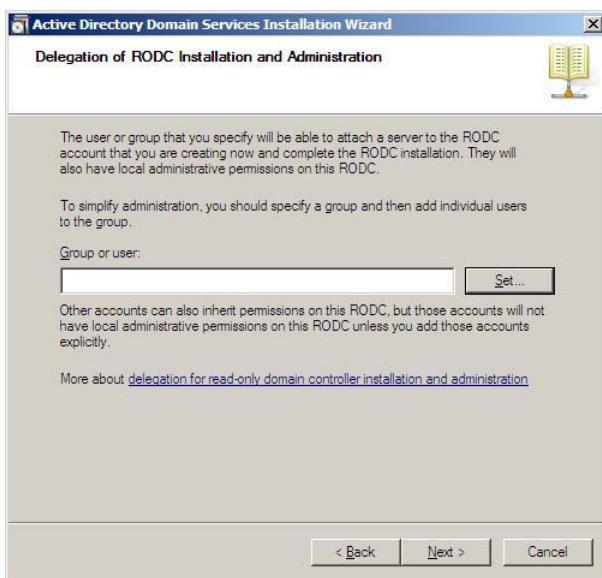
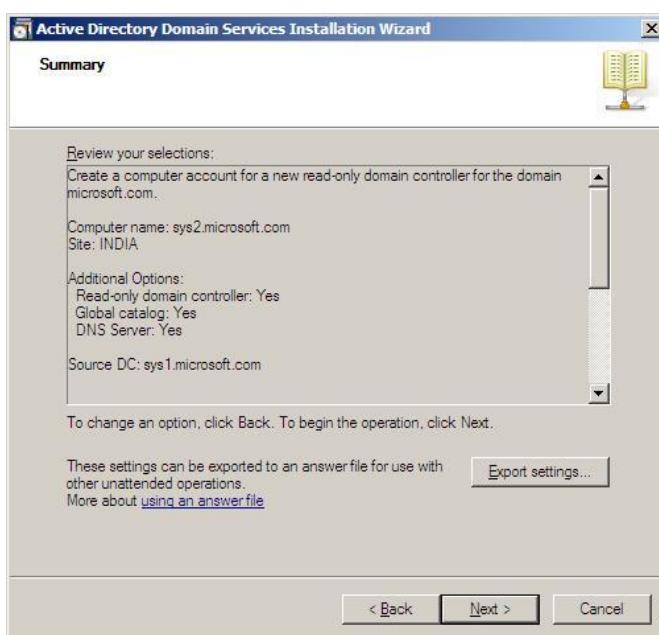


10. Select the Site (**INDIA**) for the Read-only Domain Controllers and click **Next**.



11. Verify the **DNS**, **Global Catalog** and **Read-only Domain Controller (RODC)** checkboxes and click **Next**.



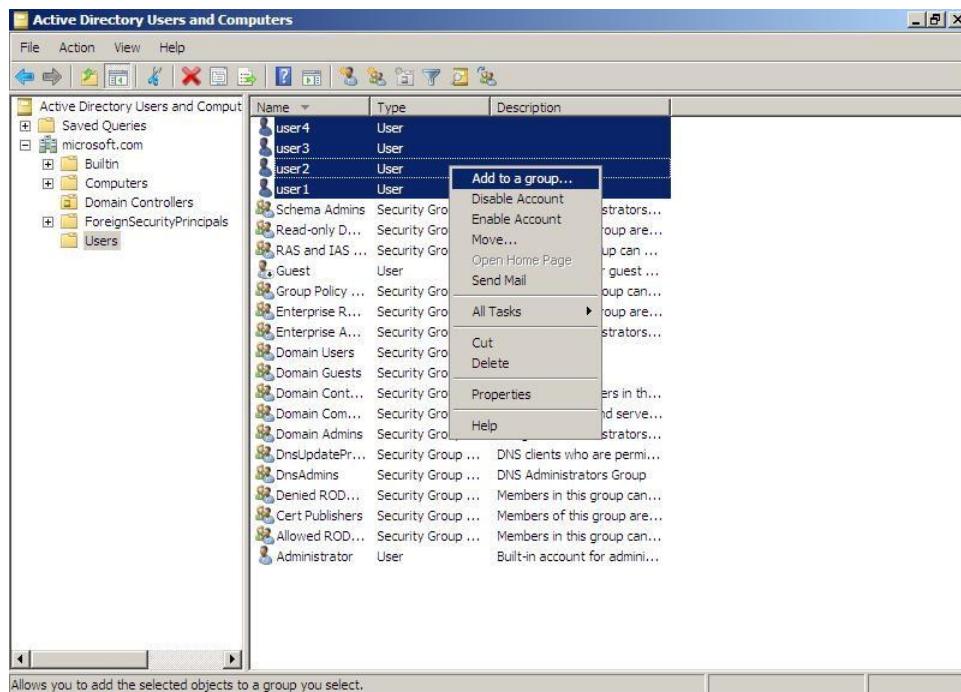
12. Click **Set**.13. Enter the User name (**User1**) and click **OK** and click **Next**.14. Review the Summary, and click **Next**.

