Active Directory Bootcamp Report

A Comprehensive Guide to Installation and Configuration

Task:

Setup and Configuration of Windows Server 2025, Windows 10 Workstation, Organizational Units (OUs), and Group Policy Objects (GPOs)

Prepared by:
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January 19, 2025

1. Introduction

Purpose

The purpose of this report is to provide a comprehensive guide for setting up and configuring Windows Server 2025, Windows 10 Workstation, creating Organizational Units (OUs), and configuring Group Policy Objects (GPOs). This document is intended to serve as a detailed walkthrough for IT professionals and system administrators who are responsible for managing Active Directory and related components within an organization.

Scope

This report covers the step-by-step process of:

- Installing and configuring Windows Server 2025.
- Setting up a Windows 10 Workstation.
- Creating and organizing Organizational Units (OUs) in Active Directory.
- Configuring Group Policy Objects (GPOs) to manage settings and policies for users and computers.

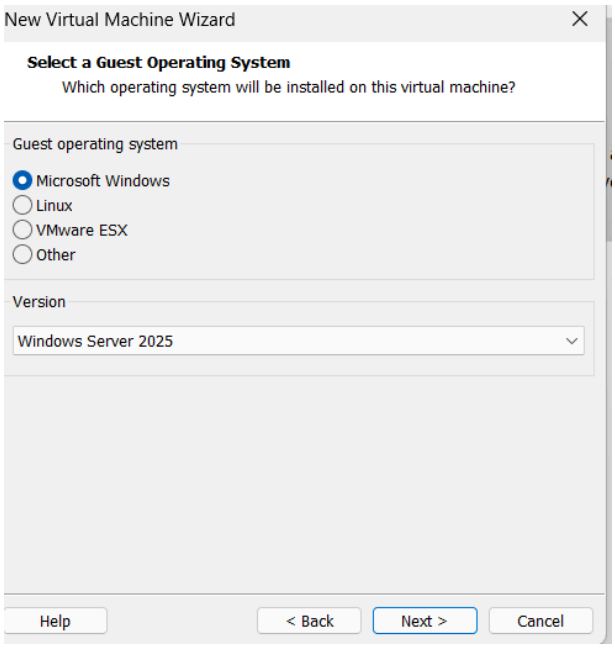
2. Setting Up Windows Server 2025:

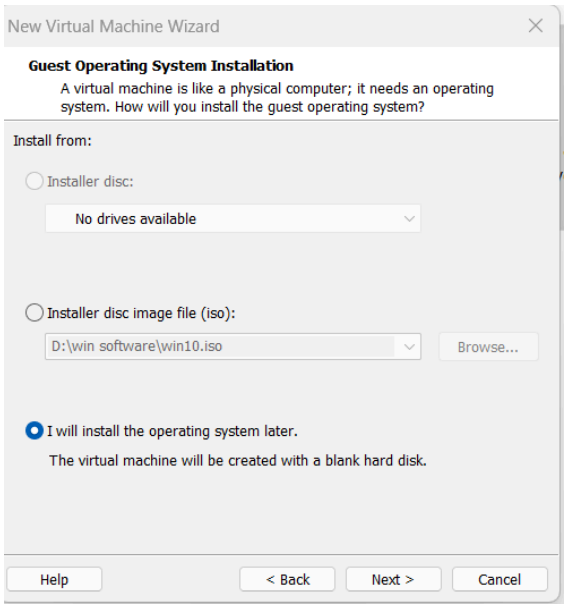
Step 1: Preparing for Installation:

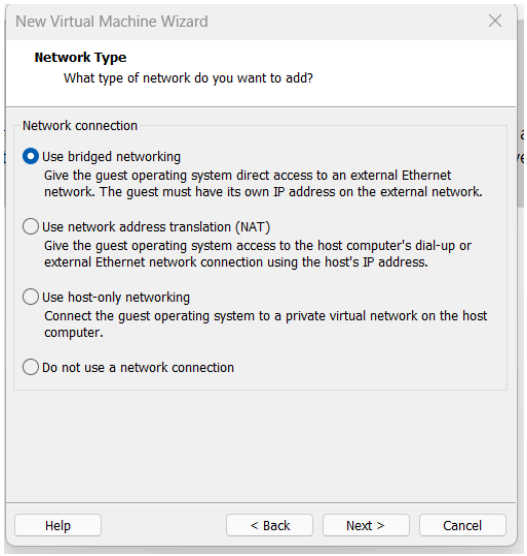
1. **Download the ISO**: Visit the Microsoft Evaluation Center and download the Windows Server 2025 ISO file.
2. **Create a VM** : Use a tool like VMware Workstation Pro to create a virtual machine (VM) .

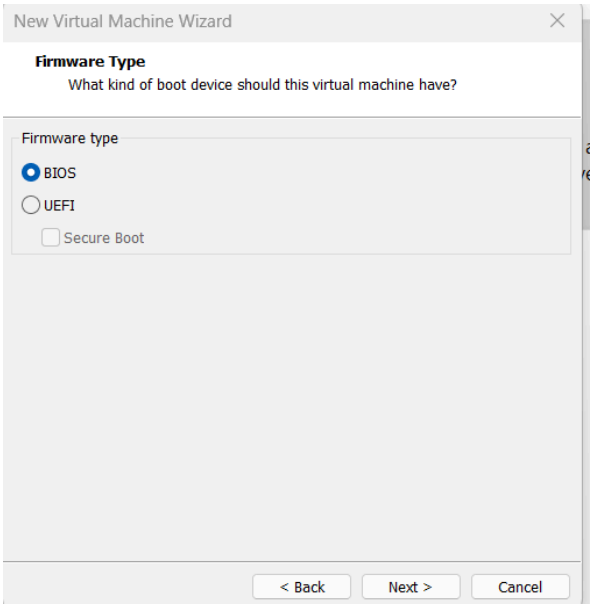
Step 2: Installing Windows Server 2025:

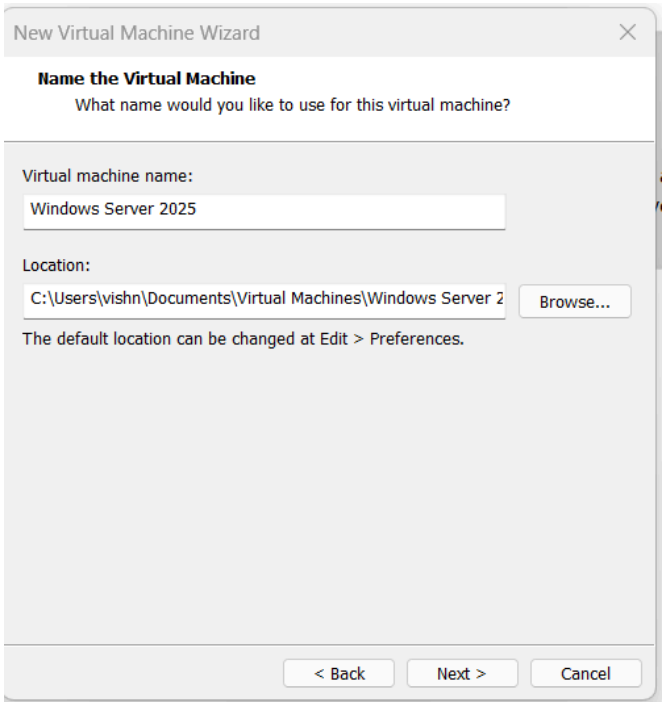
1. **Boot from ISO:** Mount the ISO file and boot from it.
2. **Configure Installation Settings**: Set the language, time, and currency format, as well as the keyboard or input method.
3. **Select Installation Type**: Choose Custom: Install Windows only (advanced).
4. **Partition the Disk**: Select the partition where you want to install Windows Server 2025 and click "Next".
5. **Complete Installation**: Follow the prompts to complete the installation process.







