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CT5052NI

Level 5 – Network Operating Systems

Assessment Type

Logbook 9

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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.

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1. Introduction

Active Directory is a Microsoft service that helps manage network resources like users, computers, and groups in one location. It uses an LDAP system for secure logins and permissions. This makes it easier for administrators to set rules and control access. To use Active Directory, you need to install the AD DS role on a Windows Server to manage resources and protect the network.

2. Objective

- Explaining about installation and setup AD DS on windows server.
- To check AD DS from power shell.
- To show connection of DNS services.

3. Aim

The main aim of this logbook is to add domain features of active directory.

4. Steps

4.1) Login to the windows server 2022 as local administrator. open the Server Manager then click on “Add roles and features”.

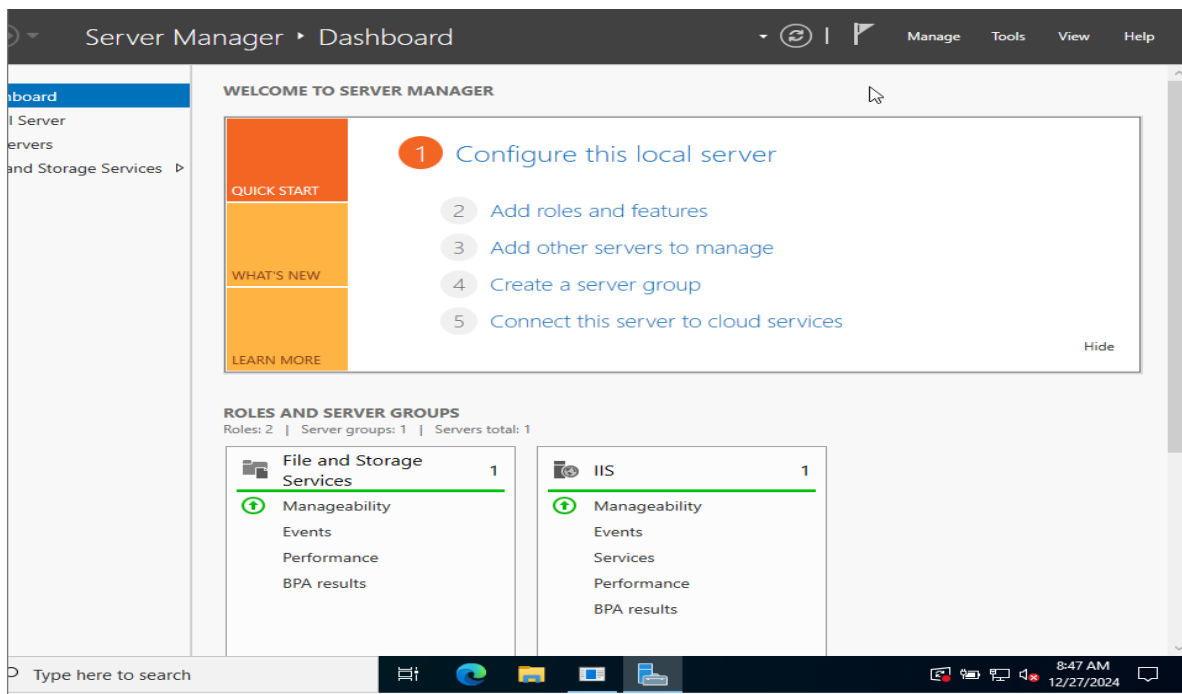


Figure 1 Adding roles and features

Open Server manager and click “Add roles and features”