15. Click **Finish**.

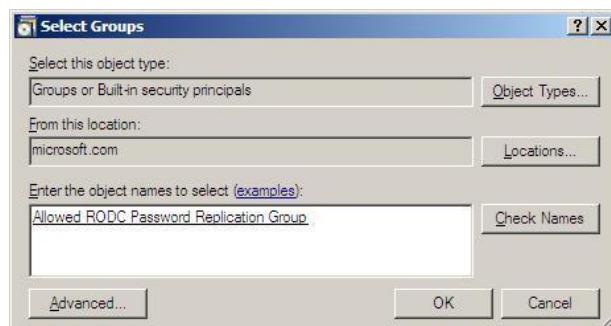
## 16. Account of Read-only Domain Controller will be created in Domain Controllers.

Name	Type	DC Type	Site	Description
SYS1	Computer	GC	USA	
SYS2	Computer	Unoccupied DC ...	INDIA	

- 17. To cache the user account password on RODC, Select the Users(User1, User2, User3, User4, User5) Right click and select Add to a Group.**



- 18. Enter the Group Name Allowed RODC Password Replication Group and click OK.**

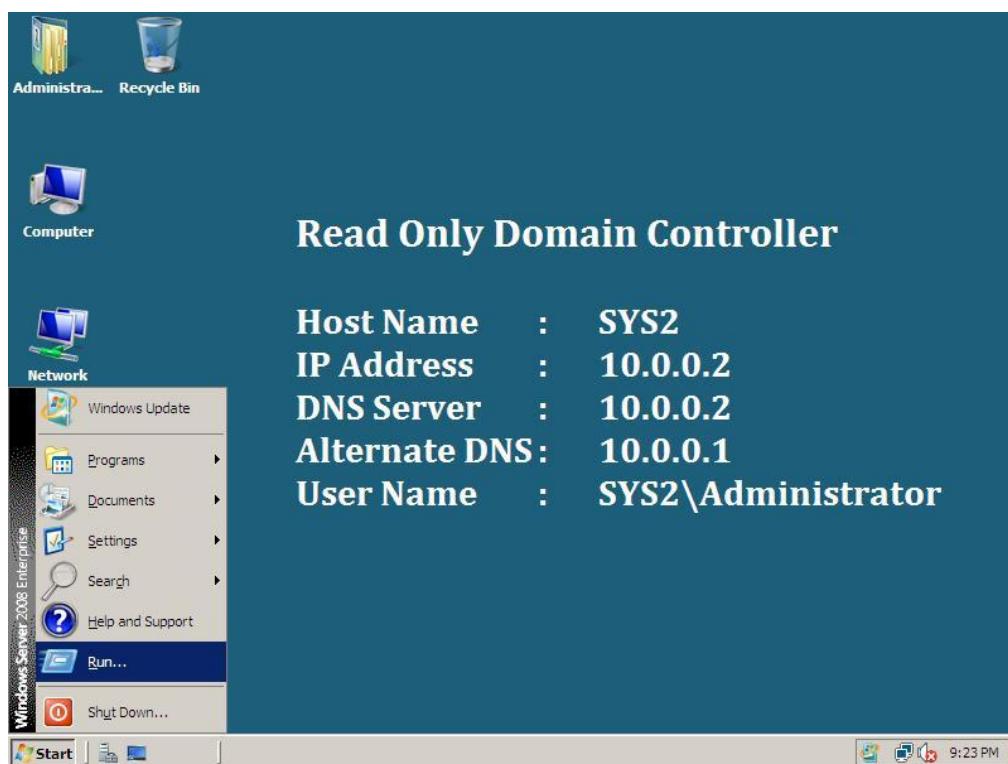


