

How to Install Active Directory in Windows Server: A Step-by-Step Guide

Introduction

Active Directory (AD) is a critical component of Windows Server that enables centralized management of users, devices, and policies. This guide provides a detailed, step-by-step process to install and configure **Active Directory Domain Services (AD DS)** on Windows Server.

Prerequisites

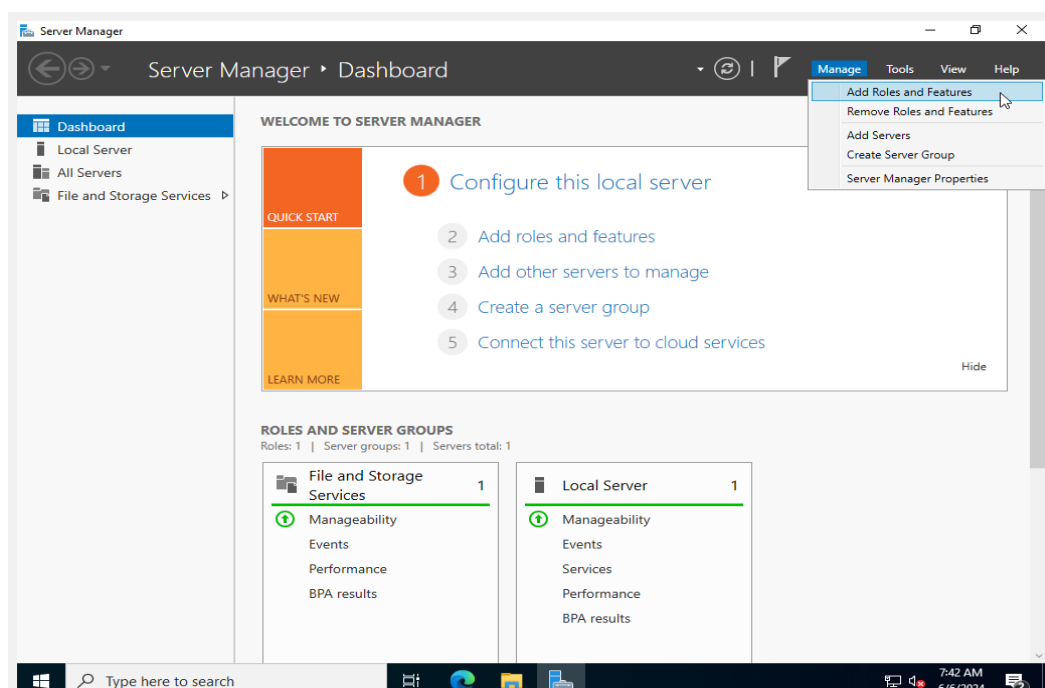
Before proceeding, ensure the following:

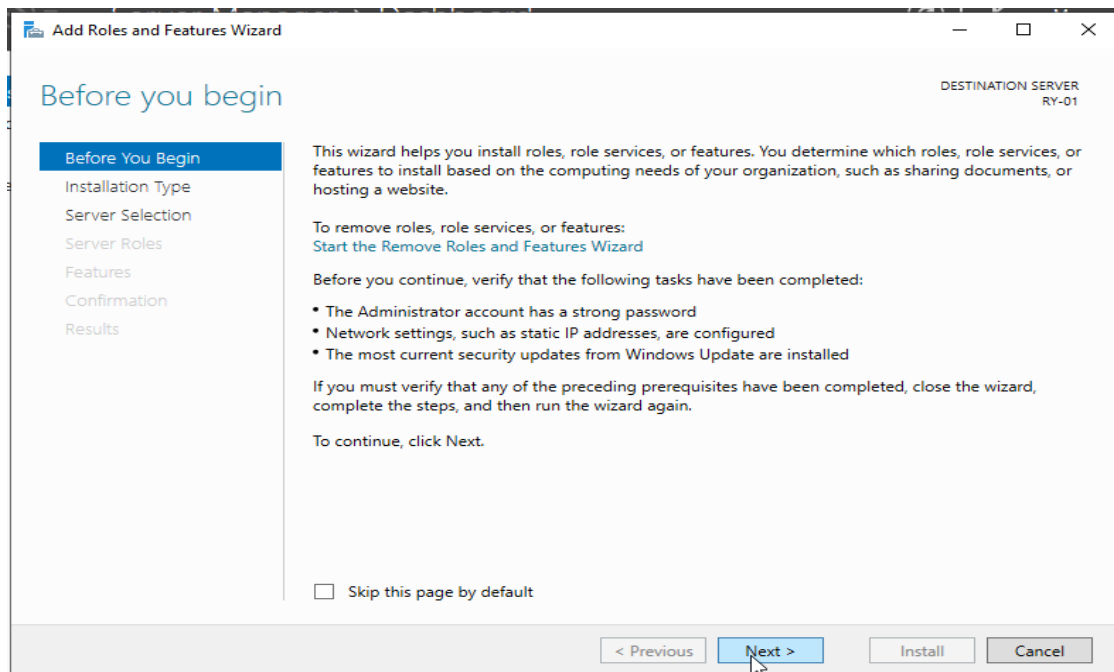
- You have a **Windows Server (2016/2019/2022)** installed and configured.
- The server has a **static IP address** assigned.
- The server has a **strong administrator password** set.
- You have administrative privileges to install roles and features.

