INSTALLATION OF CLI OS SERVER AND PING TO DC SERVER

Purpose

This document provides a step-by-step guide for installing a Command Line Interface (CLI) Operating System (OS) on a server and testing connectivity with a Domain Controller (DC) server.

Prerequisites

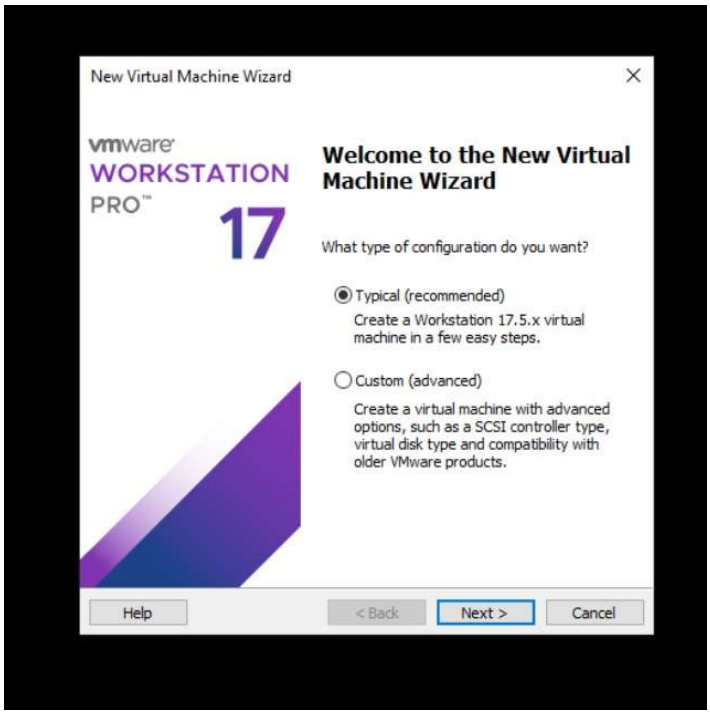
- Virtualization software (e.g., VMware, VirtualBox)
- Windows Server 2016 Datacenter Evaluation ISO file
- Network connectivity

Installation Steps

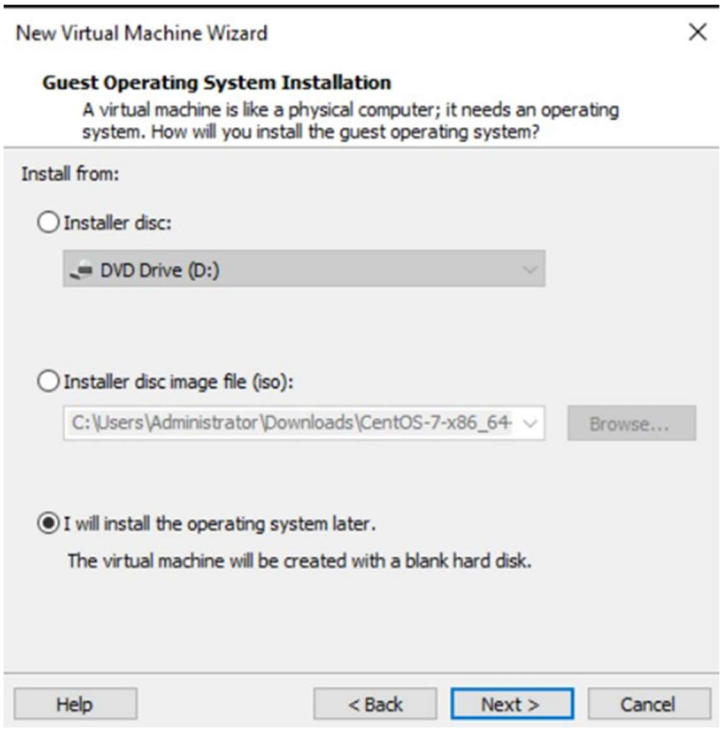
Step 1: Create a New Virtual Machine (VM)