4.2) Now, Click Next

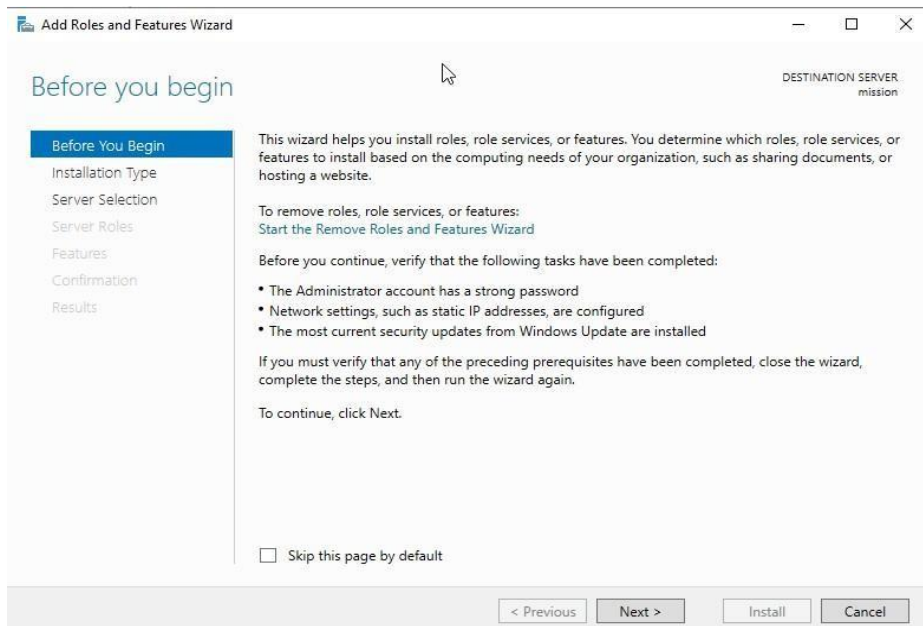


Figure 2 Add roles and Features wizard

4.3) Clicking on next button selecting default configuration.

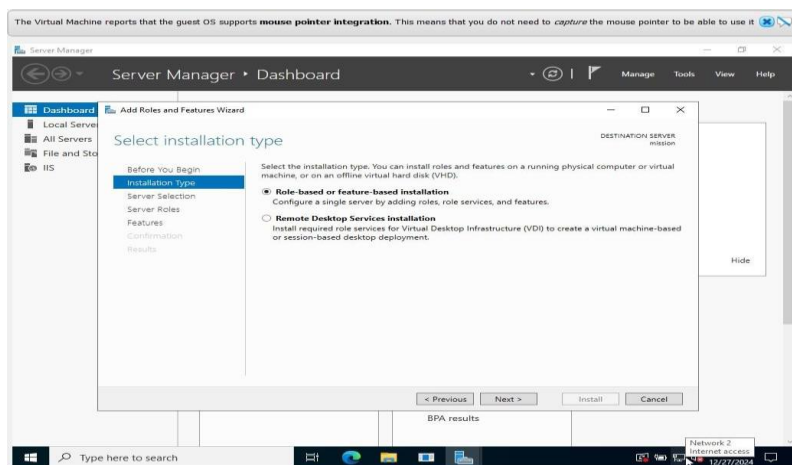


Figure 3 Selection of server

4.4) Click on “Select a server form the server pool” and clicking “Next”.

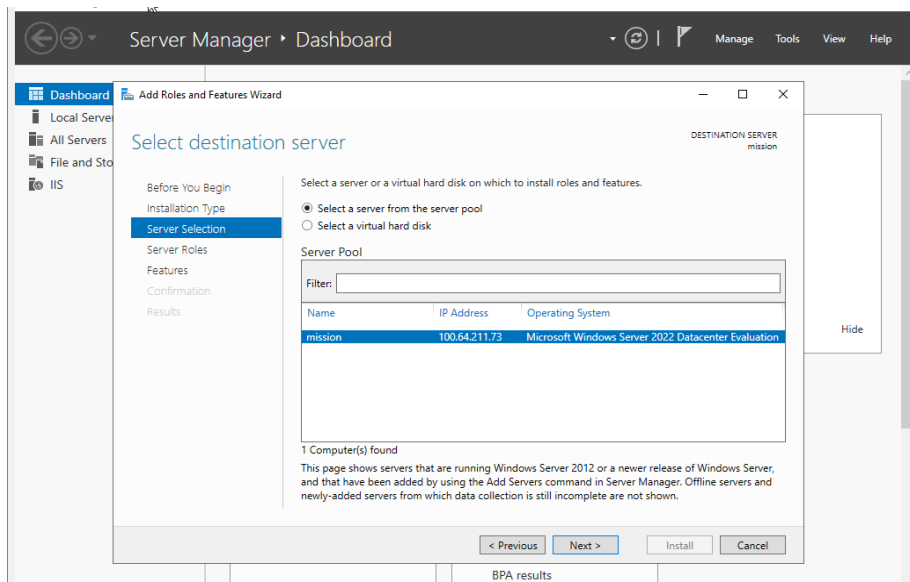


Figure 4 Selection of destination server

4.5) Selecting “Active Directory Certificate services” then clicking on Next button.