Step-by-Step Installation Guide

Step 1: Open Server Manager

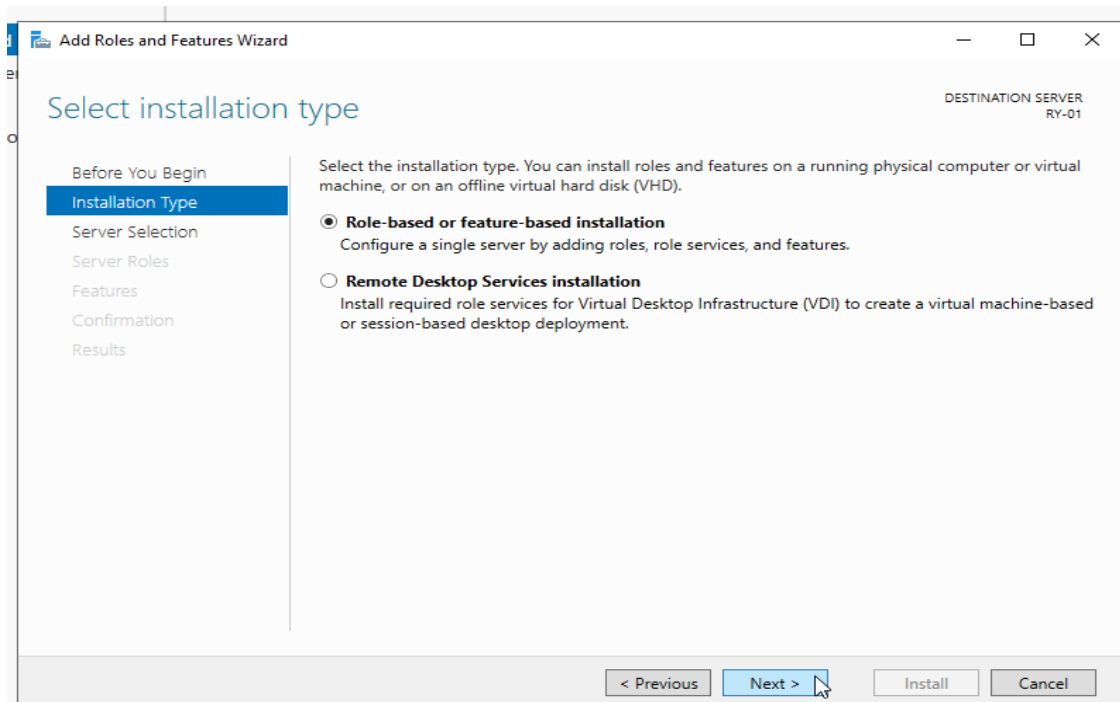
1. Log in to the Windows Server.
2. Open **Server Manager** from the taskbar or Start menu.
3. Click **Manage** (top-right corner) and select **Add Roles and Features**.
4. Click **Next** to proceed.





