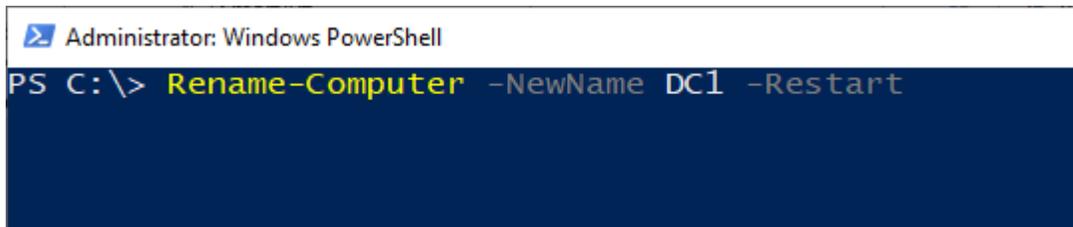


Lab Guide

Install “Active Directory Domain Services”

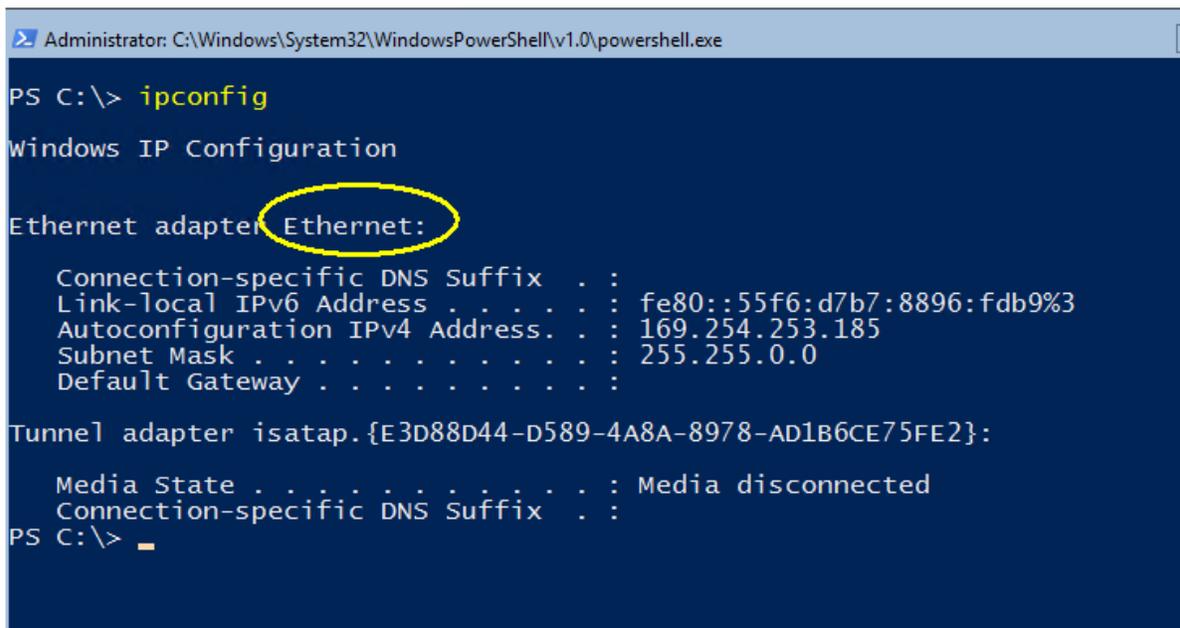
Install “Active Directory Domain Services”, and Promote “DC1” to a “Domain Controller”

1. To prepare the virtual machine, open PowerShell as administrator and type the following command to rename the machine to “DC1”



```
Administrator: Windows PowerShell
PS C:\> Rename-Computer -NewName DC1 -Restart
```

2. Configure static IP configuration before installing Active Directory, you can do that using Network Connections from Control panel or using PowerShell as follows
 - Use ipconfig to know the interface name



```
Administrator: C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
PS C:\> ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::55f6:d7b7:8896:fdb9%3
    Autoconfiguration IPv4 Address. . : 169.254.253.185
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 

Tunnel adapter isatap.{E3D88D44-D589-4A8A-8978-AD1B6CE75FE2}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
PS C:\> _
```

