ACTIVE DIRECTORY, DNS, DHCP AND RDS CONFIGURATION ON WINDOWS SERVER

Introduction

Windows Server provides essential services for network and IT infrastructure management, including **Active Directory** for identity management, **DNS** for domain name resolution, and **DHCP** for dynamic IP allocation.

• Configuring Active Directory

What is Active Directory?

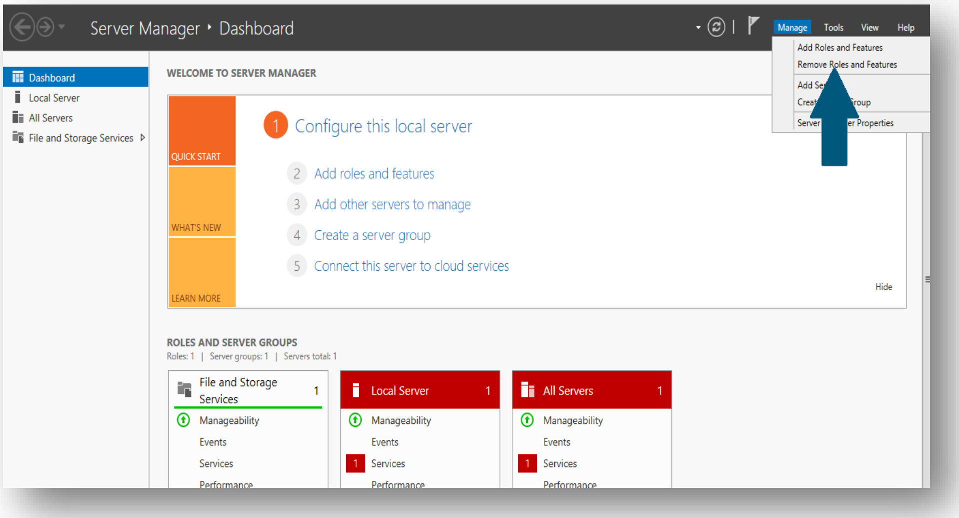
Active Directory (AD) is a directory service given by Microsoft. It provides centralized management of users, groups, computers, and resources of the network.

Prerequisites

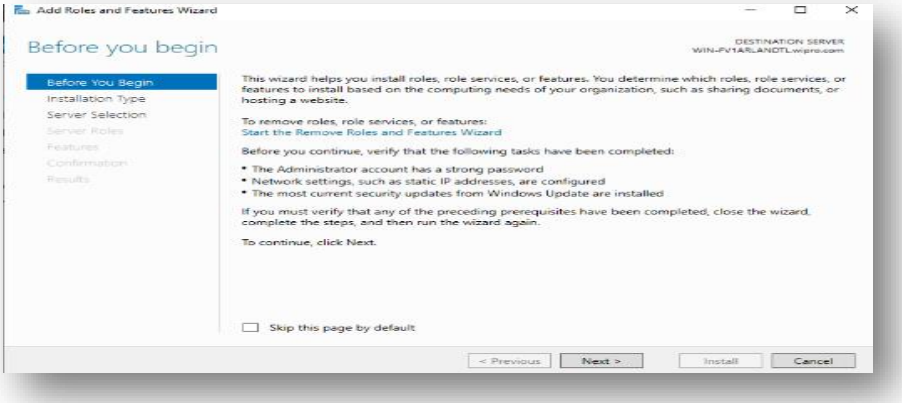
- Install Windows Server and give administrative privilege.
- Set static IP address.
- Set system time and time zone correctly.
- Check network settings and availability of the domain.

Installation Steps

- Click Server Manager, then select Add roles and features.


Server Manager • Dashboard
Manage
Tools
View
Help
Add Roles and Features
Remove Roles and Features
Dashboard
Local Server
All Servers
File and Storage Services
WELCOME TO SERVER MANAGER
QUICK START
WHAT'S NEW
LEARN MORE
1 Configure this local server
2 Add roles and features
3 Add other servers to manage
4 Create a server group
5 Connect this server to cloud services
Hide
ROLES AND SERVER GROUPS
Roles: 1 | Server groups: 1 | Servers total: 1
File and Storage Services 1
Local Server 1
All Servers 1
Manageability
Events
Services
Performance

- Click Next on the page before you begin.



This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.

To remove roles, role services, or features:
Start the Remove Roles and Features Wizard

Before you continue, verify that the following tasks have been completed:

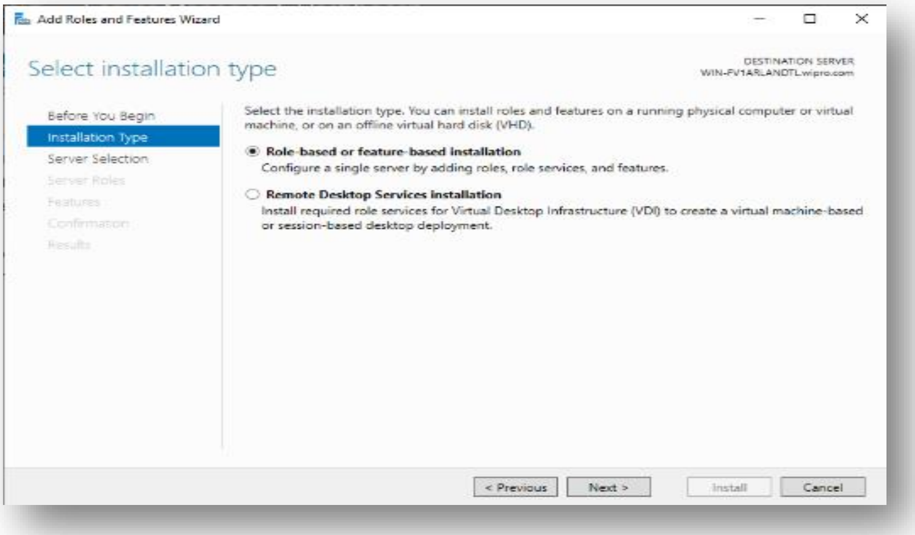
- The Administrator account has a strong password
- Network settings, such as static IP addresses, are configured
- The most current security updates from Windows Update are installed

If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.

To continue, click Next.

□ Skip this page by default

- Select Role-based or feature-based installation.



Select installation type

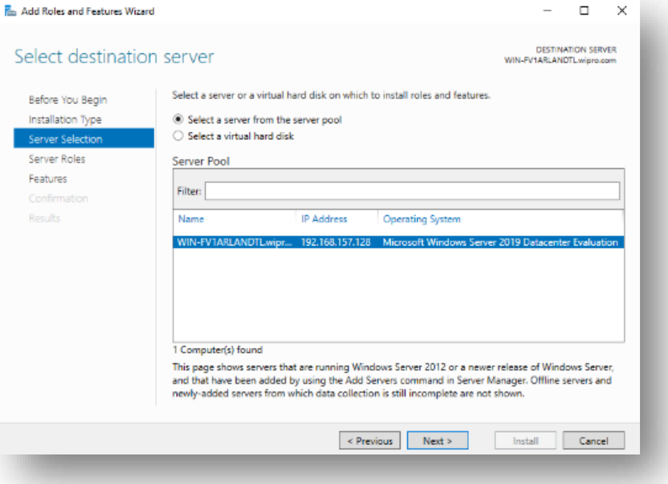
DESTINATION SERVER
WIN-FV1ARLANDTL.wipro.com

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

● **Role-based or feature-based installation**
Configure a single server by adding roles, role services, and features.

○ **Remote Desktop Services installation**
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

- Click Next on Select destination server



Select destination server

DESTINATION SERVER
WIN-FV1ARLANDTL.wipro.com

Select a server or a virtual hard disk on which to install roles and features.

● Select a server from the server pool
○ Select a virtual hard disk

Server Pool

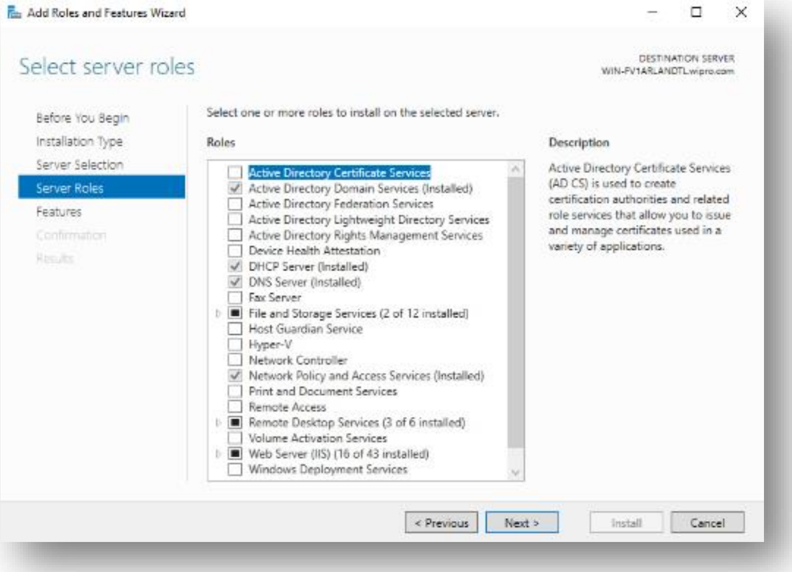
Filter:

Name	IP Address	Operating System
WIN-FV1ARLANDTL.wipr...	192.168.157.128	Microsoft Windows Server 2019 Datacenter Evaluation

1 Computer(s) found

This page shows servers that are running Windows Server 2012 or a newer release of Windows Server, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

- Select the server you need, then select Active Directory Domain Services.



Select server roles

DESTINATION SERVER
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Select one or more roles to install on the selected server.

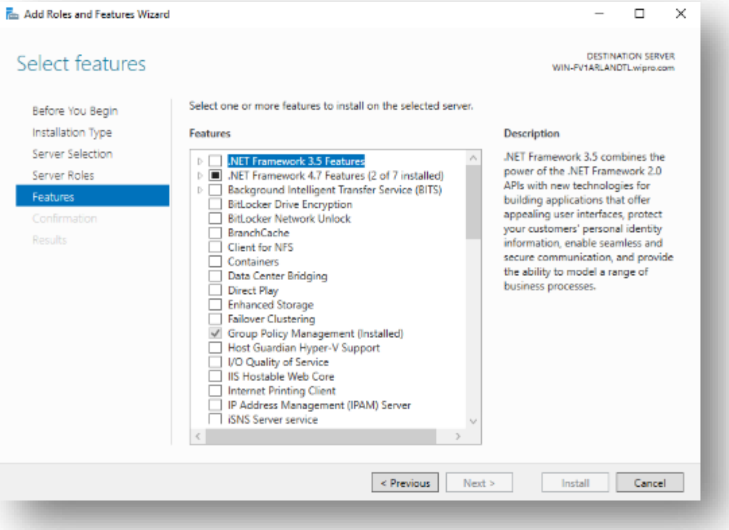
Roles

- □ Active Directory Certificate Services
- ☑ Active Directory Domain Services (Installed)
- □ Active Directory Federation Services
- □ Active Directory Lightweight Directory Services
- □ Active Directory Rights Management Services
- □ Device Health Attestation
- ☑ DHCP Server (Installed)
- ☑ DNS Server (Installed)
- □ Fax Server
- ■ File and Storage Services (2 of 12 installed)
- □ Host Guardian Service
- □ Hyper-V
- □ Network Controller
- ☑ Network Policy and Access Services (Installed)
- □ Print and Document Services
- □ Remote Access
- ■ Remote Desktop Services (3 of 6 installed)
- □ Volume Activation Services
- ■ Web Server (IIS) (16 of 43 installed)
- □ Windows Deployment Services

Description

Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.

- Select the Features Required and click on Next.