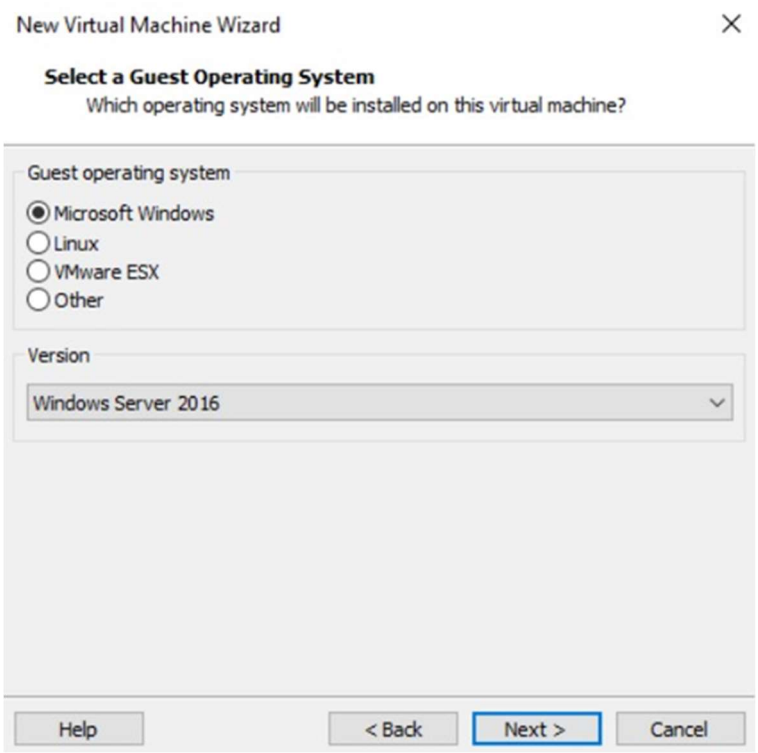
1. Open your virtualization software and create a new VM.

Begin by creating a new VM with the desired specifications



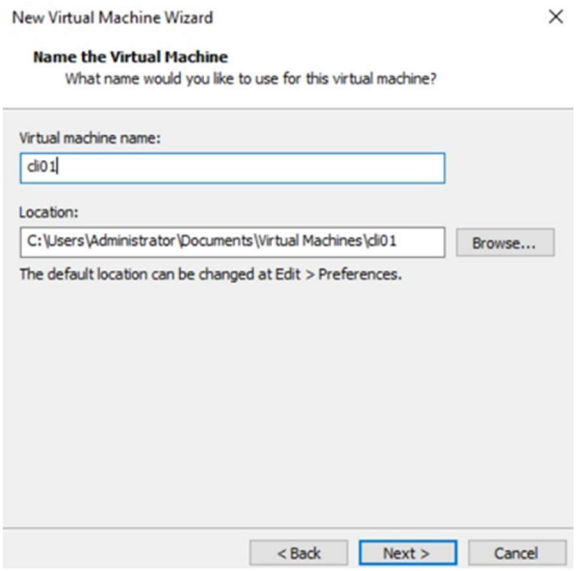
2. Select “I will install the OS later” and choose Microsoft Windows and Windows Server 2016 as the operating system and version.