- Use the following command to set the IP Address, Subnet Mask and the Default Gateway

```
PS C:\> New-NetIPAddress -InterfaceAlias ethernet -IPAddress 10.10.10.1 -PrefixLength 24 -DefaultGateway 10.10.10.254

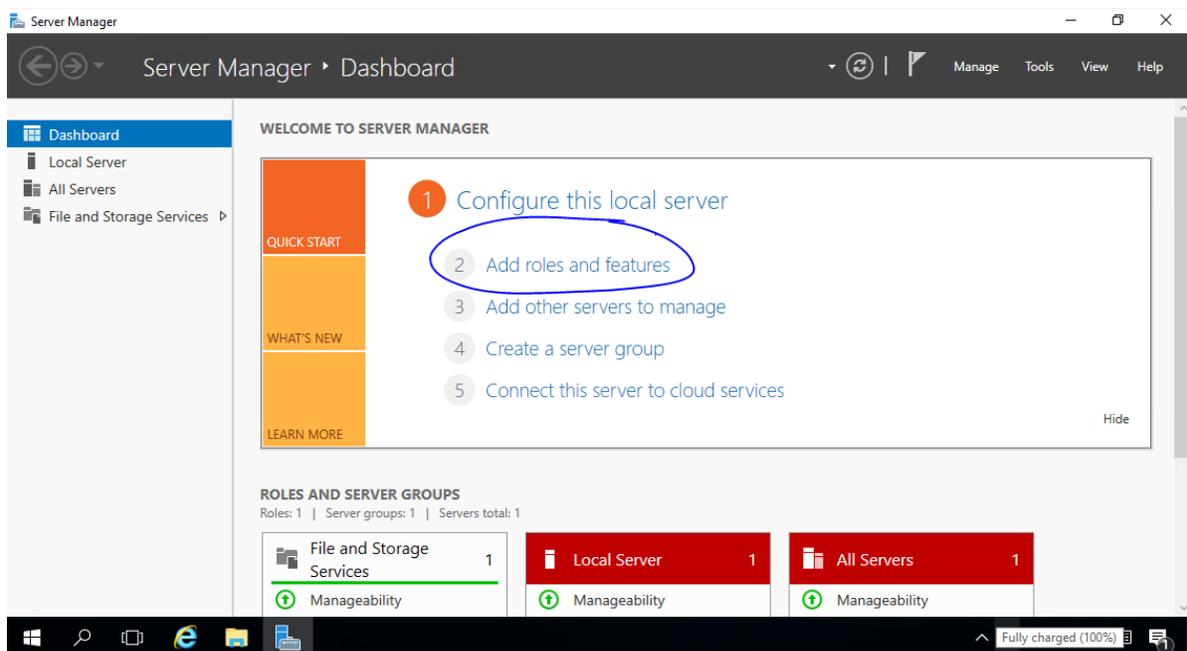
IPAddress      : 10.10.10.1
InterfaceIndex : 3
InterfaceAlias : Ethernet
AddressFamily  : IPv4
Type           : Unicast
PrefixLength   : 24
PrefixOrigin   : Manual
SuffixOrigin   : Manual
AddressState   : Tentative
ValidLifetime  : Infinite ([TimeSpan]::MaxValue)
PreferredLifetime : Infinite ([TimeSpan]::MaxValue)
SkipAsSource   : False
PolicyStore    : ActiveStore

IPAddress      : 10.10.10.1
InterfaceIndex : 3
InterfaceAlias : Ethernet
AddressFamily  : IPv4
Type           : Unicast
PrefixLength   : 24
PrefixOrigin   : Manual
SuffixOrigin   : Manual
AddressState   : Invalid
ValidLifetime  : Infinite ([TimeSpan]::MaxValue)
PreferredLifetime : Infinite ([TimeSpan]::MaxValue)
SkipAsSource   : False
PolicyStore    : PersistentStore
```

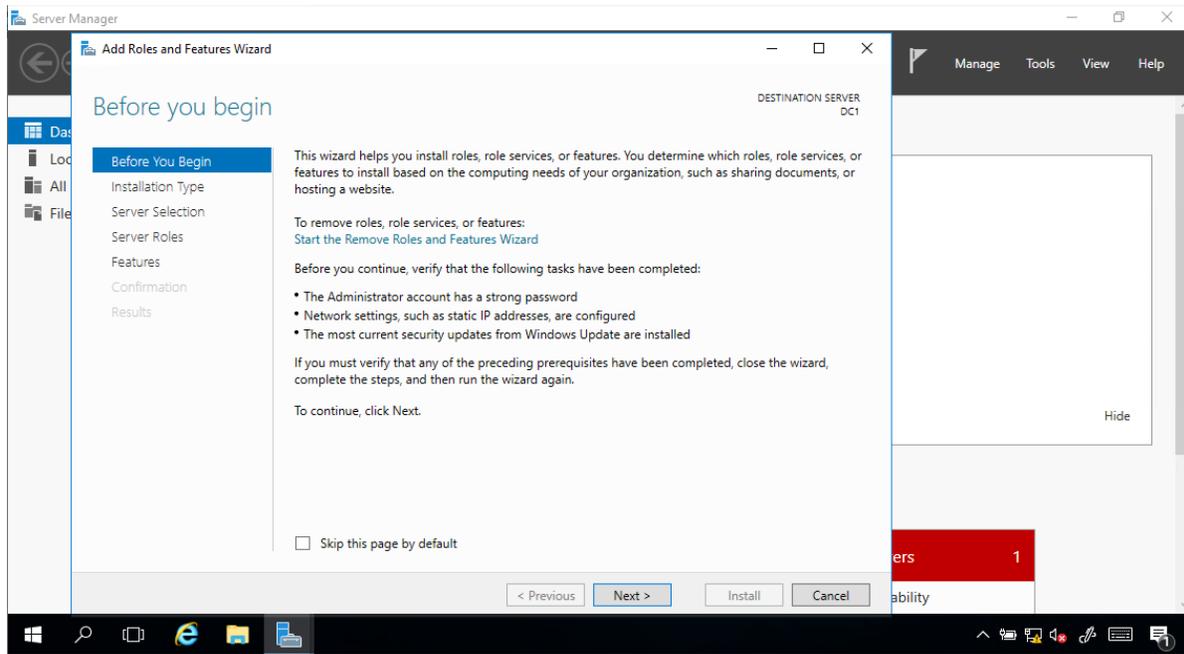
- Use the following command to configure DNS server address

```
Administrator: Windows PowerShell
PS C:\> Set-DnsClientServerAddress -InterfaceAlias ethernet -ServerAddresses 10.10.10.1
```