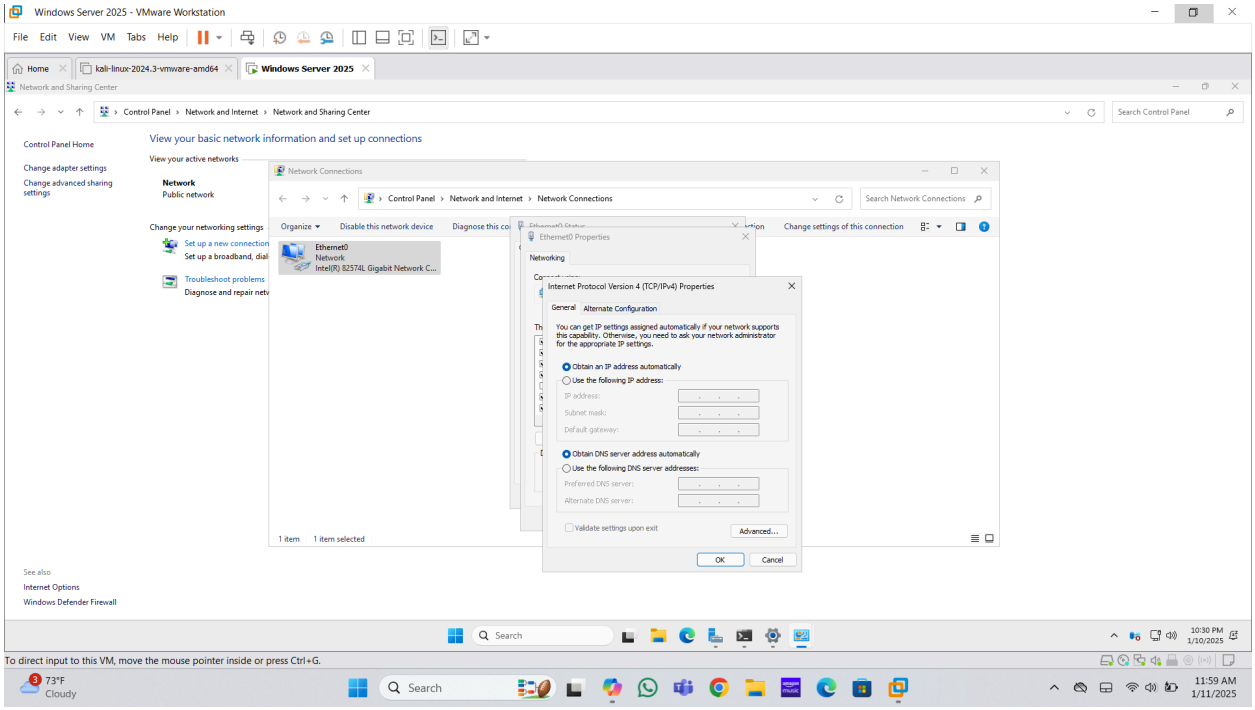


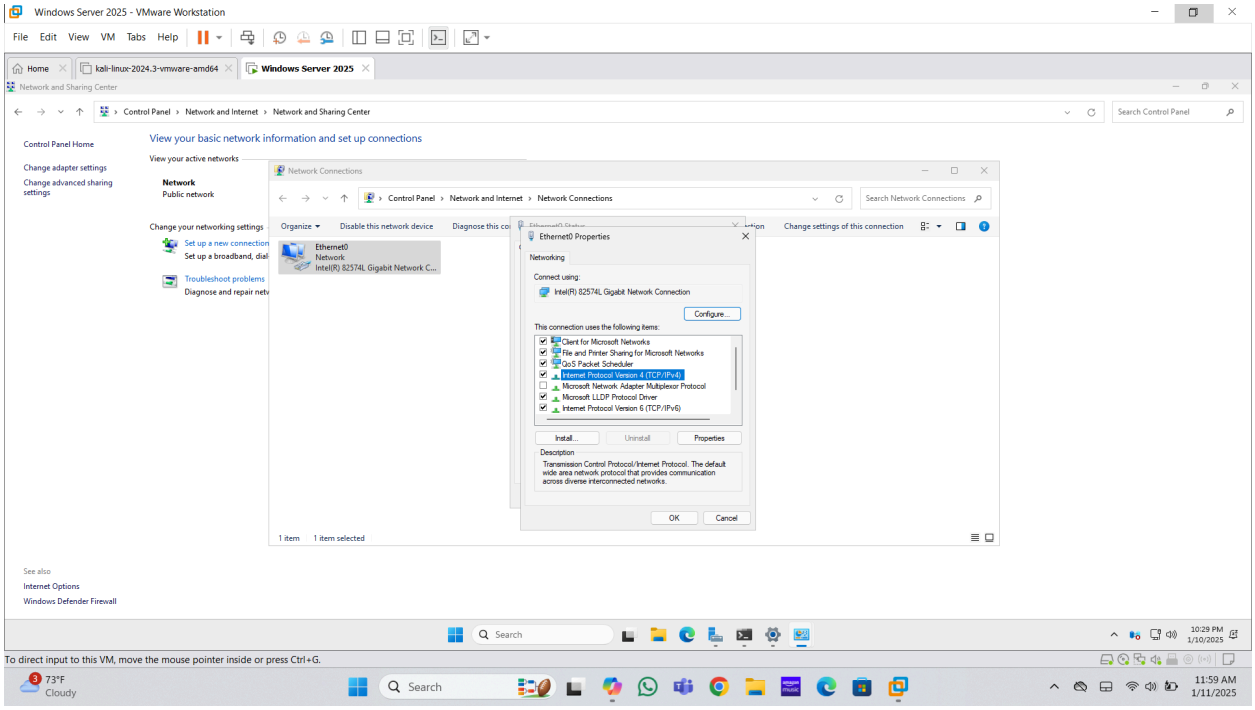


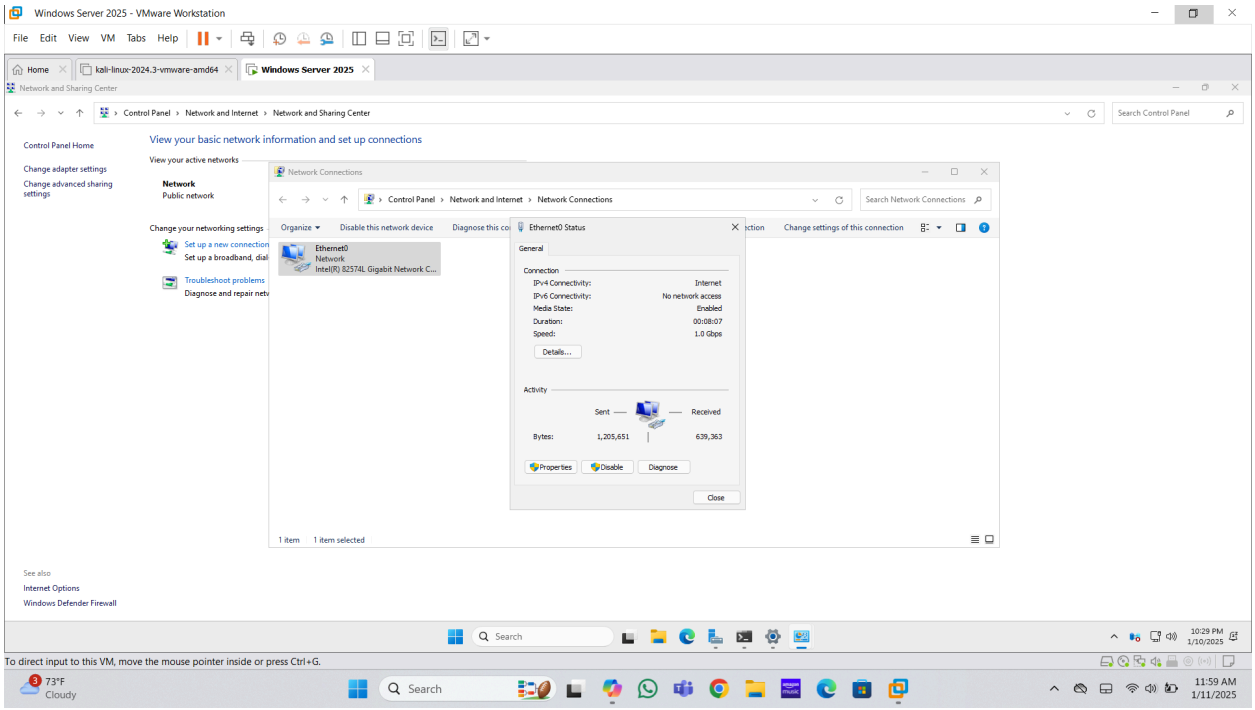
3. Post-Installation Configuration

1. **Create Administrator Account**: Set up an administrator account with a strong password.
2. **Network Configuration**: Configure network settings, including IP address, DNS, and default gateway.
3. **Install Updates**: Run Windows Update to install the latest updates and patches.

4. **Enable Remote Desktop**: Enable Remote Desktop if you need to access the server remotely.
5. Rename the server to WIN2025.
6. Setup static ip address.




Windows Server 2025 - VMware Workstation
File Edit View VM Tabs Help
Home
kali-linux-2024.3-vmware-amd64
Windows Server 2025
Network and Sharing Center
Control Panel › Network and Internet › Network and Sharing Center
Search Control Panel
Control Panel Home
Change adapter settings
Change advanced sharing settings
View your basic network information and set up connections
View your active networks
Network
Public network
Change your networking settings
Set up a new connection
Set up a broadband, dial
Troubleshoot problems
Diagnose and repair netv
Network Connections
Control Panel › Network and Internet › Network Connections
Search Network Connections
Organize
Disable this network device
Diagnose this co
Change settings of this connection
Ethernet0
Network
Intel(R) 82574L Gigabit Network C...
Ethernet0 Properties
Networking
Connect using:
Intel(R) 82574L Gigabit Network Connection
Configure...
This connection uses the following items:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
QoS Packet Scheduler
Internet Protocol Version 4 (TCP/IPv4)
Microsoft Network Adapter Multiplexor Protocol
Microsoft LLDP Protocol Driver
Internet Protocol Version 6 (TCP/IPv6)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK
Cancel
1 item
1 item selected
See also
Internet Options
Windows Defender Firewall
Search
10:29 PM
1/10/2025
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
73°F
Cloudy
Search
11:59 AM
1/11/2025


Windows Server 2025 - VMware Workstation
File Edit View VM Tabs Help
Home
kali-linux-2024.3-vmware-amd64
Windows Server 2025
Network and Sharing Center
Control Panel › Network and Internet › Network and Sharing Center
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Set up a new connection
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Troubleshoot problems
Diagnose and repair netv
Network Connections
Control Panel › Network and Internet › Network Connections
Search Network Connections
Organize
Disable this network device
Diagnose this co
Change settings of this connection
Ethernet0
Network
Intel(R) 82574L Gigabit Network C...
Ethernet0 Status
General
Connection
IPv4 Connectivity: Internet
IPv6 Connectivity: No network access
Media State: Enabled
Duration: 00:08:07
Speed: 1.0 Gbps
Details...
Activity
Sent
Received
Bytes: 1,205,651
639,363
Properties
Disable
Diagnose
Close
1 item
1 item selected
See also
Internet Options
Windows Defender Firewall
Search
10:29 PM
1/10/2025
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
73°F
Cloudy
Search
11:59 AM
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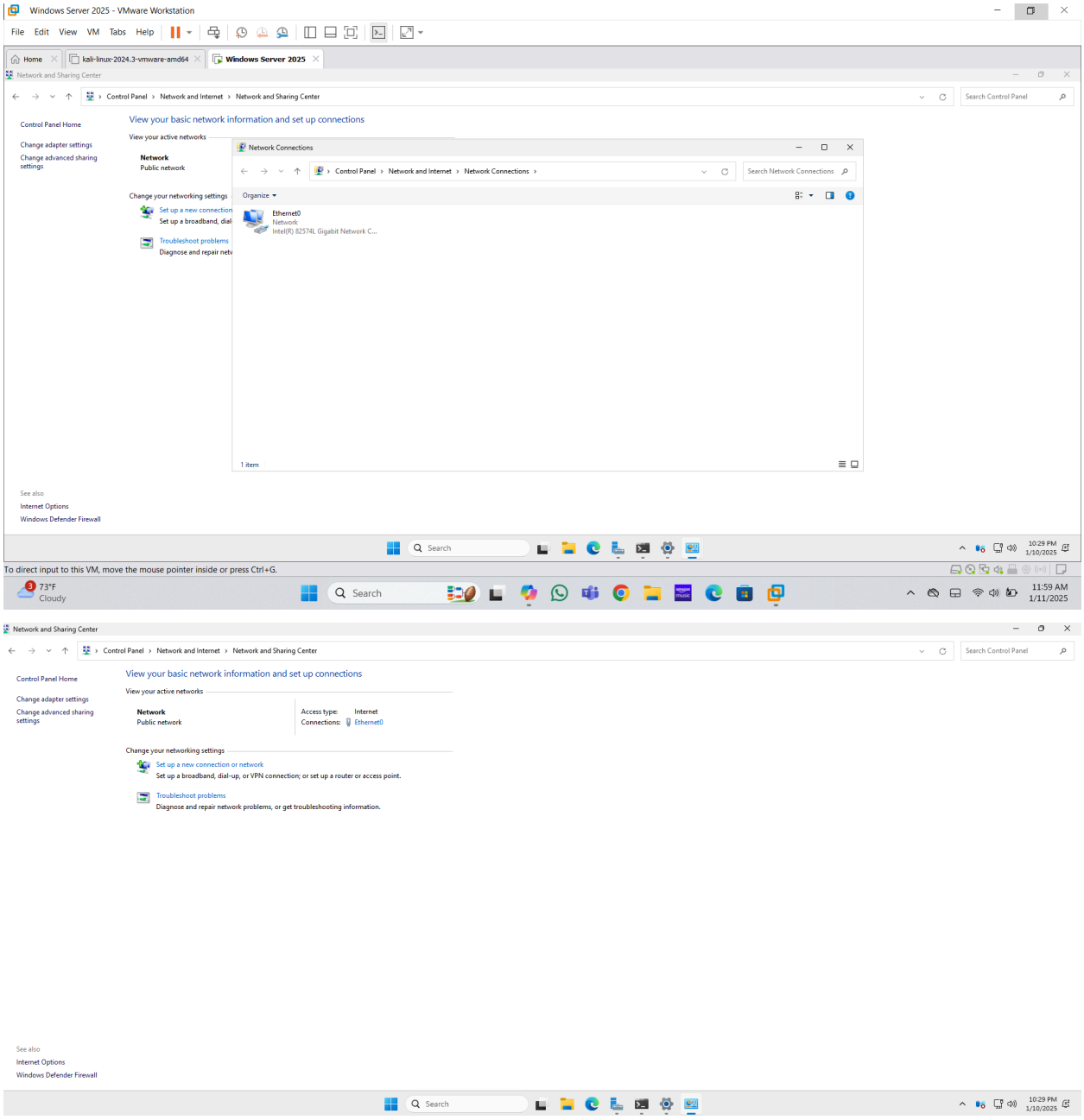
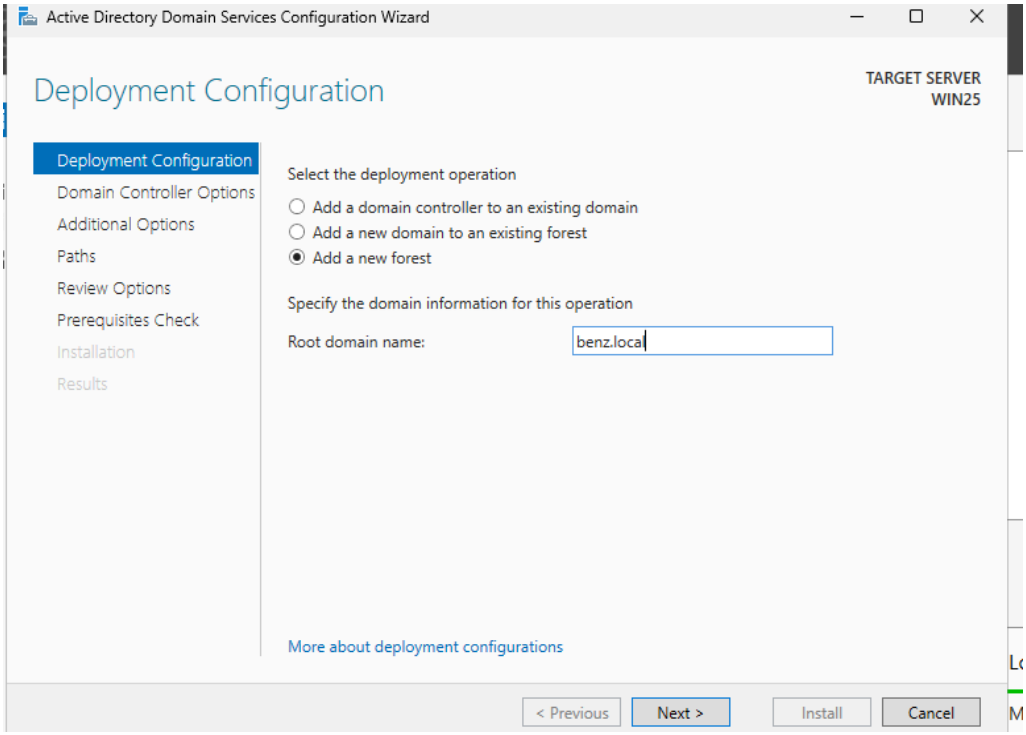
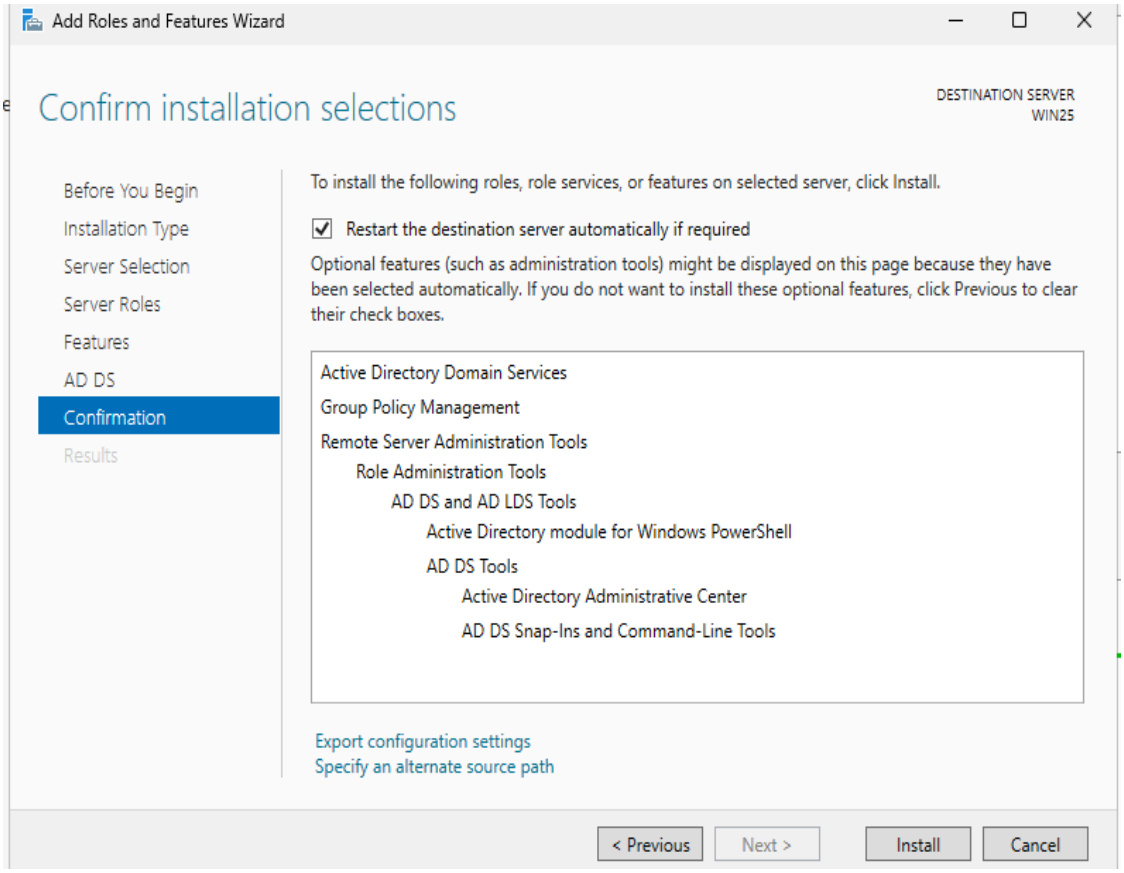
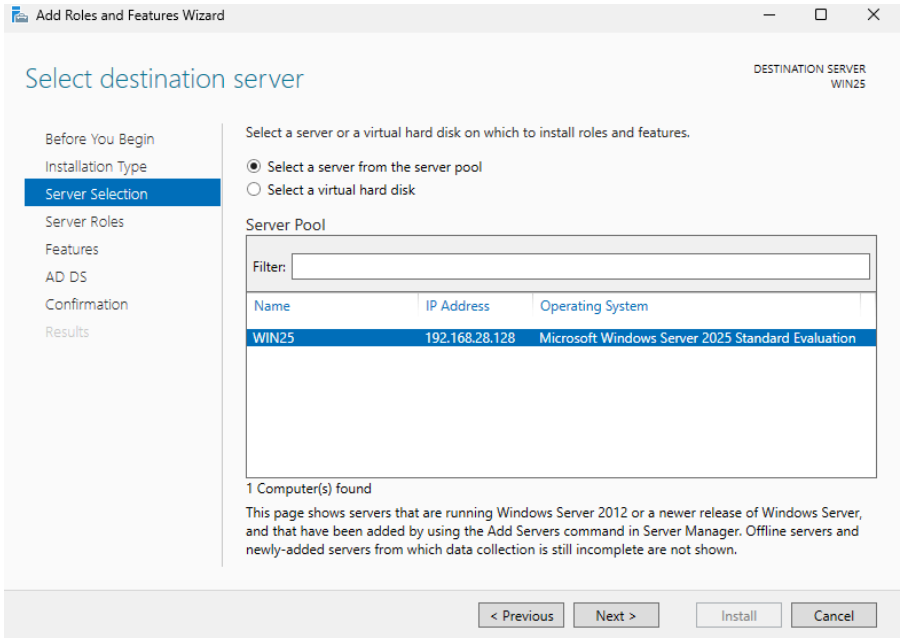