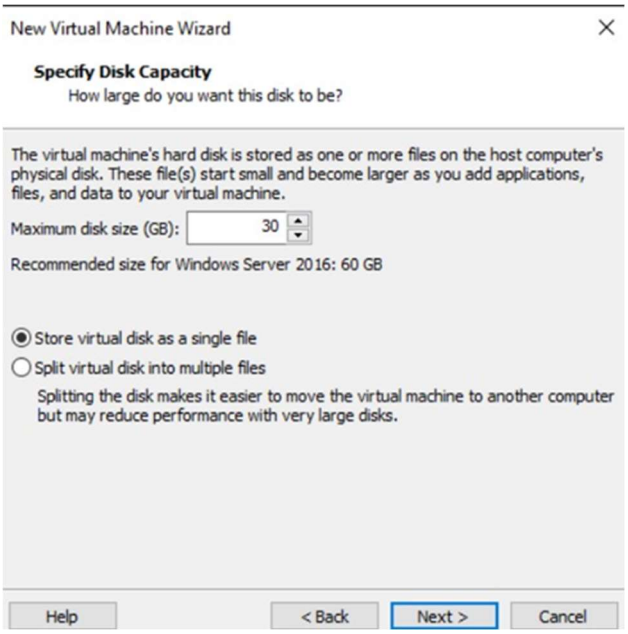


Step 2: Configure VM Settings

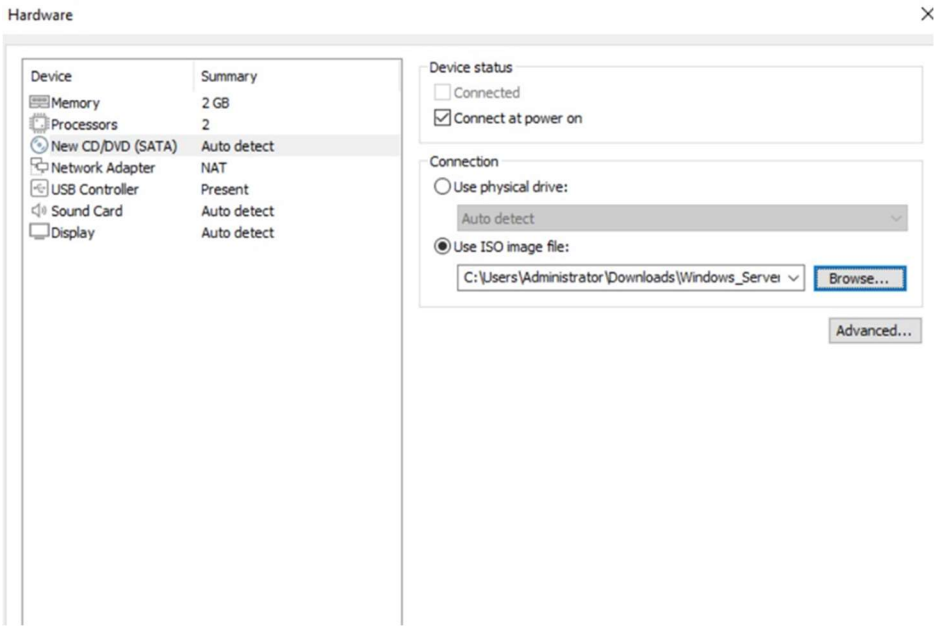
1. Name the VM “cli01”.



2. Set the maximum disk size to 30GB and ensure the virtual disk is stored as a single file.



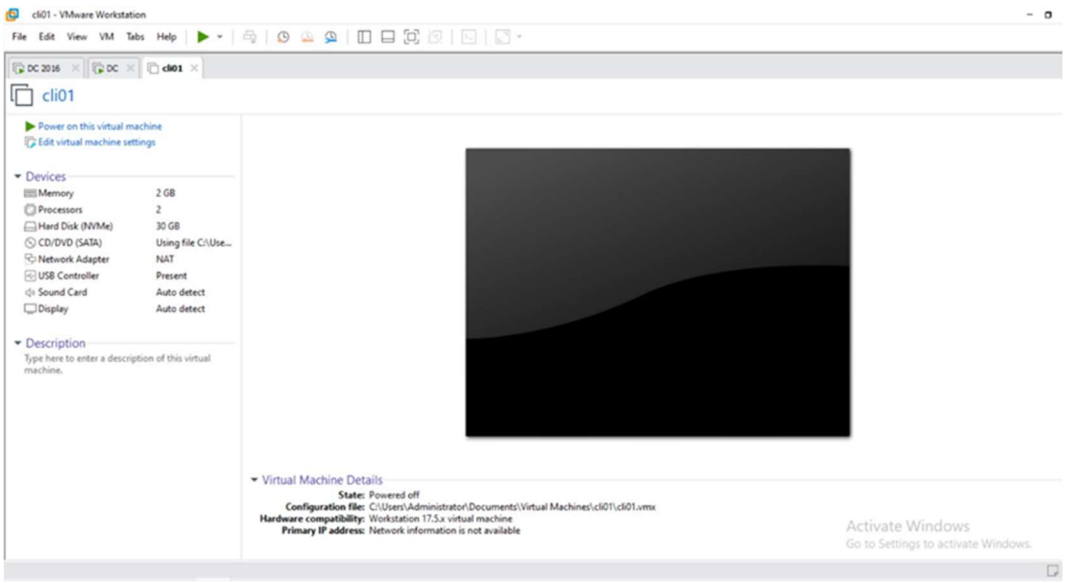
3. Allocate 2GB of memory and 2 processor cores to the VM.



These resources determine the VM's computing power and ability to handle concurrent tasks. In this scenario, 2GB of memory and 2 processor cores were allocated, which is a reasonable configuration for a basic Windows Server setup.