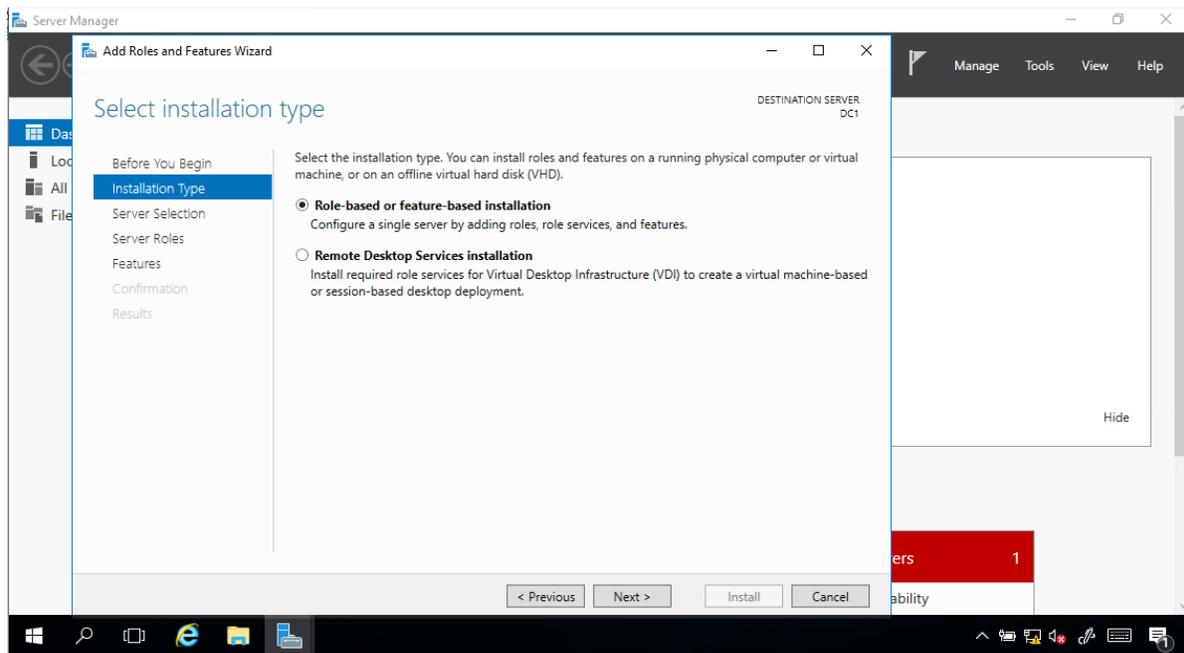
3. Open Server Manager, Select Add Roles and Features



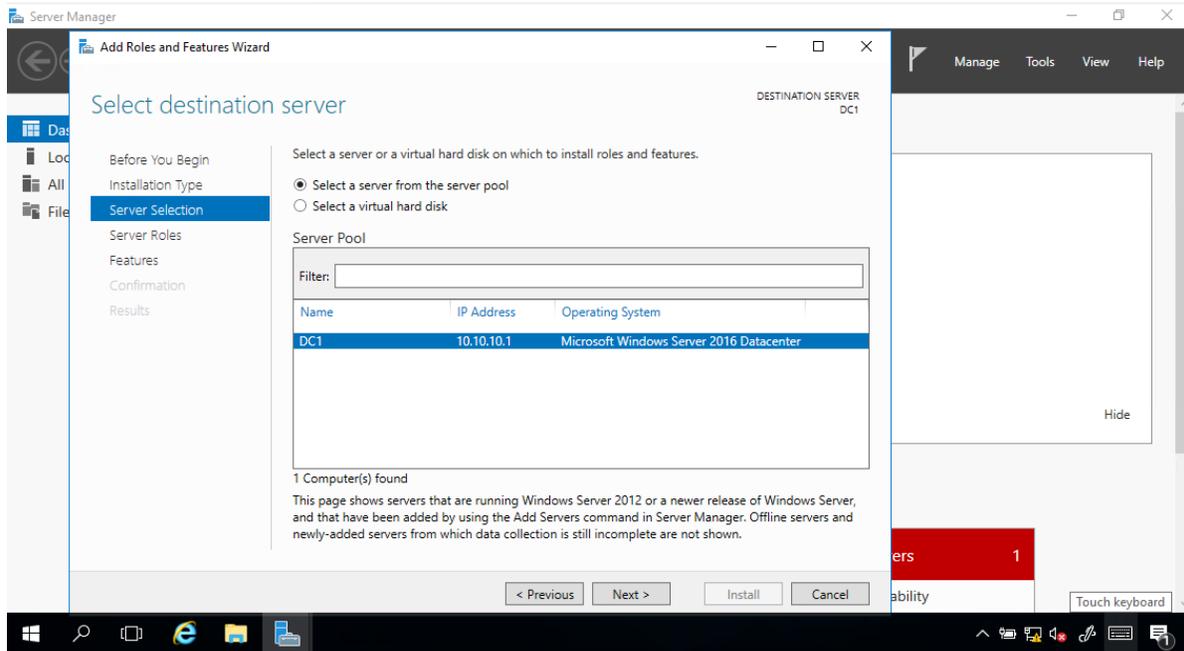
4. In “Before you begin” window, review the required tasks and make sure you finished them before you continue



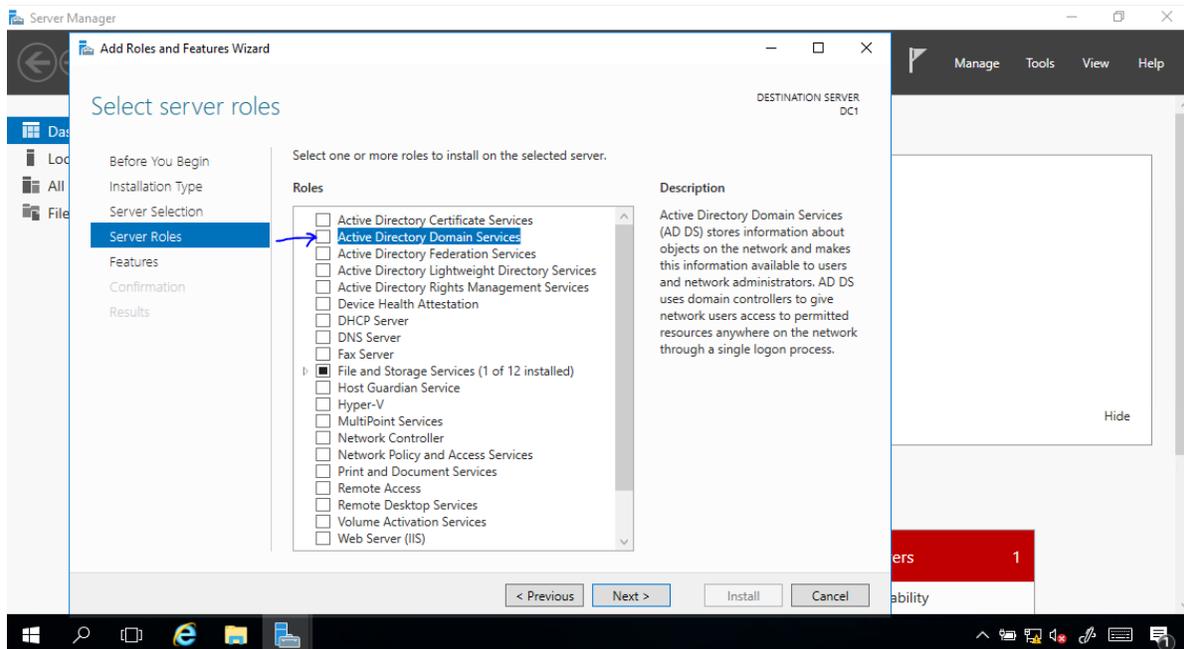
5. For the installation type keep the selection on “Role-based or feature-based installation”, and click Next