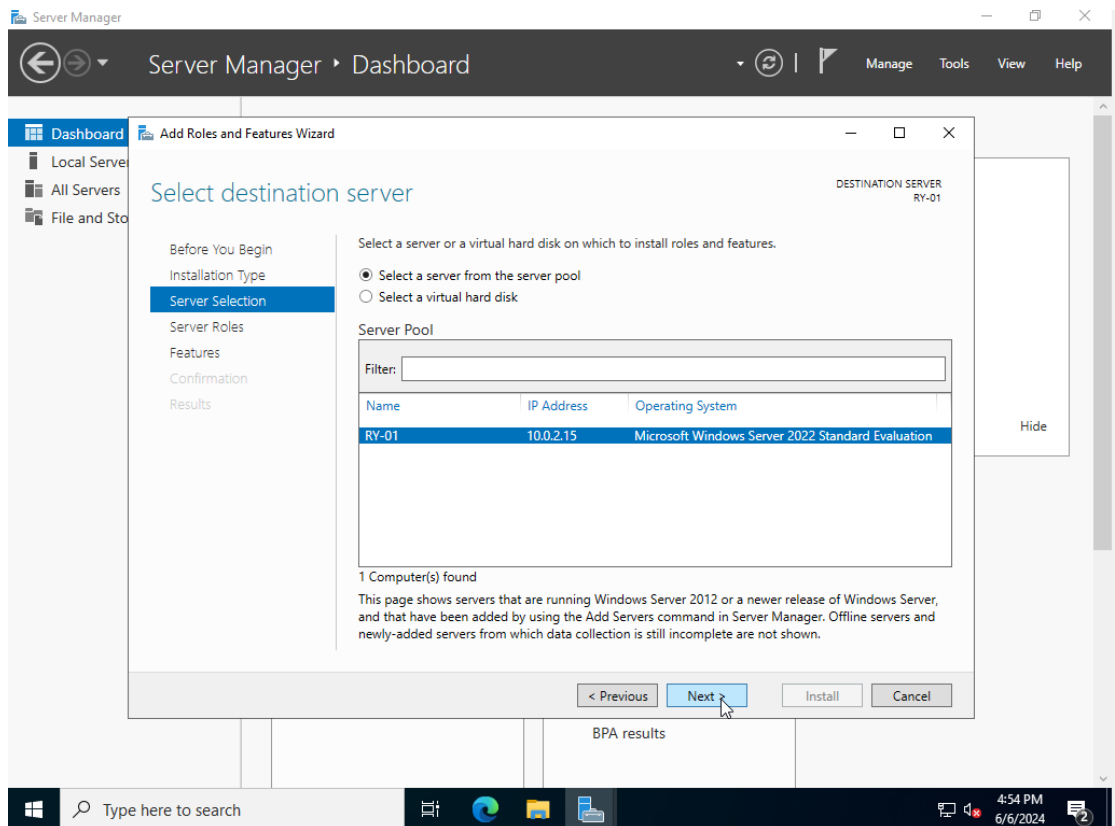
Step 2: Select Installation Type

1. Choose **Role-based or feature-based installation**.
2. Click **Next**.



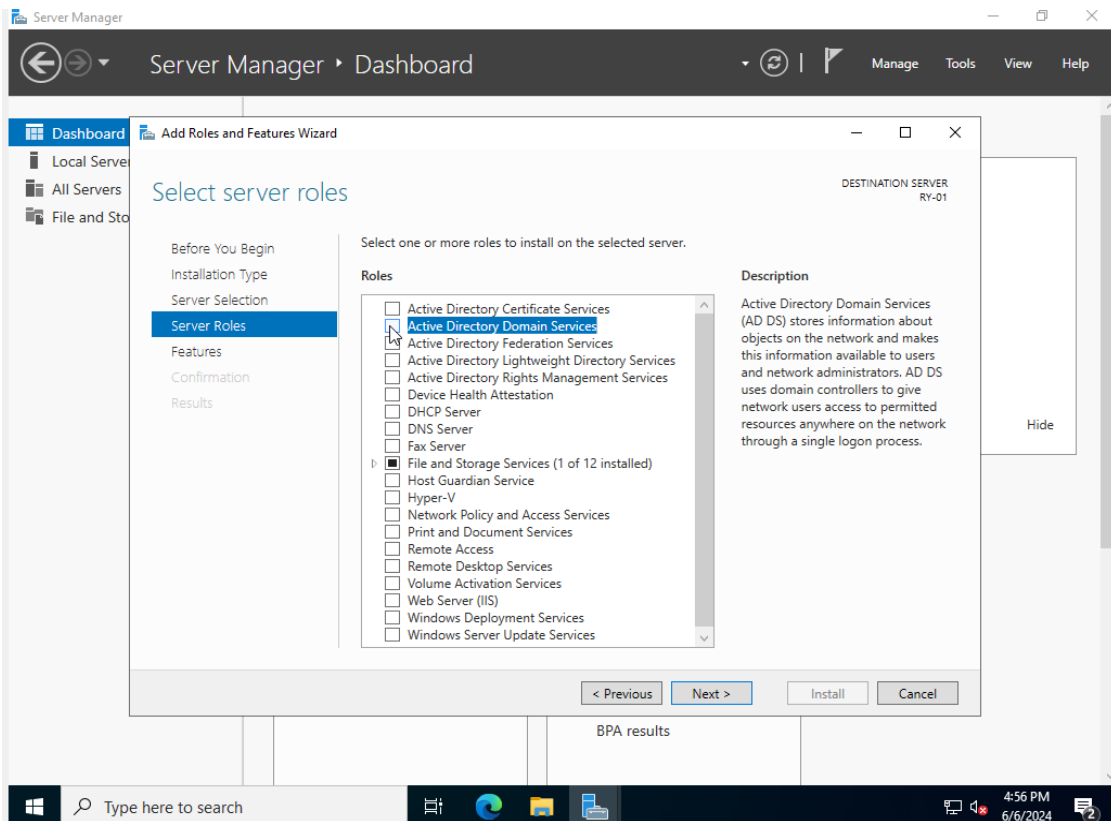
Step 3: Select Destination Server

1. Select your server from the **server pool**.
2. Click **Next**.



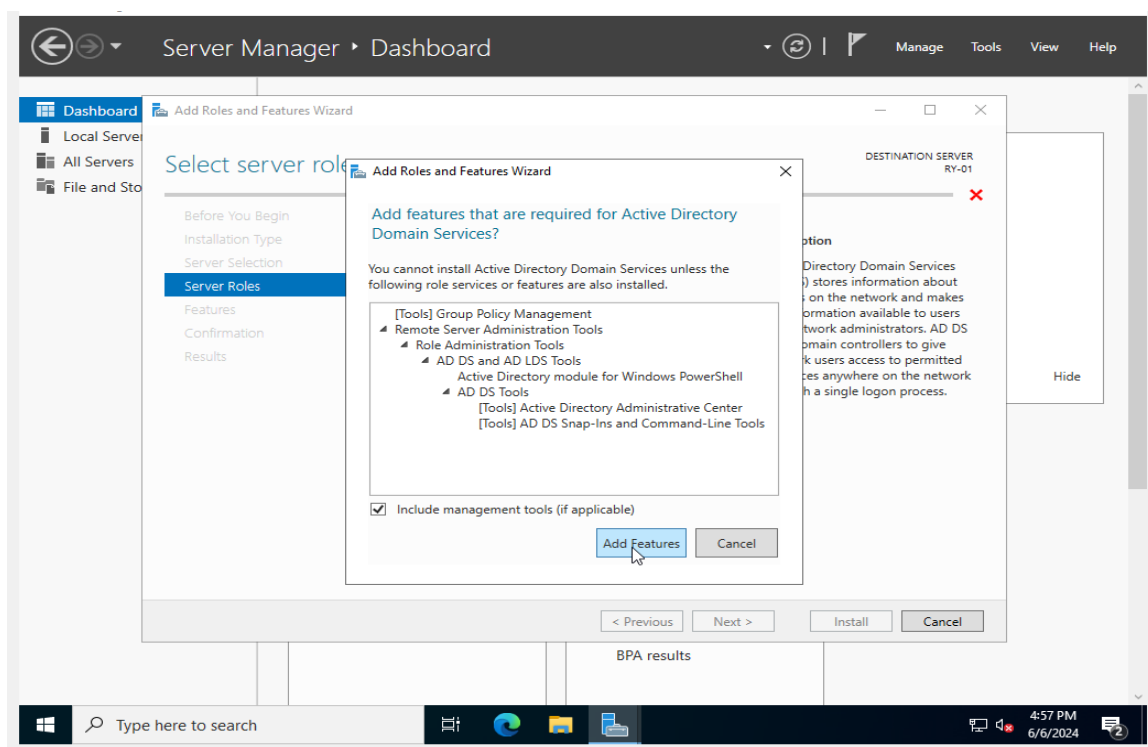
Step 4: Install Active Directory Domain Services (AD DS)