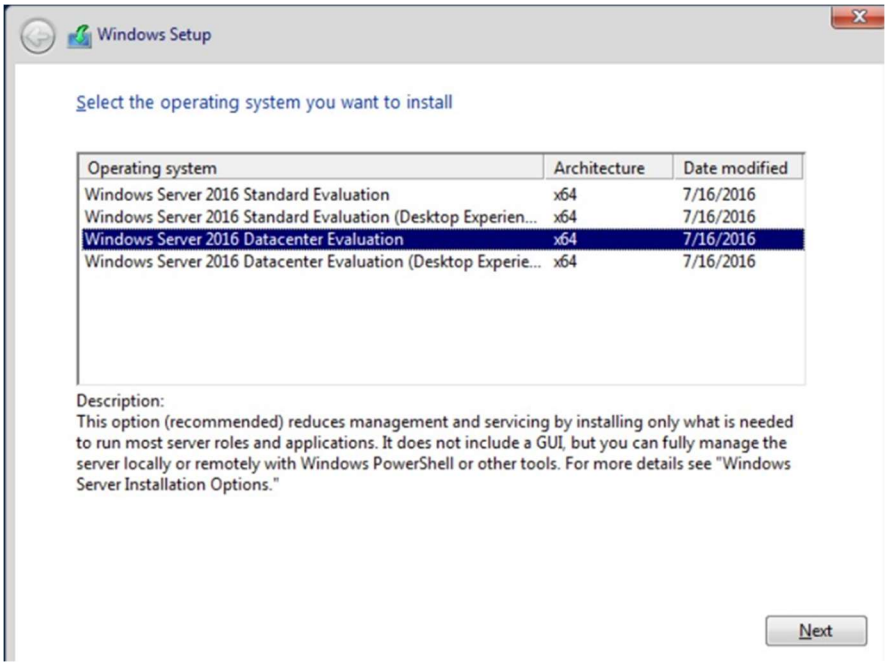
Step 3: Install Windows Server 2016

1. Power on the VM and insert the Windows Server 2016 Datacenter Evaluation ISO.

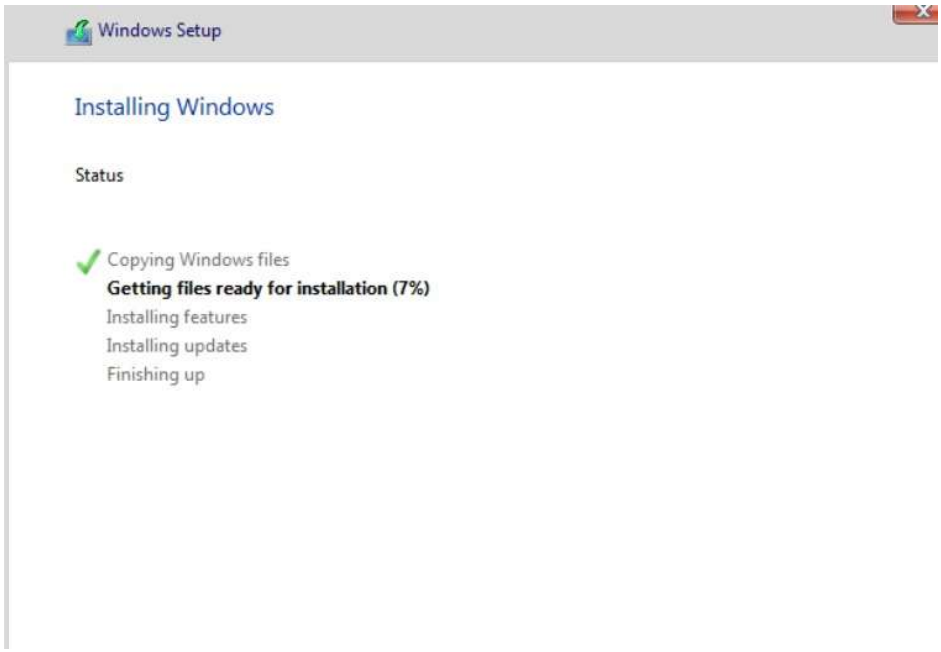


2. Follow the installation prompts, and set the desired language.

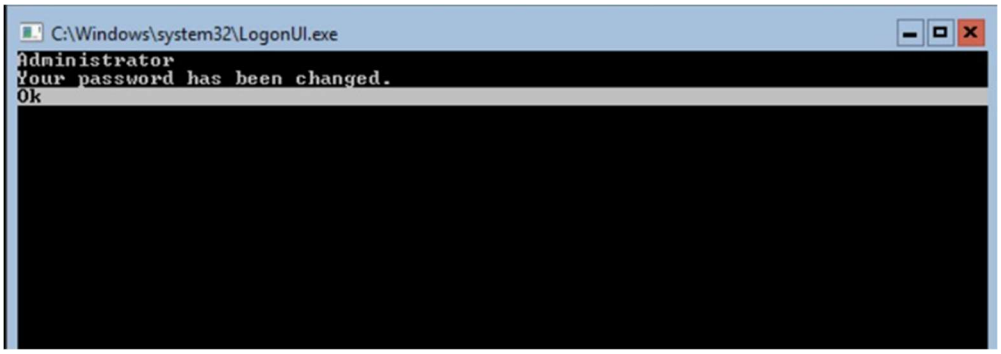