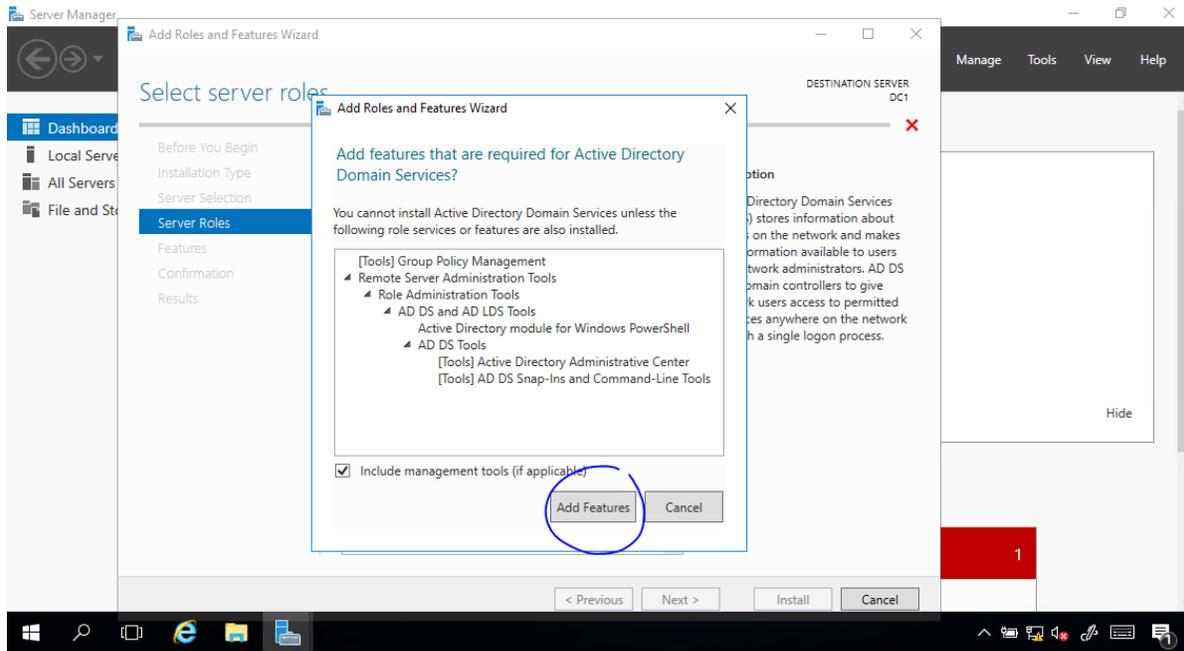
6. In “Select Destination Server” window, click Next



