Network Diagram

Client-Server Information

| Hostname	IP Address	Description	Operating System	Users
ServerPDC.sp.cyber.com	192.168.58.161	Primary domain controller	Windows Server 2016	sysadmin
ServerDC.sp.cyber.com	192.168.58.162	Secondary domain controller, serves as a back up	Windows Server 2016	sysadmin
ClientOne.sp.cyber.com	192.168.58.100	Workstation for users	Windows 10	Bob, Alice & John

Domain Controller Setup Guide

This guide outlines the step-by-step procedure to configure a domain network with two domain controllers:
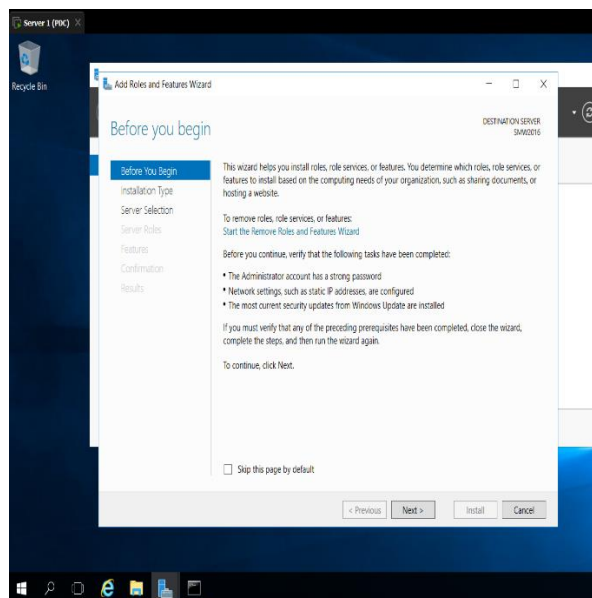
Step 1: Build Domain Controller for the first server (pdc.sp.cyber.com)

- Set the static IP for Server 1 (PDC) according to the following parameters:
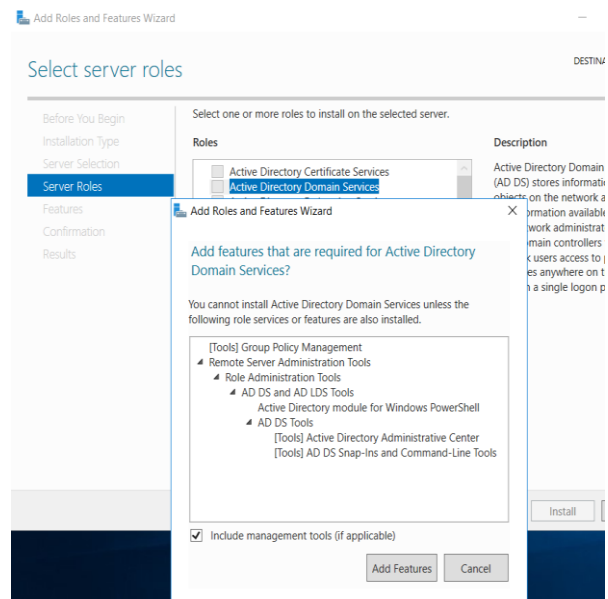 - ➢ IP: 192.168.58.161

