

# **System Admin Guide for Windows Server 2008**

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# Chapter 1. System Administration for Windows Server

LAN services consist the various objectives such as centralized user authentication, DHCP server for automatic IP address assignation for clients, and hosting of the own website in the own server. The server connections establish with the use of Windows Server 2008. With the help of this software, the connection establishment is achieved.

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## Chapter 2. Prerequisites

For configuration of the server, the system must possess certain requirements in their hardware, which enables the establishment of the server and network connectivity for the systems. The processor requirements include minimum 1 Gigahertz for 32 bit and 1.4 Gigahertz for 64 bit. For Windows Server 2008, Intel processor is required. Memory for the server includes the minimum of 512 MB RAM ranging to maximum of 4 GB for 32 bit and 32 GB for 64 bit. The memory requirements for the compute include minimum disk space of 10 GB and recommended disk space of 40 GB.

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## Chapter 3. Configuration Process

Configuration Process includes the steps such as the establishment of centralized user authentication, DHCP server connections, and hosting of the websites.

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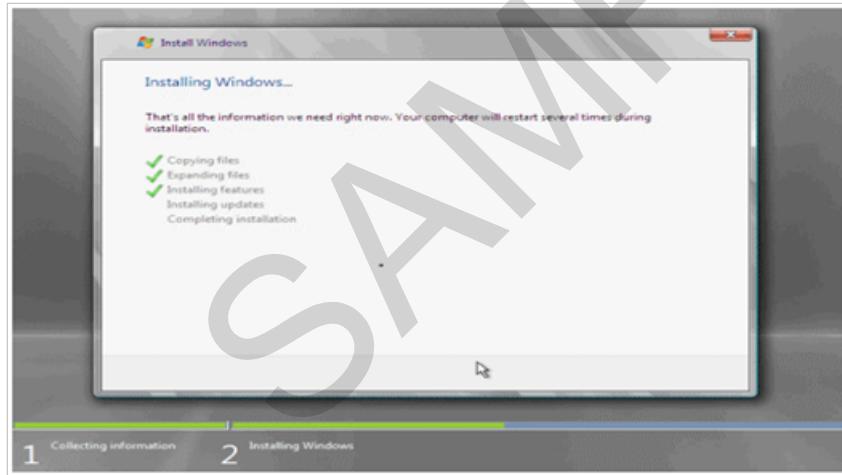
# Chapter 4. Centralized User Authentication

The centralized user authentication is one of the important components in user access management for accessing LAN services. This mechanism helps the system to work together for ensuring network security. The user authentication supports verification of the user, services or computer systems as entity for claiming appropriate users. It maintains the identity management of the network. The users, computers, and services are authenticated appropriately when logging into the network and the users need to authenticate the network with the credentials as required.

## Setting up User Authentication

The authentication is very important for the users as they adopt the service with credentials and restrict even the users with unauthorized access. Only users with provided credentials can access the LAN service. Following are the steps to set up user authentication for the LAN Service.

1. Download and install **Windows Server 2008**



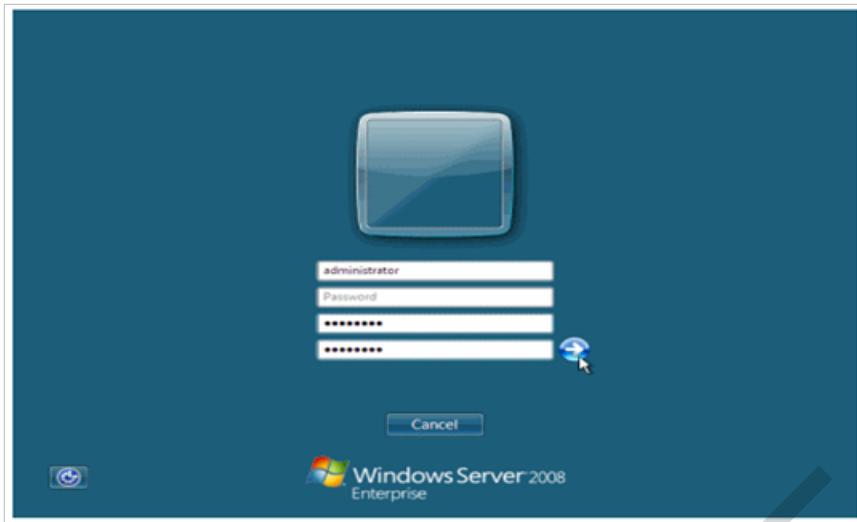
2. Click **CONTROL+ ALT+ DELETE** keys on the keyboard to switch user