7. In Select Server Roles window, select “Active Directory Domain Services”

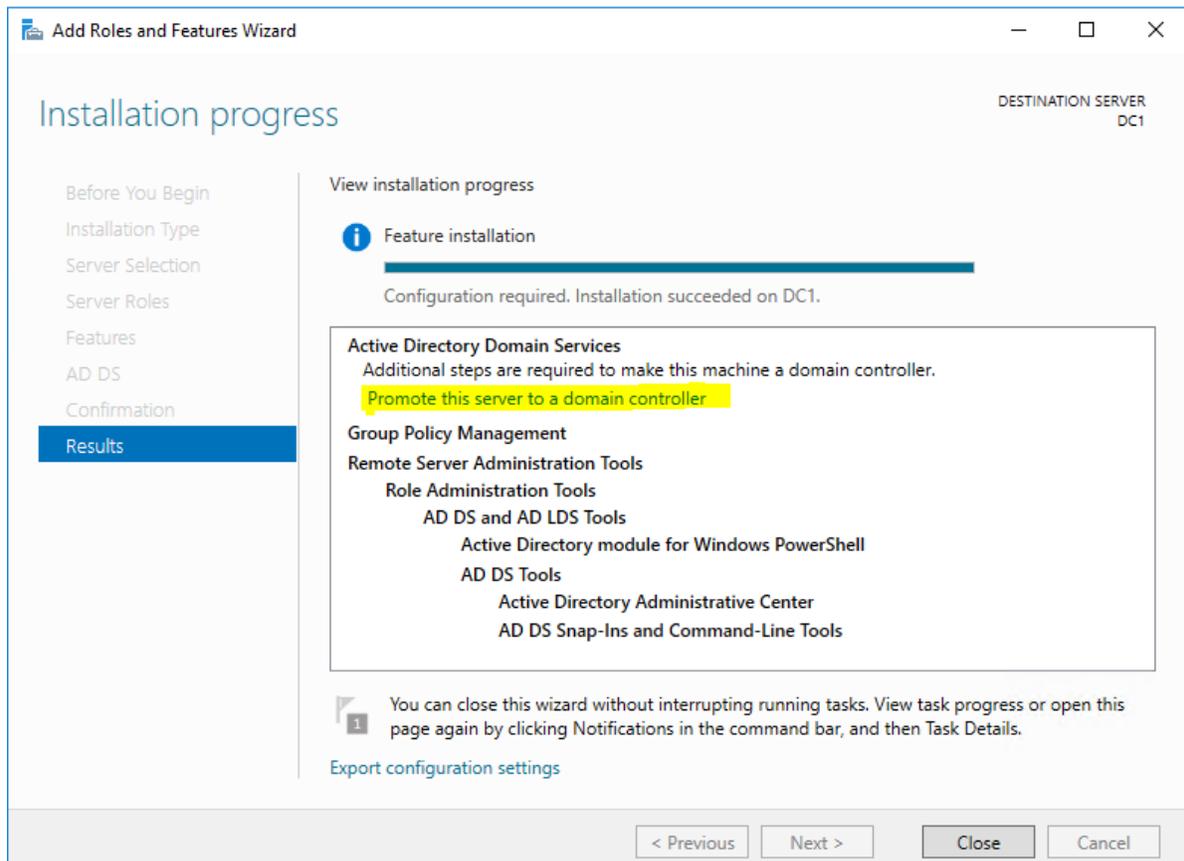


8. In the popup window click “Add Features” to accept the required features to be installed.

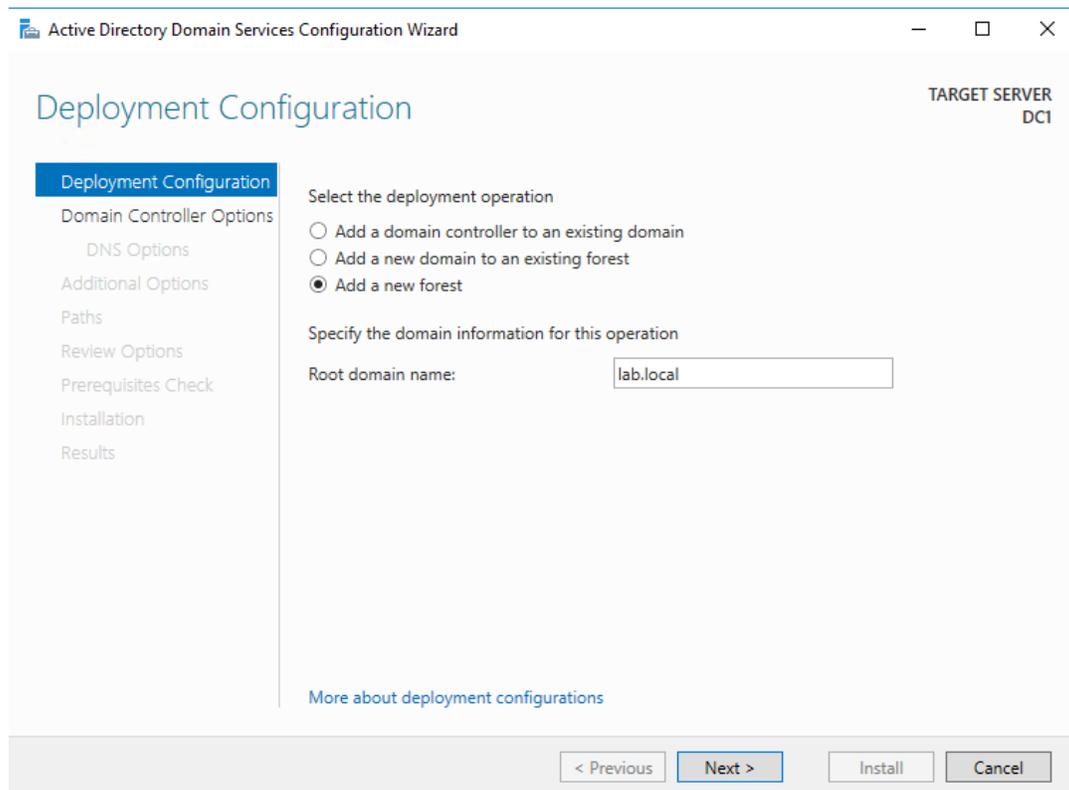


9. Finally click Install to finish the Installation

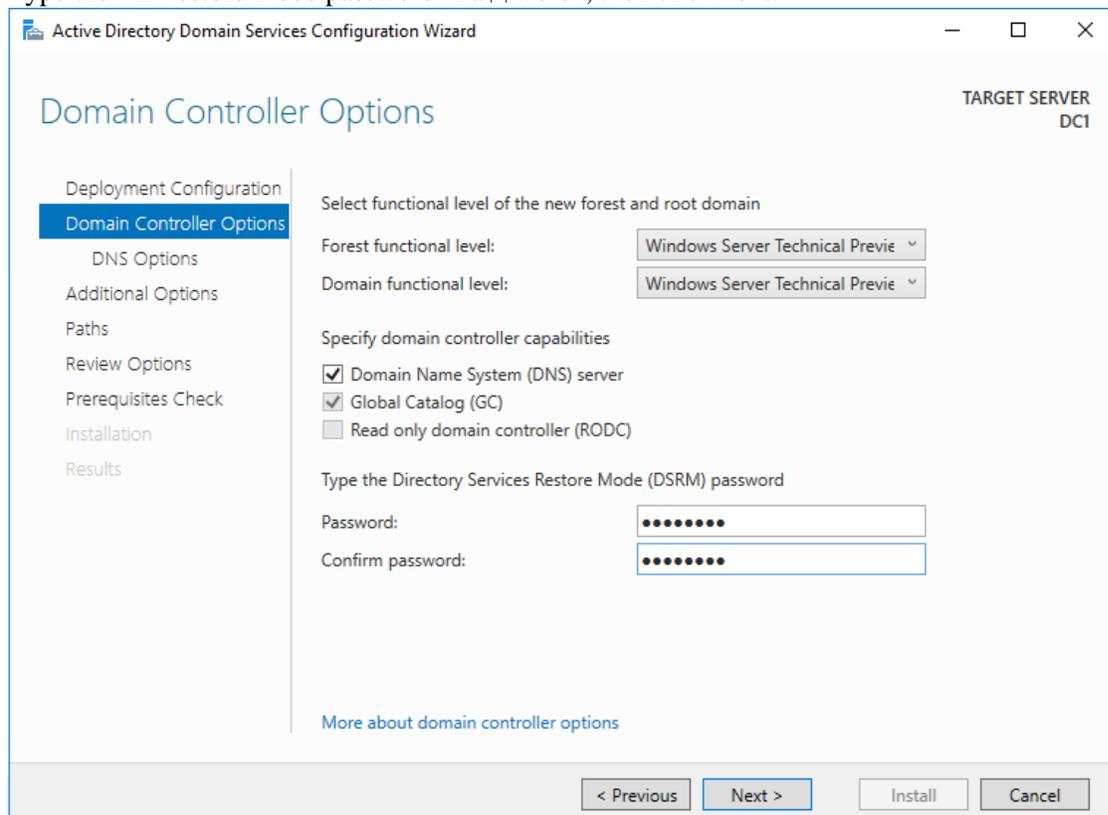
10. After the installation is finished, you can start promoting this server to a "Domain Controller" from the highlighted link "Promote this server to a domain controller"