Select features

DESTINATION SERVER
WIN-FV1ARLANDTL.wipro.com

Select one or more features to install on the selected server.

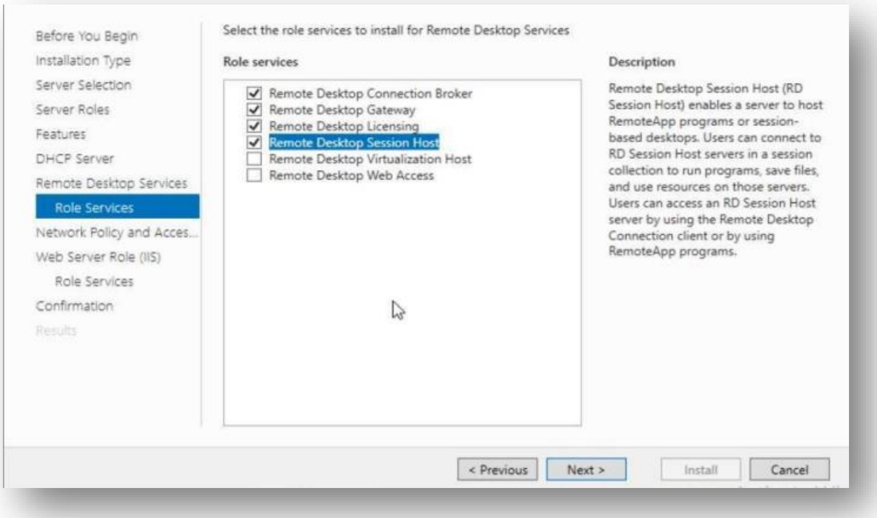
Features

- ☐ .NET Framework 3.5 Features
- ■ .NET Framework 4.7 Features (2 of 7 installed)
- ☐ Background Intelligent Transfer Service (BITS)
- ☐ BitLocker Drive Encryption
- ☐ BitLocker Network Unlock
- ☐ BranchCache
- ☐ Client for NFS
- ☐ Containers
- ☐ Data Center Bridging
- ☐ Direct Play
- ☐ Enhanced Storage
- ☐ Failover Clustering
- ☑ Group Policy Management (Installed)
- ☐ Host Guardian Hyper-V Support
- ☐ I/O Quality of Service
- ☐ IIS Hostable Web Core
- ☐ Internet Printing Client
- ☐ IP Address Management (IPAM) Server
- ☐ iSNS Server service

Description

.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

- Click on **Next** to proceed to the **Role Services** section. In this section, select the following options:
  - **Remote Desktop Licensing**
  - **Remote Desktop Session Host**
  - **Remote Desktop Gateway**
  - **Remote Desktop Connection Broker**



Select the role services to install for Remote Desktop Services

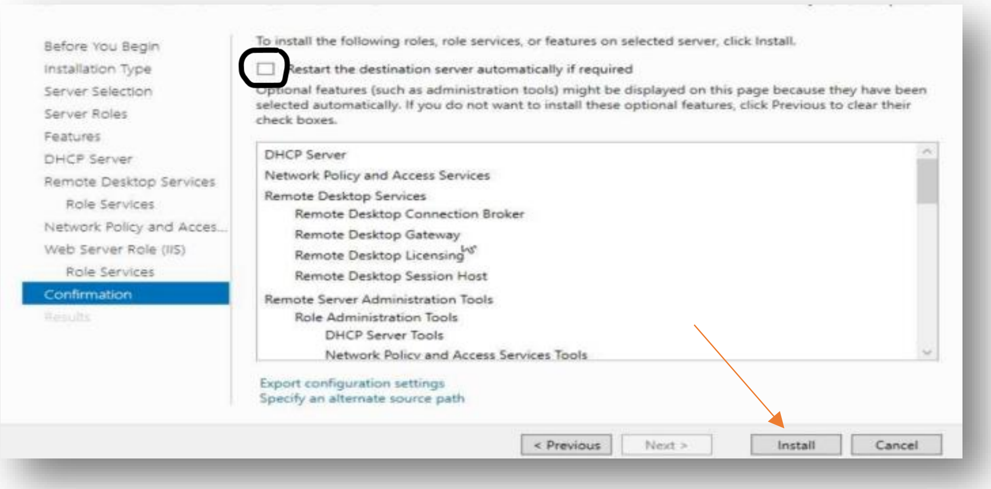
Role services

- ☑ Remote Desktop Connection Broker
- ☑ Remote Desktop Gateway
- ☑ Remote Desktop Licensing
- ☑ Remote Desktop Session Host
- ☐ Remote Desktop Virtualization Host
- ☐ Remote Desktop Web Access

Description

Remote Desktop Session Host (RD Session Host) enables a server to host RemoteApp programs or session-based desktops. Users can connect to RD Session Host servers in a session collection to run programs, save files, and use resources on those servers. Users can access an RD Session Host server by using the Remote Desktop Connection client or by using RemoteApp programs.

- Click on Restart check box and Install Roles and Features.



To install the following roles, role services, or features on selected server, click Install.

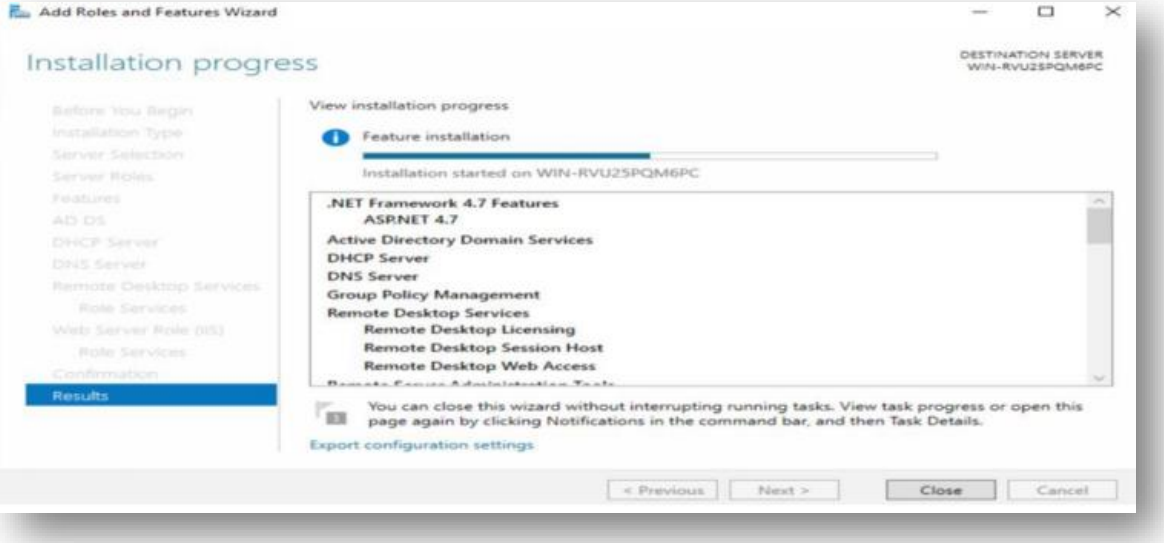
☐ Restart the destination server automatically if required

Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

DHCP Server
Network Policy and Access Services
Remote Desktop Services
    Remote Desktop Connection Broker
    Remote Desktop Gateway
    Remote Desktop Licensing
    Remote Desktop Session Host
Remote Server Administration Tools
    Role Administration Tools
        DHCP Server Tools
        Network Policy and Access Services Tools

Export configuration settings
Specify an alternate source path

- Respond to the prompts about installing the AD DS role and features.



Installation progress

DESTINATION SERVER
WIN-RVU25PQM6PC

View installation progress

Feature installation

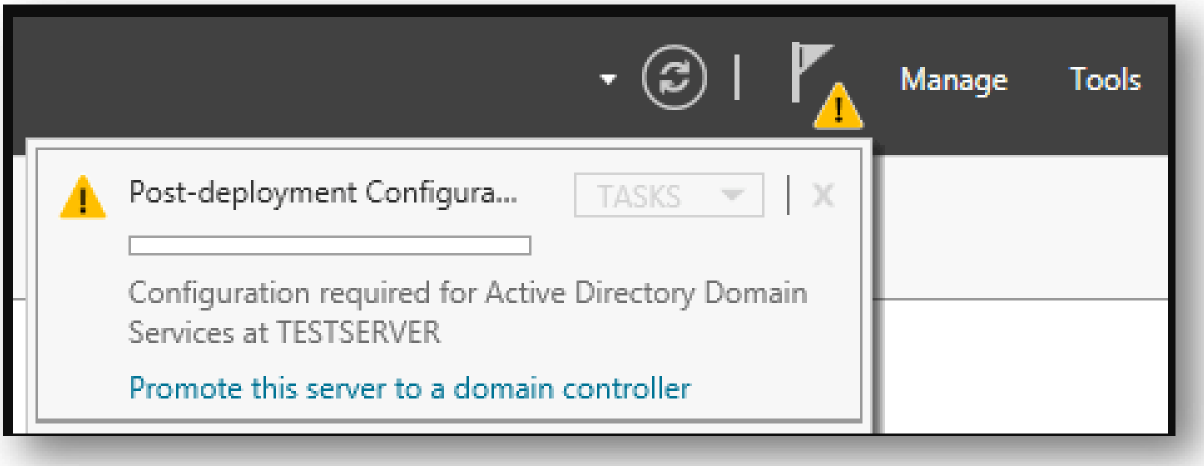
Installation started on WIN-RVU25PQM6PC

.NET Framework 4.7 Features
    ASP.NET 4.7
Active Directory Domain Services
DHCP Server
DNS Server
Group Policy Management
Remote Desktop Services
    Remote Desktop Licensing
    Remote Desktop Session Host
    Remote Desktop Web Access

You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

Export configuration settings

- After the installation is complete, Select Promote this server to a domain controller

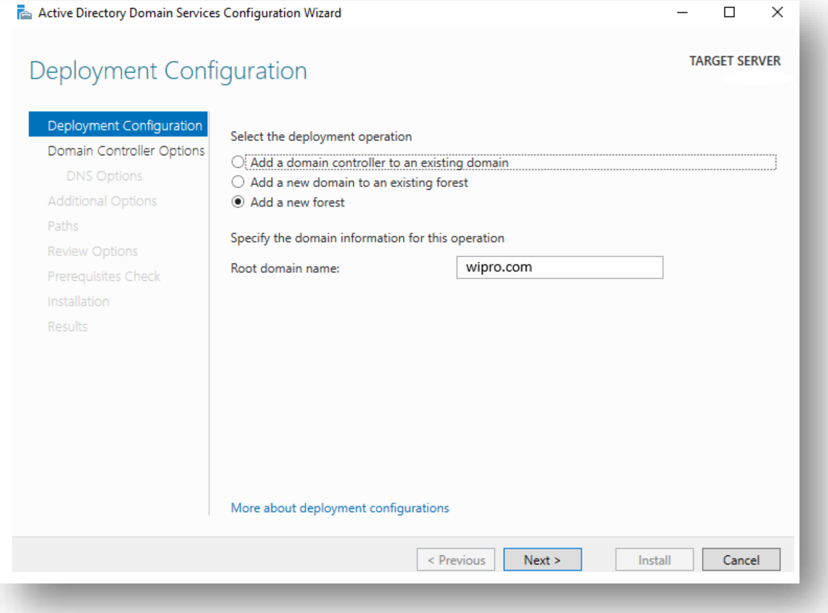


Post-deployment Configura...

Configuration required for Active Directory Domain Services at TESTSERVER

Promote this server to a domain controller

- Add a new forest and Enter a Domain Name and complete the configuration.