3. Choosing Windows Server 2016 Datacenter Evaluation for the "cli01" VM offers a strong foundation for testing and trying out different server applications and services.



4. Start the installation.

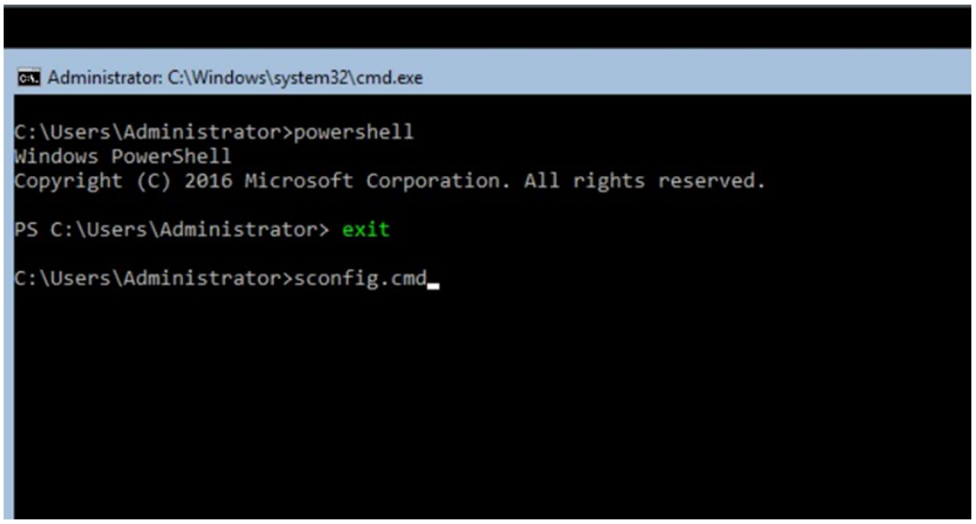


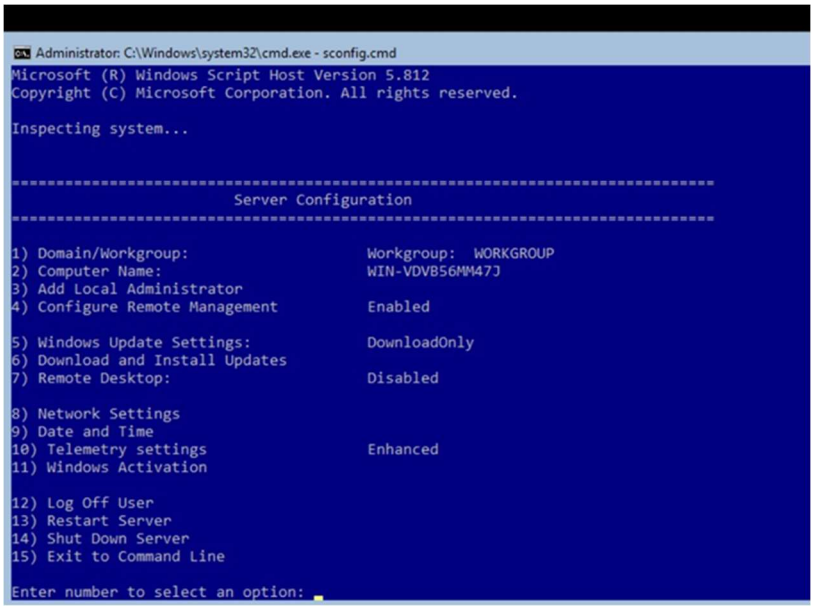
5. Set the administrator password upon prompt.