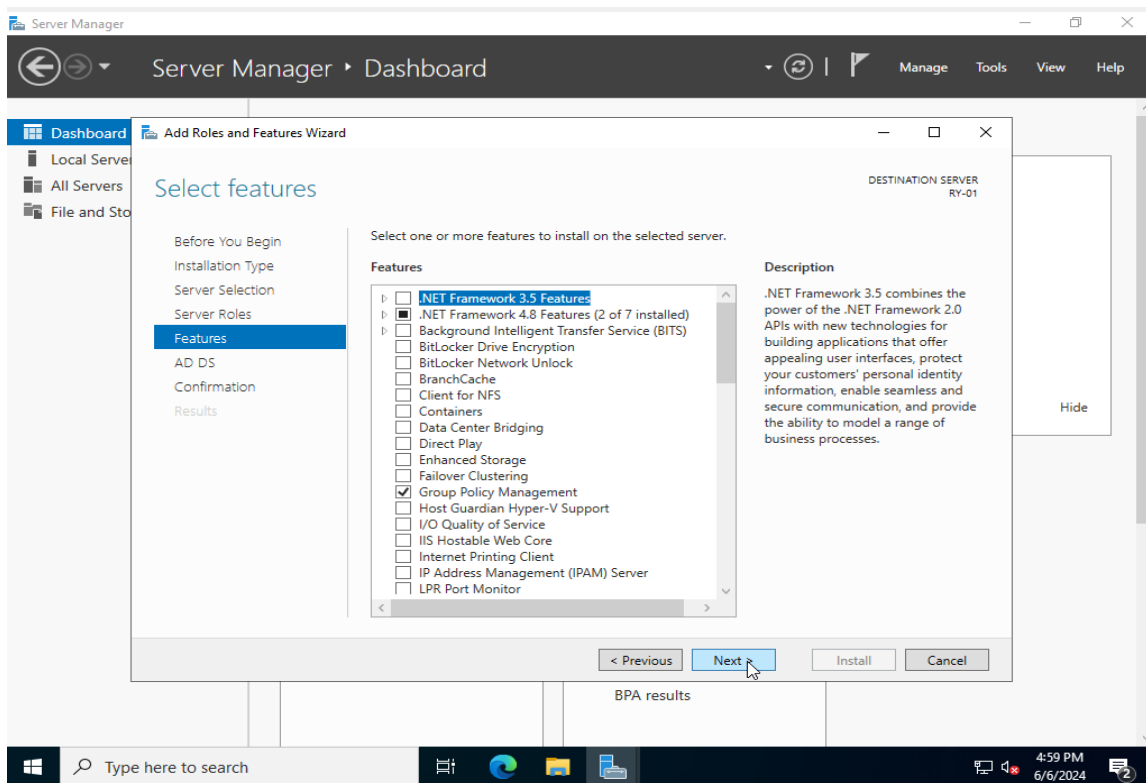
1. In the **Select server roles** screen, check the box for **Active Directory Domain Services**.
2. A pop-up window will appear. Click **Add Features** to install necessary dependencies.
3. Click **Next**.



Step 5: Add Required Features

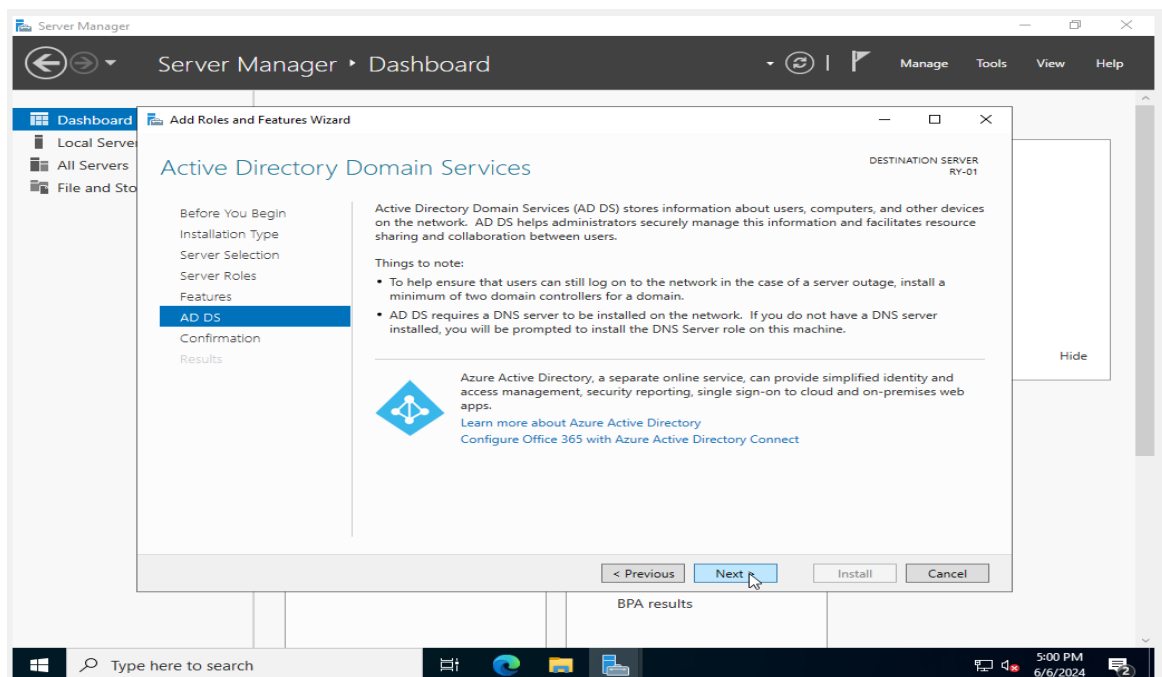
1. Review the additional features required for AD DS.
2. Ensure all necessary features are selected.
3. Click **Next**.