Deployment Configuration

TARGET SERVER

Select the deployment operation

○ Add a domain controller to an existing domain
○ Add a new domain to an existing forest
● Add a new forest

Specify the domain information for this operation

Root domain name: wipro.com

More about deployment configurations

- Restart the server to complete setup.

- **DNS Configuration**

DNS:

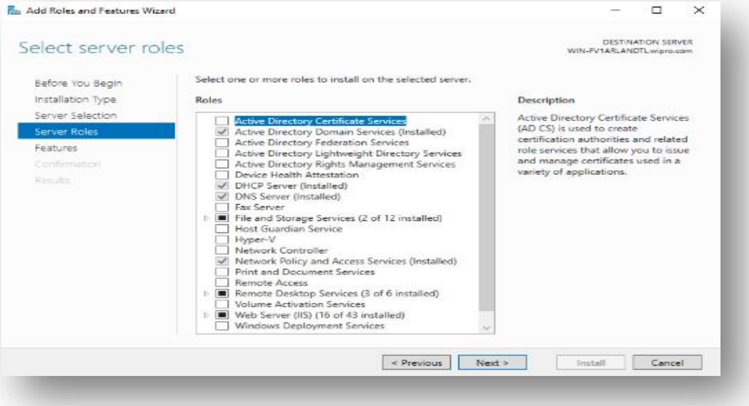
DNS (Domain Name System) translates domain names into IP addresses, essential for network resource accessibility and AD functionality.

Prerequisites

- Ensure Active Directory is installed if configuring AD-integrated DNS.
- Confirm network connectivity and correct server IP settings.

Steps for Installation

- In **Server Manager**, select **Add roles and features**.
- Choose **DNS Server** and proceed with installation.
- After installation, open **DNS Manager** to configure zones.



Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
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Select one or more roles to install on the selected server.

Roles

- □ Active Directory Certificate Services
- ☑ Active Directory Domain Services (Installed)
- □ Active Directory Federation Services
- □ Active Directory Lightweight Directory Services
- □ Active Directory Rights Management Services
- □ Device Health Attestation
- ☑ DHCP Server (Installed)
- ☑ DNS Server (Installed)
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- □ Network Controller
- ☑ Network Policy and Access Services (Installed)
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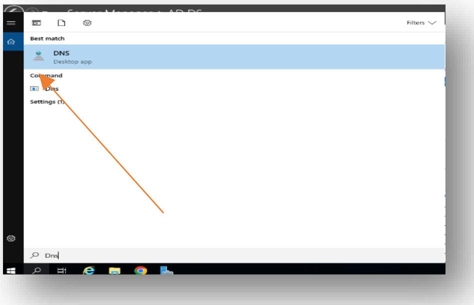
- □ Windows Deployment Services

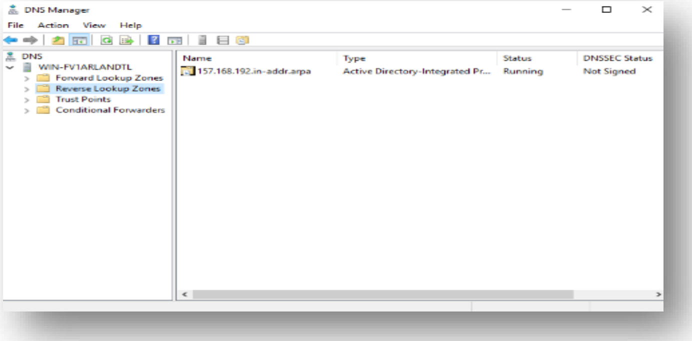
Description

Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.

Configuring Forward and Reverse Lookup Zones

- Open **DNS Manager**.

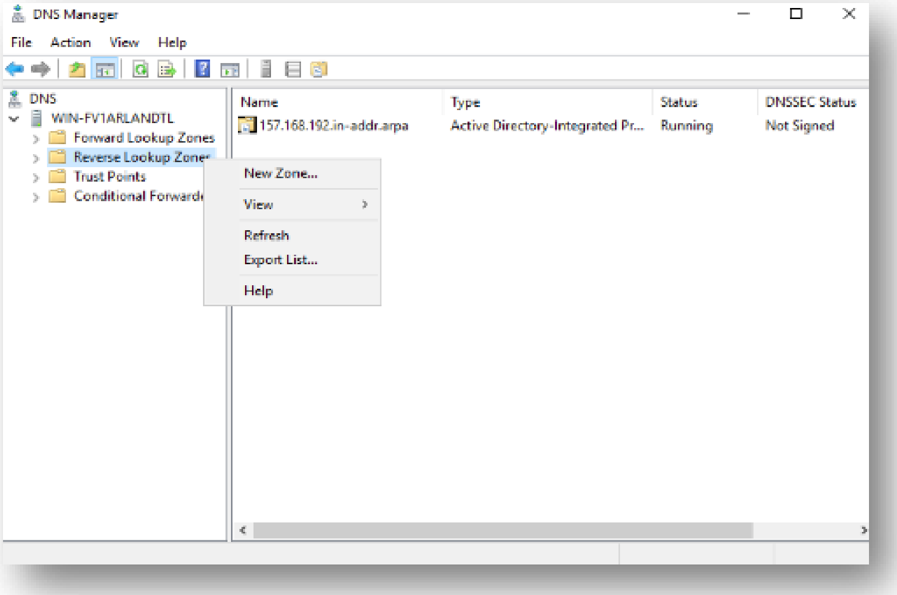




DNS Manager

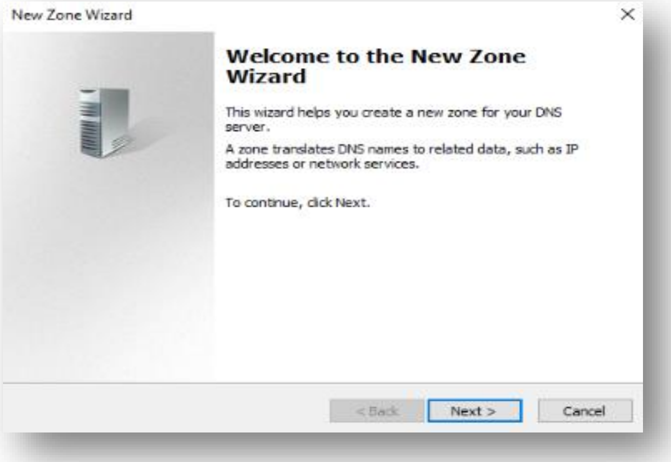
Name	Type	Status	DNSSEC Status
157.168.192.in-addr.arpa	Active Directory-Integrated Pr...	Running	Not Signed

  - Set up a **Reverse Lookup Zone** for IP-to-hostname resolution.
    - Right-click **Reverse Lookup Zones** > **New Zone**.



Name	Type	Status	DNSSEC Status
157.168.192.in-addr.arpa	Active Directory-Integrated Pr...	Running	Not Signed

- Click ON Next



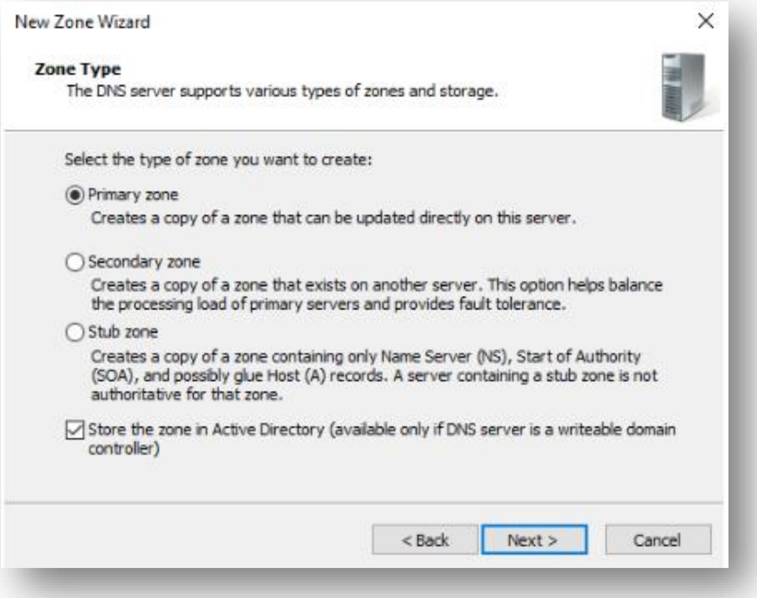
Welcome to the New Zone Wizard

This wizard helps you create a new zone for your DNS server.

A zone translates DNS names to related data, such as IP addresses or network services.

To continue, click Next.

- Select Primary Zone and Click on Next



Zone Type

The DNS server supports various types of zones and storage.

Select the type of zone you want to create:

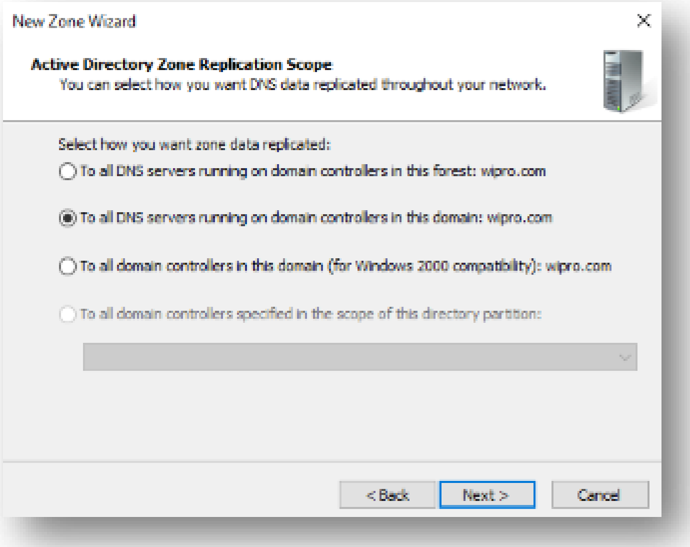
● Primary zone
Creates a copy of a zone that can be updated directly on this server.

○ Secondary zone
Creates a copy of a zone that exists on another server. This option helps balance the processing load of primary servers and provides fault tolerance.

○ Stub zone
Creates a copy of a zone containing only Name Server (NS), Start of Authority (SOA), and possibly glue Host (A) records. A server containing a stub zone is not authoritative for that zone.

☑ Store the zone in Active Directory (available only if DNS server is a writeable domain controller)

- Click On NEXT



New Zone Wizard

Active Directory Zone Replication Scope
You can select how you want DNS data replicated throughout your network.