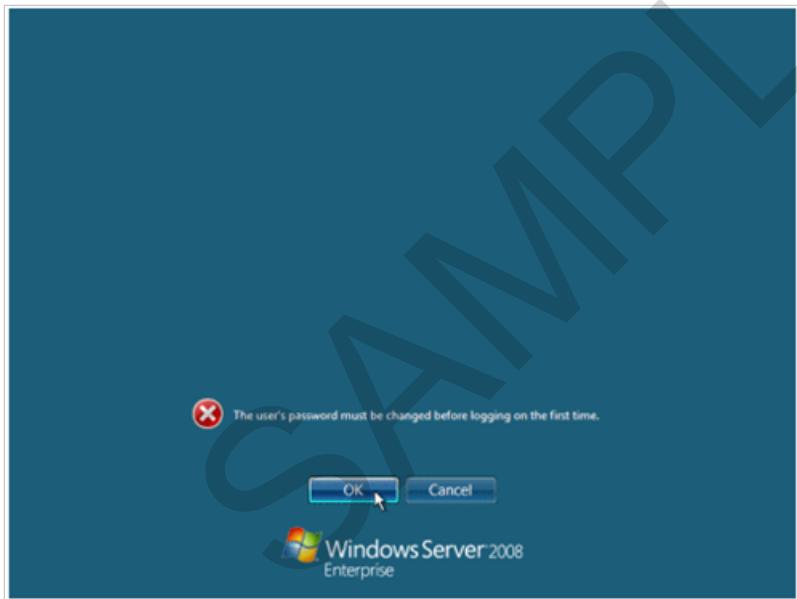
3. Click **Other User** and switch the users



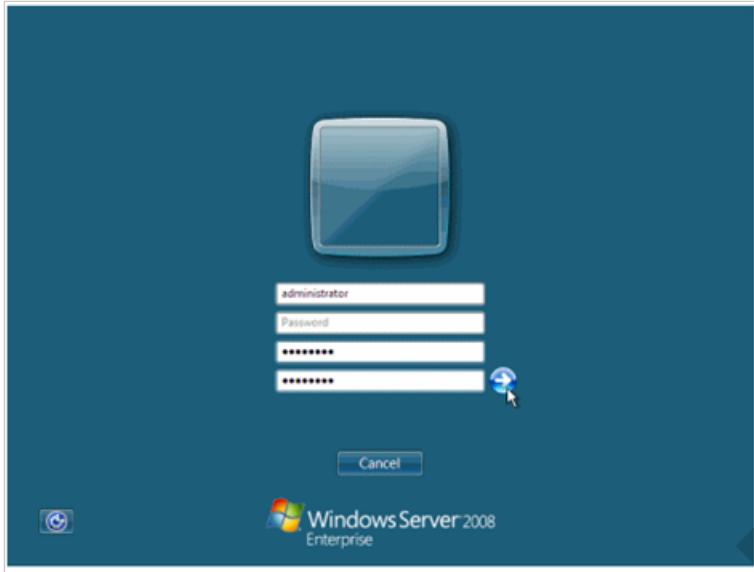
4. Enter the admin credentials in **Username** and **Password** fields



5. Change the password before logging on the first time



6. Change the password as per the requirement



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# Chapter 5. DHCP Server connections

DHCP server connections support providing LAN connections with the automatic IP address assignation to the clients. With this DHCP server, the server connections are established with the IP address for the clients. DHCP server connections are playing mandatory role in building LAN connections. DHCP as the term defines **Dynamic Host Configuration Protocol** remains as invaluable service on establishing network connections with several computers. The Microsoft Windows 2008 Server provides feature of DHCP for getting the IP addresses with the network settings in automated process. This automated process can simply helps to configure networks.

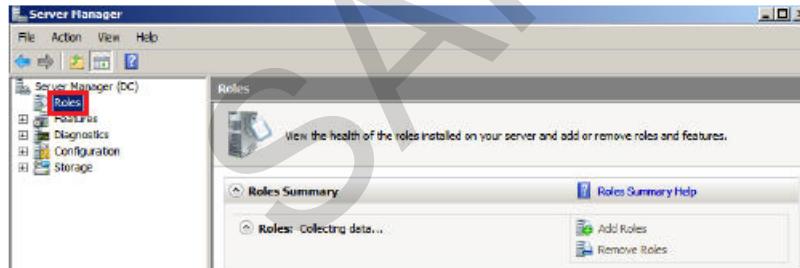
The following processes are carried out to establish the DHCP server connections in efficient mode.

- Need to know about the IP addresses with the server that you are currently managing
- Machines that require static IP address
- Information about the network to be sent to the clients

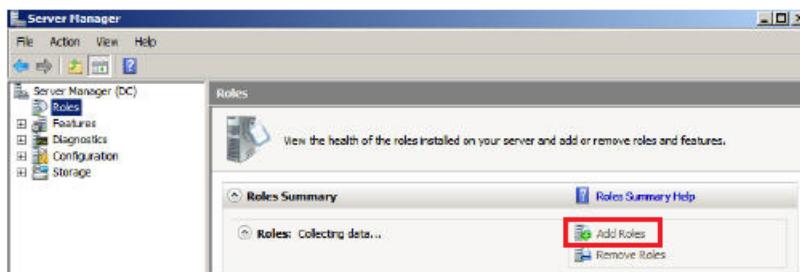
## Installing DHCP

Following are the steps to install DHCP:

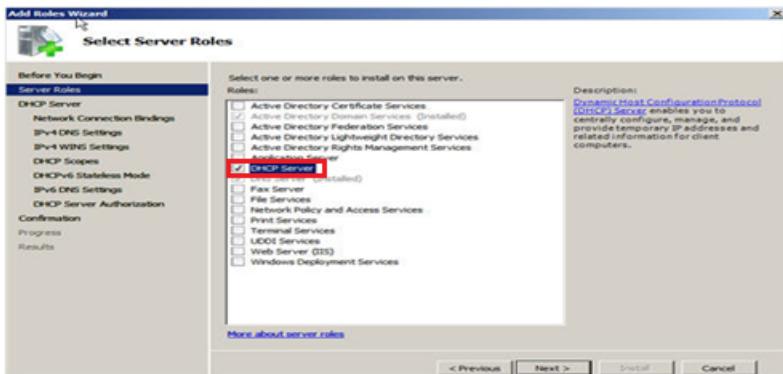
1. Go to **Server Manager** and select **Roles** in the left pane



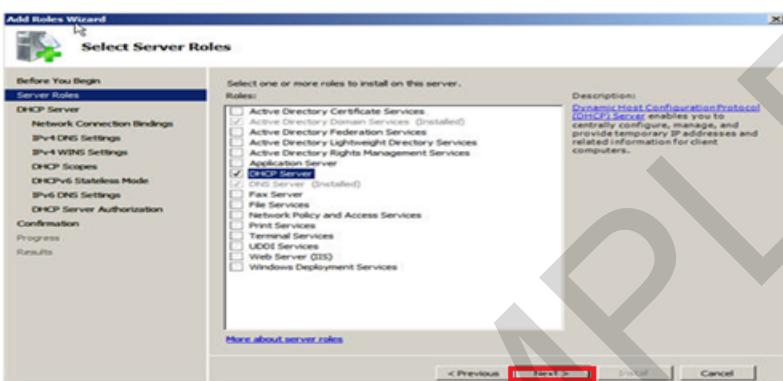
2. Click **Add Roles**



By choosing **Add roles**, wizard selects the DHCP role

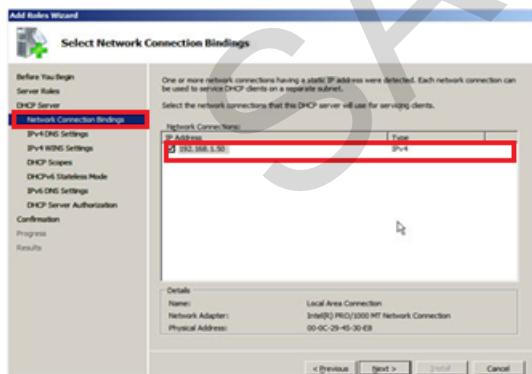


### 3. Click **Next** in the Add Roles Wizard

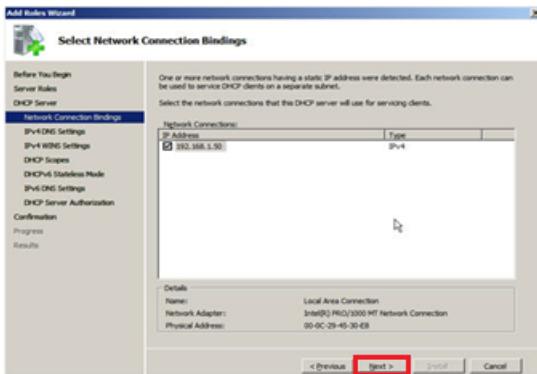


The IP addresses are automatically selected and network cards are also detected.

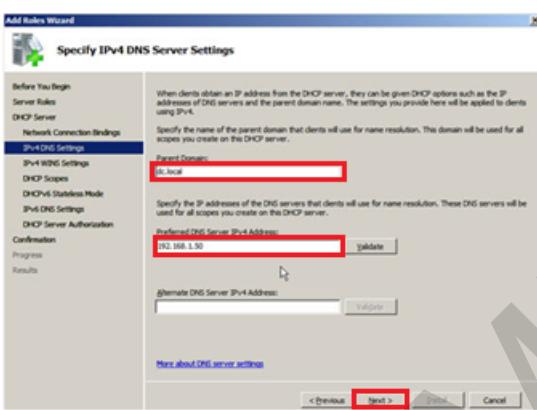
### 4. Select DHCP server on different subnets.