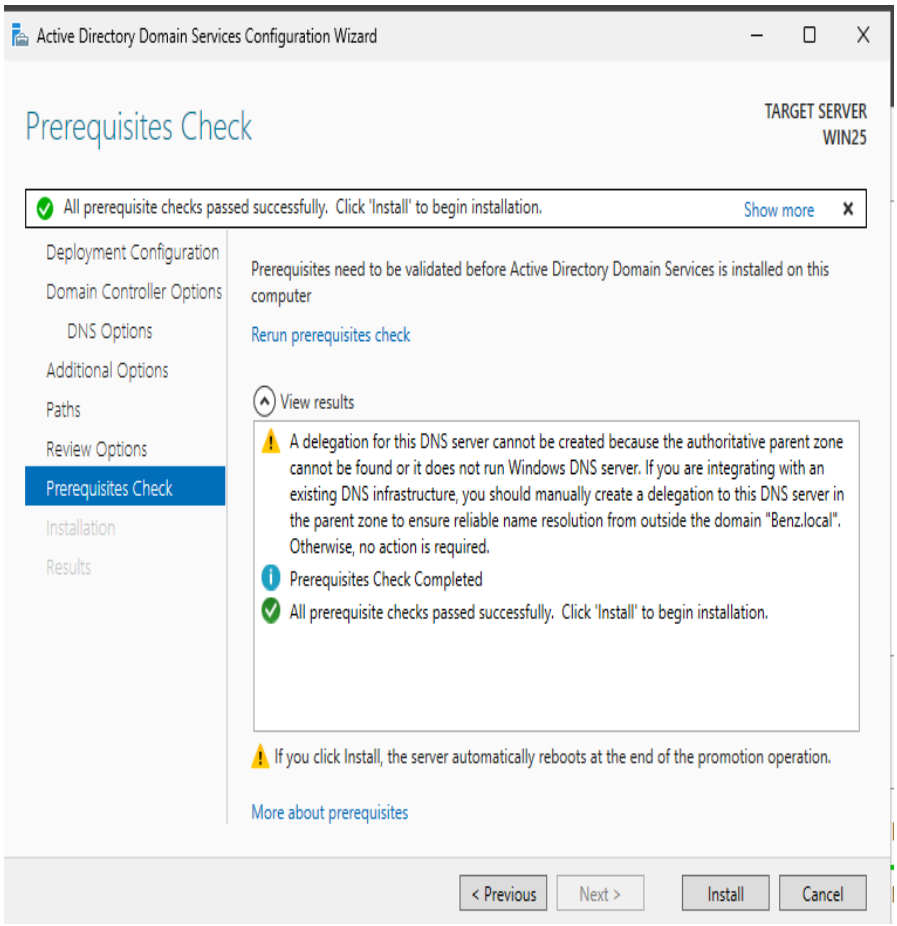
4 . Install Active Directory Domain Services

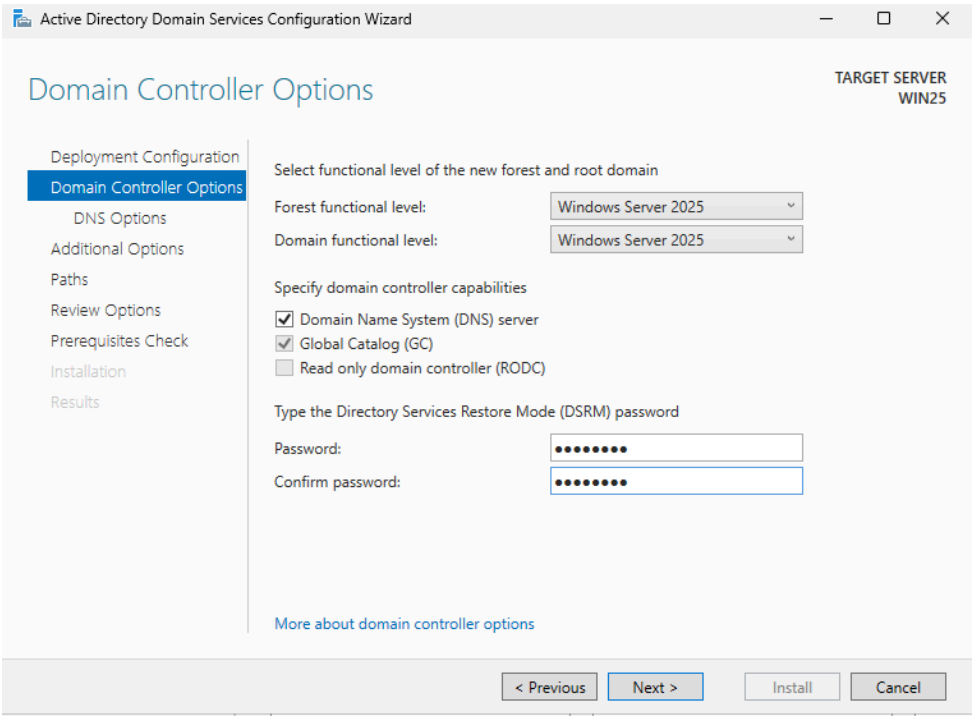
1. **Open Server Manager**: Launch server manager from taskbar.
2. **Add Roles and Features**: click on tools and select roles and features.
3. **Installation Type**: Role based.
4. **Server Selection:** Choose your server.
5. **Server Roles:**Select Active directory domain services.
6. Confirm installation and wait for the installation to complete.
7. **Choose Deployment Configuration**: Add new forest for setting up a new domain.
8. **Review and install**:click on install to complete the process

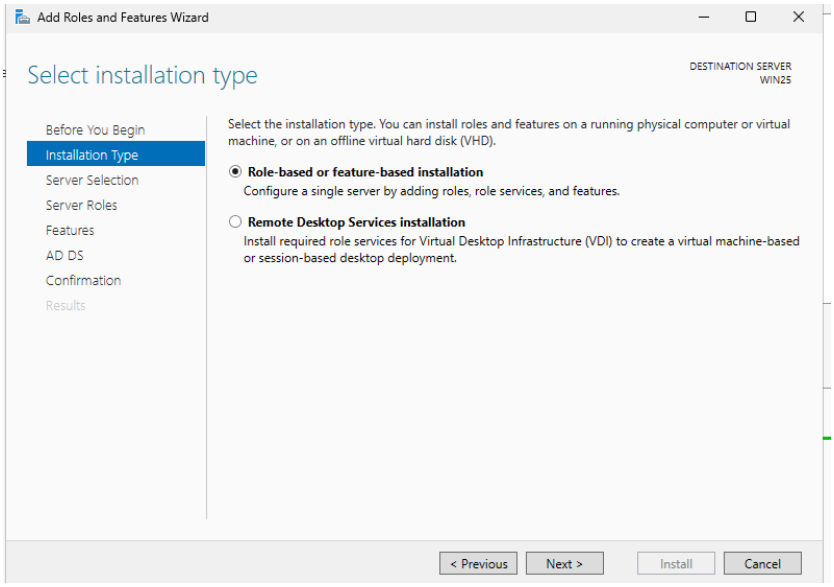

Active Directory Domain Services Configuration Wizard
Deployment Configuration
TARGET SERVER
WIN25
Deployment Configuration
Domain Controller Options
Additional Options
Paths
Review Options
Prerequisites Check
Installation
Results
Select the deployment operation
Add a domain controller to an existing domain
Add a new domain to an existing forest
Add a new forest
Specify the domain information for this operation
Root domain name:
benz.local
More about deployment configurations
< Previous
Next >
Install
Cancel


Add Roles and Features Wizard
Confirm installation selections
DESTINATION SERVER
WIN25
Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results
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.
Active Directory Domain Services
Group Policy Management
Remote Server Administration Tools
Role Administration Tools
AD DS and AD LDS Tools
Active Directory module for Windows PowerShell
AD DS Tools
Active Directory Administrative Center
AD DS Snap-Ins and Command-Line Tools
Export configuration settings
Specify an alternate source path
< Previous
Next >
Install
Cancel


Add Roles and Features Wizard
Select destination server
DESTINATION SERVER
WIN25
Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results
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
WIN25
192.168.28.128
Microsoft Windows Server 2025 Standard 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.
< Previous
Next >
Install
Cancel


Active Directory Domain Services Configuration Wizard
Prerequisites Check
TARGET SERVER
WIN25
All prerequisite checks passed successfully. Click 'Install' to begin installation.
Show more
Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Review Options
Prerequisites Check
Installation
Results
Prerequisites need to be validated before Active Directory Domain Services is installed on this computer
Rerun prerequisites check
View results
A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain "Benz.local". Otherwise, no action is required.
Prerequisites Check Completed
All prerequisite checks passed successfully. Click 'Install' to begin installation.
If you click Install, the server automatically reboots at the end of the promotion operation.
More about prerequisites
< Previous
Next >
Install
Cancel