Select how you want zone data replicated:

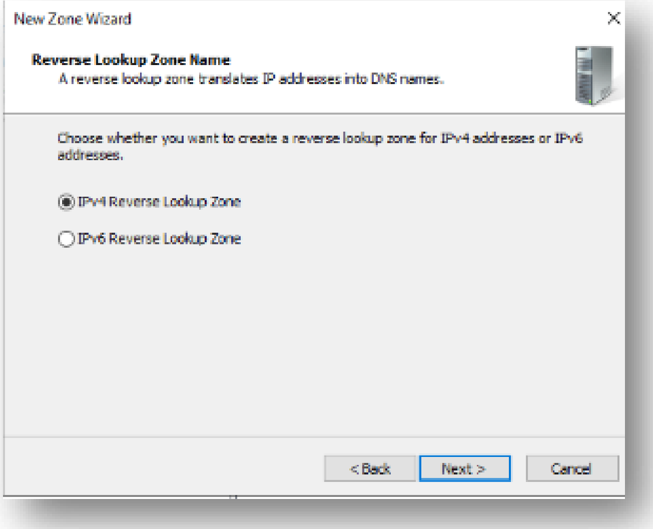
○ To all DNS servers running on domain controllers in this forest: wipro.com

● To all DNS servers running on domain controllers in this domain: wipro.com

○ To all domain controllers in this domain (for Windows 2000 compatibility): wipro.com

○ To all domain controllers specified in the scope of this directory partition:

- Click on IPv4 Reverse Lookup Zone > click ok NEXT



New Zone Wizard

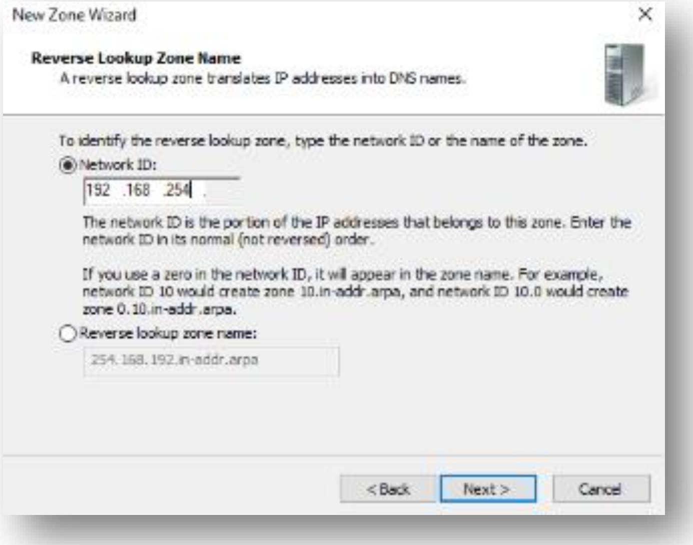
Reverse Lookup Zone Name
A reverse lookup zone translates IP addresses into DNS names.

Choose whether you want to create a reverse lookup zone for IPv4 addresses or IPv6 addresses.

● IPv4 Reverse Lookup Zone

○ IPv6 Reverse Lookup Zone

- Give Network ID which is IP Address
  - To check the IP Address -> Go to Command Prompt -> Type **Ipconfig** and press enter to see **IP Address**



New Zone Wizard

Reverse Lookup Zone Name
A reverse lookup zone translates IP addresses into DNS names.

To identify the reverse lookup zone, type the network ID or the name of the zone.

● Network ID:

192 .168 .254 .

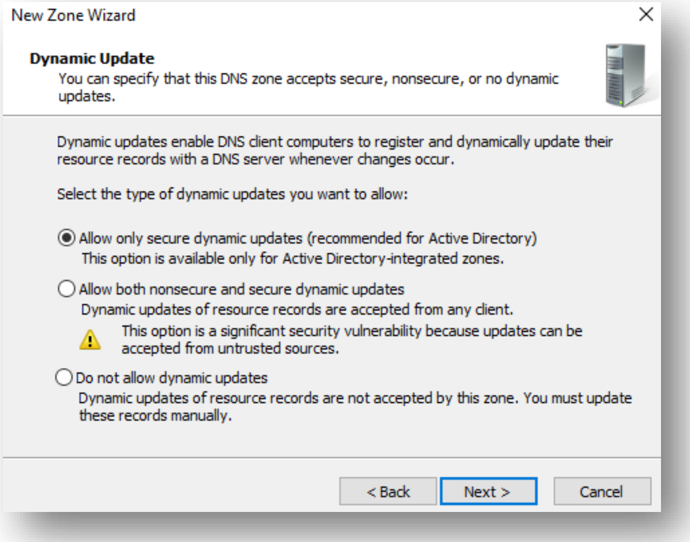
The network ID is the portion of the IP addresses that belongs to this zone. Enter the network ID in its normal (not reversed) order.

If you use a zero in the network ID, it will appear in the zone name. For example, network ID 10 would create zone 10.in-addr.arpa, and network ID 10.0 would create zone 0.10.in-addr.arpa.

○ Reverse lookup zone name:

254.168.192.in-addr.arpa

- Select “Allow only secure dynamic updates” because we want to enhance security and prevent unauthorized or malicious updates to the reverse DNS records. It is recommended for Active Directory.



Dynamic Update

You can specify that this DNS zone accepts secure, nonsecure, or no dynamic updates.

Dynamic updates enable DNS client computers to register and dynamically update their resource records with a DNS server whenever changes occur.

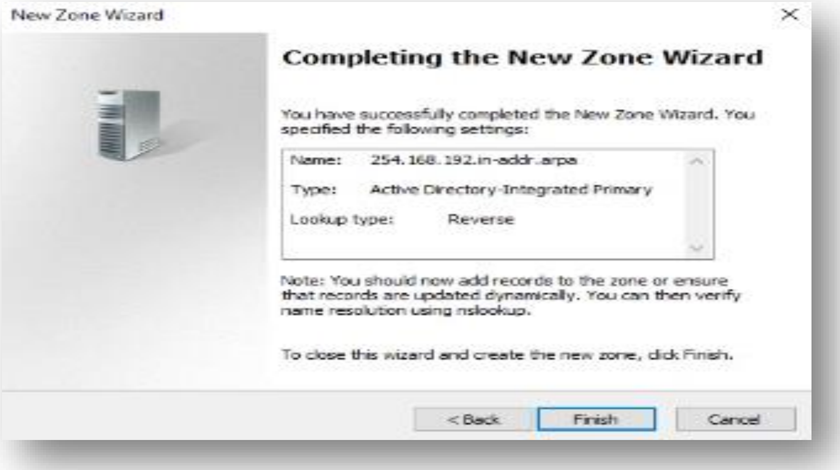
Select the type of dynamic updates you want to allow:

● Allow only secure dynamic updates (recommended for Active Directory)
This option is available only for Active Directory-integrated zones.

○ Allow both nonsecure and secure dynamic updates
Dynamic updates of resource records are accepted from any client.
⚠ This option is a significant security vulnerability because updates can be accepted from untrusted sources.

○ Do not allow dynamic updates
Dynamic updates of resource records are not accepted by this zone. You must update these records manually.

- Click on Finish



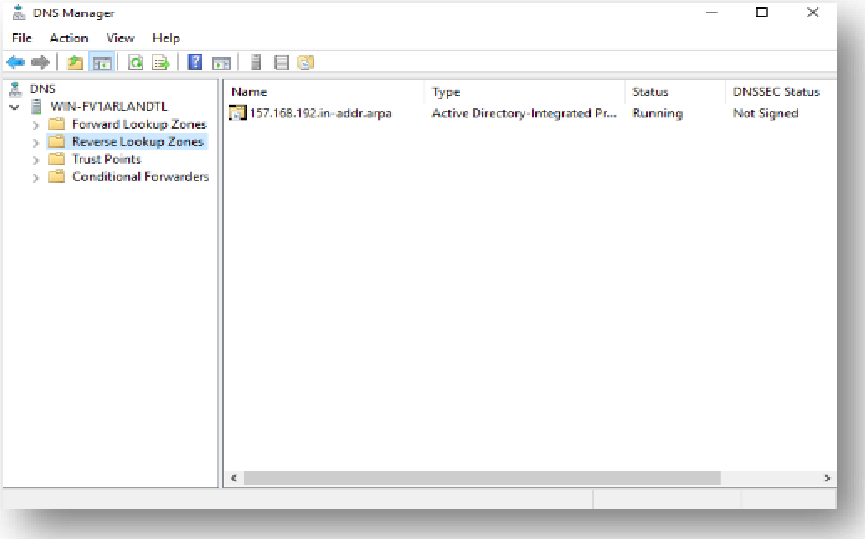
Completing the New Zone Wizard

You have successfully completed the New Zone Wizard. You specified the following settings:

Name: 254.168.192.in-addr.arpa
Type: Active Directory-Integrated Primary
Lookup type: Reverse

Note: You should now add records to the zone or ensure that records are updated dynamically. You can then verify name resolution using nslookup.

To close this wizard and create the new zone, click Finish.



Name	Type	Status	DNSSEC Status
157.168.192.in-addr.arpa	Active Directory-Integrated Pr...	Running	Not Signed

- # DHCP Configuration

DHCP:

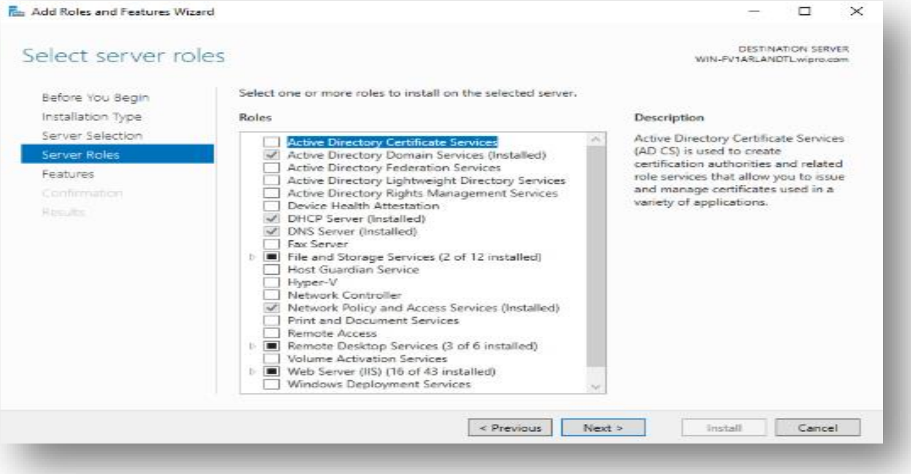
DHCP (Dynamic Host Configuration Protocol) assigns IP addresses dynamically to devices on a network, reducing manual configuration needs.

Prerequisites

- Static IP configuration on the server.
- Confirm DNS settings are active.

Steps for Installation

- In **Server Manager**, choose **Add roles and features** and Select **DHCP Server** and proceed with installation.



Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
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Select one or more roles to install on the selected server.

Roles

- □ Active Directory Certificate Services
- ☑ Active Directory Domain Services (Installed)
- □ Active Directory Federation Services
- □ Active Directory Lightweight Directory Services
- □ Active Directory Rights Management Services
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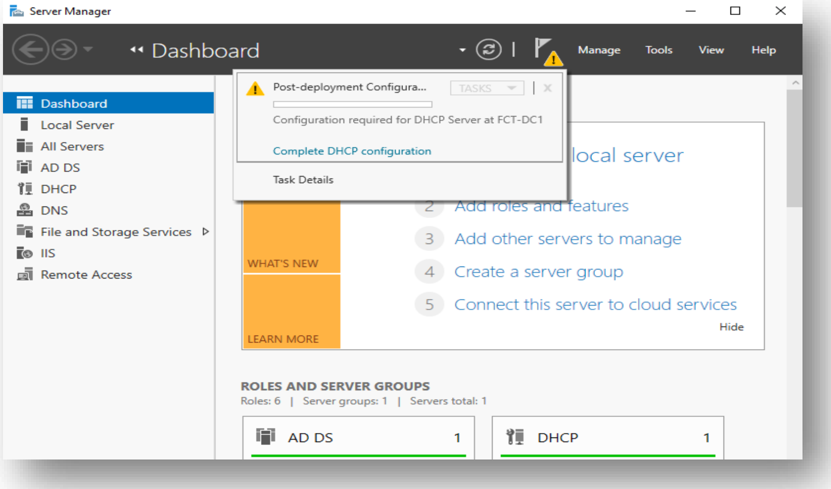
- □ Windows Deployment Services

Description

Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.

- After installation, open the **DHCP Console** for configuration.



Server Manager

Post-deployment Configura...