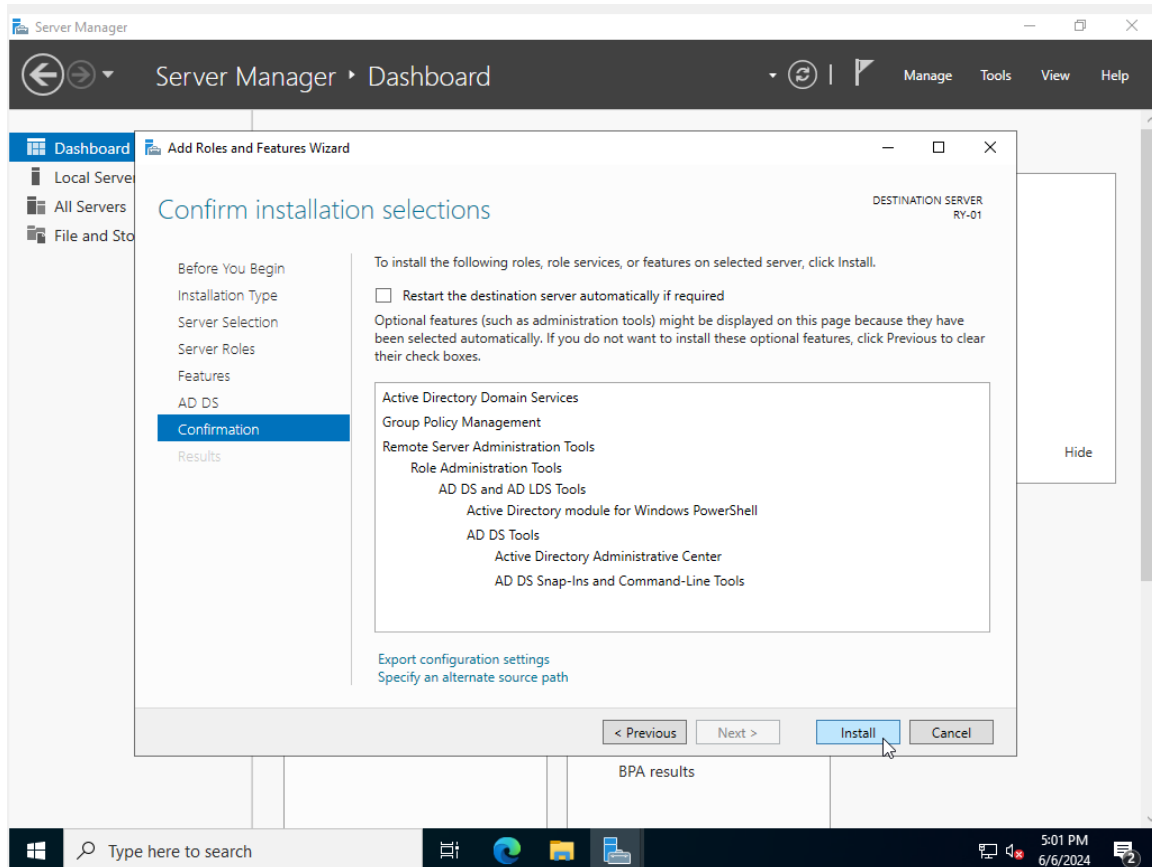
Step 6: Review AD DS Overview

1. Read the summary of **Active Directory Domain Services** features.
2. Click **Next**.



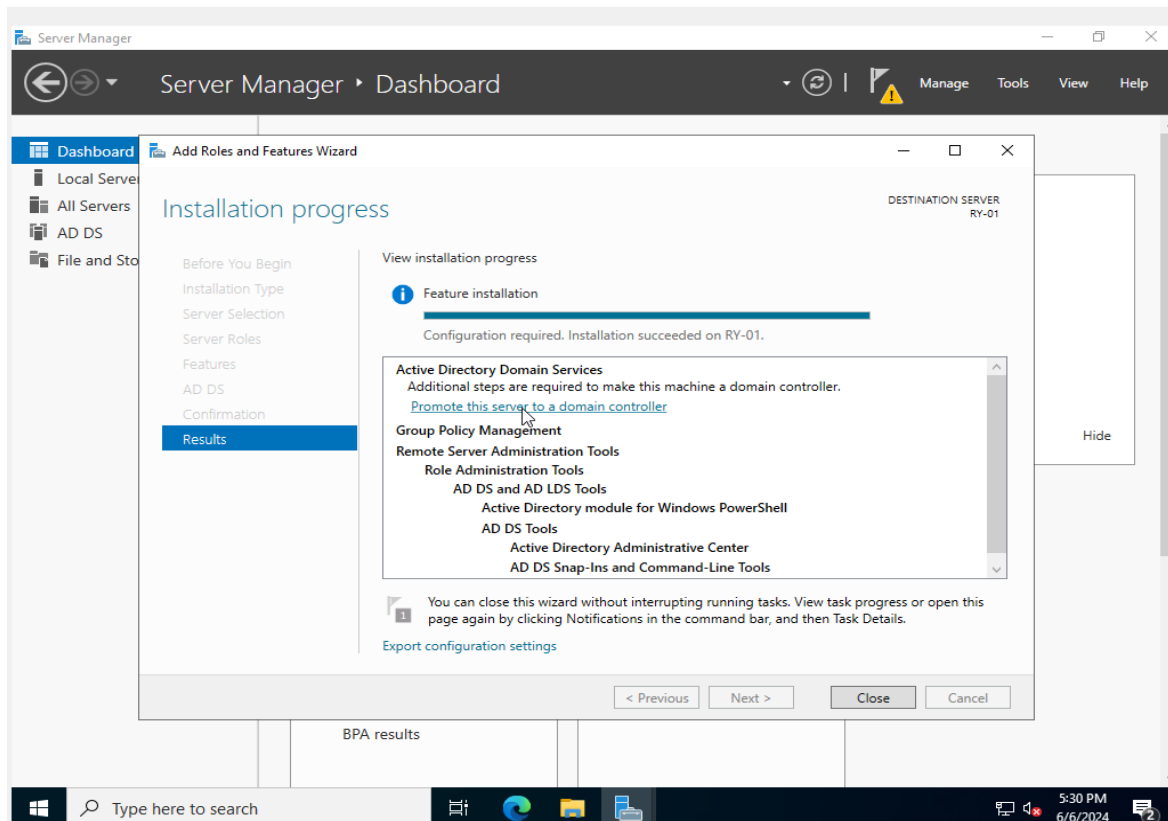
Step 7: Confirm and Install

1. Review your selections.
2. Check **Restart the destination server automatically if required** (optional but recommended).
3. Click **Install**.