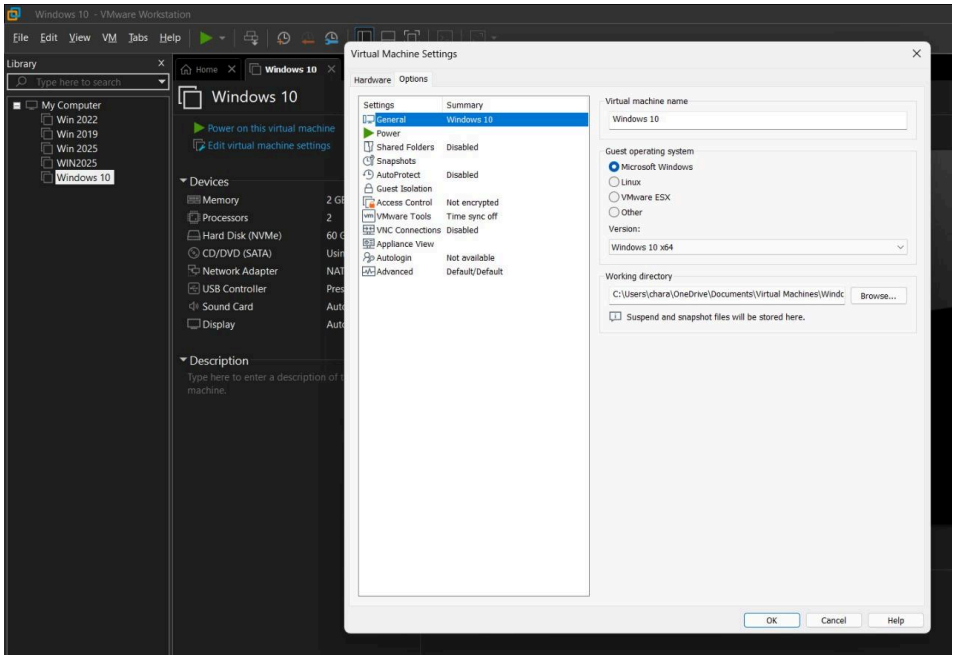
Setting Up Windows 10 Workstation:

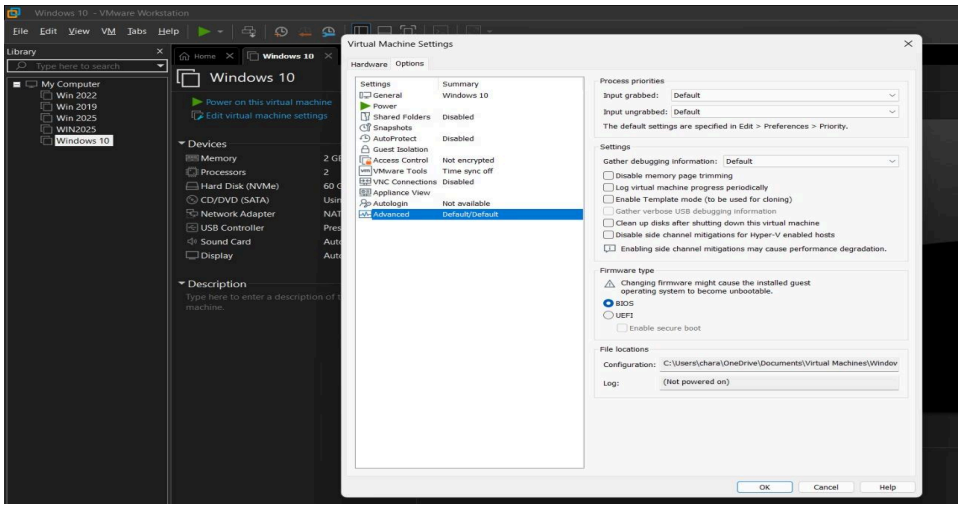
Step 1: Preparing for Installation:

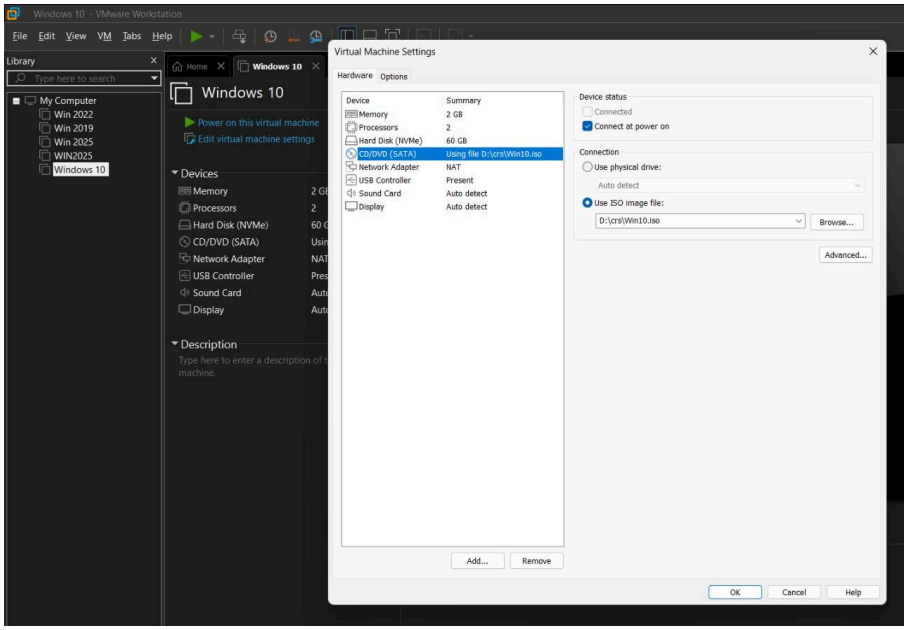
3. **Download the ISO**: Visit the Microsoft Evaluation Center and download the Windows 10 ISO file.
4. **Create a VM** : Use a tool like VMware Workstation Pro to create a virtual machine (VM) .

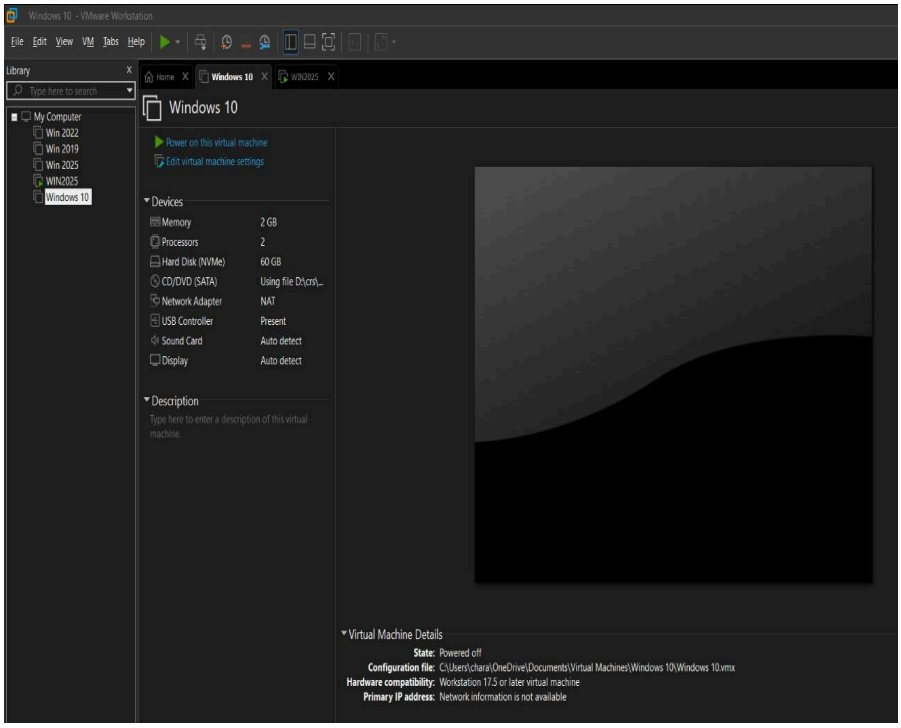
Step 2: Installing Windows 10:

6. **Boot from ISO:** Mount the ISO file and boot from it.
7. **Configure Installation Settings**: Set the language, time, and currency format, as well as the keyboard or input method.
8. **Select Installation Type**: Choose Custom: Install Windows only (advanced).
9. **Partition the Disk**: Select the partition where you want to install Windows 10 and click "Next".
10. **Complete Installation**: Follow the prompts to complete the installation process.









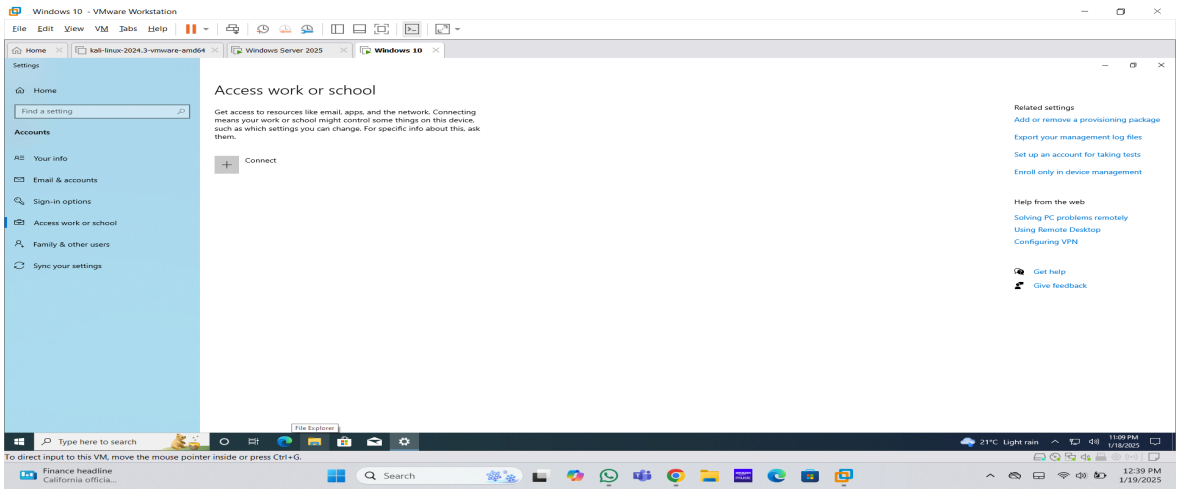
Joining Windows 10 Workstation to Active Directory Domain

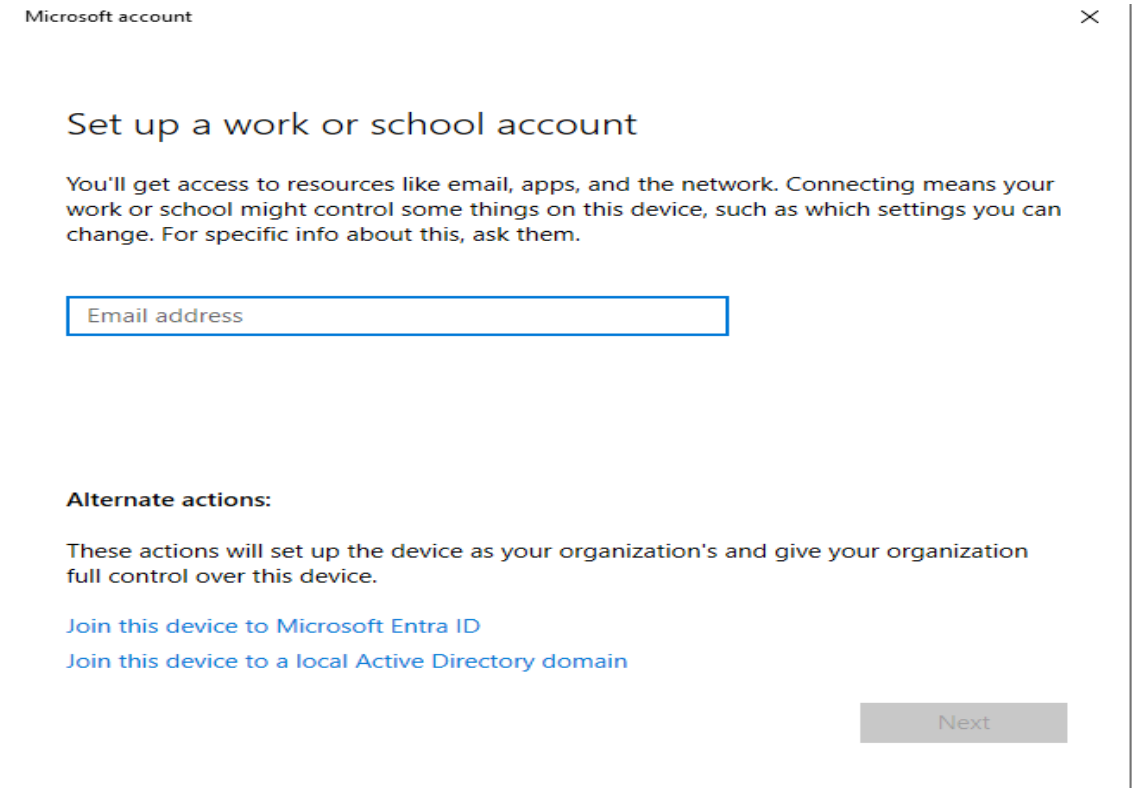
1. **Open Settings**:
    - Open the Settings app by pressing `Win + I` or clicking on the Start menu and selecting the gear icon.
2. **Access Accounts Settings**:

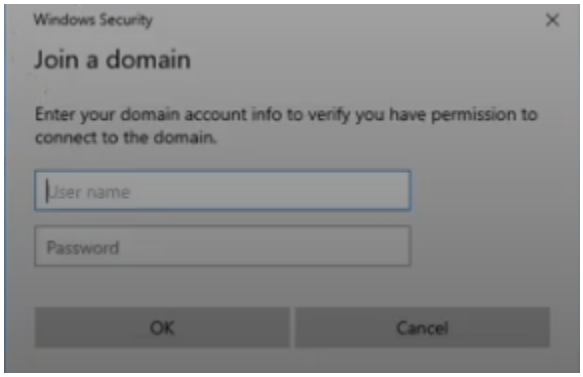
    - Go to "Accounts" and then select "Access work or school" from the left-hand menu.
3. **Connect to Domain**:
    - Click on "Connect" and then select "Join this device to a local Active Directory domain".
4. **Enter Domain Name**:
    - Enter the domain name (e.g., `example.com`) and click Next.
5. **Enter Credentials**:
    - Enter the domain account credentials and click OK.
6. **Set Up Account**:
    - You will be prompted to set up an account for the domain. Follow the on-screen instructions to complete the process.
7. **Restart Workstation**:
    - After successfully joining the domain, you will be prompted to restart the workstation. Click "Restart Now".

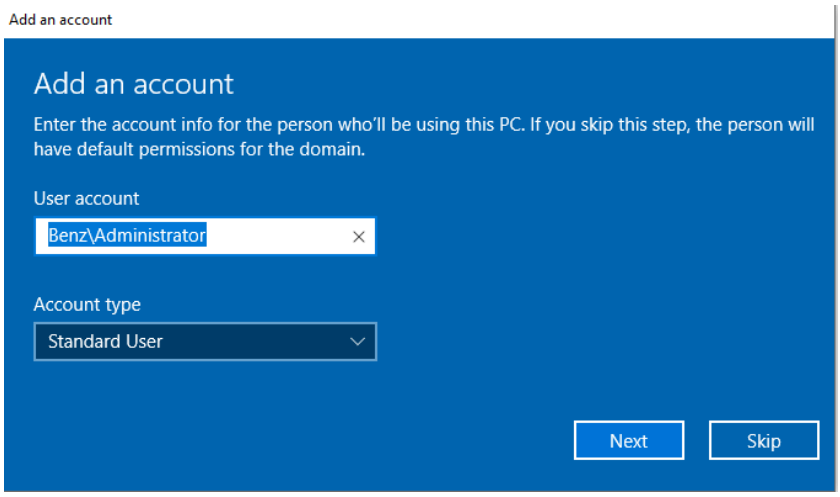
Verification Steps

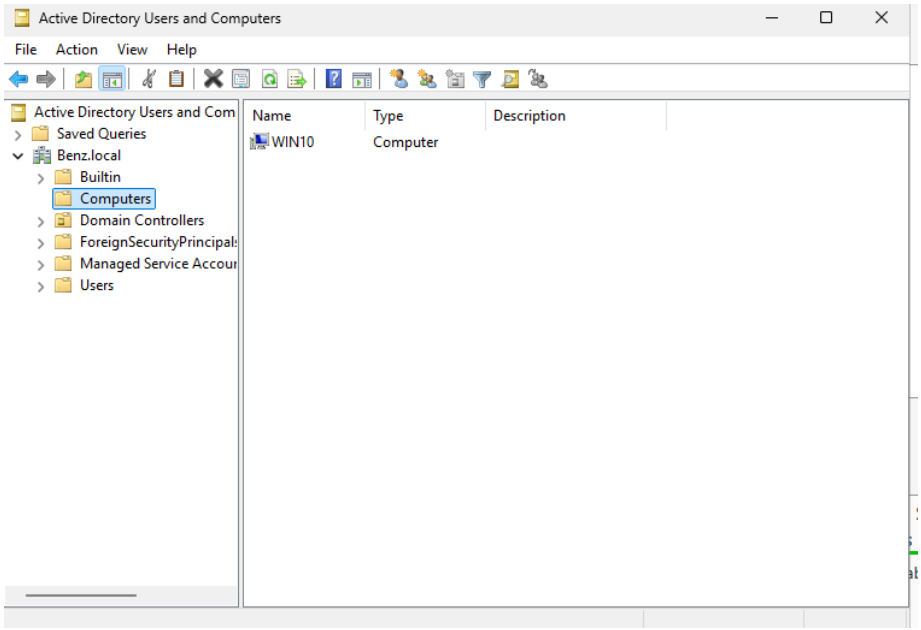
1. **Check Domain Membership**:
    - After restarting, log in with a domain account and check that the server/workstation is now part of the domain.
2. **Verify Network Access**:
    - Ensure that the joined devices can access network resources and services provided by the domain.




Microsoft account
Set up a work or school account
You'll get access to resources like email, apps, and the network. Connecting means your work or school might control some things on this device, such as which settings you can change. For specific info about this, ask them.
Email address
Alternate actions:
These actions will set up the device as your organization's and give your organization full control over this device.
Join this device to Microsoft Entra ID
Join this device to a local Active Directory domain
Next

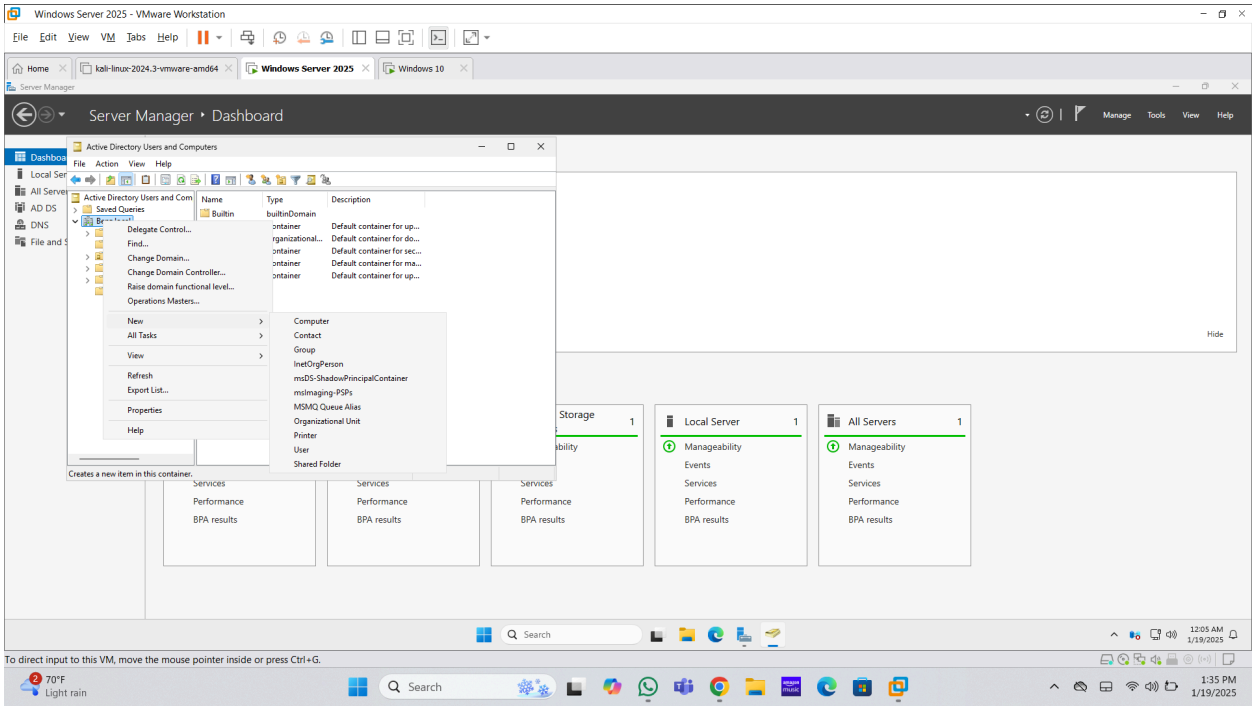

Windows Security
Join a domain
Enter your domain account info to verify you have permission to connect to the domain.
User name
Password
OK
Cancel

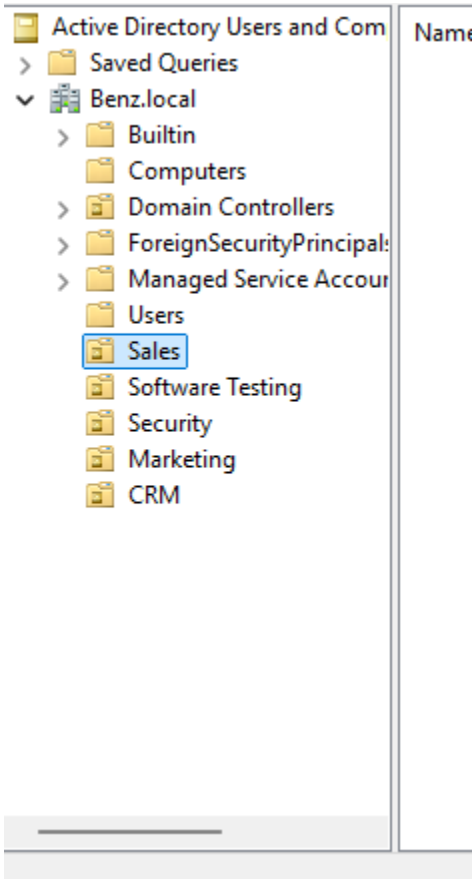

Add an account
Add an account
Enter the account info for the person who'll be using this PC. If you skip this step, the person will have default permissions for the domain.
User account
Benz\Administrator
Account type
Standard User
Next
Skip