Step 4: Configure Network Settings

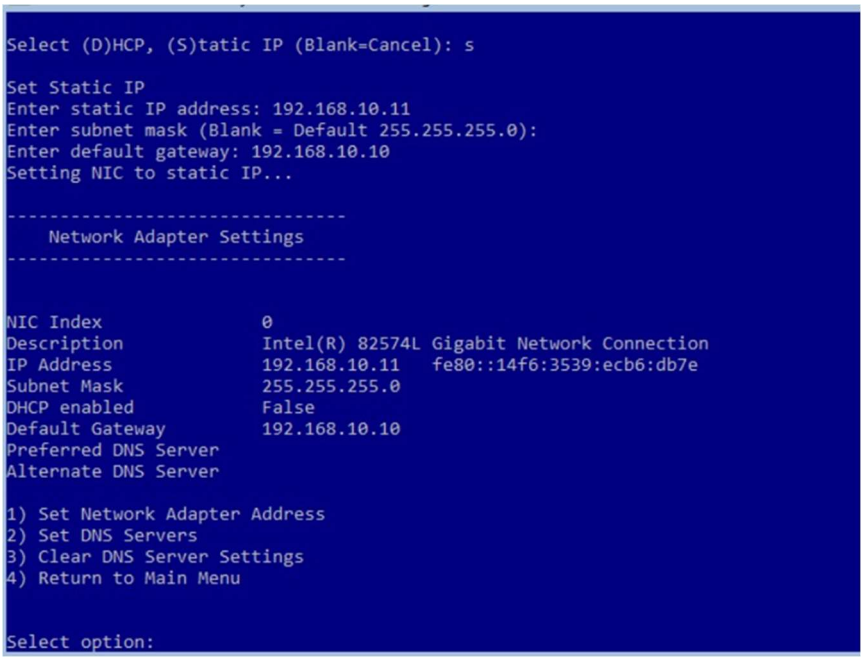
1. After installation, open the command prompt and type sconfig.cmd.



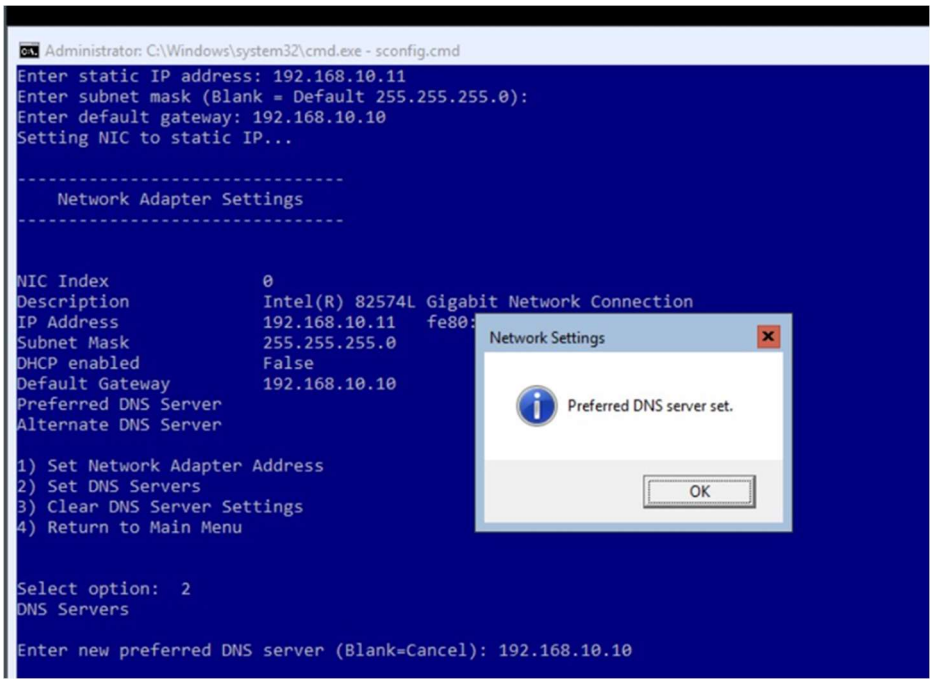


The command “sconfig.cmd” launches the Server Configuration Tool, a command-line utility that provides a simplified interface for configuring various aspects of the server.