- 19. The Users will be added to the Group, click OK.**

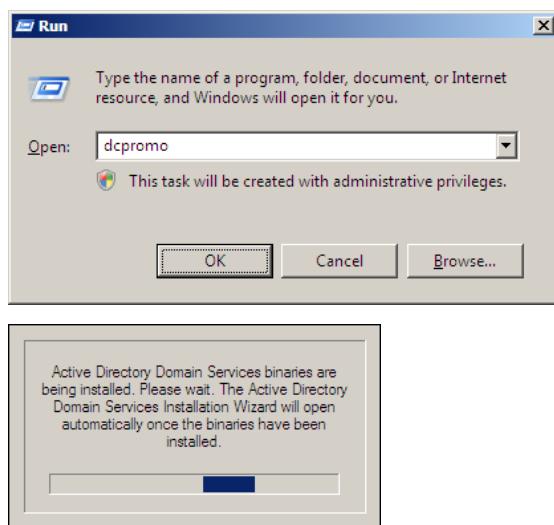


### Lab – 5:Configuring Read-Only Domain Controller

1. Log in as Administrator to the **Workgroup Computer(SYS2)**
2. Assign **IP Address** and Preferred **DNS Server Address**.
3. Click Start, and then click **Run**.



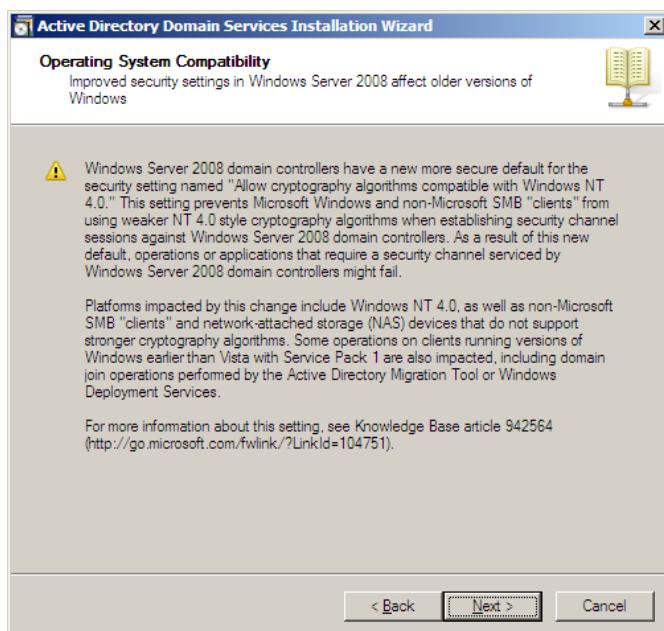
4. In the **Run** box, type “**DCPROMO**”, click **OK**.



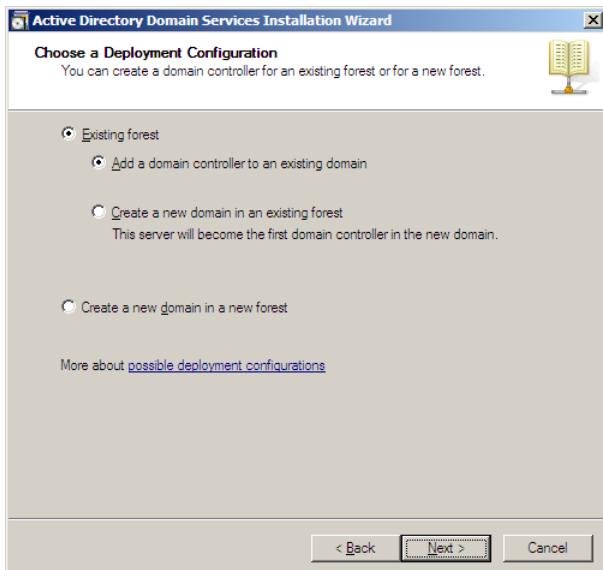
5. Welcome to the **Active Directory Installation Wizard** page appears, click **Next**.