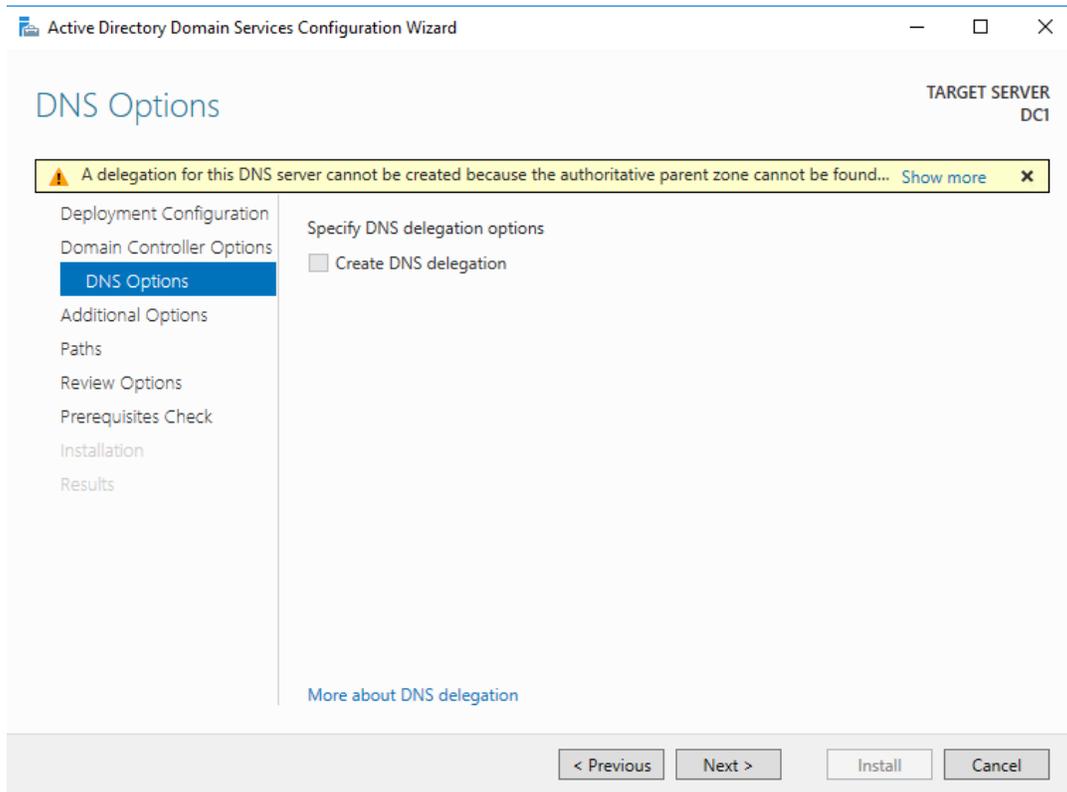
11. In the Deployment Configuration window, Select "Add a new forest", and type the root domain name "lab.local", then click Next.



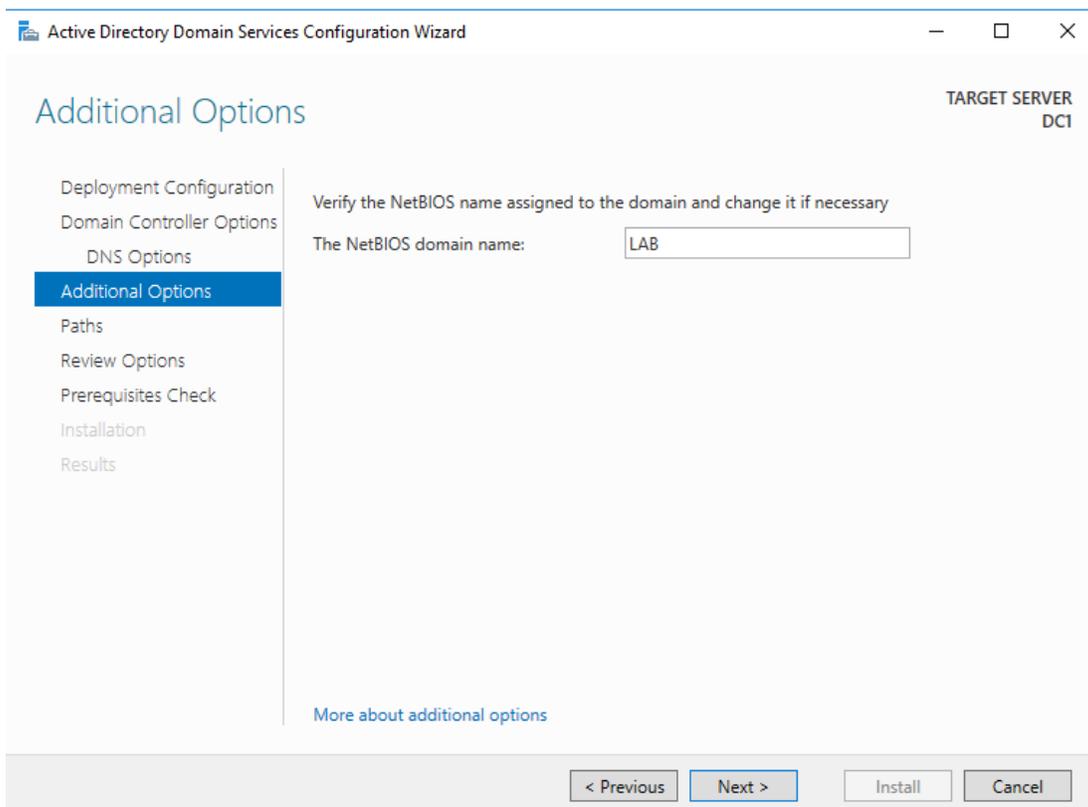
12. In the Domain controller Options window, leave the check box marked for "Domain Name System (DNS) server, because this is the first server in the environment and there is no DNS installed yet. Type the AD restore mode password "Pa\$\$word", then click next.