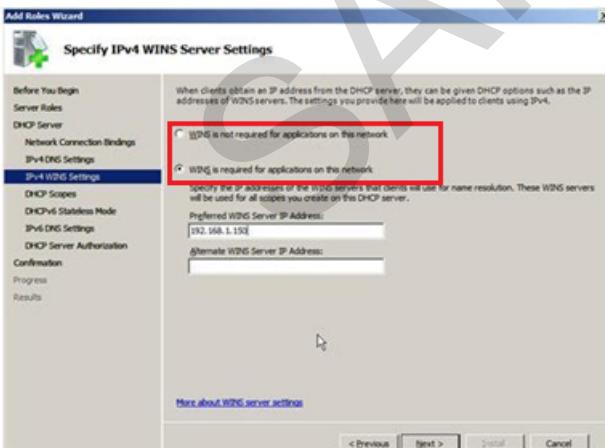
### 5. Click **Next** after selecting DHCP server on different subnets



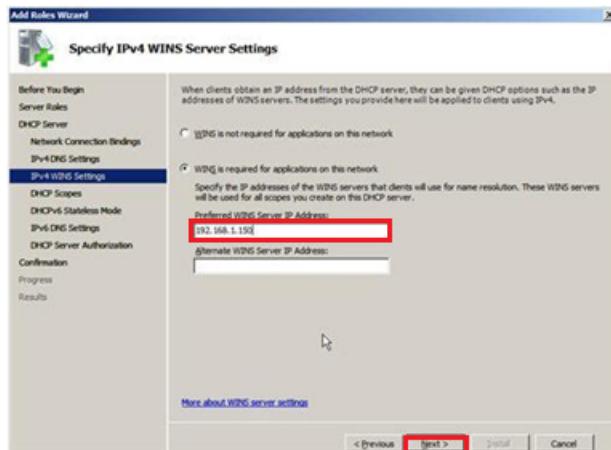
**6. Enter the Parent Domain, Preferred DNS Server IPv4 Address, and click Next**



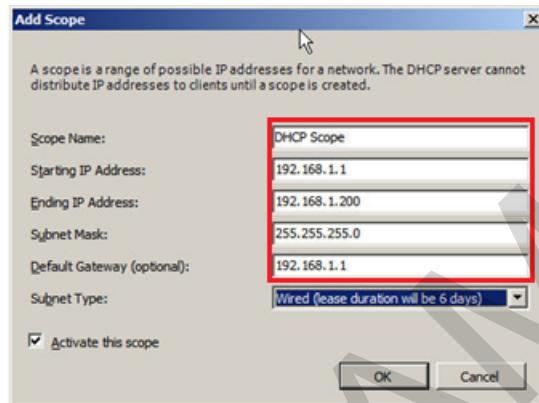
**7. Select any of the options whether WINS is required or not for applications on the network**



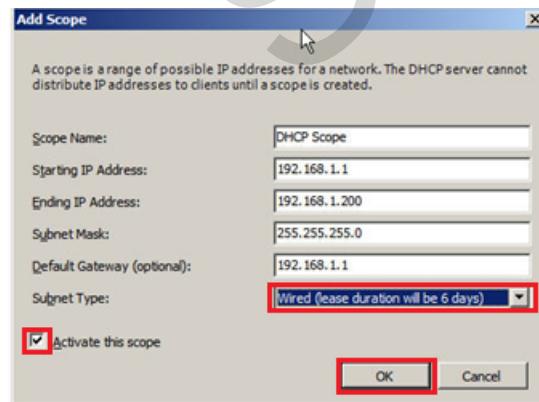
**8. Enter the Preferred WINS Server IP Address and click Next**



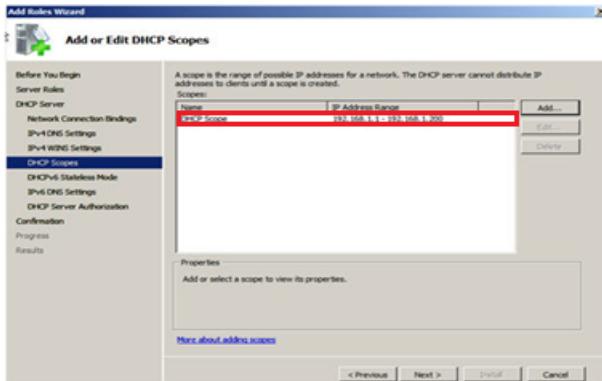
9. Enter the **Scope Name, Starting IP Address, Ending IP Address, Subnet Mask, Default Gateway** in the **Add Scope** window



10. Select an option from the **Subnet Type** drop-down list, enable **Activate this scope** checkbox, and click **OK** in the **Add Scope Window**



New DHCP Scope is added with the details showing Name and IP Address Range.



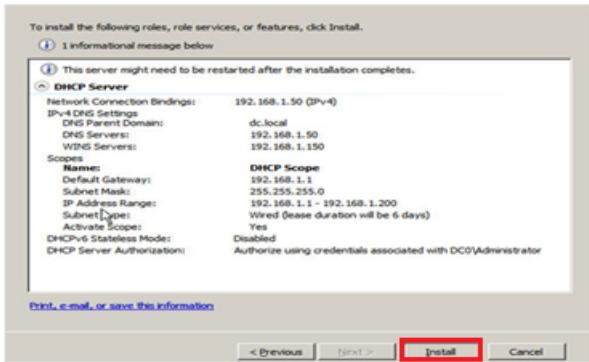
11. Select any of the options to either enable or disable DHCPv6 stateless mode for configuring DHCPv6 Stateless Mode and click **Next**