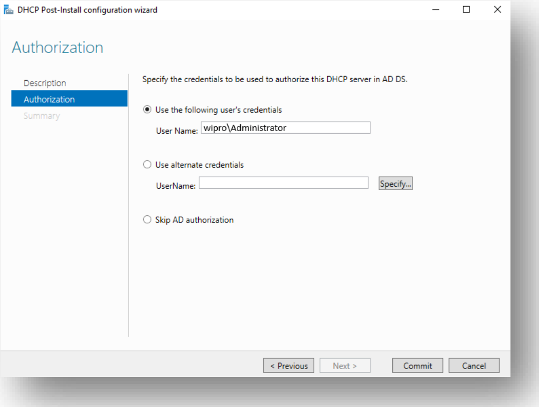
Configuration required for DHCP Server at FCT-DC1

Complete DHCP configuration

Task Details

ROLES AND SERVER GROUPS
Roles: 6 | Server groups: 1 | Servers total: 1

- Click on Connect



DHCP Post-Install configuration wizard

Authorization

Specify the credentials to be used to authorize this DHCP server in AD DS.

● Use the following user's credentials

User Name: wipro\Administrator

○ Use alternate credentials

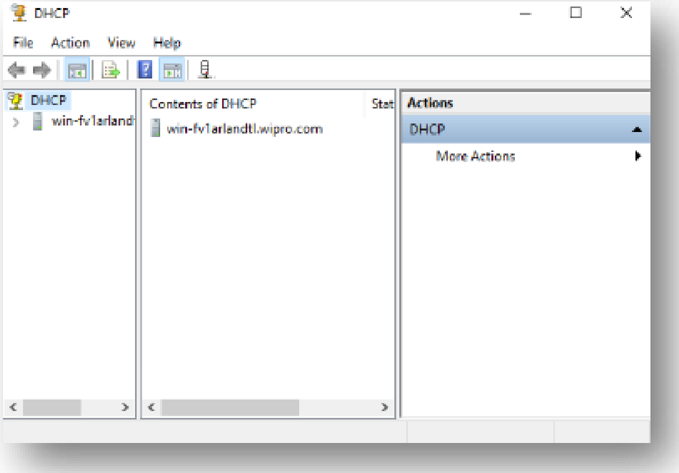
UserName:

○ Skip AD authorization

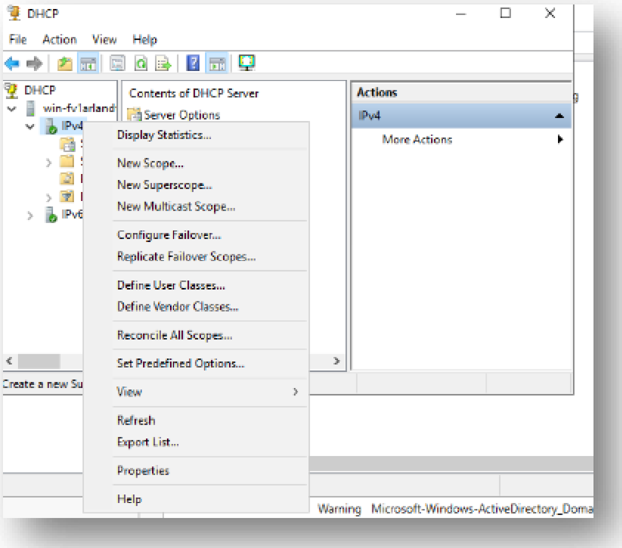
Configuring Scopes and Options

Then we should create the DHCP scope. So, we navigate to Tools > DHCP and open the DHCP console. Then we can see IPv4. Then right-click on it and select Create New Scope. Instead of this, we can also create scope by navigating Action > Create Scope.

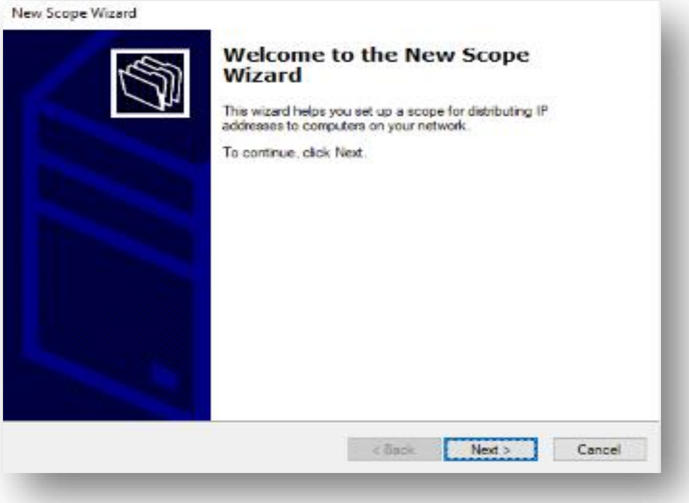
- Open **DHCP Manager**.



- Right-click **IPv4** and select **New Scope**.



- Click on New Scope and click on Next

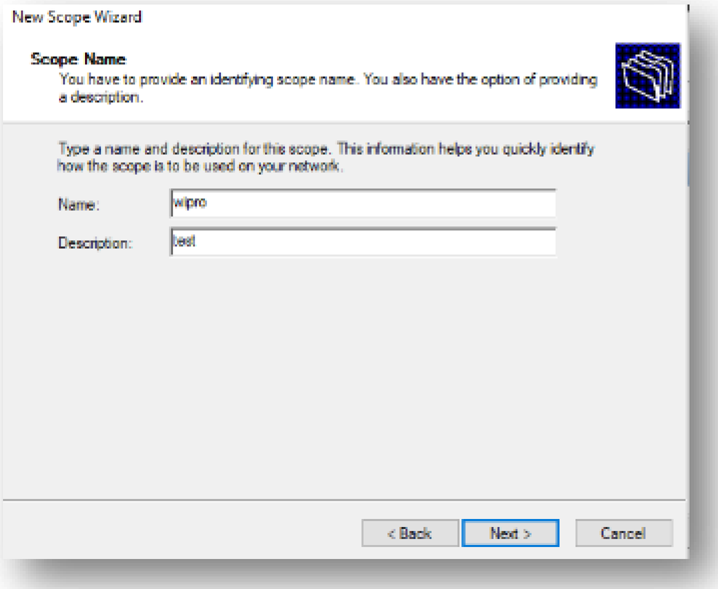

New Scope Wizard

Welcome to the New Scope Wizard

This wizard helps you set up a scope for distributing IP addresses to computers on your network.

To continue, click Next.

- Give Name and Description and click on Next



New Scope Wizard

Scope Name

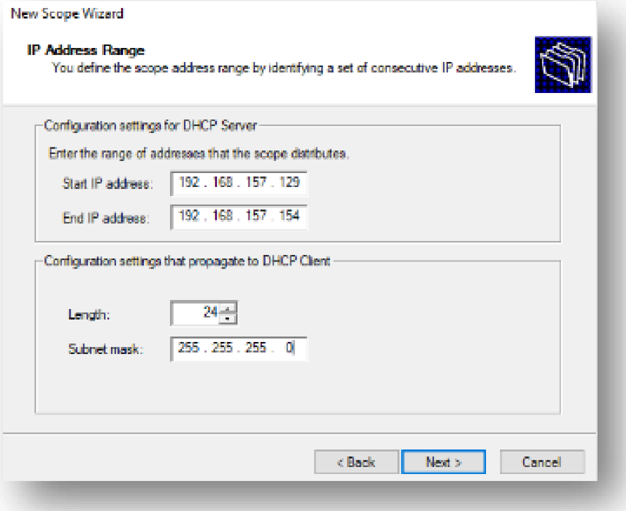
You have to provide an identifying scope name. You also have the option of providing a description.

Type a name and description for this scope. This information helps you quickly identify how the scope is to be used on your network.

Name: wipro

Description: test

- Give Start IP Address and End IP Address and click on Next



New Scope Wizard

IP Address Range

You define the scope address range by identifying a set of consecutive IP addresses.

Configuration settings for DHCP Server

Enter the range of addresses that the scope distributes.

Start IP address: 192 . 168 . 157 . 129

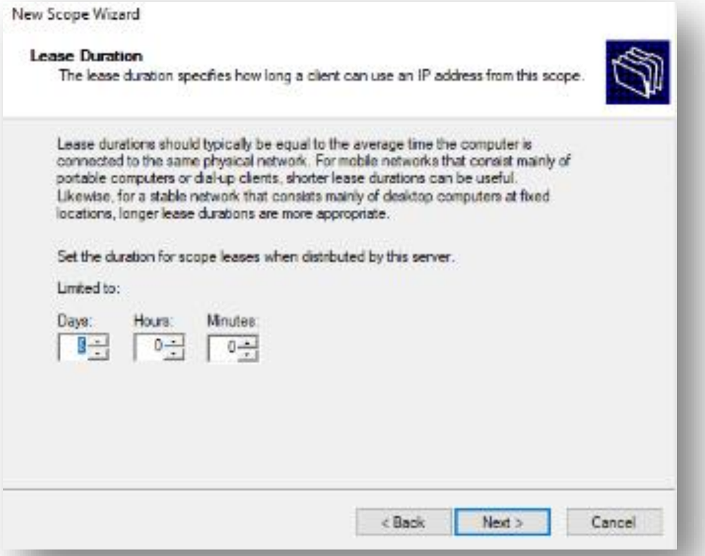
End IP address: 192 . 168 . 157 . 154

Configuration settings that propagate to DHCP Client

Length: 24

Subnet mask: 255 . 255 . 255 . 0

- Give 8 Hours and Click on Next



New Scope Wizard

Lease Duration

The lease duration specifies how long a client can use an IP address from this scope.

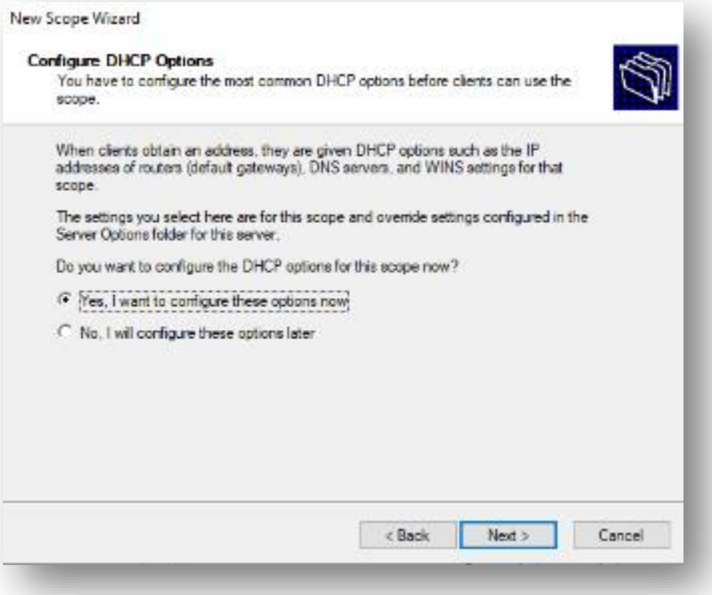
Lease durations should typically be equal to the average time the computer is connected to the same physical network. For mobile networks that consist mainly of portable computers or dial-up clients, shorter lease durations can be useful. Likewise, for a stable network that consists mainly of desktop computers at fixed locations, longer lease durations are more appropriate.

Set the duration for scope leases when distributed by this server.

Limited to:

Days: 8 Hours: 0 Minutes: 0

- Click on Yes and click on Next


New Scope Wizard

Configure DHCP Options

You have to configure the most common DHCP options before clients can use the scope.

When clients obtain an address, they are given DHCP options such as the IP addresses of routers (default gateways), DNS servers, and WINS settings for that scope.