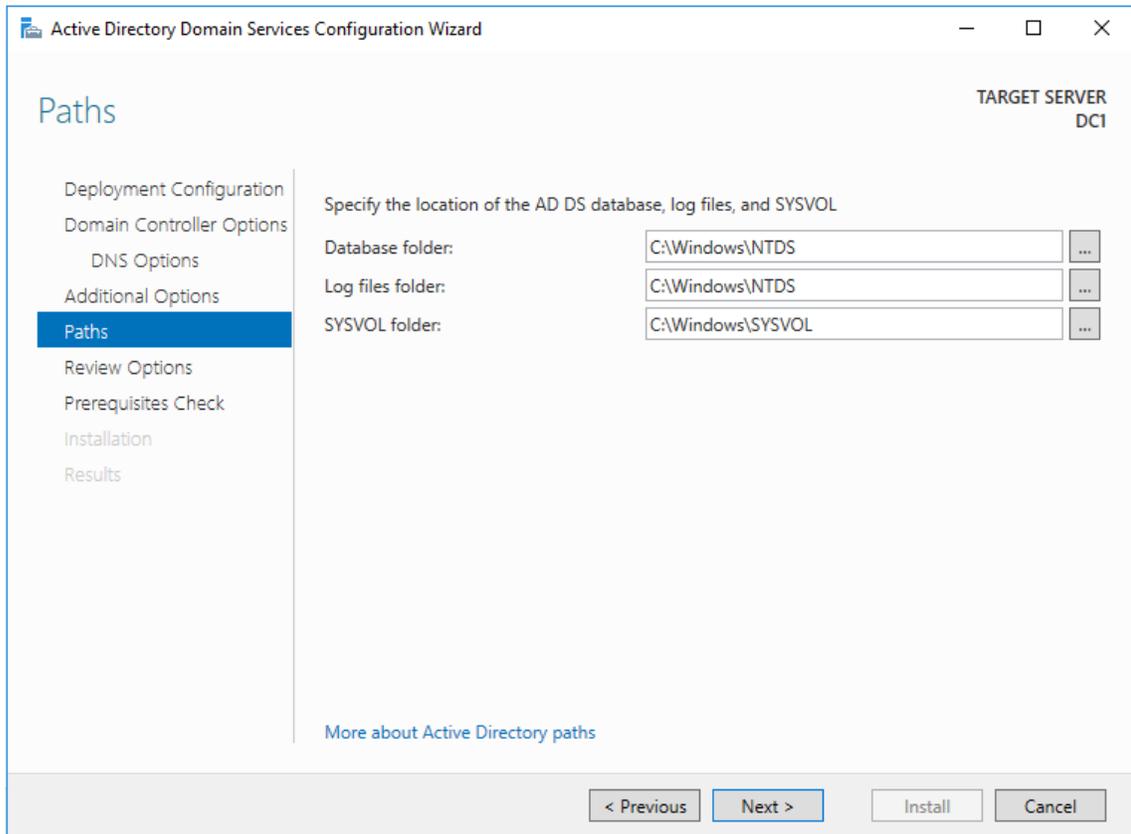
13. In the DNS Options window, ignore the warning and click next.



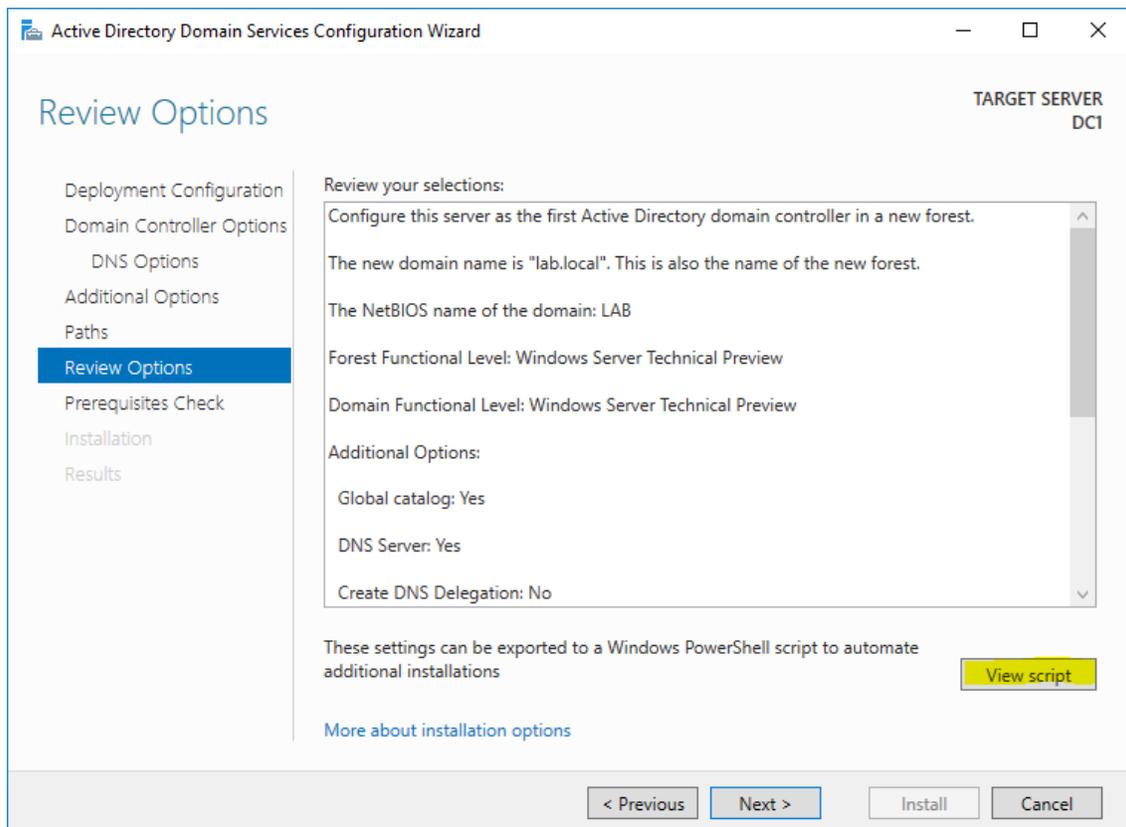
14. On the additional Options window, you will find the domain NetBIOS name, click next.