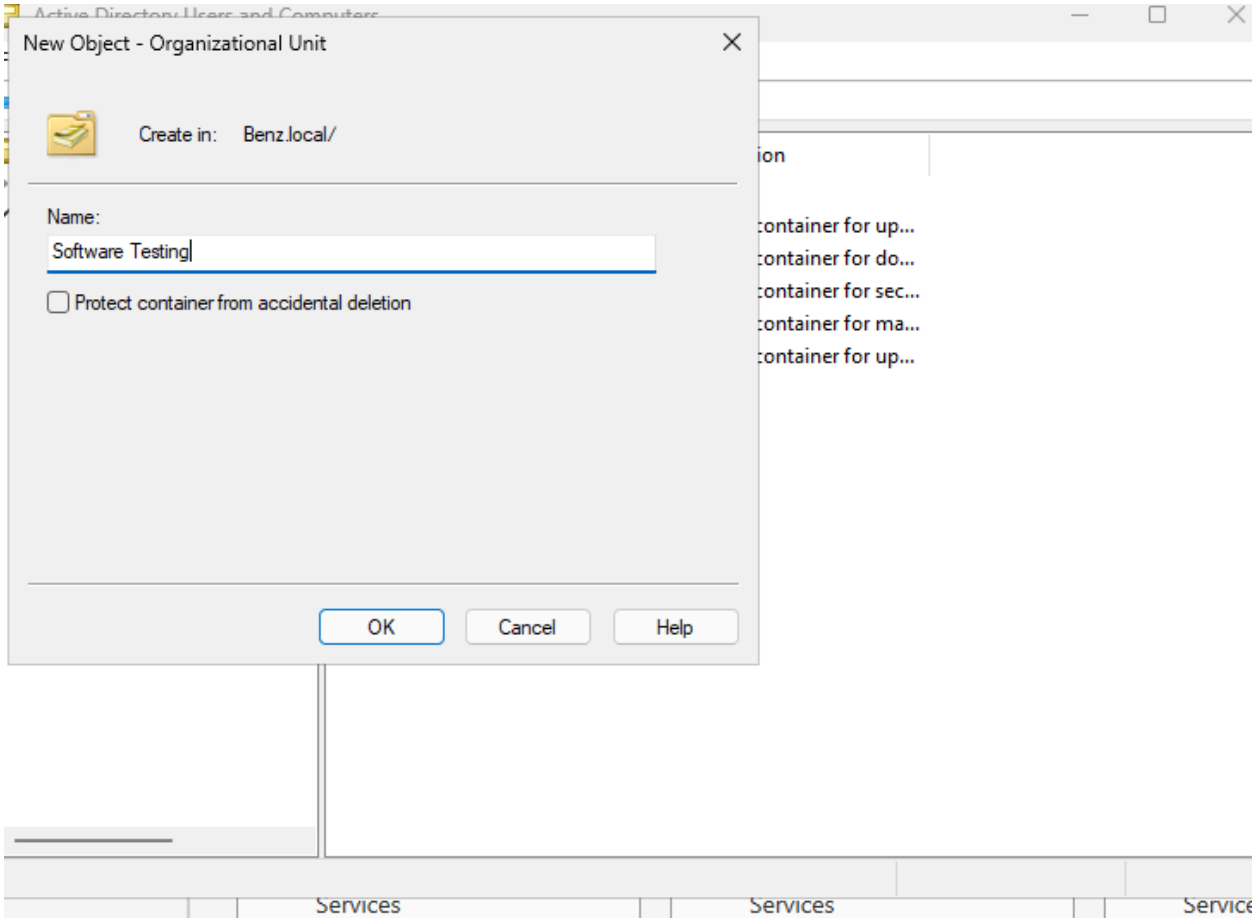


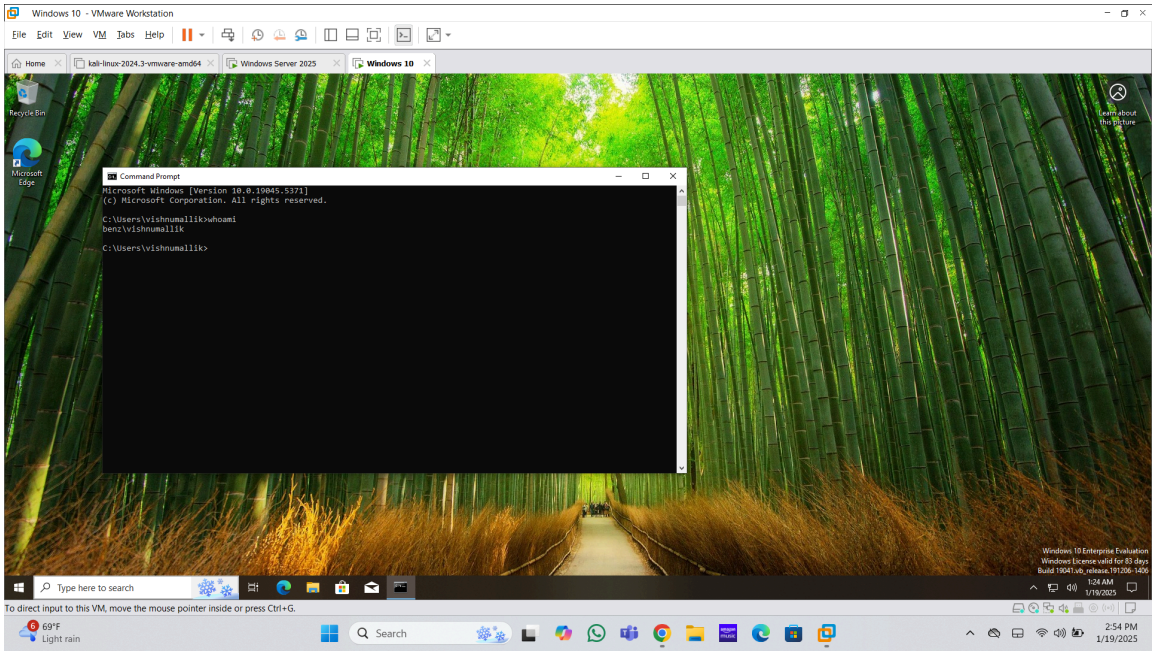
Creating Organizational Units (OUs) in Active Directory:

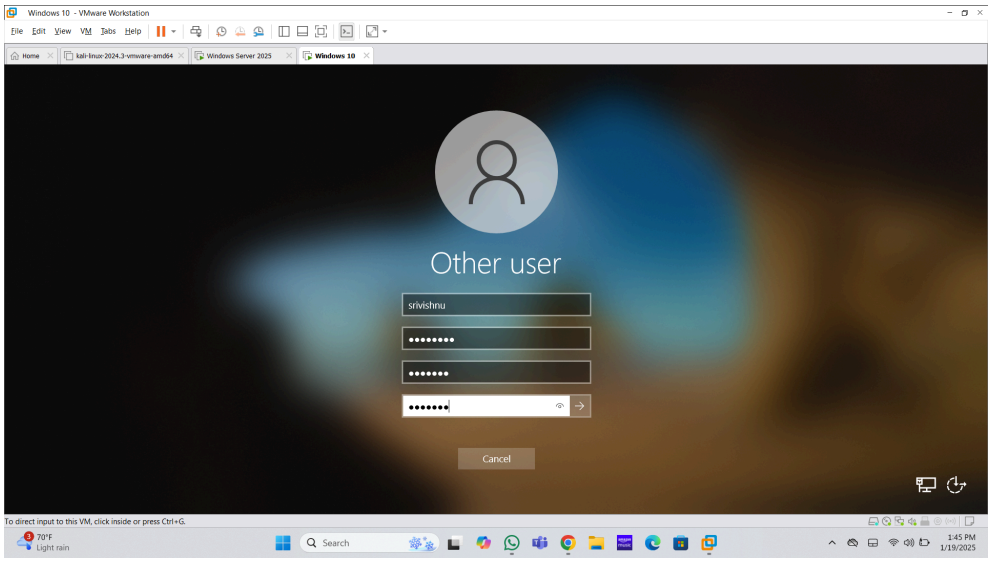
1. **Open Active Directory Users and Computers (ADUC)**:
   - On your Windows Server, open the Start menu, search for "Active Directory Users and Computers," and open it.
2. **Navigate to the Domain**:
   - In the ADUC console, expand your domain (e.g., `example.com`) in the left-hand pane.
3. **Create a New Organizational Unit**:
   - Right-click on the domain or an existing OU where you want to create a new OU.
   - Select "New" > "Organizational Unit" from the context menu.
4. **Name the OU**:
   - In the "New Object - Organizational Unit" dialog box, enter a name for the new OU.
   - Click "OK" to create the OU.
5. **Verify the OU**:
   - The newly created OU should now appear under the domain in the ADUC console.
   - You can now move user accounts, computer accounts, and groups into this OU.

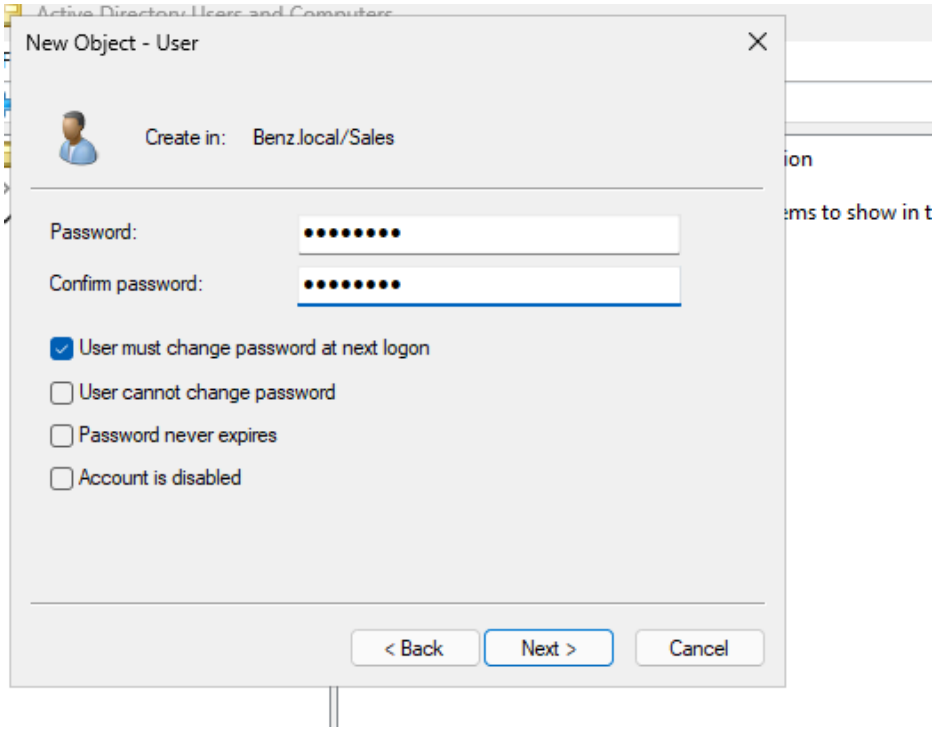

Windows Server 2025 - VMware Workstation
File Edit View VM Tabs Help
Home
kali-linux-2024.3-vmware-amd64
Windows Server 2025
Windows 10
Server Manager
Server Manager • Dashboard
Manage Tools View Help
Active Directory Users and Computers
File Action View Help
Active Directory Users and Com
Saved Queries
Name
Type
Description
Builtin
builtinDomain
Delegate Control...
Find...
Change Domain...
Change Domain Controller...
Raise domain functional level...
Operations Masters...
New
All Tasks
View
Refresh
Export List...
Properties
Help
Computer
Contact
Group
InetOrgPerson
msDS-ShadowPrincipalContainer
msImaging-PSPs
MSMQ Queue Alias
Organizational Unit
Printer
User
Shared Folder
Creates a new item in this container.
Hide
Storage 1
Local Server 1
Manageability
Events
Services
Performance
BPA results
All Servers 1
Manageability
Events
Services
Performance
BPA results
Search
12:05 AM
1/19/2025
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
70°F
Light rain
Search
1:35 PM
1/19/2025


Active Directory Users and Com
Saved Queries
Benz.local
Builtin
Computers
Domain Controllers
ForeignSecurityPrincipal:
Managed Service Accour
Users
Sales
Software Testing
Security
Marketing
CRM
Name


New Object - Organizational Unit
Create in: Benz.local/
Name:
Software Testing
Protect container from accidental deletion
OK
Cancel
Help
container for up...
container for do...
container for sec...
container for ma...
container for up...
Services
Services


Windows 10 - VMware Workstation
File Edit View VM Tabs Help
Home
kali-linux-2024.3-vmware-amd64
Windows Server 2025
Windows 10
Recycle Bin
Microsoft Edge
Command Prompt
Microsoft Windows [Version 10.0.19045.5371]
(c) Microsoft Corporation. All rights reserved.
C:\Users\vishnumallik>whoami
benz\vishnumallik
C:\Users\vishnumallik>
Type here to search
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
69°F
Light rain
Search
2:54 PM
1/19/2025





Creating and Configuring Group Policy Objects (GPOs):

1. Open Group Policy Management Console (GPMC)

1. **Open GPMC**:
    - On your Windows Server, open the Start menu, search for "Group Policy Management," and open it.

2. Create a New GPO

1. **Navigate to the GPO Container**:
    - In the GPMC console, expand your forest, then the domain, and navigate to "Group Policy Objects."
2. **Create a New GPO**:
    - Right-click on "Group Policy Objects" and select "New."
    - In the "New GPO" dialog box, enter a name for the new GPO (e.g., `Default User Settings`).
    - Click "OK" to create the GPO.

3. Edit the GPO

1. **Open the Group Policy Management Editor**:
    - Right-click the newly created GPO and select "Edit."
2. **Configure GPO Settings**:
    - The Group Policy Management Editor will open, showing two main sections: "Computer Configuration" and "User Configuration."
    - Configure the desired policies under these sections.

4. Example GPO Settings

1. **Password Policy**:
    - Navigate to `Computer Configuration > Policies > Windows Settings > Security Settings > Account Policies > Password Policy`.
    - Configure settings such as minimum password length and password complexity requirements.
2. **Desktop Background**:
    - Navigate to `User Configuration > Policies > Administrative Templates > Desktop > Desktop`.
    - Enable and configure the "Desktop Wallpaper" setting to enforce a specific wallpaper.
3. **Software Installation**:
    - Navigate to `Computer Configuration > Policies > Software Settings > Software Installation`.
    - Add a new software package to install applications.