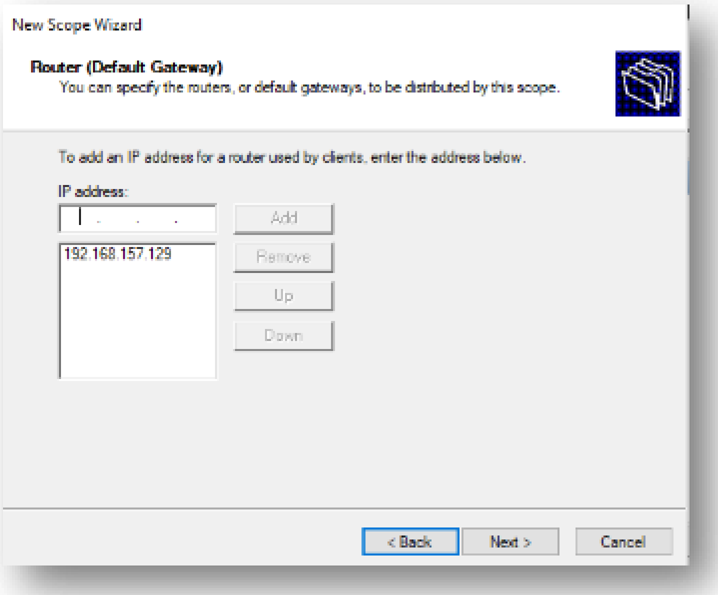
The settings you select here are for this scope and override settings configured in the Server Options folder for this server.

Do you want to configure the DHCP options for this scope now?

● Yes, I want to configure these options now

○ No, I will configure these options later

- Give IP Address > Click on ADD > Click on Next


New Scope Wizard

Router (Default Gateway)

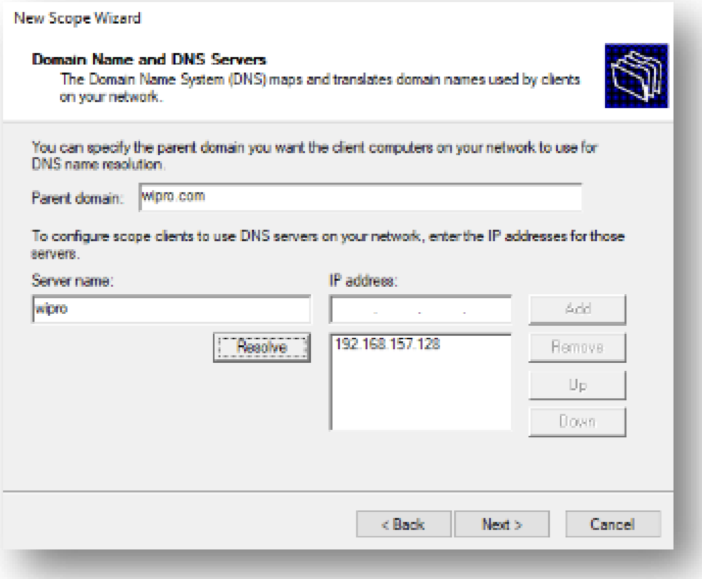
You can specify the routers, or default gateways, to be distributed by this scope.

To add an IP address for a router used by clients, enter the address below.

IP address:

192.168.157.129

- Give Server Name and Click on Next


New Scope Wizard

Domain Name and DNS Servers

The Domain Name System (DNS) maps and translates domain names used by clients on your network.

You can specify the parent domain you want the client computers on your network to use for DNS name resolution.

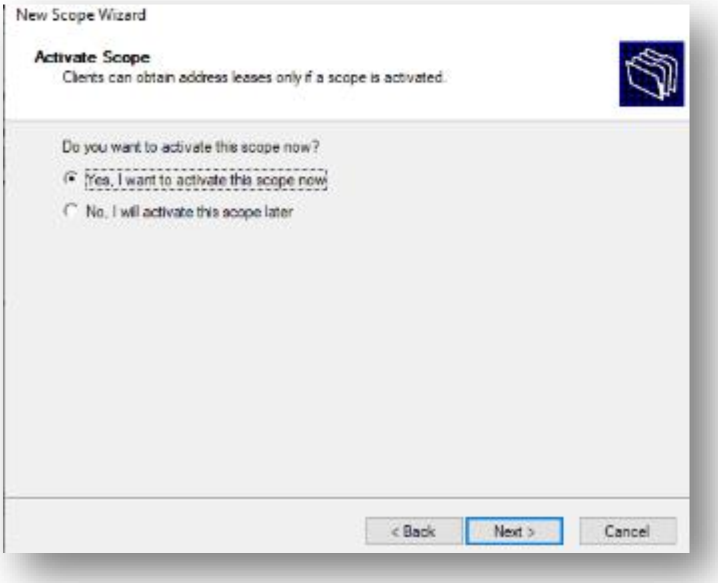
Parent domain: wipro.com

To configure scope clients to use DNS servers on your network, enter the IP addresses for those servers.

Server name: wipro

IP address: 192.168.157.128

- Click on Yes and Click on Next



New Scope Wizard

Activate Scope

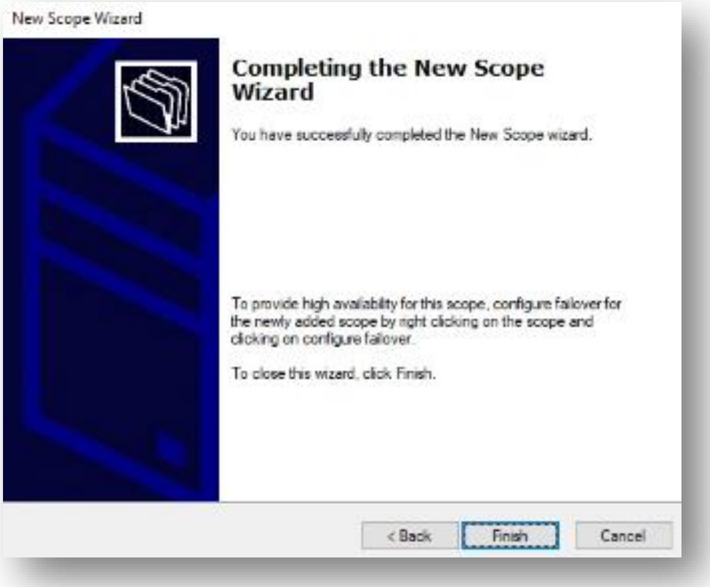
Clients can obtain address leases only if a scope is activated.

Do you want to activate this scope now?

● Yes, I want to activate this scope now

○ No, I will activate this scope later

- Click on Finish



New Scope Wizard

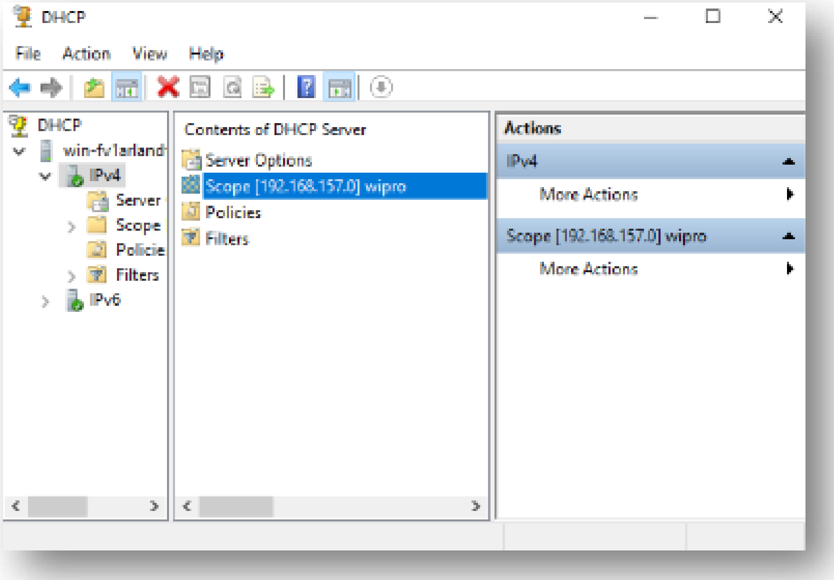
Completing the New Scope Wizard

You have successfully completed the New Scope wizard.

To provide high availability for this scope, configure failover for the newly added scope by right clicking on the scope and clicking on configure failover.

To close this wizard, click Finish.

- New Scope is created



- **Configuration of Remote Desktop Server (RDs)**

RDS:

Remote Desktop Services (RDS) is a suite of technologies in Windows Server that enables users to access a virtual desktop or applications hosted on a server. RDS enhances productivity and flexibility by allowing centralized management of user desktops and applications.

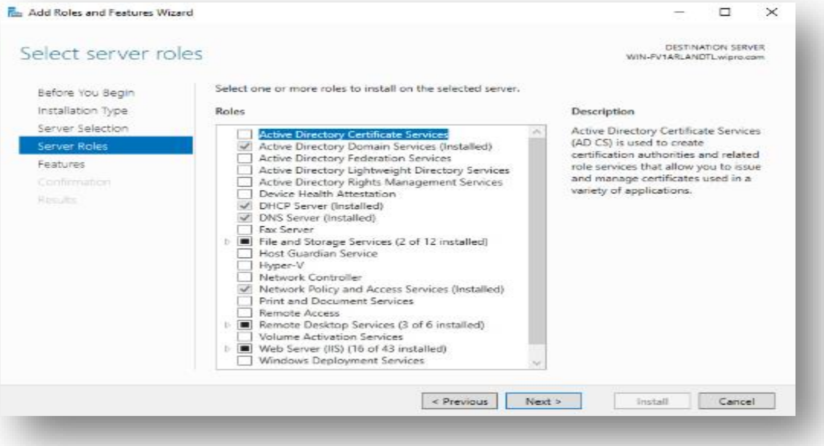
Prerequisites

- A physical or virtual machine running Windows Server 2016, 2019, or 2022.
- Administrative access to the Windows Server.
- Properly configured IP addressing (preferably static).
- A network with at least one physical or virtual client machine for testing.
- Active Directory Domain Services (AD DS) feature.
- Internet access for server updates (if needed).

Active Directory Configuration

- Install Active Directory Domain Services

- Open Server Manager and Click Manage > Add Roles and Features and select **Role-based or feature-based installation**. Choose the target server and select **Active Directory Domain Services**. Click **Add Features** when prompted, then continue with the installation.



Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
WIN-FV1ARLANDTL.wipro.com

Select one or more roles to install on the selected server.

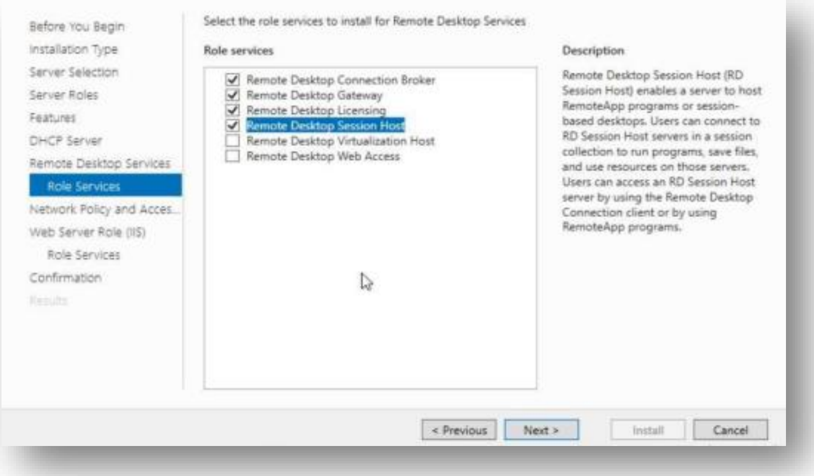
Roles

- □ Active Directory Certificate Services
- ☑ Active Directory Domain Services (Installed)
- □ Active Directory Federation Services
- □ Active Directory Lightweight Directory Services
- □ Active Directory Rights Management Services
- □ Device Health Attestation
- ☑ DHCP Server (Installed)
- ☑ DNS Server (Installed)
- □ Fax Server
- ■ File and Storage Services (2 of 12 installed)
- □ Host Guardian Service
- □ Hyper-V
- □ Network Controller
- ☑ Network Policy and Access Services (Installed)
- □ Print and Document Services
- □ Remote Access
- ■ Remote Desktop Services (3 of 6 installed)
- □ Volume Activation Services
- ■ Web Server (IIS) (16 of 43 installed)
- □ Windows Deployment Services

Description

Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.