- ➢ Subnet Mask: 255.255.255.0
- ➢ Default Gateway: 192.168.58.2
- ➢ Preferred DNS Server: 192.168.58.161
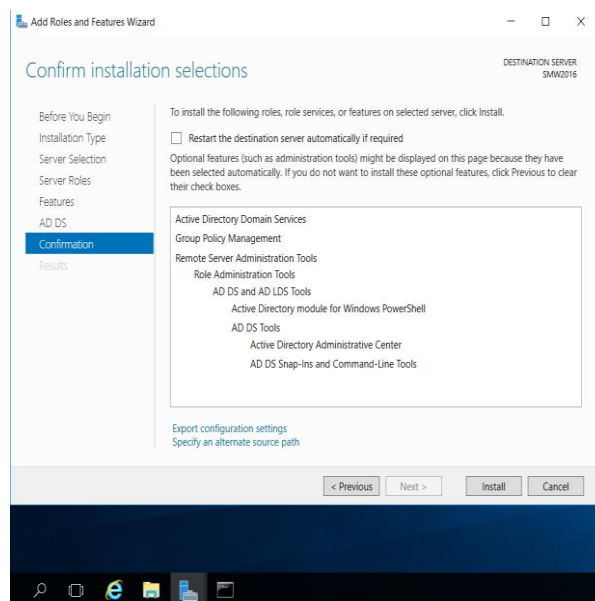- ➢ Alternate DNS Server: 127.0.0.1
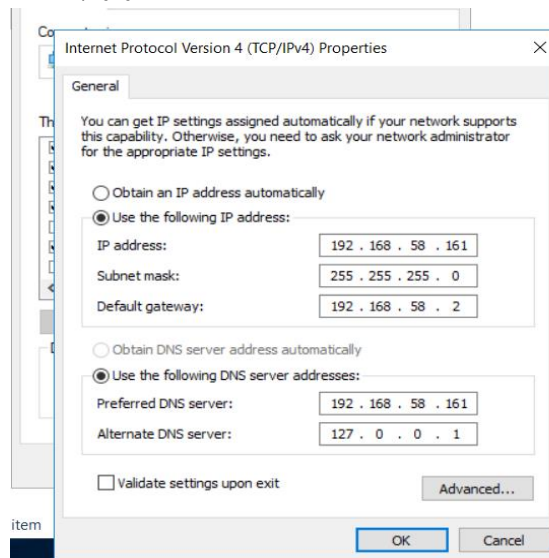
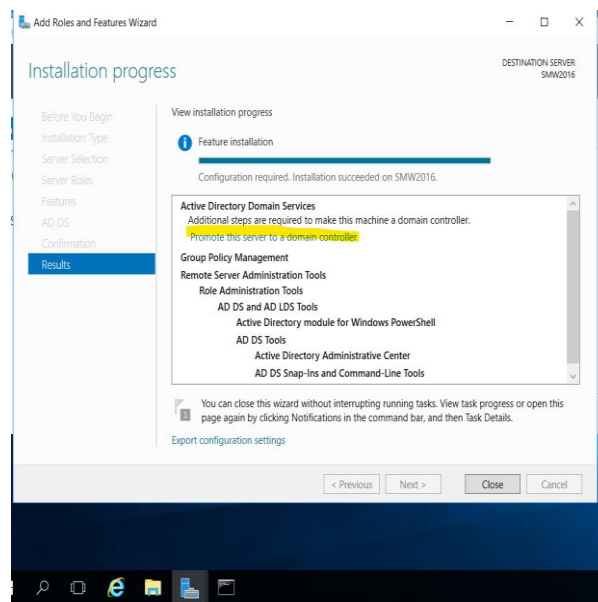- Open Server Manager and click on "Add roles and features."

- Select "Active Directory Domain Services" and choose "Add Features." Click "Next" to continue.
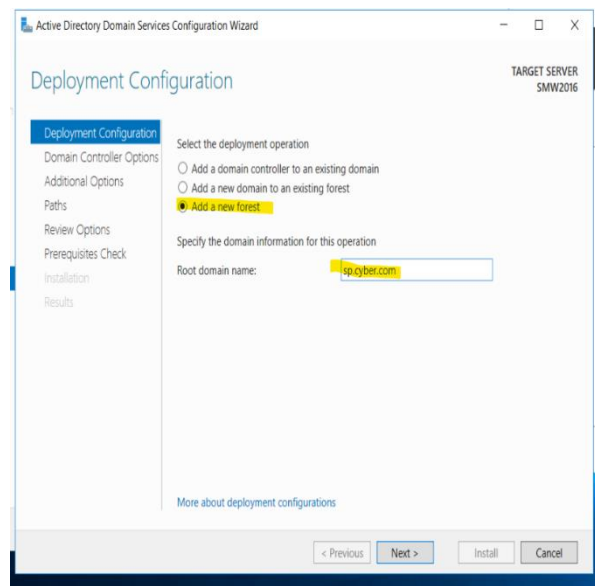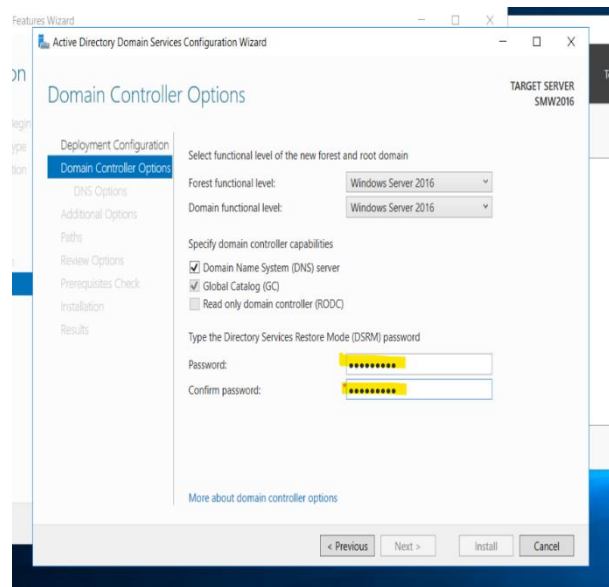
- Click "Install" and then "Close."