5. Link the GPO to an OU

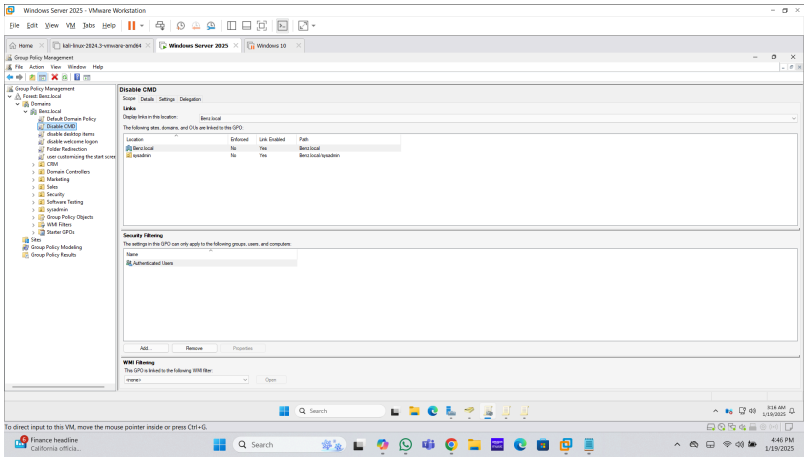
1. **Navigate to the Organizational Unit (OU)**:
    - In the GPMC console, expand your domain and navigate to the OU where you want to apply the GPO.
2. **Link the GPO**:

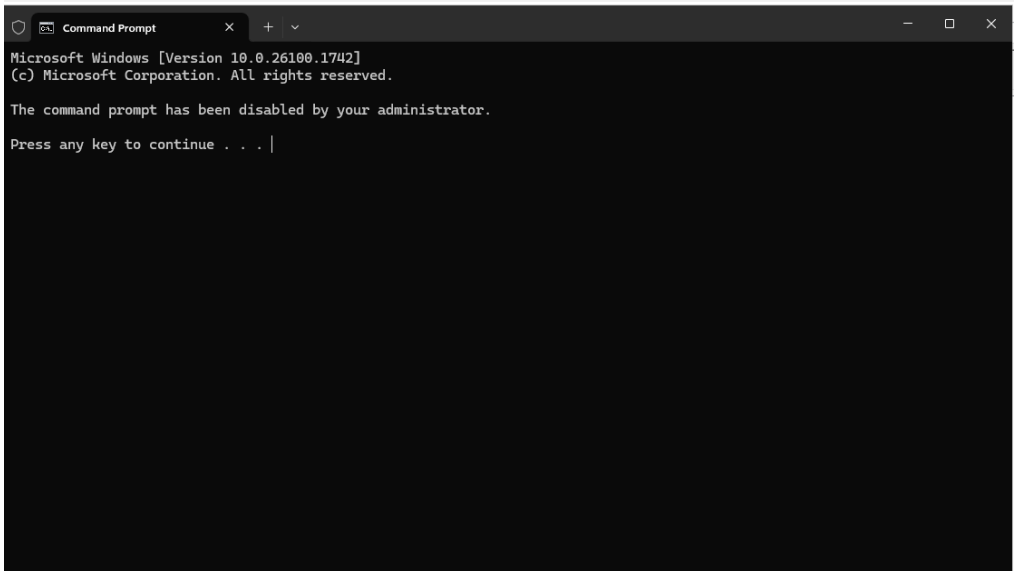
- Right-click on the OU, select "Link an Existing GPO," and choose the GPO you created.
- Click "OK" to link the GPO to the OU.

6. Verify GPO Application

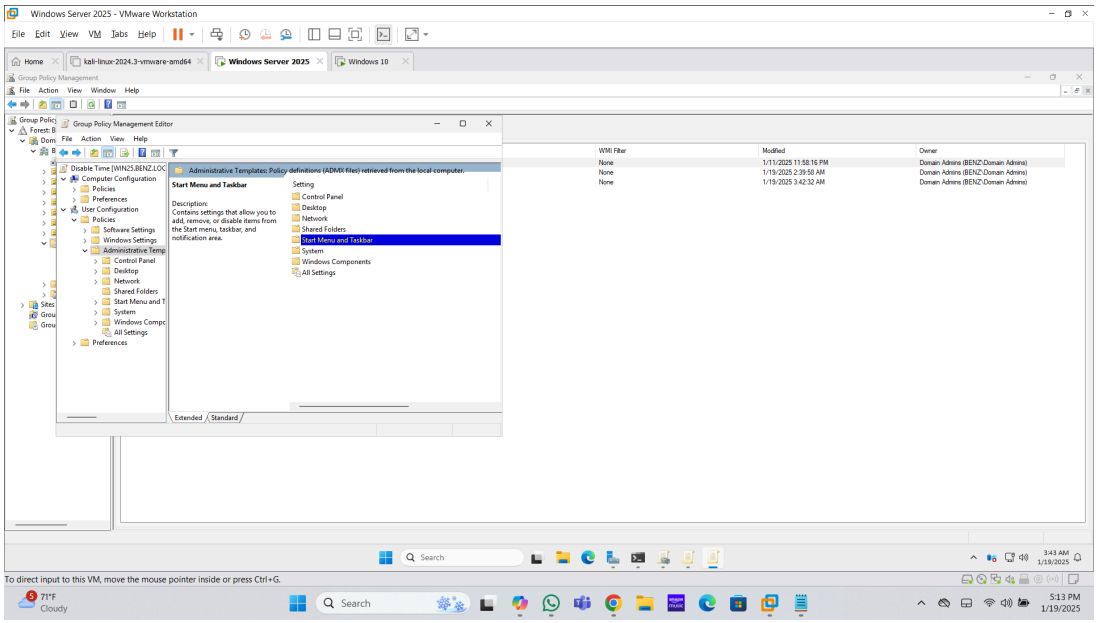
1. **Run gpupdate**:
   - On a client machine, open Command Prompt and run `gpupdate /force` to force an update of Group Policy settings.
2. **Check Settings**:
   - Verify that the policies are applied correctly by checking the settings on the client machine.

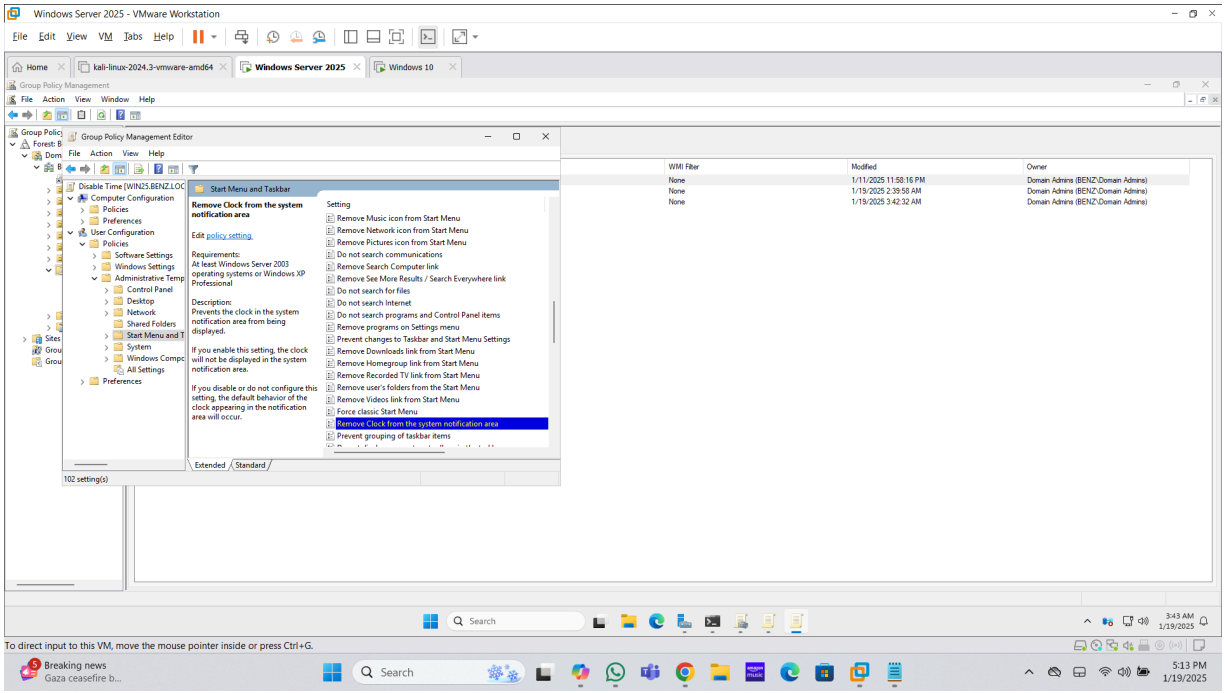
1.Disabling access to command prompt :

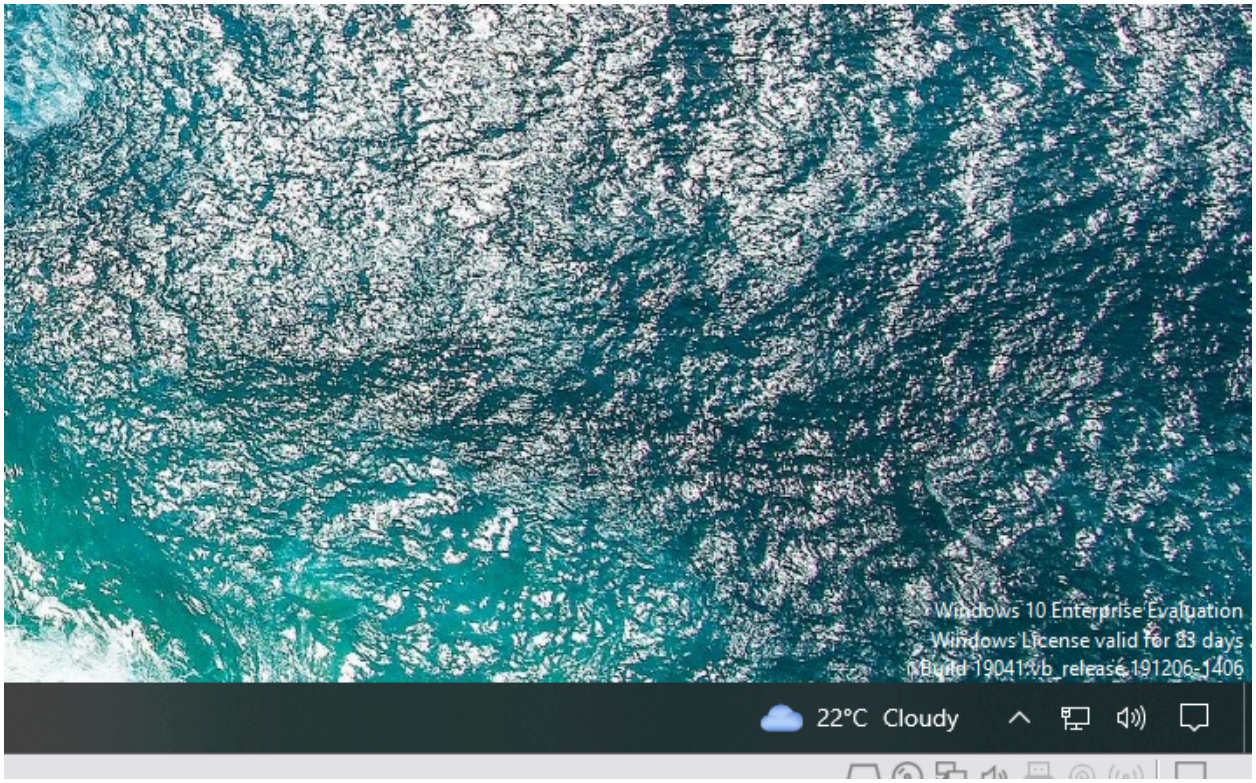




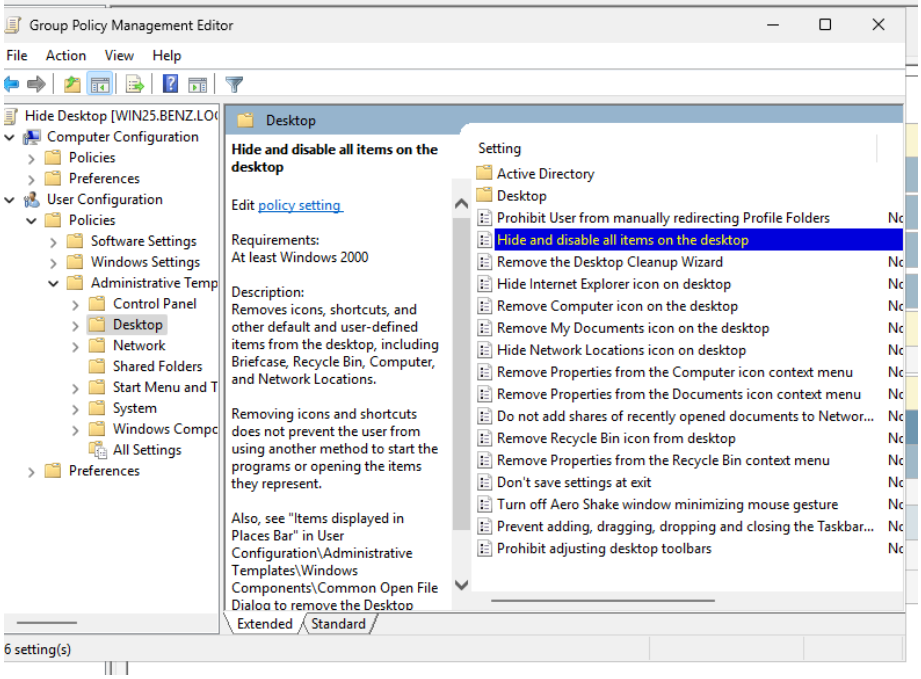
2. Disabling access to Time :