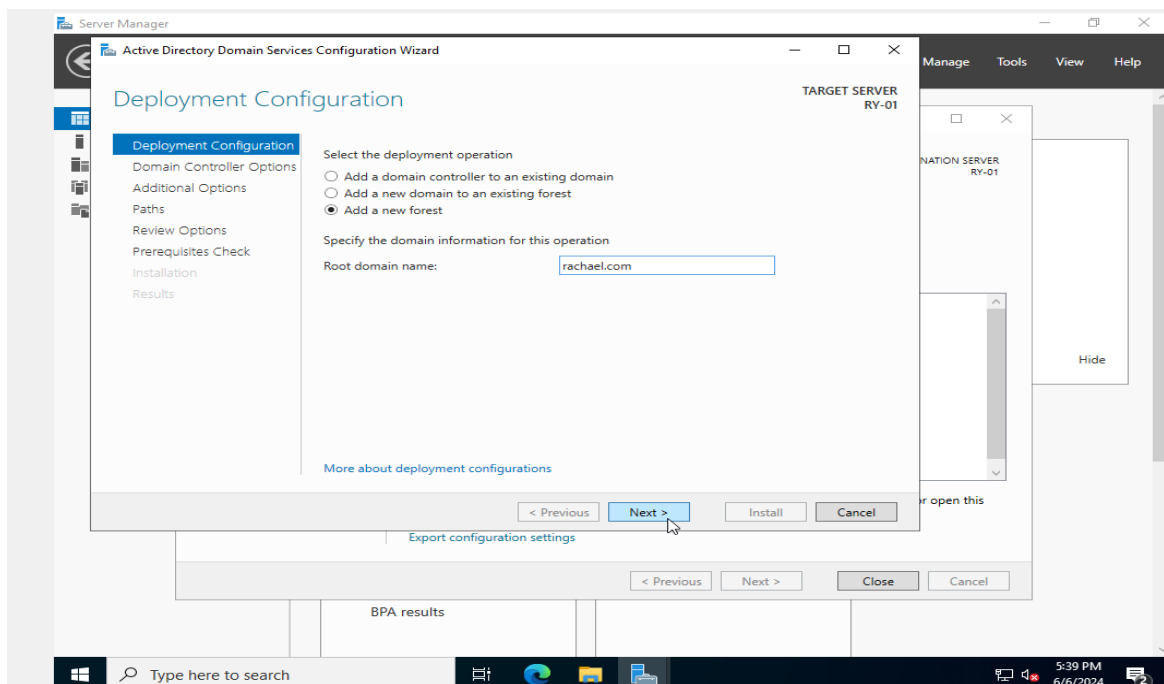
Step 8: Promote Server to a Domain Controller

1. Once the installation completes, click **Promote this server to a domain controller** (available in Server Manager notifications).



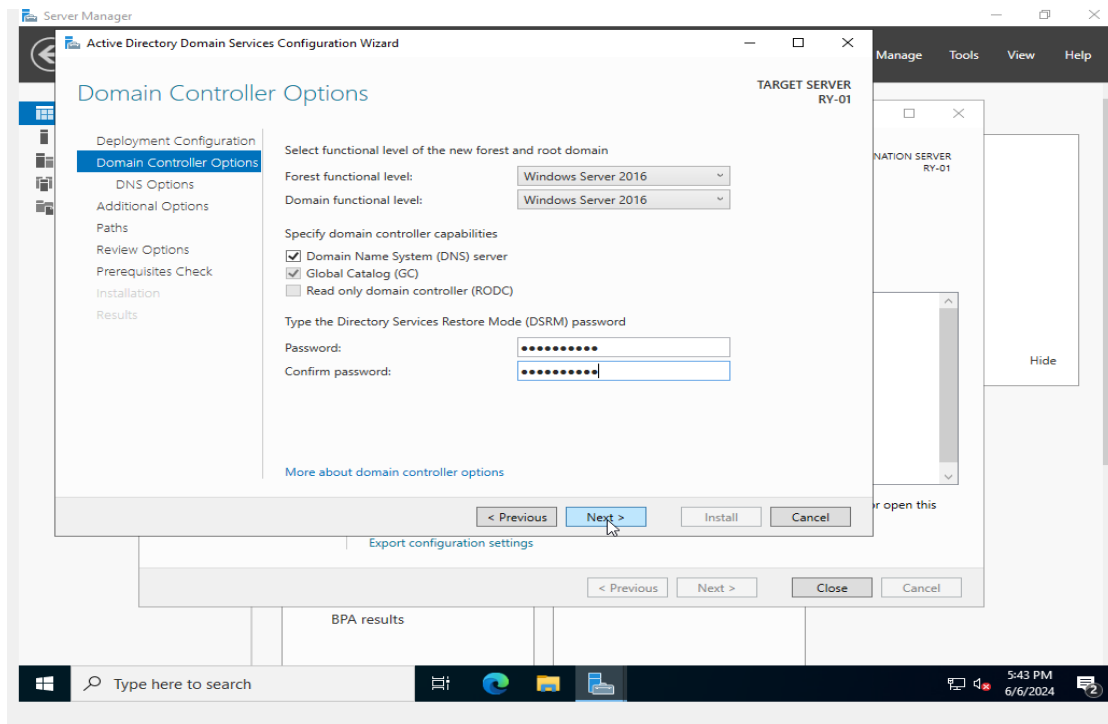
Step 9: Configure Deployment

1. Choose **Add a new forest**.
2. Enter your desired **Root domain name** (e.g., example.com).
3. Click **Next**.



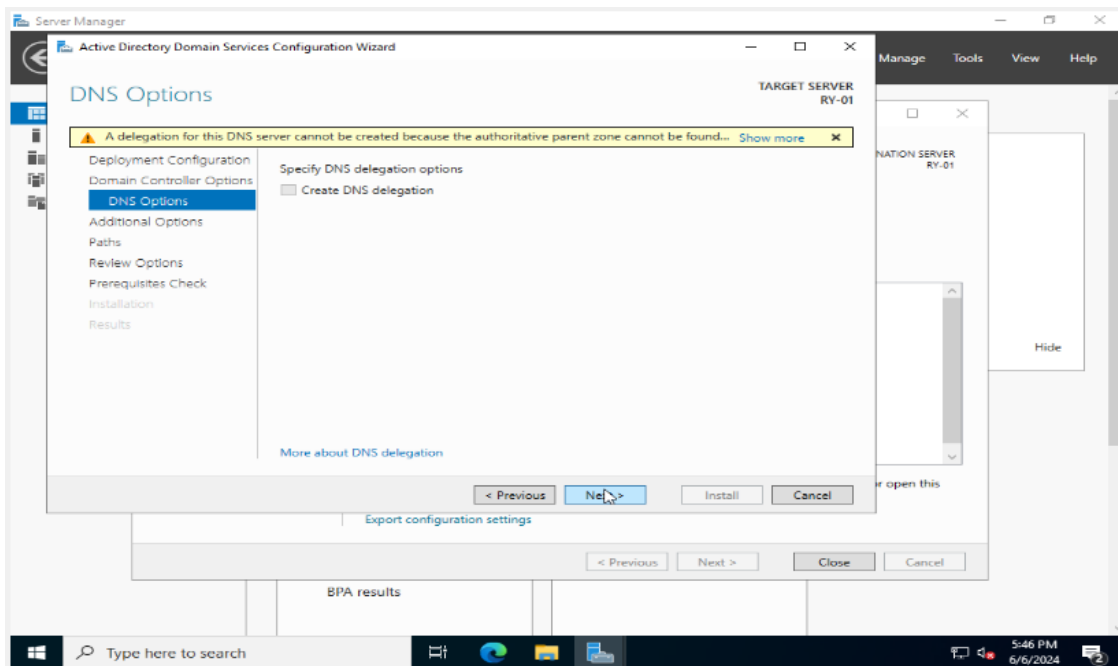
Step 10: Configure Domain Controller Options

1. Select the **Forest Functional Level** and **Domain Functional Level** (default settings are fine unless otherwise required).
2. Ensure **Domain Name System (DNS) server** is checked.
3. Enter a **Directory Services Restore Mode (DSRM) password** (used for AD recovery operations).
4. Click **Next**.