- Set Role Services. And in Role services select the options mentioned below:
  • Remote Desktop Licensing
  • Remote Desktop Session Host
  • Remote Desktop gateway.
  • Remote Connection broker.



Select the role services to install for Remote Desktop Services

Role services

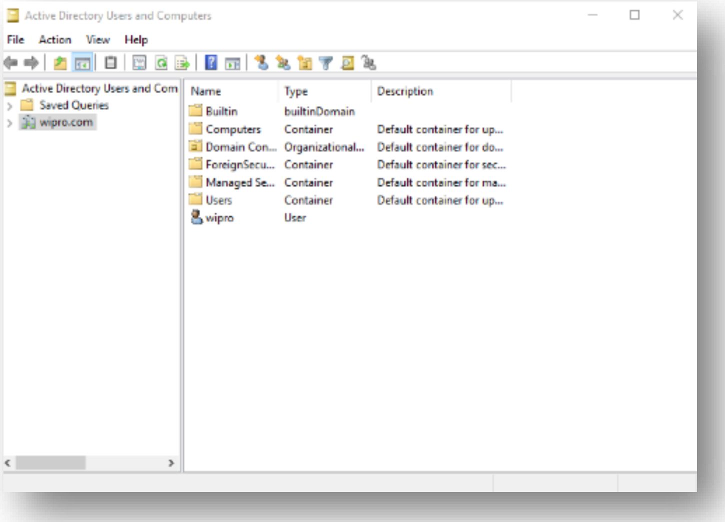
- ☑ Remote Desktop Connection Broker
- ☑ Remote Desktop Gateway
- ☑ Remote Desktop Licensing
- ☑ Remote Desktop Session Host
- □ Remote Desktop Virtualization Host
- □ Remote Desktop Web Access

Description

Remote Desktop Session Host (RD Session Host) enables a server to host RemoteApp programs or session-based desktops. Users can connect to RD Session Host servers in a session collection to run programs, save files, and use resources on those servers. Users can access an RD Session Host server by using the Remote Desktop Connection client or by using RemoteApp programs.

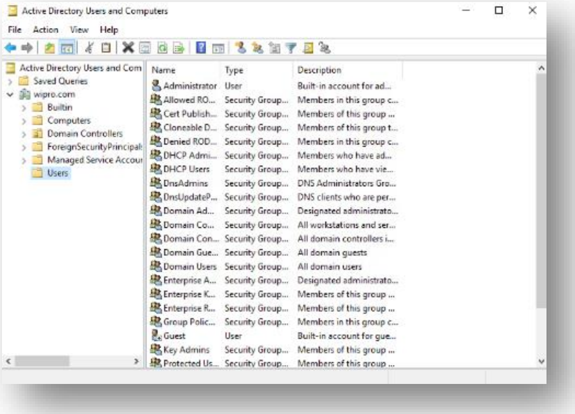
- To create a new user and add them to the ‘Remote Desktop Users’ and ‘Administrators’ groups on a **Windows Server 2019**:

- **Open Active Directory Users and Computers**:
  - On the main server VM, go to the **Search** bar.
  - Type and open **Active Directory Users and Computers**.


Active Directory Users and Computers
File Action View Help
Active Directory Users and Com
Saved Queries
wipro.com

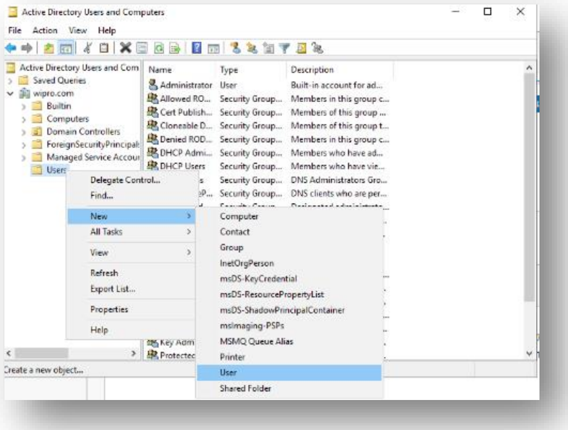
Name	Type	Description
Builtin	builtinDomain	
Computers	Container	Default container for up...
Domain Con...	Organizational...	Default container for do...
ForeignSecu...	Container	Default container for sec...
Managed Se...	Container	Default container for ma...
Users	Container	Default container for up...
wipro	User	

- **Create a New User**:
  - In the AD console, expand your domain and click on **Users**.



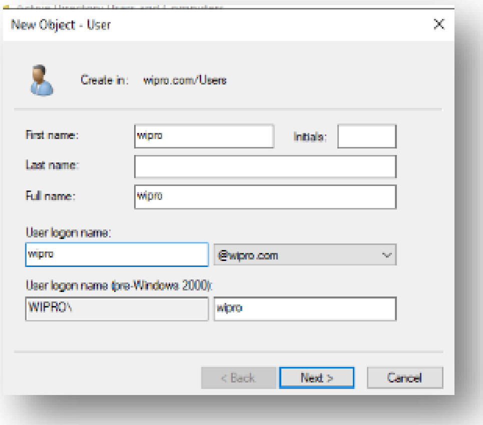
Name	Type	Description
Administrator	User	Built-in account for ad...
Allowed RO...	Security Group...	Members in this group c...
Cert Publish...	Security Group...	Members of this group ...
Cloneable D...	Security Group...	Members of this group t...
Denied ROD...	Security Group...	Members in this group c...
DHCP Admi...	Security Group...	Members who have ad...
DHCP Users	Security Group...	Members who have vie...
DnsAdmins	Security Group...	DNS Administrators Gro...
DnsUpdateP...	Security Group...	DNS clients who are per...
Domain Ad...	Security Group...	Designated administrato...
Domain Co...	Security Group...	All workstations and ser...
Domain Con...	Security Group...	All domain controllers i...
Domain Gue...	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise A...	Security Group...	Designated administrato...
Enterprise K...	Security Group...	Members of this group ...
Enterprise R...	Security Group...	Members of this group ...
Group Polic...	Security Group...	Members in this group c...
Guest	User	Built-in account for gue...
Key Admins	Security Group...	Members of this group ...
Protected Us...	Security Group...	Members of this group ...

  - Right-click on **Users**, select **New**, and then choose **User**.



Name	Type	Description
Administrator	User	Built-in account for ad...
Allowed RO...	Security Group...	Members in this group c...
Cert Publish...	Security Group...	Members of this group ...
Cloneable D...	Security Group...	Members of this group t...
Denied ROD...	Security Group...	Members in this group c...
DHCP Admi...	Security Group...	Members who have ad...
DHCP Users	Security Group...	Members who have vie...
s	Security Group...	DNS Administrators Gro...
P...	Security Group...	DNS clients who are per...

  - Fill out the user details (e.g., First Name, Last Name, and User Logon Name) and click **Next**.



New Object - User

Create in: wipro.com/Users

First name: wipro

Initials:

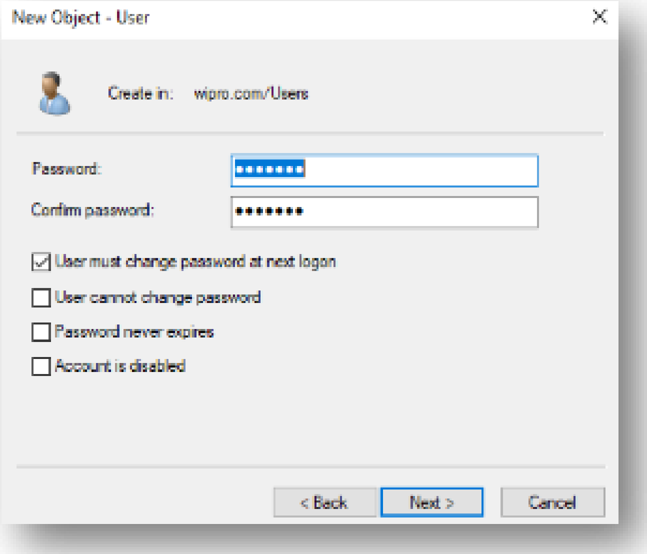
Last name:

Full name: wipro

User logon name: wipro @wipro.com

User logon name (pre-Windows 2000): WIPRO\ wipro

- Set a password for the user, ensure the appropriate password options are selected (e.g., "User must change password at next logon"), and click **Next**.



New Object - User

Create in: wipro.com/Users

Password: •••••••

Confirm password: •••••••

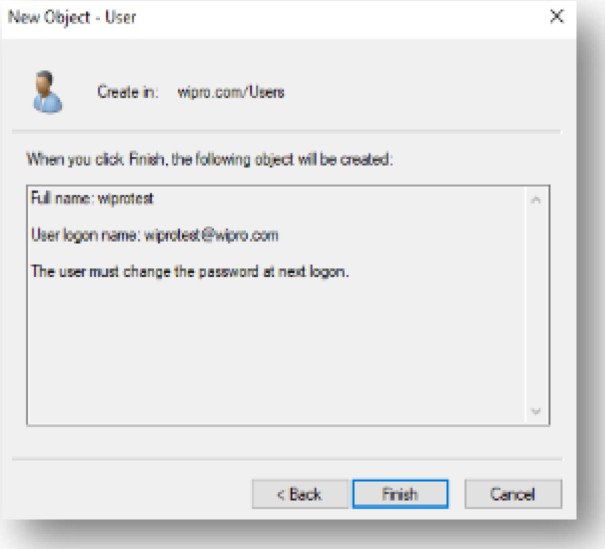
☑ User must change password at next logon

☐ User cannot change password

☐ Password never expires

☐ Account is disabled

- Click **Finish** to create the user.



New Object - User

Create in: wipro.com/Users

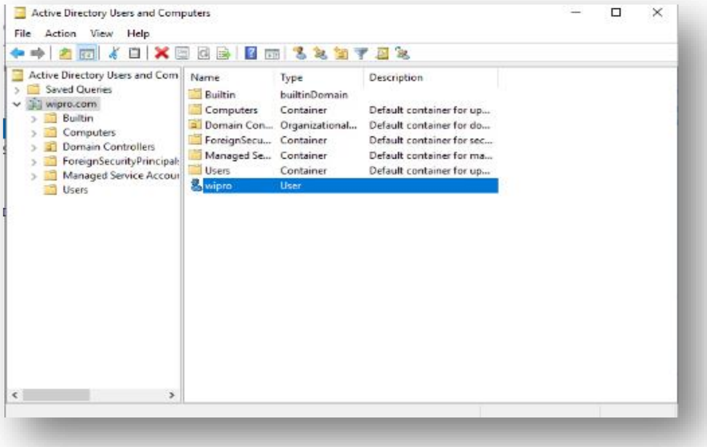
When you click Finish, the following object will be created:

Full name: wiprotest

User logon name: wiprotest@wipro.com

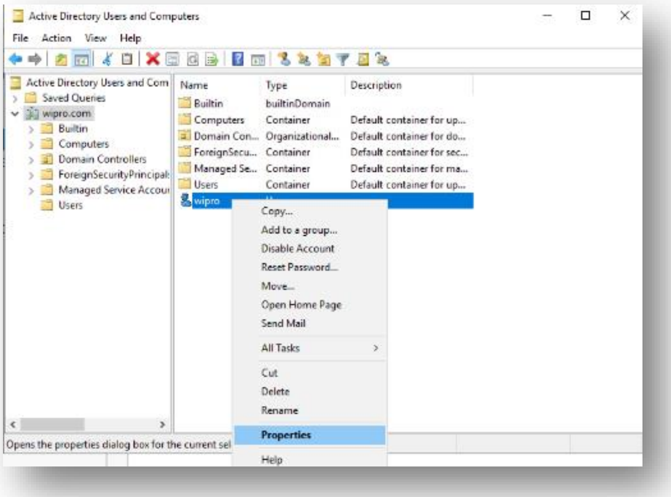
The user must change the password at next logon.

