

Enterprise Active Directory Lab With Security Controls

Step 1: Enterprise Plan

1 Domain Controller(Windows Server 2022)

Domain: enterprise.local

Host name:

IP: 192.168.10.10

4 Windows 11 Clients

Finance-PC

HR-PC

Accounting-PC

IT-PC

4 Users (One per department)

finance-user

hr-user

accounting-user

it-user

4 Organizational Units

Finance

Human Resources

Accounting

IT

Step 2: Build Domain Controller

Virtual Machine Creation

OS: Windows Server 2022

Ram: 4 GB

CPU: 2

Disk Size: 50 GB

Static IP

IP: 192.168.10.10

Subnet: 255.255.255.0

DNS: 192.168.10.10

Installation of Active Directory Domain Services

New Forest: enterprise.local

Step 3: Creation of Organizational Units

4 Organizational Units created

Finance

Human Resources

Accounting

IT

Each Organizational Unit has sub units with computers and users.

Step 4: Creation of Users

4 users will be created for each organizational unit in the enterprise.

Accounting User

Name: John Smith

User Logon: accounting-user

Password: Accounting123(user must change password at next logon)

Finance User

Name: Ethan Smith

User Logon: finance-user

Password: Finance123(user must change password at next logon)

Human Resources User

Name: Jane Smith

User Logon: hr-user

Password: Humanresources123(user must change password at next logon)

IT User

Name: James Smith

User Logon: it-user

Password: Informationtechnology123(user must change password at next logon)

Step 5: Creation of Win 11 Pro Virtual Machines

4 Windows 11 Pro virtual machines will be created for each user in each department.

Accounting-PC

User Name: accounting-user

Password: Accounting123

IP: 192.168.10.11

DNS: 192.168.10.10

Finance-PC

User Name: finance-user

Password: Finance123

IP: 192.168.10.12

DNS: 192.168.10.10

HR-PC

User Name: hr-user

Password: Humanres123

IP: 192.168.10.13

DNS: 192.168.10.10

IT-PC

User Name: it-user

Password: Infotech123

IP: 192.168.10.14

DNS: 192.168.10.10

Step 6: Add Group Policies

Policies will be added to each group.

Finance GPO:

Prohibit access to Control Panel and PC settings

HR GPO:

Strong Password Policy

Minimum password length 14

Complexity enabled

Maximum password age 365 days

5 wrong attempt lockout for 30 minutes

Disable USB Storage

Removable Disks: Deny write access

Removable Disks: Deny read access

Accounting GPO

Enable Auditing

Disable PowerShell

IT GPO

Allow PowerShell

Add IT user to local admin group

Step 7: Add Shared File Server

Each department will have a shared folder that only the approved user will be able to access.

Accounting Shared

Path: \WIN-9FFCQNL78IE\Accounting

Authorized User: Accounting-user

New Password: qazwsxedcrfvQAZWSXEDCRFV2468@#

Finance shared

Path: \WIN-9FFCQNL78IE\Finance

Authorized User: Finance-user

HR Shared

Path: \Win-9ffcqnl78ie\hr

Authorized User: HR-user

New Password: Humanresources123@

IT Shared

Path: \Win-9ffcqnl78ie\it

Authorized User: IT-user