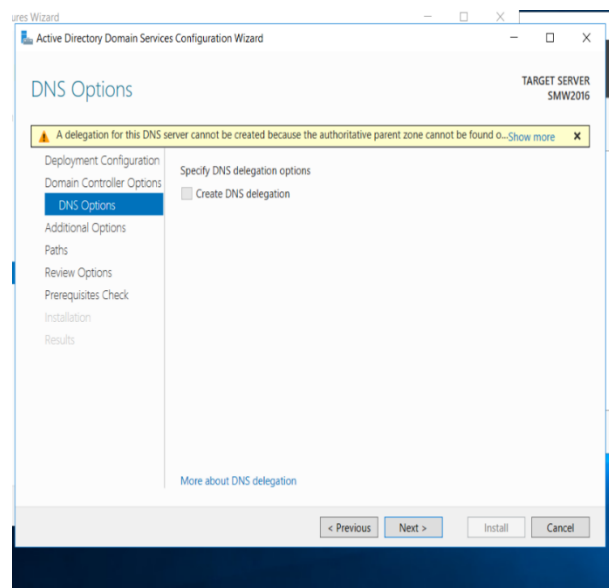- Click on "Promote this server to a domain controller."

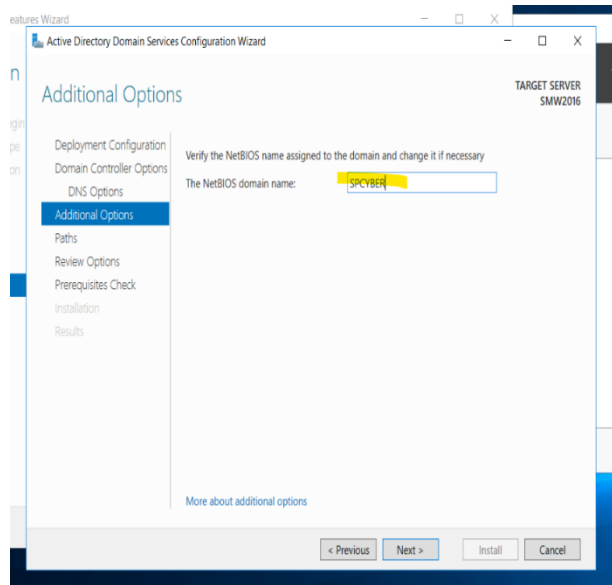- Choose "Add a new forest" and enter the desired domain name. Click "Next."

- Set the Directory Services Restore Mode (DSRM) password and click "Next" to continue.

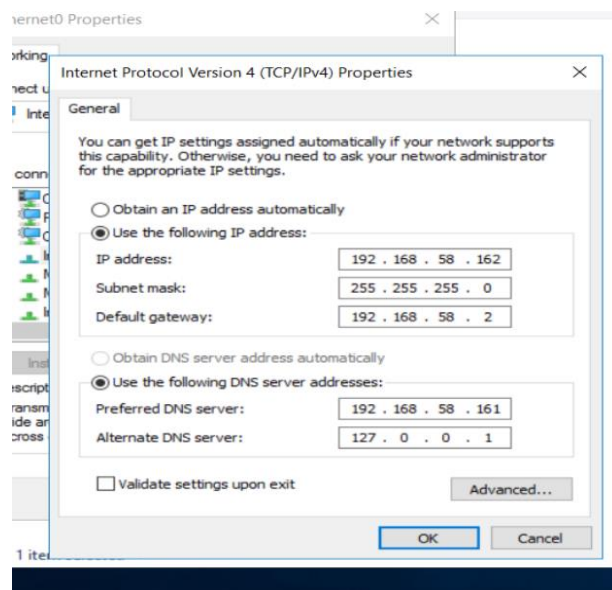- Review the DNS options and click "Next."

- Review the NetBIOS domain name and click "Next."

- Click "Next" again in the next tabs and then "Install."

