Windows Server 2022 And Active Directory

ISO Files

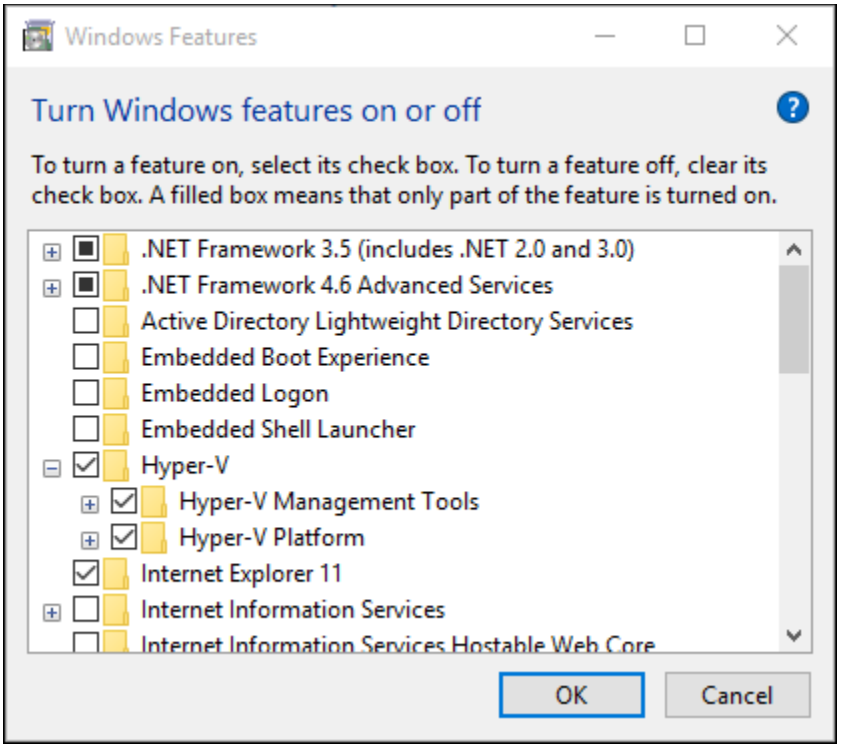
From the lab file server download the following ISO files if they are not present in your download directory:

1. Windows2k22.iso
2. windows10.iso

Enable the Hyper-V role through Settings

On both PC1 and PC2:

1. Right click on the Windows button and select 'Apps and Features'.
2. Select **Programs and Features** on the right under related settings.
3. Select **Turn Windows Features on or off**.
4. Select **Hyper-V** and click **OK**.



When the installation has completed restart your computer.

Virtual Switch

Open virtual switch manager inside Hyper-V and create a new external virtual switch so that our VMs have direct bridge access to our physical network.

VM Creation

Using the ISO files you downloaded create the following VMs:

1. On PC1 create a new Windows server 2022 VM named GRPxDC where x is the group number given by your instructor.
2. On PC2 create A windows 10 VM named GRPxClient1.

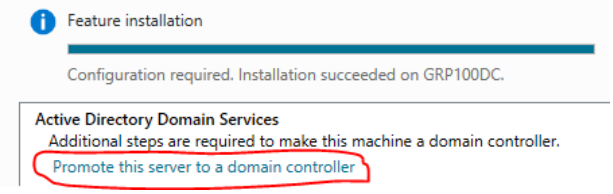
Follow these steps to create both VMs:

1. Open Hyper-V then Quick Create.
2. Click local installation source, Change Installation source, and chose the Windows2k22.iso file.
3. Open more options and give the VM a proper name (GRPxDC).
4. Click Create Virtual Machine.
5. Edit the settings of the virtual machine before starting it and give it 4 GB of Memory and connect it to the external bridge virtual switch you created.
6. Start the machine and complete the installation use **P@$$w0rd** as a password for all VMs.