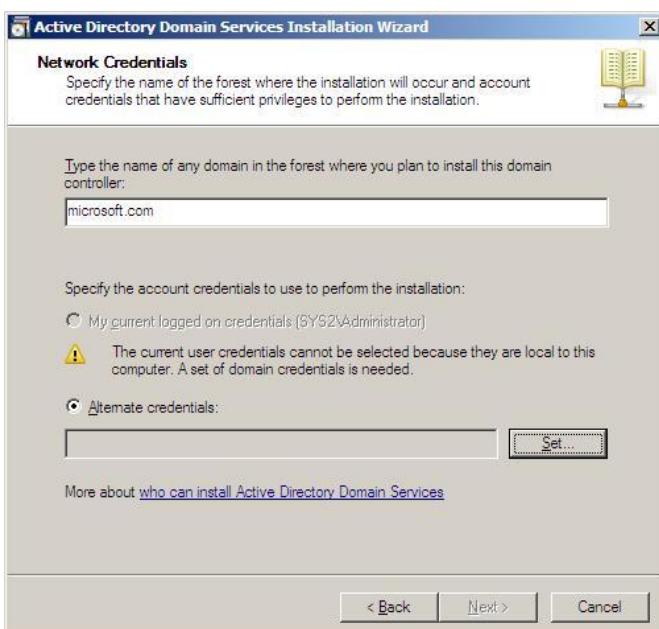
6. **Operating system compatibility Wizard** page appears, click **Next**.



7. Select **Existing forest** and select **Add a Domain Controller to an existing domain**" and click **Next**.



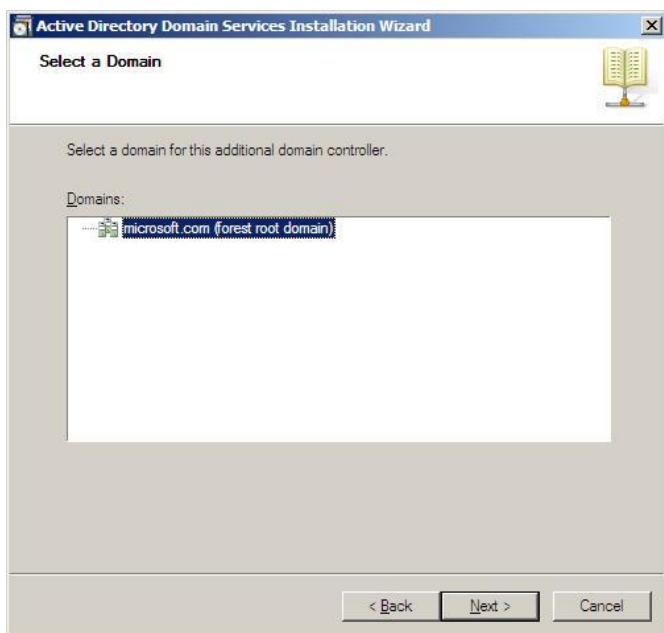
8. Enter the **Forest Domain Name** (Ex: **MICROSOFT.com**) and click **Set**.



9. Enter **User1** and **Password** (User Credentials) and click **OK**, click **Next**.



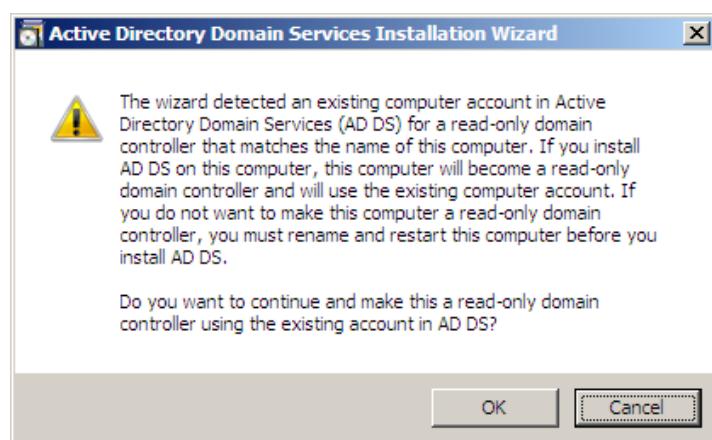
10. Select the Domain Name and click **Next**.