Step 2: Use Server 2 to join Domain to Server 1

- Set the static IP for Server2 (DC) according to the following parameters:
  - ➢ IP: 192.168.58.162
  - ➢ Subnet Mask: 255.255.255.0
  - ➢ Default Gateway: 192.168.58.2
  - ➢ Preferred DNS Server: 192.168.58.161
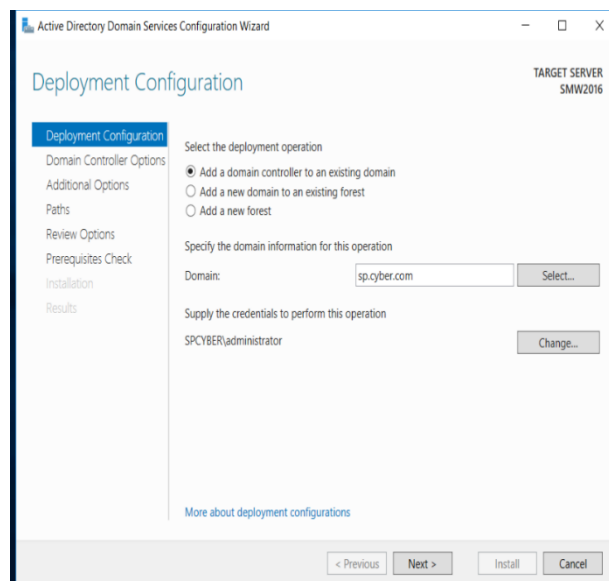 - ➢ Alternate DNS Server: 127.0.0.1
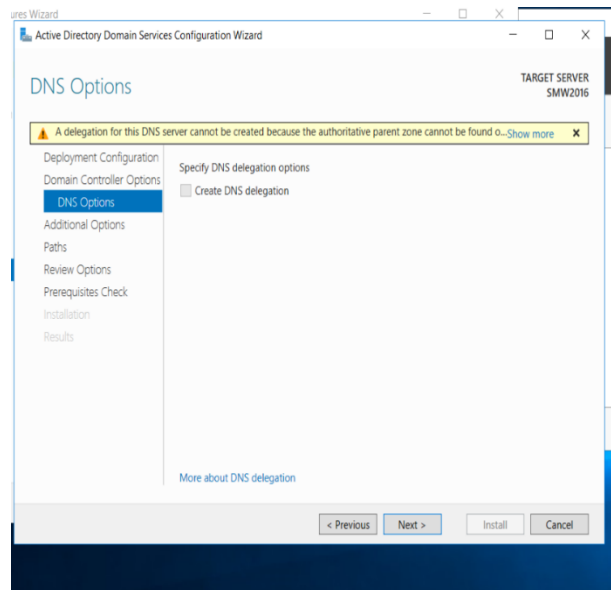
- Join Server 2 (DC) to the domain.
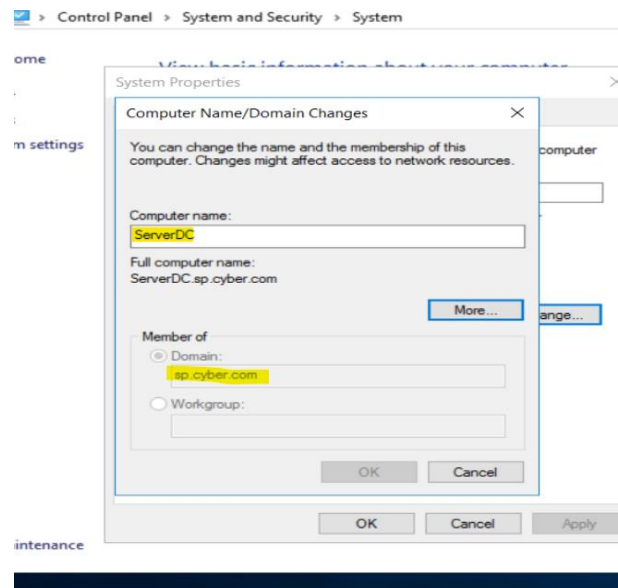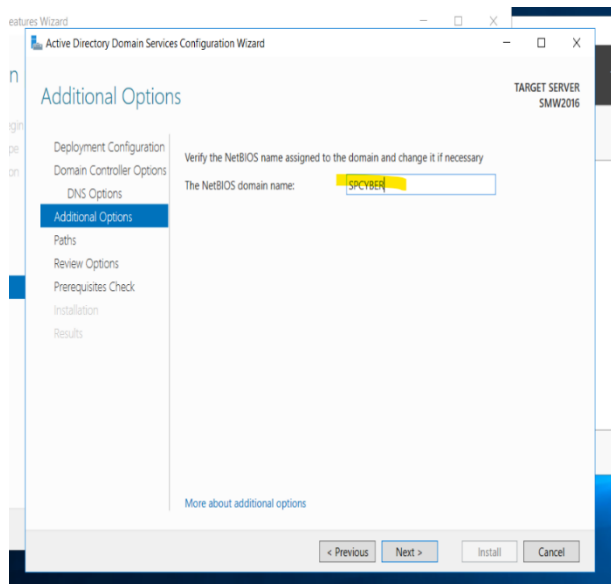