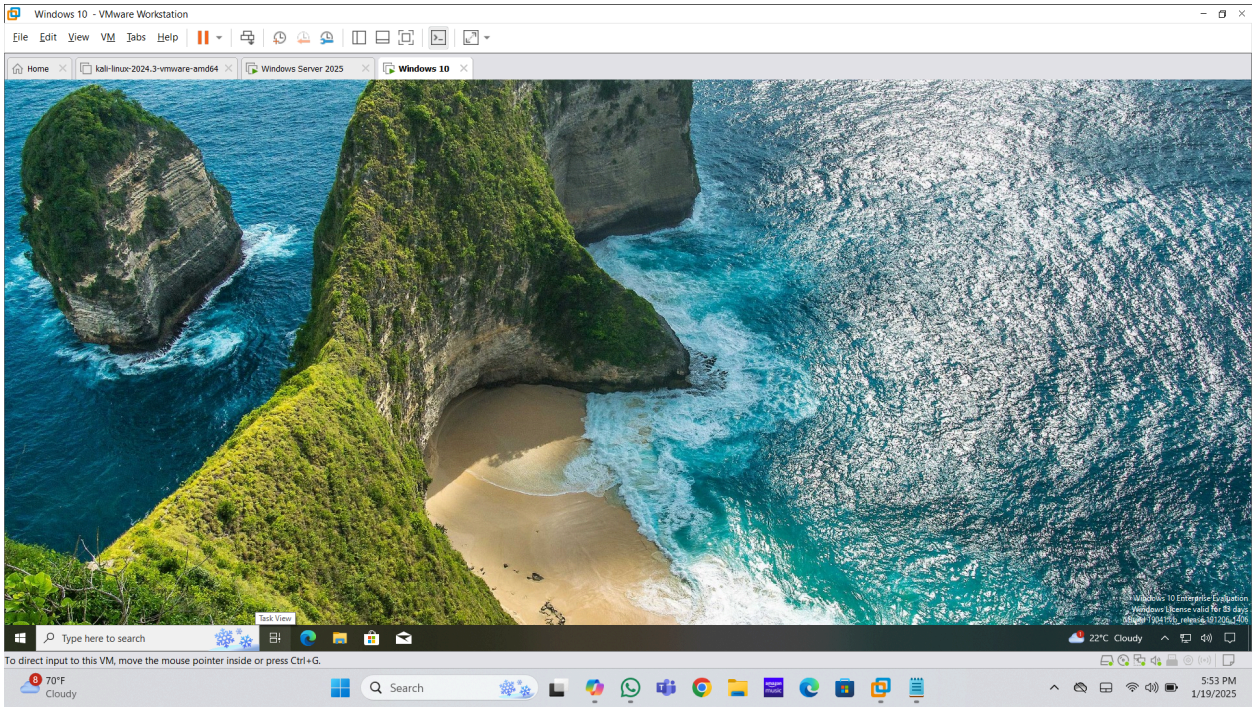




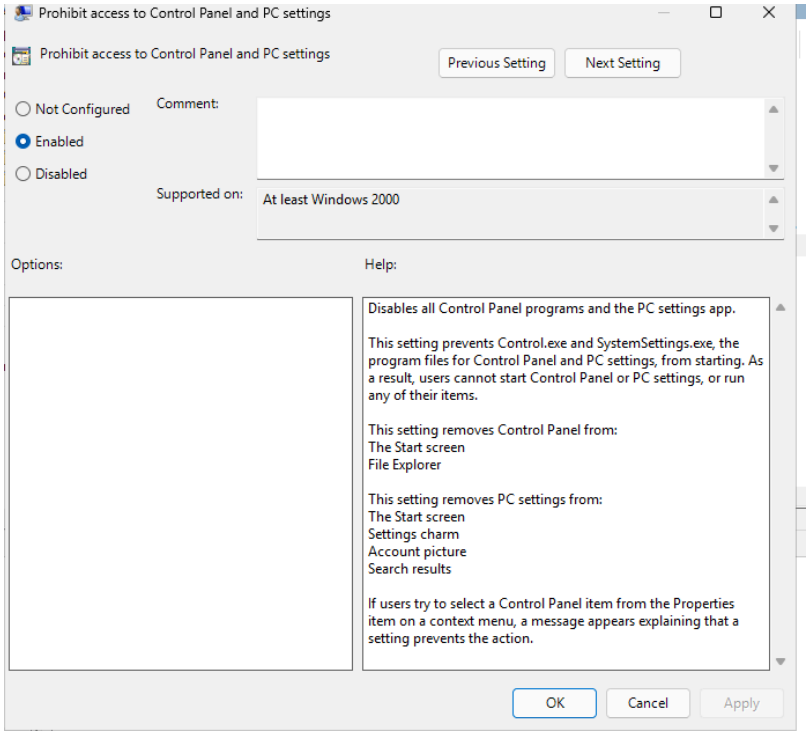


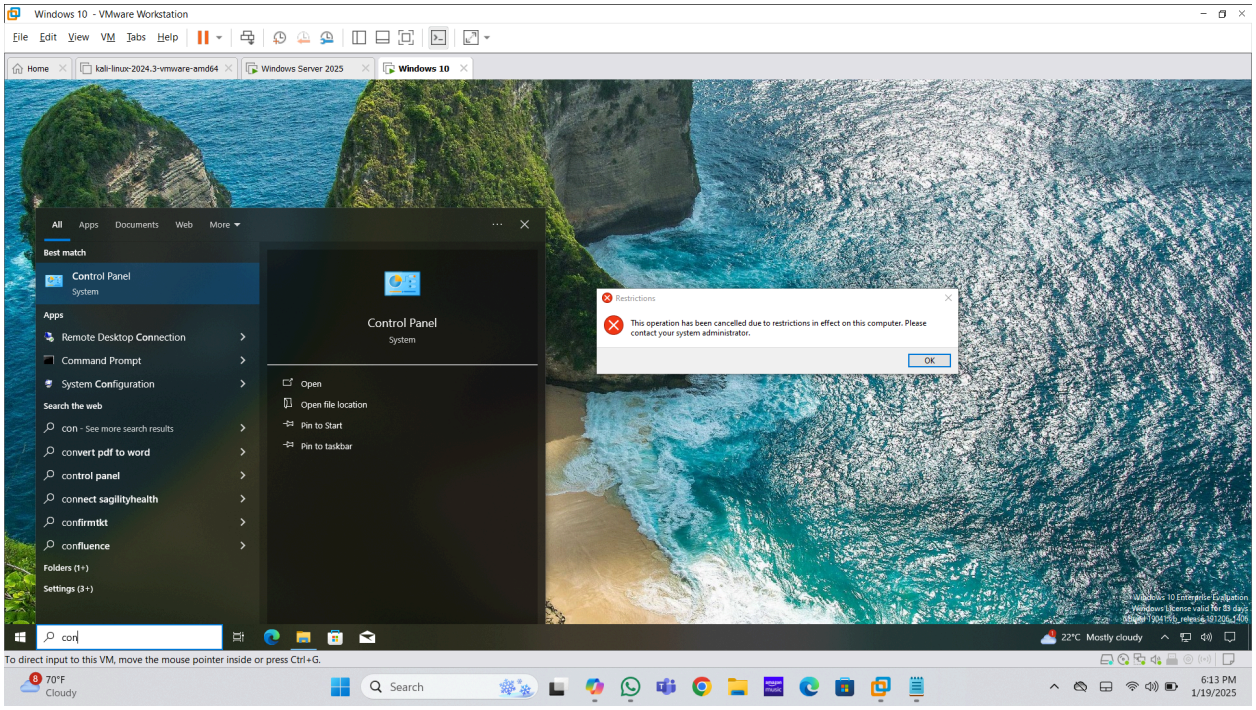
3.Disabling access to all desktop items:





4. Disabling access to control panel:





5.Folder Redirection :

Configure Folder Redirection Settings

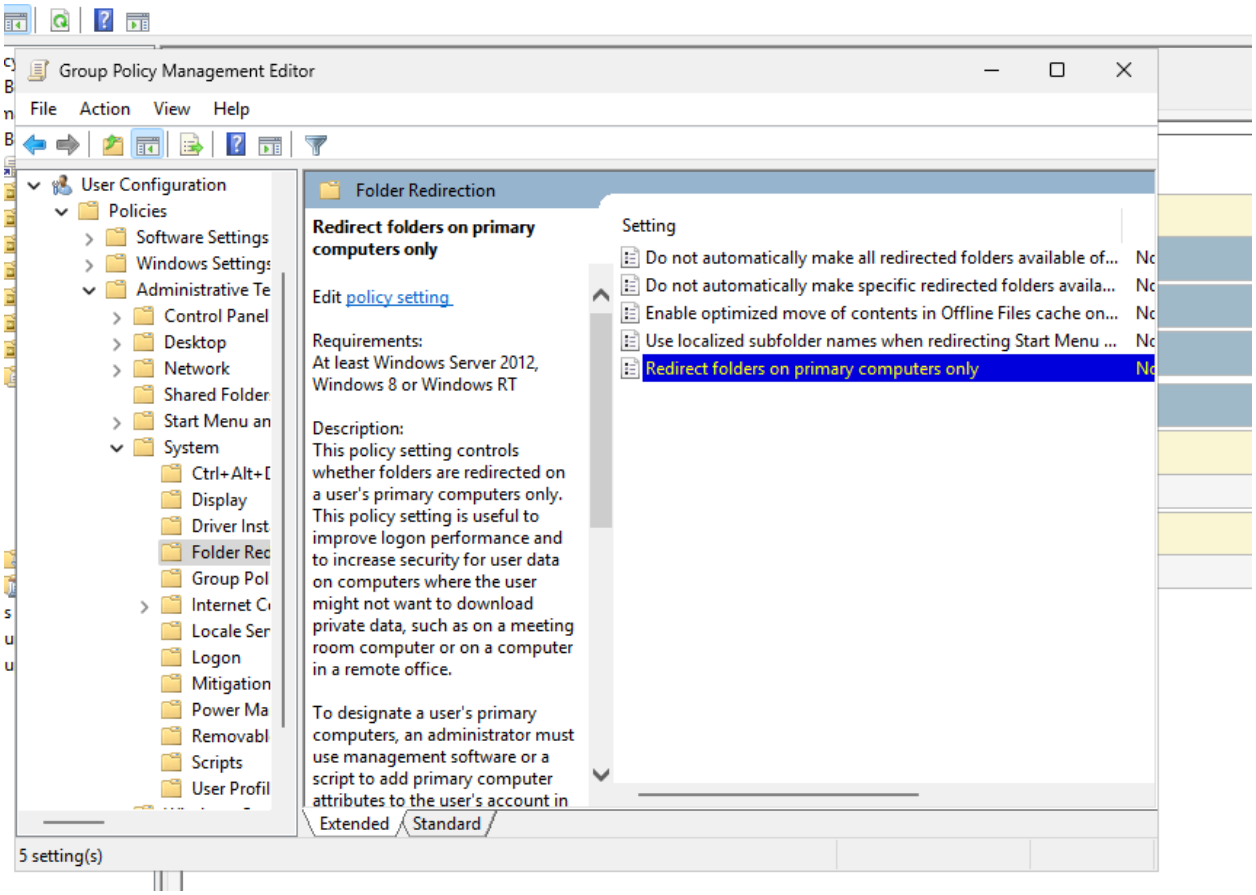
1. **Navigate to Folder Redirection**: In the Group Policy Management Editor, go to `User Configuration > Policies > Windows Settings > Folder Redirection`.
2. **Select Folder to Redirect**: Choose the folder you want to redirect (e.g., Desktop, Documents).
3. **Configure Target Location**: In the "Target tab," select the location where you want to redirect the folder. You can choose to redirect to a network location or the local user profile2.
4. **Advanced Settings**: If needed, configure advanced settings such as granting exclusive rights to the user.

Link the GPO to an OU

1. **Navigate to the OU**: In the GPMC console, expand your domain and navigate to the OU where you want to apply the GPO.
2. **Link the GPO**: Right-click on the OU, select "Link an Existing GPO," and choose the GPO you created.
3. **Set Link Order**: Set the link order if you have multiple GPOs linked to the OU.

Verify Folder Redirection

1. **Run gpupdate**: On a client machine, open Command Prompt and run `gpupdate /force` to force an update of Group Policy settings.
2. **Check Folder Location**: Verify that the redirected folders are now located in the specified network location or local user profile



Conclusion

In conclusion, this report provided a comprehensive guide for setting up and configuring Windows Server 2025, a Windows 10 workstation, creating Organizational Units (OUs), and configuring Group Policy Objects (GPOs). Each step was carefully detailed to ensure clarity and effectiveness in managing an Active Directory environment.

The installation and configuration processes for both the server and workstation were outlined, ensuring a solid foundation for network infrastructure. The creation of OUs and GPOs was also covered in depth, providing a structured approach to organizing and managing users, computers, and policies within the domain.

Key takeaways include:

- The importance of thorough planning and organization when setting up Active Directory components.
- The benefits of using GPOs to enforce policies and streamline administrative tasks.
- The value of regular updates and security measures to maintain a robust and secure network environment.

Overall, this bootcamp report serves as a valuable resource for IT professionals and system administrators, offering practical insights and detailed instructions to support efficient Active Directory management.