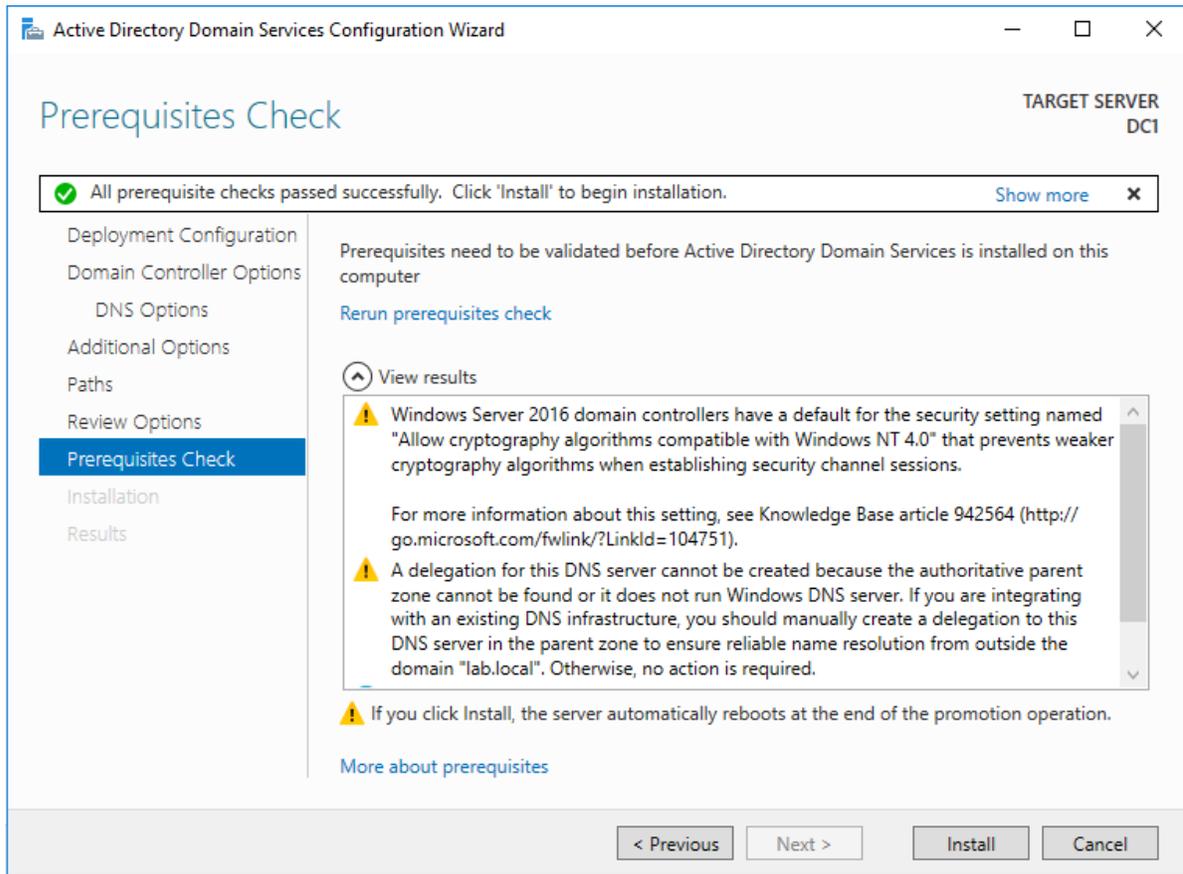
15. On the Paths windows, don't change the default paths, and click next.



16. In the “Review Options” window, check the script if you want, and click Next



17. In the “Prerequisites Check” window, click Install.



Join “Client1” to the Domain

1. Rename the “Windows 7” VM to the name “Client1”
2. Prepare “Client1” to join the domain by configuring the following static IP configuration

```
Ethernet adapter Local Area Connection:

Connection-specific DNS Suffix  . : 
Description . . . . . : Microsoft Virtual Machine Bus Network Adapter
Physical Address. . . . . : 00-15-5D-01-0C-04
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::ecab:e6e7:77fe:5ab8%11(Preferred)
IPv4 Address. . . . . : 10.10.10.20(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 10.10.10.254
DHCPv6 IAID . . . . . : 234886493
DHCPv6 Client DUID. . . . . : 00-01-00-01-27-E4-32-1C-00-15-5D-01-0C-04

DNS Servers . . . . . : 10.10.10.1
NetBIOS over Tcpip. . . . . : Enabled

Tunnel adapter isatap.{180BFAA5-2555-4F18-A3CD-1F44DDA3E3C1}:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix  . : 
Description . . . . . : Microsoft ISATAP Adapter
Physical Address. . . . . : 00-00-00-00-00-00-E0
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes

C:\>
```



One of the common issues is to forget to set the DNS server address to the DNS in your Domain

3. We can join the domain using the GUI. Go to Control Panel then System Properties, or you can use the following command in PowerShell
(Run PowerShell as Administrator)
`Add-Computer -DomainName lab.local -Credential Administrator -Restart`
It will ask for the Administrator password, and then restarts.