Step 3: Configure Server 2

- Install Active Directory Domain Services.
- Choose "Add a domain controller to an existing domain" and click "Next."

- Enter the DSRM password.
- In "Replicate from," choose **Server 1 (PDC)** and click "Next" to continue.
- Review the DNS options and click "Next."

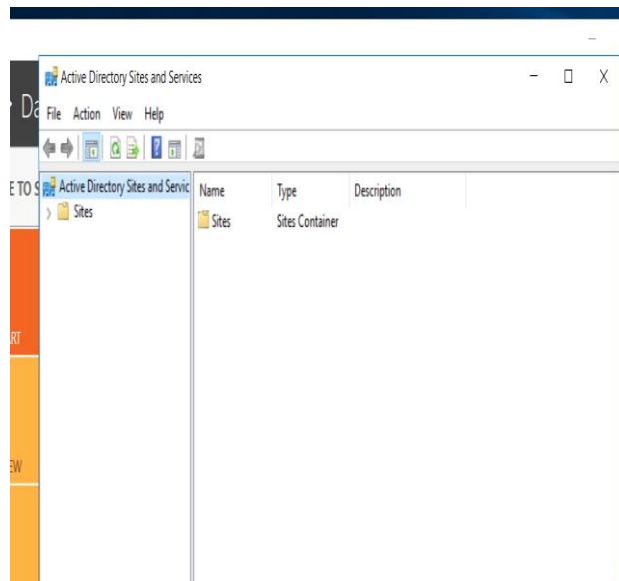- Review the NetBIOS domain name and click "Next."

- Click "Next" again and then "Install."

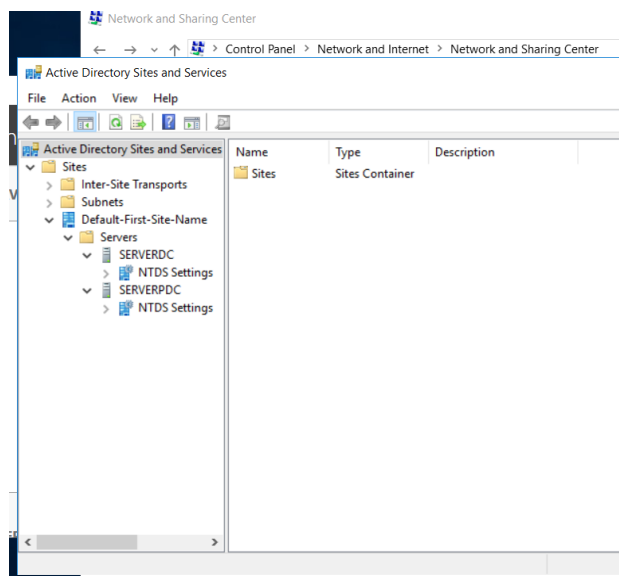**Step 4: Synchronize Servers and Join Domains for Clients**

In Server1 (PDC):

- Open "Active Directory Sites and Services."

Navigate to "Sites" -> "Defaults-First-Site-Name" -> "Servers."

Right-click on "NTDS Settings" of each server and check the Global Catalog.

- Adjust network settings to point Alternate DNS Server to Server 2 (192.168.58.162).

In Server 2 (DC):

- Point Alternate DNS Server to Server1 (192.168.58.161).
- Reboot both Server 1 and Server 2.

To add ClientOne to join the domain:

- On the Desktop, click the Start button, type Control Panel, and then press ENTER.
- Navigate to System and Security, and then click System.
- Under Computer name, domain, and workgroup settings, click Change settings.
- Under the Computer Name tab, click Change.
- Under Member of, click Domain, type the **sp.cyber.com** to allow the computer to join, and then click OK.
- Click OK in the Computer Name/Domain Changes dialog box, and then restart the computer.