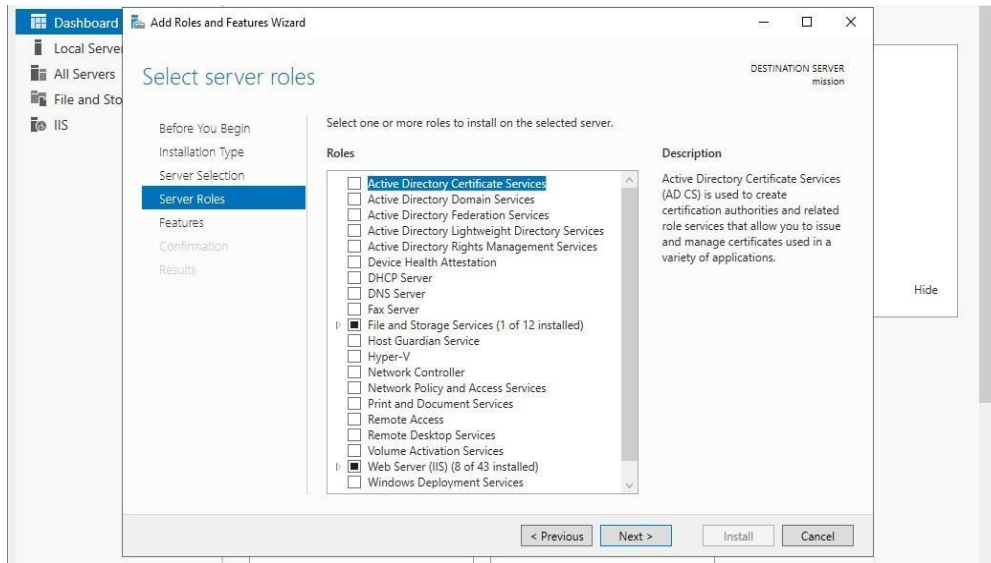
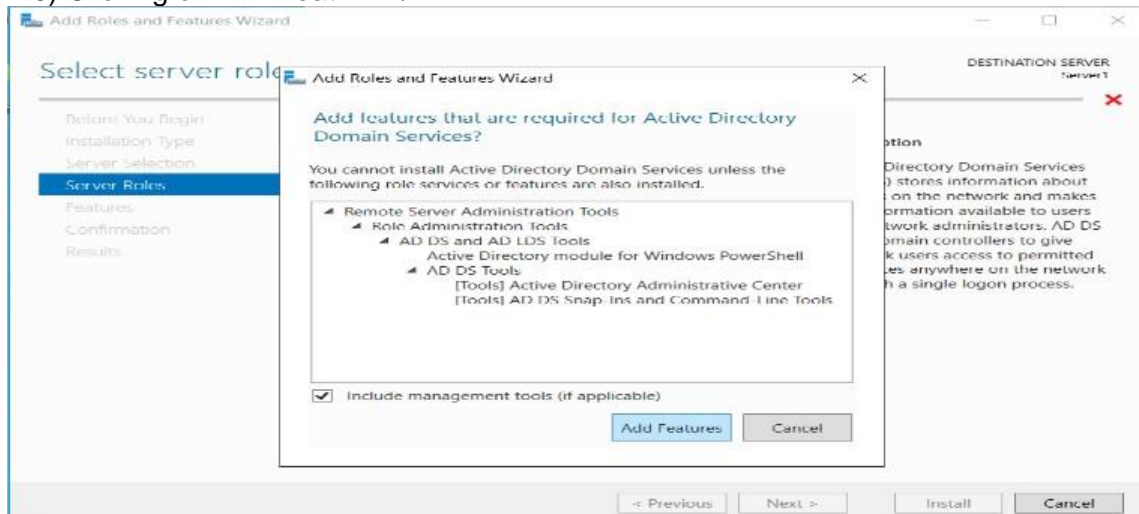


Figure 5 Add server roles and certificate

4.6) Clicking on “Add features”/



ures”

Figure 6 Adding features

4.7) Clicking “Next” after selecting “Group Policy Management”.