2. Set the IP address, subnet mask, default gateway, and DNS server:
    - IP Address: 192.168.10.11
    - Subnet Mask: 255.255.255.0
    - Default Gateway: 192.168.10.10
    - DNS Server: 192.168.10.10



Within the Server Configuration Tool, one of the initial options presented is to configure network settings. This option (Option 8) allows you to set up the server's IP address, subnet mask, default gateway, and DNS server. By selecting this option, you can specify the network configuration required for the server to communicate on the network. In the provided scenario, the server's IP address was set to "192.168.10.11", with the appropriate subnet mask, default gateway, and DNS server values.



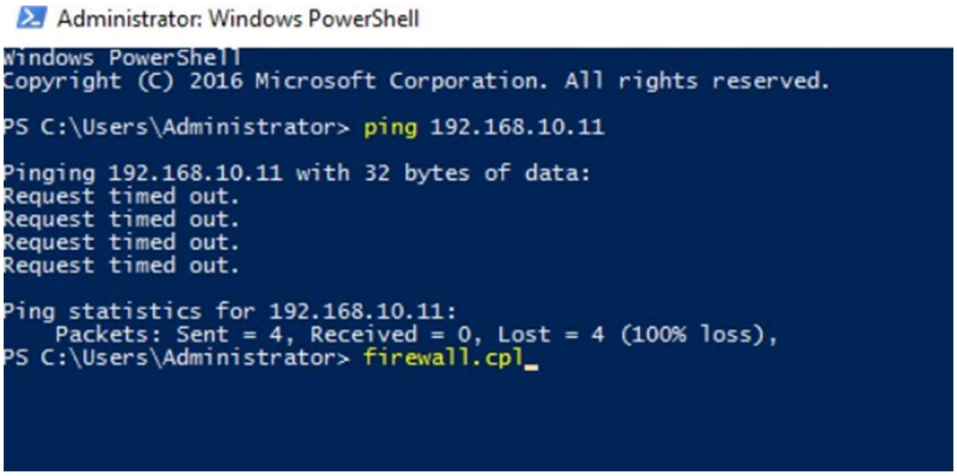
Step 5: Ping Domain Controller

1. From the DC server, attempt to ping “cli01” using the ping command.

```
Enter number to select an option: 15


C:\Users\Administrator>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:
Reply from 192.168.10.10: bytes=32 time=1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\Administrator>
```

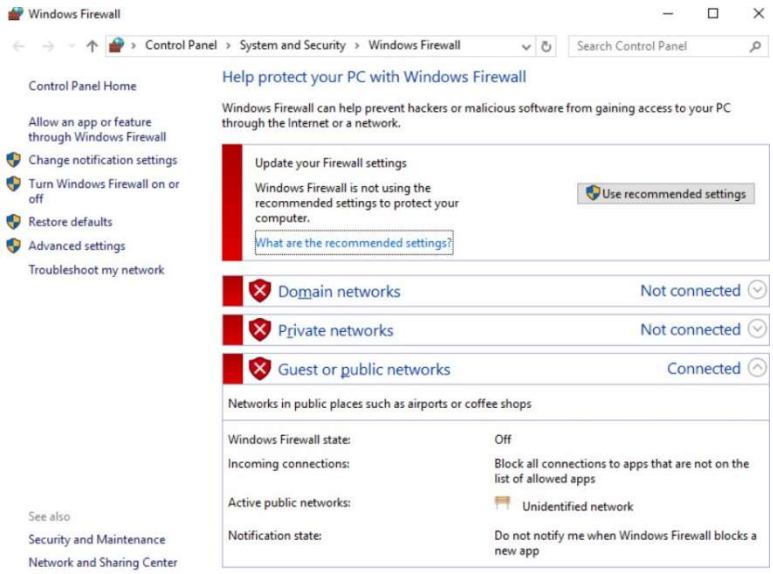
when you ping "cli01" from the domain controller (DC) machine, it's essentially testing the connectivity from the server (DC) to the client (cli01). The ping command helps verify that the DC can successfully communicate with the client machine over the network. If the ping is successful, it indicates that there is a working network connection between the DC and the client, allowing them to exchange data and communicate effectively.