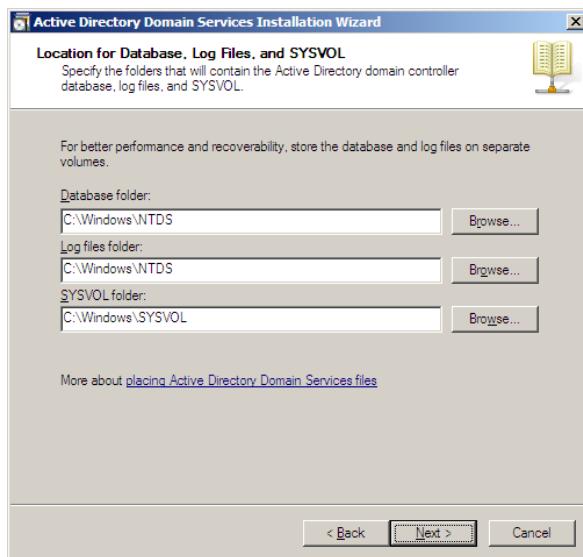
11. **A warning appears** indicating that the user account specified is not a member of Administrators group, the installation may fail with an **access denied** error, click **YES**. (Because the user account is having the permission to Install RODC.)



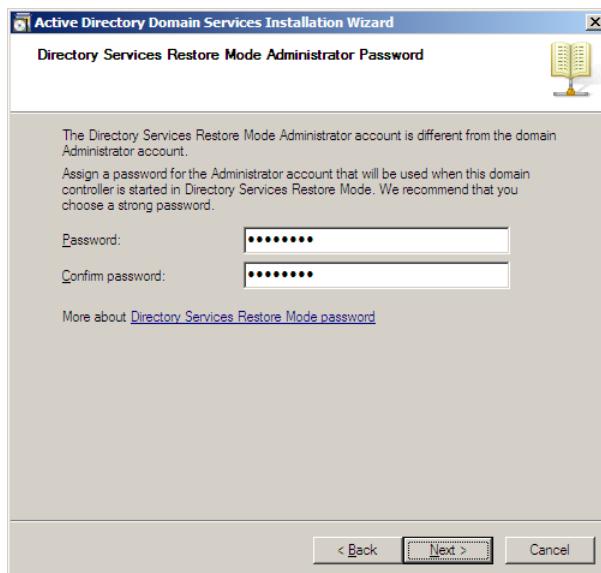
12. Click **OK** to Continue.



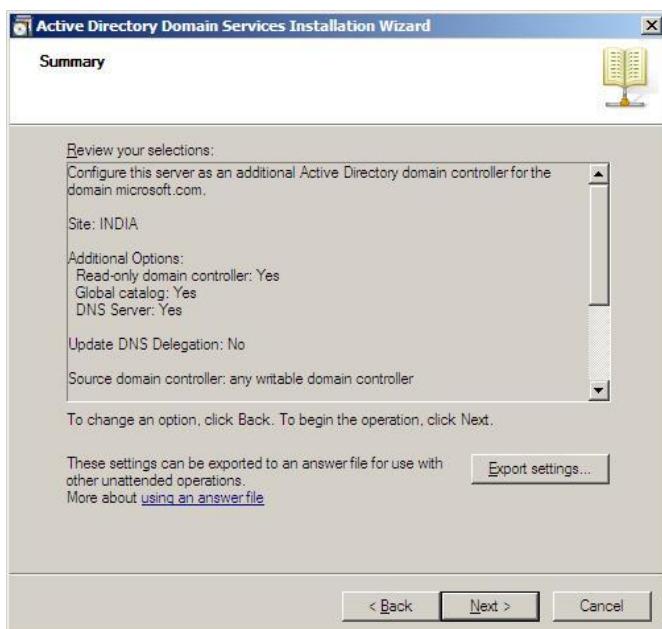
13. On **Database and log locations** page, accept the default locations and click **Next**.



14. Enter “**Password and Confirm Password**” and click **Next**.

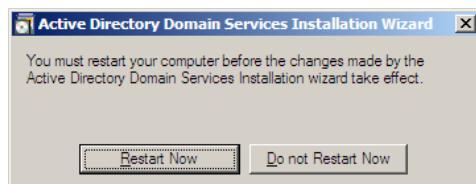


15. On **Summary** page, review the Options you selected, and click **Next**.



16. After the **Active Directory Installation wizard** is completed, then click **FINISH**.



17. Click **Restart Now**.**Verification:**

1. Log on to **Domain Controller (SYS1)** as **Administrator**
2. Start → Programs → Administrative Tools → Active Directory Users and Computers → select **Domain Controllers** and verify for **SYS2** as **Read-only Domain Controller**.

Name	Type	DC Type	Site	Description
SYS1	Computer	GC	USA	
SYS2	Computer	Read-only, GC	INDIA	