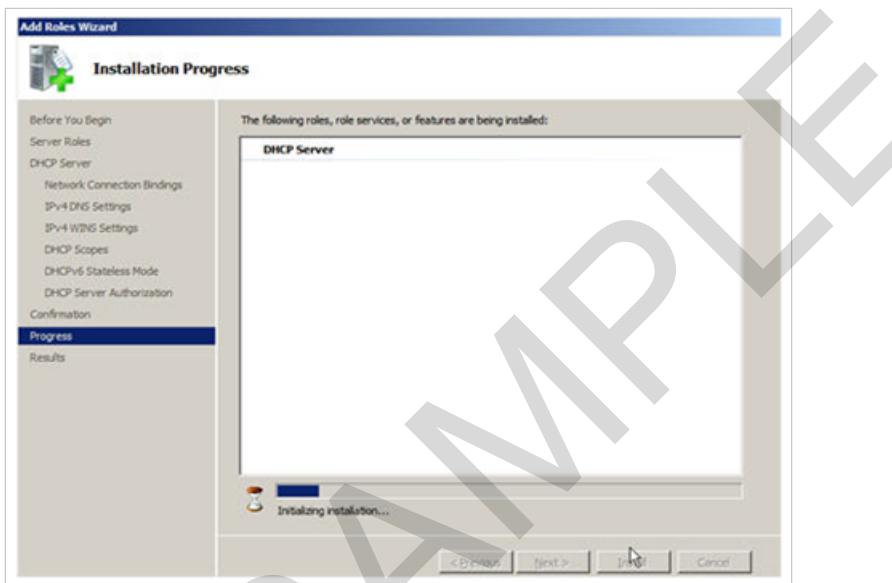
12. Select any of the options to use for authorizing the DHCP server in AD DS and Click **Next**



13. Click **Install** to install the specified roles, role services, or features

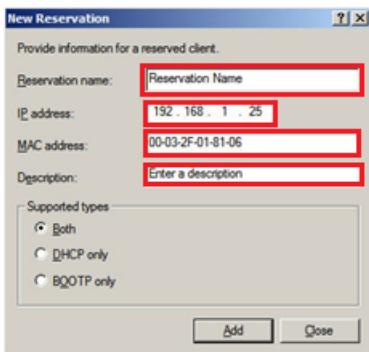


14. Notice the installation progress in terms of the installation initialization.

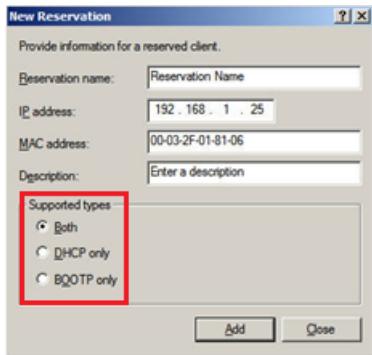


15. Select the **Reservations** after installation and Click **New Reservation**

16. Enter **Reservation Name**, **IP address**, **MAC address**, and **Description** in the **New Reservation Window**



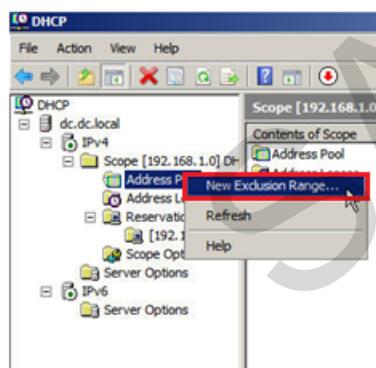
17. Select any of the Support types from **Both**, **DHCP only**, and **BOOTP only**



18. Click **Add** in the **New Reservation** window after selecting support types

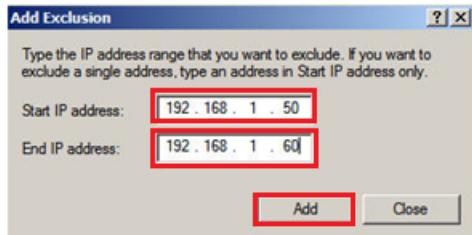


19. In the DHCP, right-click **Address Pools** under **Scope** and click **New Exclusion Range**



Add the exclusion for the reservations by adding exclusions to the DHCP server. By adding exclusions to the DHCP server, systems will not receive the DHCP lease with the range of IP addresses.

20. Enter **Start IP address** and **End IP address** and click **Add** in the **Add Exclusion** window



Excluded address range is visible in the **Address Pool** window

The screenshot shows the Windows Server 2008 DHCP console. On the left is a tree view under 'DHCP' for 'dc.dc.local'. Under 'IPv4', 'Scope [192.168.1.0] D...' is expanded, showing 'Address Pool', 'Address Leases', and 'Reservations'. Under 'Address Pool', there is a table:

Start IP Address	End IP Address	Description
192.168.1.50	192.168.1.60	IP Addresses excluded from distribution
192.168.1.1	192.168.1.200	Address range for distribution

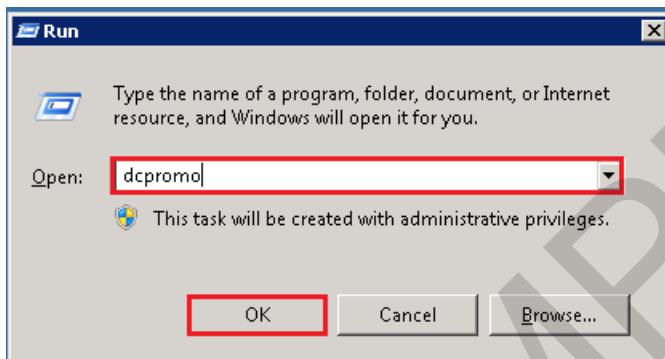
# Chapter 6. Website Hosting

The website hosting is essential for LAN services that help to develop intranet connectivity. The intranet connection can be enhanced with the website hosting connections.