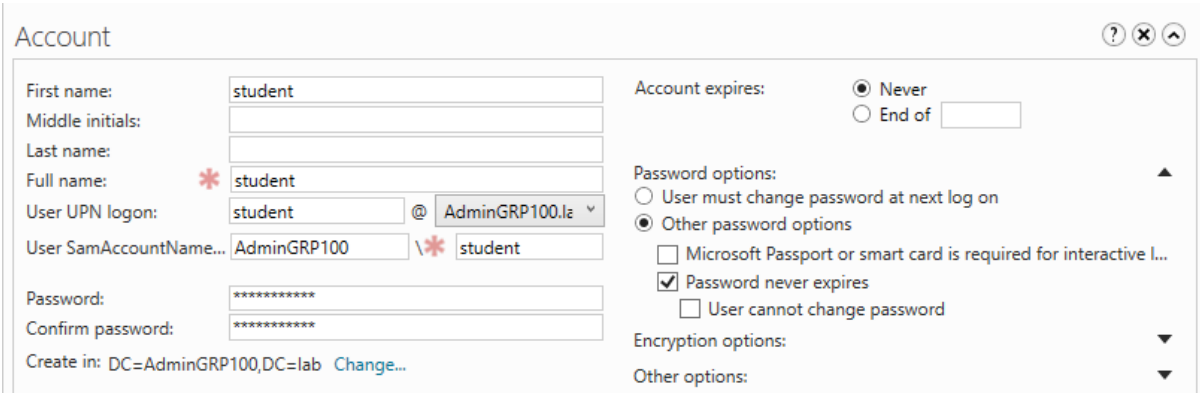
Active Directory

1. In order to setup active directory log in as local administrator.
2. Once the server manager opens click Local Server on the left hand side of the window.
3. Click on IPv4 Address assigned by DHCP beside the Ethernet entry.
4. Open the Ethernet properties and set the server IP address configuration as follows:
   IP address: 172.16.107.xxx (xxx will be provided by the instructor)
   Subnet Mask: 255.255.255.0
   Default Gateway: 172.16.107.1
   DNS Server: 8.8.8.8
5. In the server manager window click the current computer name then **Change** and set the server name to GRPxDC reboot your VM for the changes to take effect.
6. In server manager click Add roles and features this will open the Add Roles and Features wizard.
7. Keep clicking Next until you get to the Select Server Roles screen .
8. From Roles tick “Active Directory Domain Services” [option 2]. A prompt will show you what associated features this role has. Click on “add features” to add those. Then click Next to continue.
9. Keep clicking Next and then Install.

10. Once installation completes, click on “Promote this server to a domain controller”.



11. Then it will open the active directory configuration wizard.
12. Select the option to add a new forest and type AdminGRPx.Lab as the root domain name. Then click Next.
13. In next page you can select the domain and forest functional levels. Leave the default. Then type a password for DSRM. Then click Next.
14. For the DNS options, this is going to be the first DNS server in new forest. So, no need for any modifications. Click Next to proceed.
15. For the NETBIOS name keep the default and click Next.
16. Next page is to define the NTDS, SYSVOL and LOG file folders. Keep the default and click Next to continue.
17. Next page will give an option to review the configuration changes. If everything is okay you can click Next to proceed otherwise you can go back and change the settings.
18. In the next window it will do a prerequisite check. If it’s all good the option to install will be enabled. Click on install to begin installation process.
19. After the installation is complete the system will restart automatically. Once it comes back log in to the server as the domain admin.
20. From Server Manager click AD DS on the left of the screen and right click your server and choose **Active Directory Administrative Center**.
21. Open the **Users** Functional group then from the right hand side of the screen under AdminGRPx(local) choose **New** then **user** to create a user with following specs:
    First Name: Student
    Full Name: Student
    User UPN logon: student@AdminGRPx.Lab
    User SamAccountName logon: AdminGRPx\student
    Password: P@$$w0rd123
    choose “other password options” and check “passwords never expires”.



22. Click OK.

23. Open the Computers functional group then from the right hand side of the screen under AdminGRPx(local) choose new then Computer to create a Computer object with the Name GRPxClient1.

Joining a Windows PC to The Domain

1. On Windows GRPxClient1 set IP address configuration as follows:
   IP address: automatically
   DNS Server: 172.16.107.xxx (this is your domain controllers' IP address)
2. Open system from control panel.
3. Under "Computer name, Domain and workgroup settings" section click Change settings.
4. In the Computer name dialog box click change and use "GRPxClient1" as a computer name, and AdminGRPx.Lab as the domain name then click OK.
5. Input the username: administrator and password: P@$$w0rd and click OK.
6. Follow on screen instruction to restart the PC.
7. Once the client starts try to login with the student domain account which will most probably fail
8. To rectify that we need to add the student domain account to the remote desktop users since Hyper-V login sessions are really remote desktop connections. Open the Active Directory Administrative Center and navigate to the users functional directory where we created the student user.
9. Open the student user properties. Under member of click add.
10. In the Select group dialogue box write remote then click check names and chose Remote Desktop Users then confirm all dialogue boxes.
11. Try to log in to the client Vm again. It should succeed. If not keep trying because it takes time to refresh all rules.

END