- **Add the User to the 'Remote Desktop Users' Group**:
  - In the AD console, locate the newly created user.



Name	Type	Description
Builtin	builtinDomain	
Computers	Container	Default container for up...
Domain Con...	Organizational...	Default container for do...
ForeignSecu...	Container	Default container for sec...
Managed Se...	Container	Default container for ma...
Users	Container	Default container for up...
wipro	User	

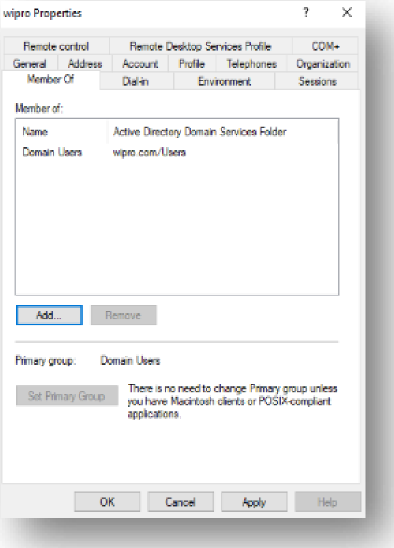
- Right-click the user and select **Properties**.



Name	Type	Description
Builtin	builtinDomain	
Computers	Container	Default container for up...
Domain Con...	Organizational...	Default container for do...
ForeignSecu...	Container	Default container for sec...
Managed Se...	Container	Default container for ma...
Users	Container	Default container for up...
wipro		

Opens the properties dialog box for the current sel

- Go to the **Member Of** tab and click **Add**.



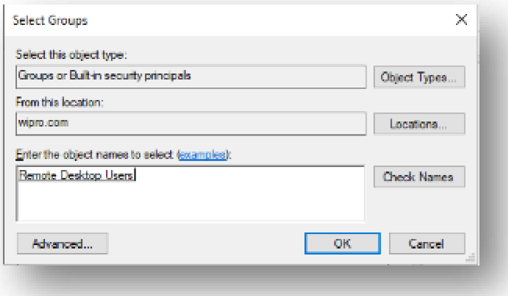
Member of:

Name	Active Directory Domain Services Folder
Domain Users	wipro.com/Users

Primary group: Domain Users

There is no need to change Primary group unless you have Macintosh clients or POSIX-compliant applications.

- Type **Remote Desktop Users** and **Administrators ->** click **Check Names** to verify. Then click **OK**.

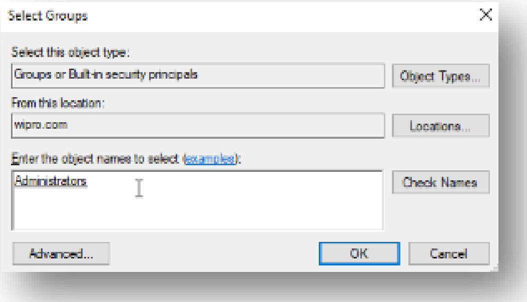


Select Groups

Select this object type:
Groups or Built-in security principals

From this location:
wipro.com

Enter the object names to select (examples):
Remote Desktop Users



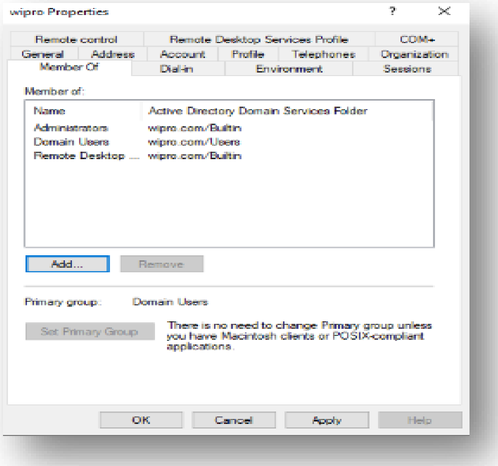
Select Groups

Select this object type:
Groups or Built-in security principals

From this location:
wipro.com

Enter the object names to select (examples):
Administrators

- Click **Apply** to save changes.



wipro Properties

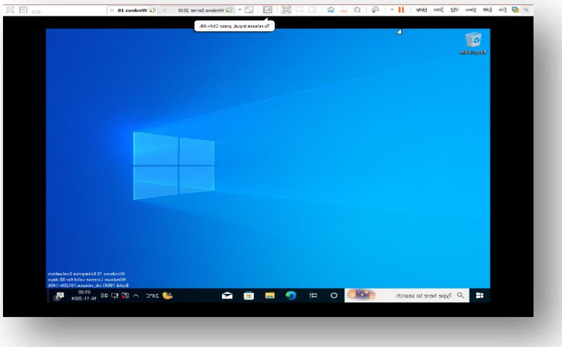
Member of:

Name	Active Directory Domain Services Folder
Administrators	wipro.com/Builtin
Domain Users	wipro.com/Users
Remote Desktop ...	wipro.com/Builtin

Primary group: Domain Users

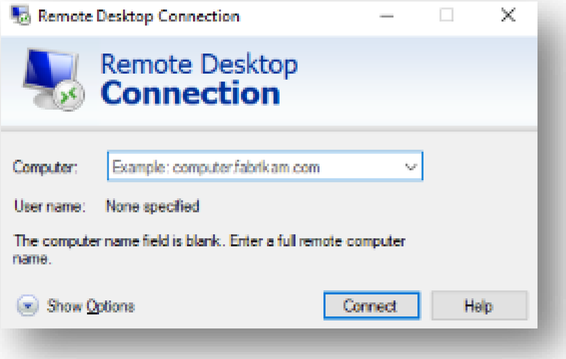
There is no need to change Primary group unless you have Macintosh clients or POSIX-compliant applications.

- Access Client VM:
  - Access the client VM named 'Win 10 main' and use valid user credentials to log in into the client VM 'Win 10 main'.



  - Open Remote Desktop Connection:
    - After login click on Start menu or Search bar.

- In search bar type, Remote Desktop Connection and open it.



Remote Desktop Connection

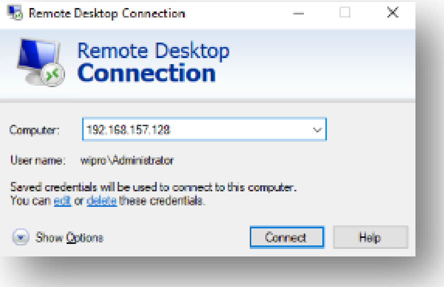
Remote Desktop Connection

Computer: Example: computer.fabrikam.com

User name: None specified

The computer name field is blank. Enter a full remote computer name.

- Connect to Server:
  - Simply type the IP address or hostname of the server in the Remote Desktop Connection window.



Remote Desktop Connection

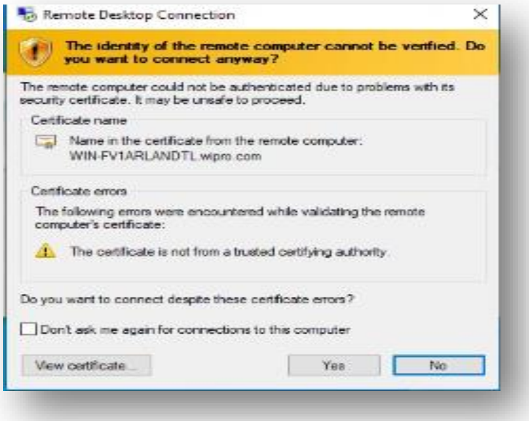
Remote Desktop Connection

Computer: 192.168.157.128

User name: wipro\Administrator

Saved credentials will be used to connect to this computer. You can edit or delete these credentials.

  - Click on Connect and input the credentials of the user you created above if prompted.



Remote Desktop Connection

The identity of the remote computer cannot be verified. Do you want to connect anyway?

The remote computer could not be authenticated due to problems with its security certificate. It may be unsafe to proceed.

Certificate name

Name in the certificate from the remote computer: WIN-FV1ARLANDTL.wipro.com

Certificate errors

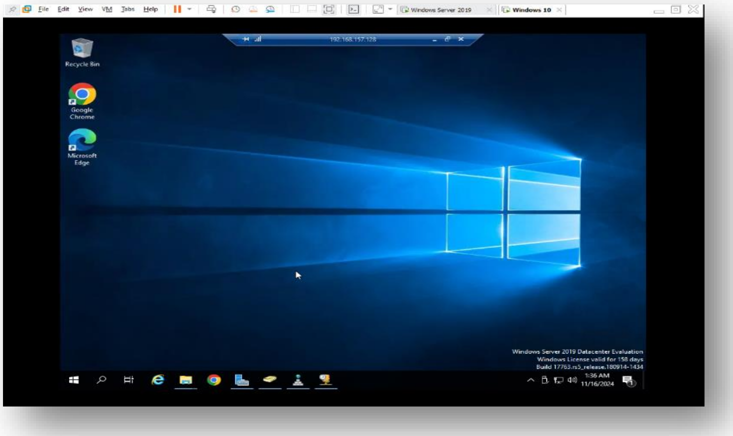
The following errors were encountered while validating the remote computer's certificate:

The certificate is not from a trusted certifying authority.

Do you want to connect despite these certificate errors?

□ Don't ask me again for connections to this computer

  - Click on OK to initiate the Remote Desktop connection to the server.



Windows Server 2019 Datacenter Evaluation
Windows License valid for 158 days
Build 17763.rs5_release.180914-1434

Conclusion:

- **Active Directory (AD) Configuration**:
    - Centralized management system for users, computers, and security policies
    - Advantages of Promoting a Server to the Domain Level. The server can take care of domain-related tasks.
    - Creates and uses OUs and users to give it a structured and meaningful way to organize your network environment
- DNS Configuration:
    - DNS is very critical in solving the domain names to IP addresses, therefore, makes communication within the network efficient and not breaking Installation and configuration of DNS ensures that devices on the network can locate each other efficiently.
- DHCP Configuration:
    - DHCP automatically assigns the IP addresses, thus reduces the work load of an administrator.
    - Use DHCP to set up the scopes and options so that DHCP delivers proper settings for the clients, such as DNS and gateway.
- Configuration of Remote Desktop Services (RDS):
    - RDS allows the user access to servers from a remote location; therefore, users can be in any location and work from there. It is thus more comfortable and easier to work.
    - The related RDS roles, license, and access also need to be correctly configured for efficient and secure remote access to the server environment.
- Simplified Management:
    - configures AD, DNS, DHCP, and RDS to provide network management with more centralization, security, and scale; manage users and resources and secure access to the organisation's services.
- Security and Best Practices:
    - Regular backups, updates, proper access controls secure network and services.
    - The measures provide user-activity monitoring and auditing of DHCP leases and RDS sessions for additional security layers.
- Improved User Experience:
    - This is by proper configuration of RDS and DNS/DHCP settings so that the users connect better and access the resource needed.

The configuration of Active Directory, DNS, DHCP, and Remote Desktop Services in Windows Server 2019 improves the overall efficiency of an organization towards better management of the network while ensuring secure remote access, centralizing user, and resource management.

******Created By Mohammed Navaz Sareef******