## Hosting the Websites

Following are the steps to host the websites in LAN.

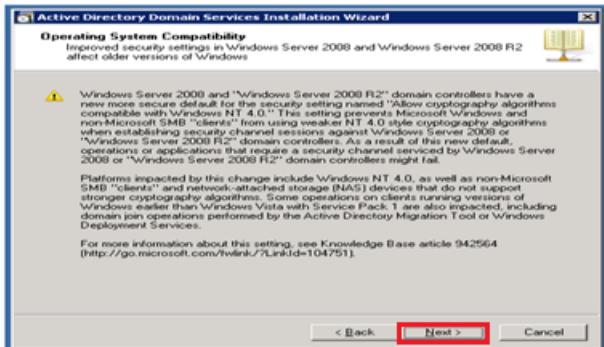
1. Enter **DCPROMO** in the run command window and Click **OK**



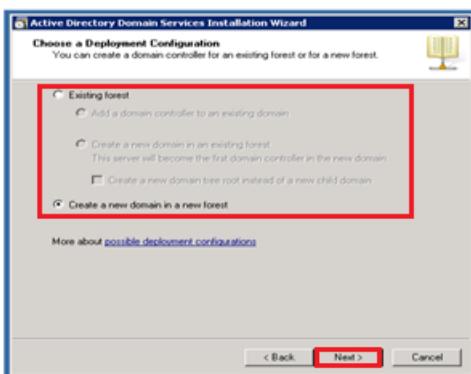
2. Click **Next** in the **Active Directory Domain Services Installation Wizard**



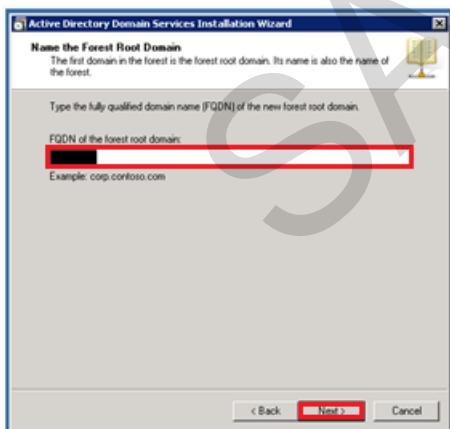
3. Select **Next** to confirm Operating System Compatibility



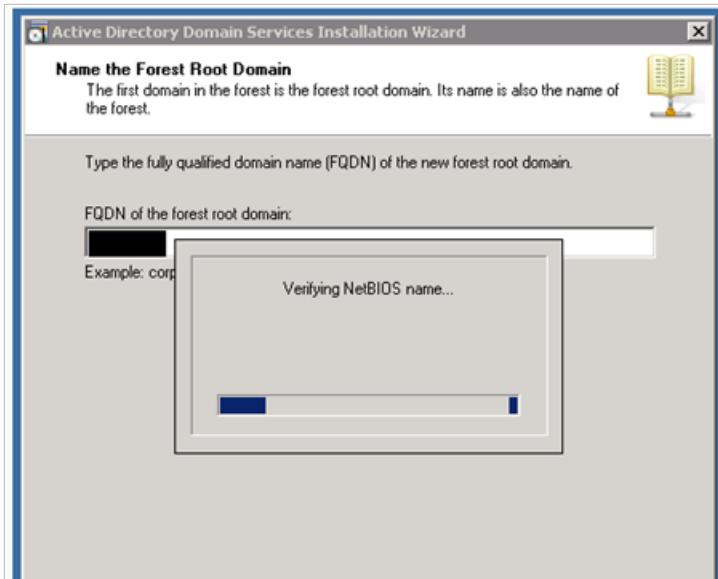
4. Select any one of the deployment configuration options: **Existing forest, Create a new domain in a new forest** and click **Next**



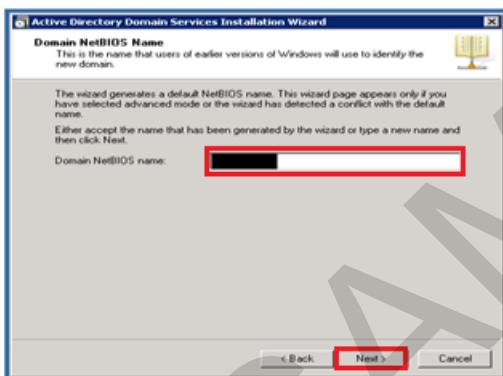
5. Enter the name for **FQDN of the forest root domain** and click **Next**