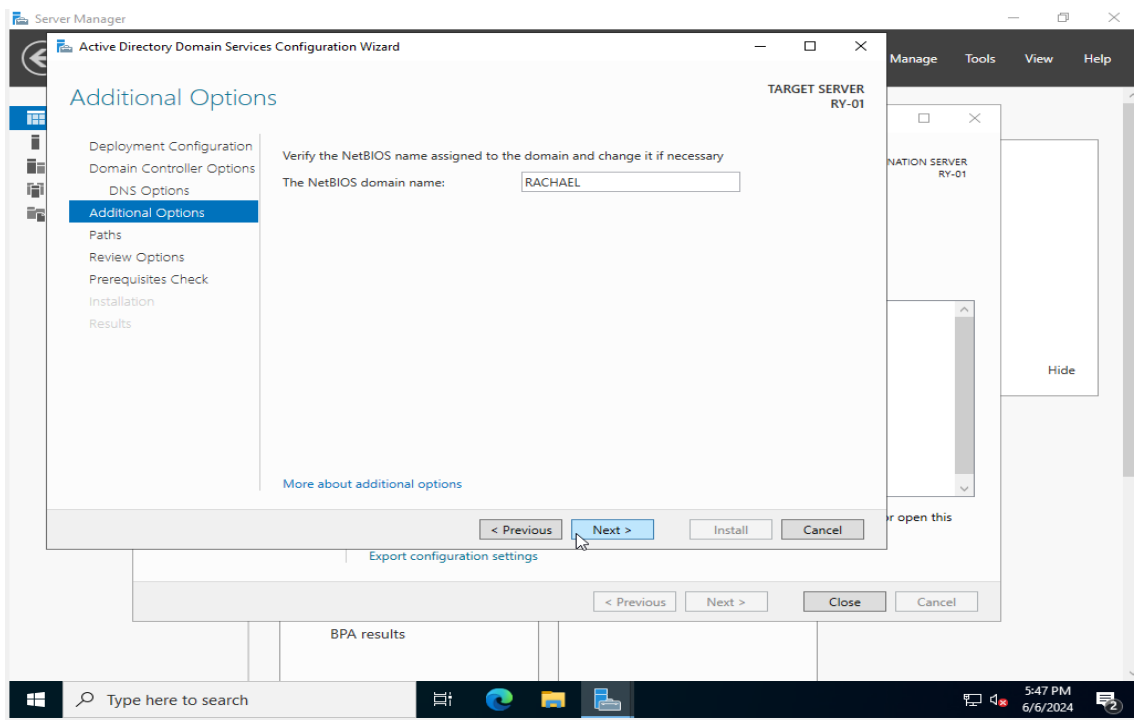
Step 11: Configure DNS Options

1. If prompted about a DNS delegation warning, click **Next** (this is normal if no existing DNS infrastructure exists).



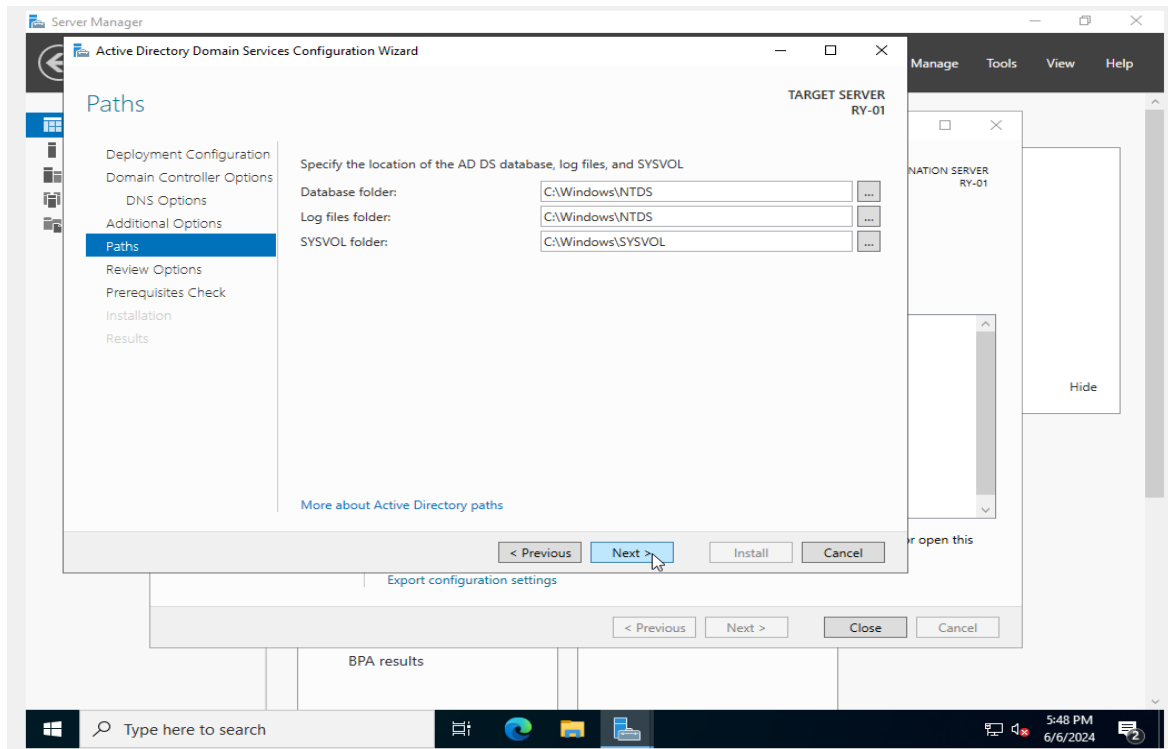
Step 12: Configure NetBIOS Name

1. Review the suggested **NetBIOS domain name**.
2. Click **Next**.



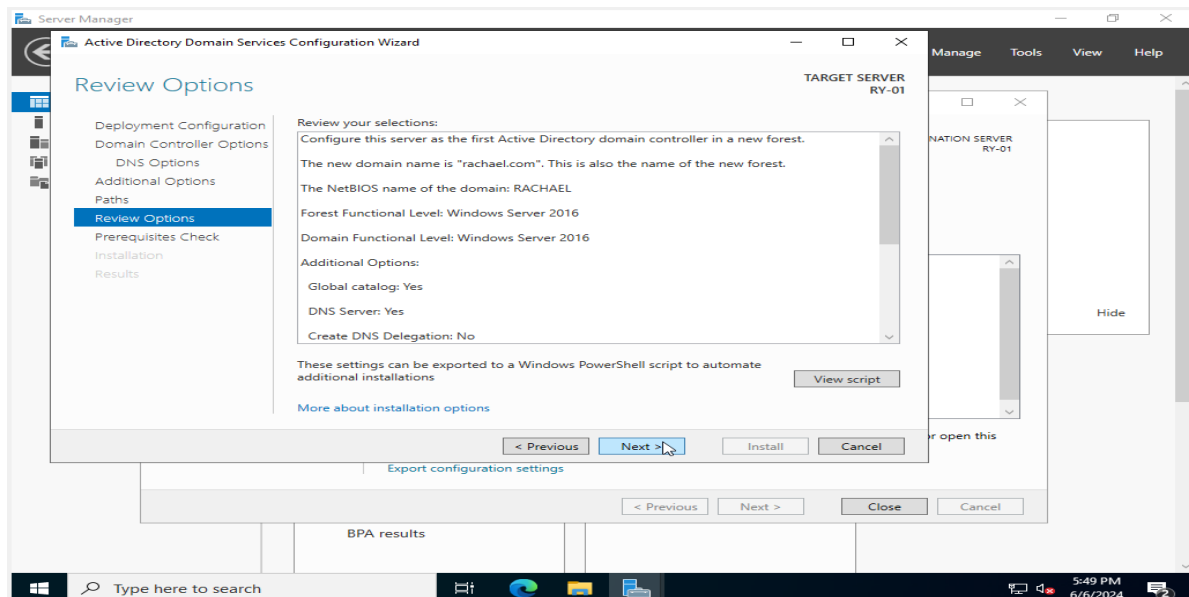
Step 13: Configure Database, Log, and SYSVOL Paths

1. Leave the default paths for:
 - **Database folder** (C:\Windows\NTDS)
 - **Log files folder** (C:\Windows\NTDS)
 - **SYSVOL folder** (C:\Windows\SYSVOL)
2. Click **Next**.



Step 14: Review Configuration

1. Review the settings summary and Click **Next**.

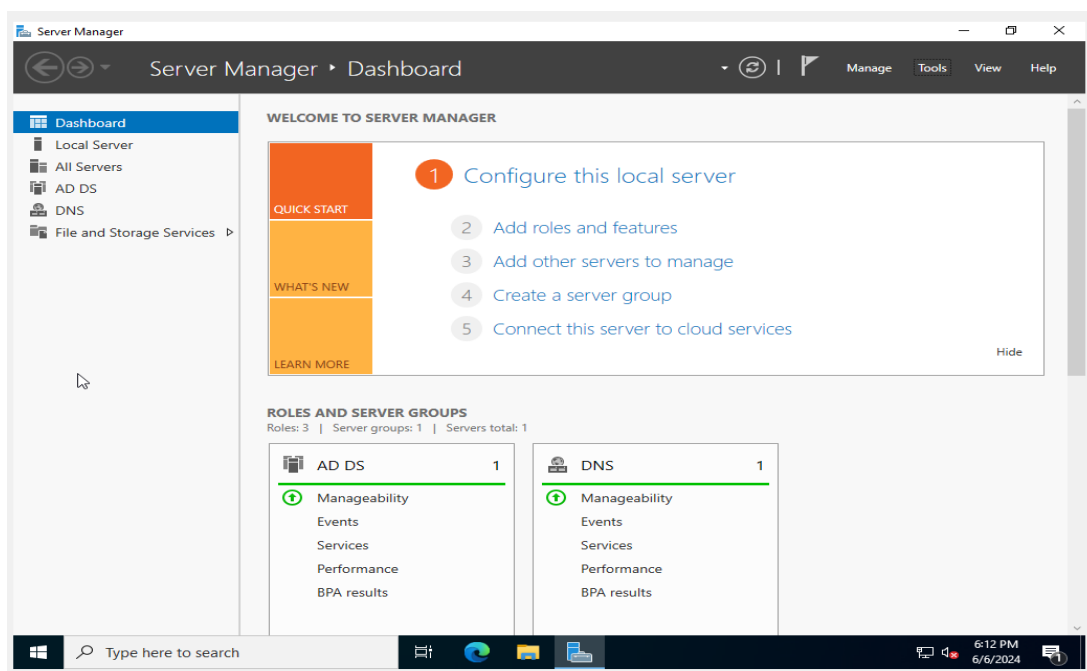


Step 15: Perform Prerequisites Check

1. Wait for the system to verify prerequisites.
2. If warnings appear, review them (most can be ignored, but critical errors must be resolved).
3. Click **Install**.

Step 16: Complete Installation & Restart

1. Once installation is complete, the server **will automatically restart**.
2. After restarting, log in using the **domain administrator account**.
3. Open **Server Manager** → Click **Tools** → Select **Active Directory Users and Computers** to verify AD installation.



Conclusion

By following these steps, you have successfully installed and configured **Active Directory Domain Services (AD DS)** on your Windows Server. You can now manage users, groups, and security policies within your domain.

Next Steps

- Configure **Group Policies (GPO)** for security and user management.
- Set up **additional Domain Controllers** for redundancy.
- Integrate **DNS and DHCP services** for network efficiency.
- Regularly **back up Active Directory** to prevent data loss.