2. If the ping fails, proceed to the next step to adjust firewall settings.



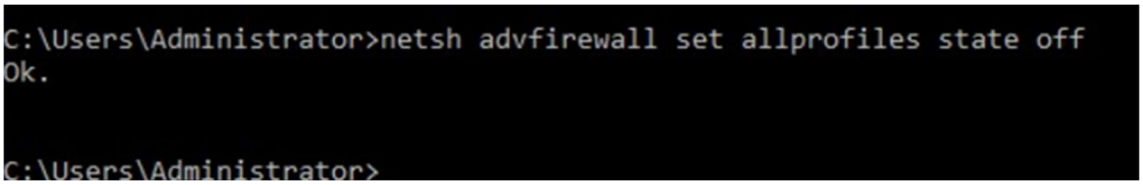
Step 6: Disable Firewall

1. Turn off the firewall to allow communication between the client and domain controller.



When I access the "firewall. Cpl" command, it is actually opening the Windows Firewall control panel applet. This allows to manage the firewall settings on the machine. Here it is used to disable mainly the domain networks(also Private and Public networks) temporarily to allow network communication, such as ping, between the client ("cli01") and the domain controller (DC) during the domain join process. Disabling the firewall ensures that the necessary network traffic isn't blocked, allowing the machines to communicate effectively while joining the domain.

2. Disable the firewall using the command 'netsh advfirewall set allprofiles state off'.

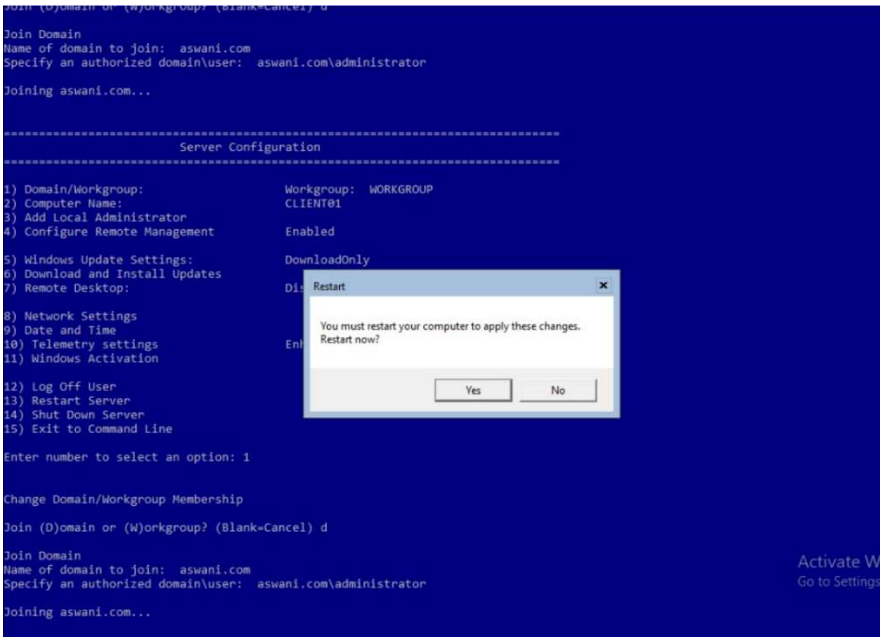


3. Now the DC machine ping to Cli01

```
Ping statistics for 192.168.10.11:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PS C:\Users\Administrator> firewall.cpl
PS C:\Users\Administrator> ping 192.168.10.11

Pinging 192.168.10.11 with 32 bytes of data:
Reply from 192.168.10.11: bytes=32 time=1ms TTL=128
Reply from 192.168.10.11: bytes=32 time<1ms TTL=128
Reply from 192.168.10.11: bytes=32 time<1ms TTL=128
Reply from 192.168.10.11: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\Administrator>
```

Step 7: Join Domain

1. Return to the command prompt and type 'sconfig.cmd' again.
2. Select option 2 to change the computer name, setting it to 'client01'.
3. Then, choose option 1 again to change domain membership and join the domain.
4. Enter the domain name 'aswani.com' and provide authorized domain credentials (e.g., aswani.com\administrator) with the corresponding password.



Step 8: Verify Domain Join

1. Restart the computer to apply the changes.
2. Verify successful domain join by checking Active Directory Users and Computers on the domain controller, where the client computer ('client01') should now be listed under Computers.