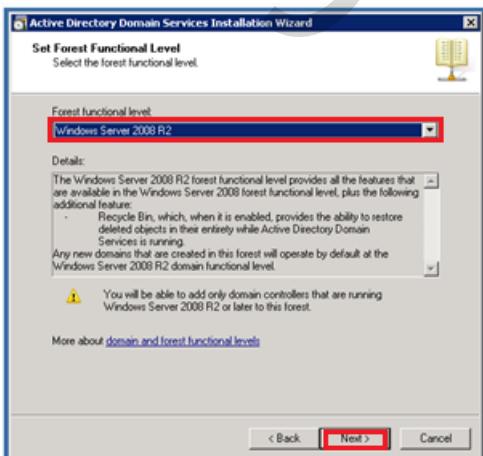
6. Select the network basic input and output system (NetBIOS) and verify the name



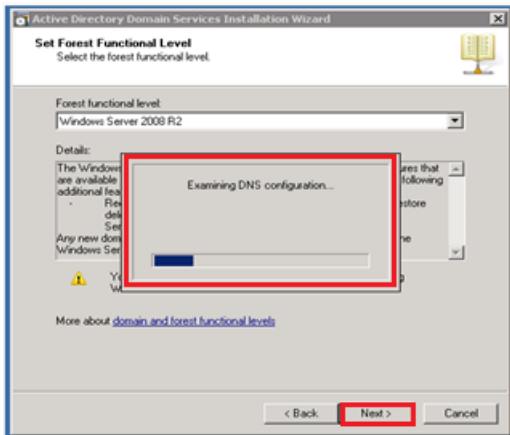
#### 7. Enter the Domain NetBIOS name and click Next



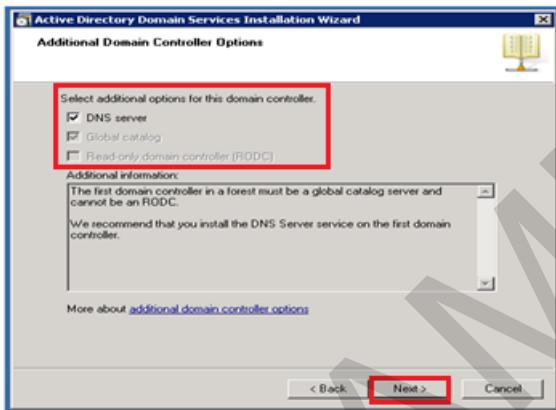
#### 8. Select Windows Server 2008 R2 in the Forest Functional Level drop-down list and click Next



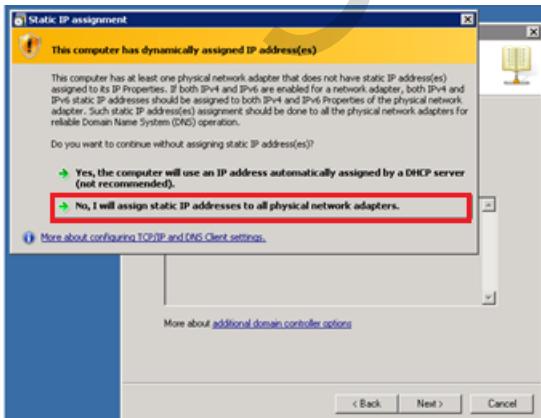
**9. Examine DNS Configuration after the selection of the functional level**



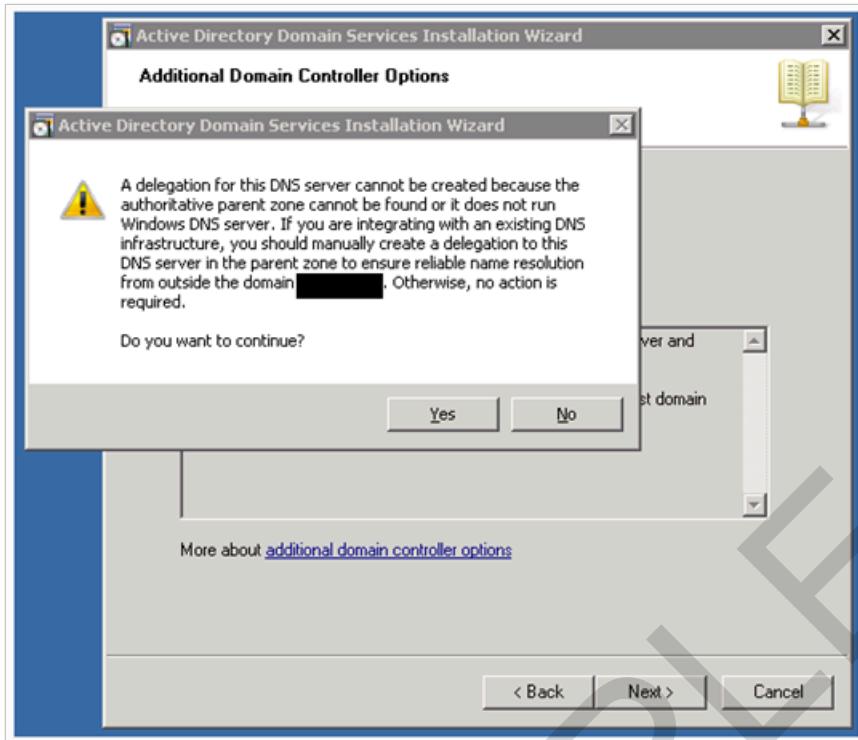
**10. Enable DNS Server checkbox to select additional options for the domain controller and click **Next****



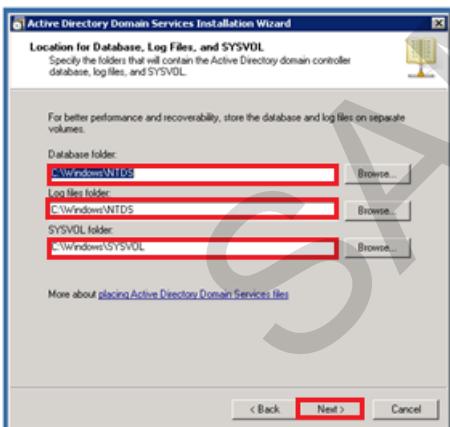
**11. Click **No, I will assign static IP addresses to all physical network adapters** in the Static IP Assignment window**



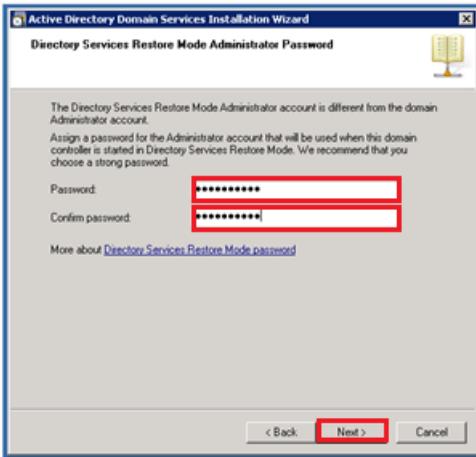
**12. Click **Yes** in the displayed prompt window**



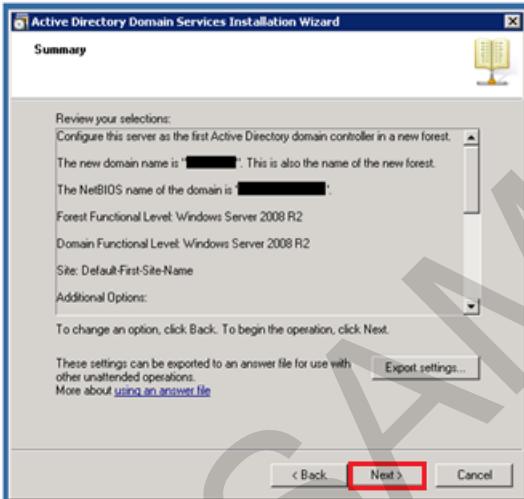
13. Enter the location details for **Database folder**, **Log files folder**, and **SYSVOL folder** and click **Next**



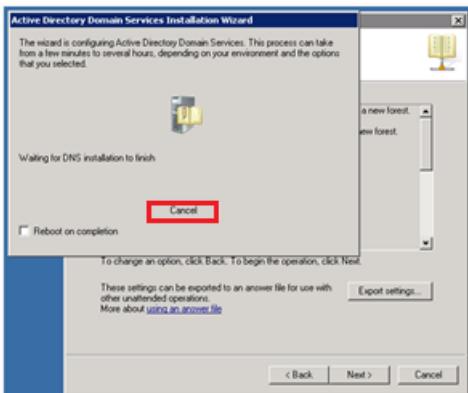
14. Enter the **Password** and **Confirm Password** for the Directory Services Restore Mode Administrator Password and click **Next**



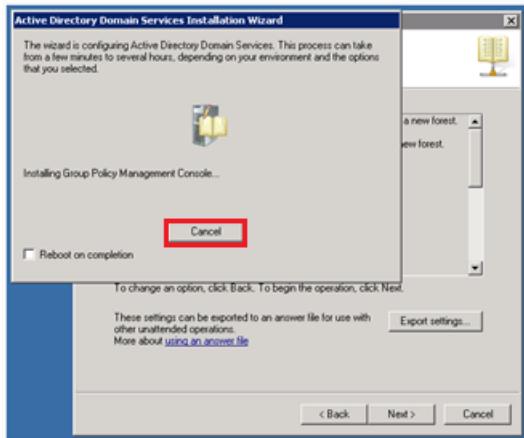
15. Click **Next** in the Summary showing new domain creation with the network basic input and output name



16. Installation Wizard configures Active Directory Domain Services and shows the progress. Click **Cancel** if want to cancel configuration



17. Installation Wizard checks and installs Group Policy Management console. Wizard Progress is displayed



18. Click **Finish** in the Active Directory Domain Services Installation Wizard