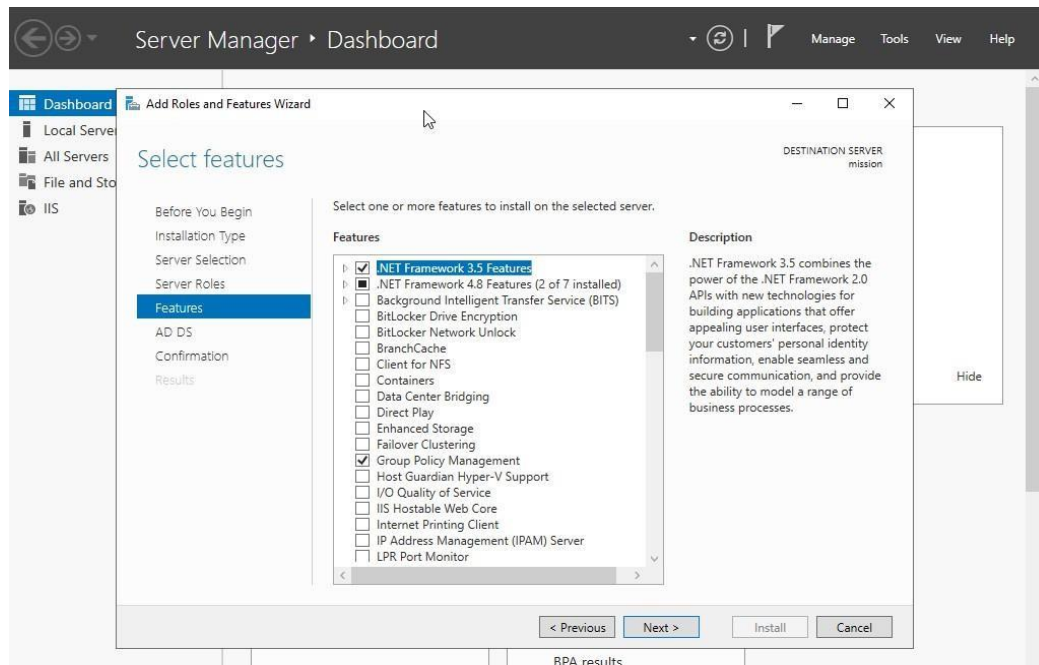


Figure 7 Installing Group Management Features installation

Step 8: Clicking on “Install” button.

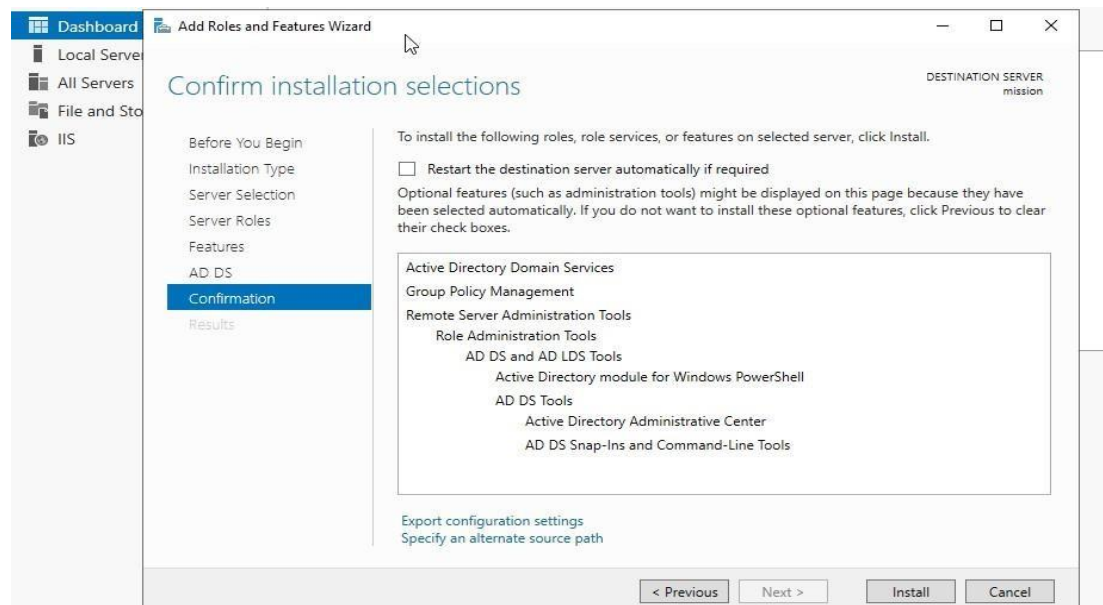


Figure 8 Confirming Features and Services

4.9) After installation is completed, click on close.

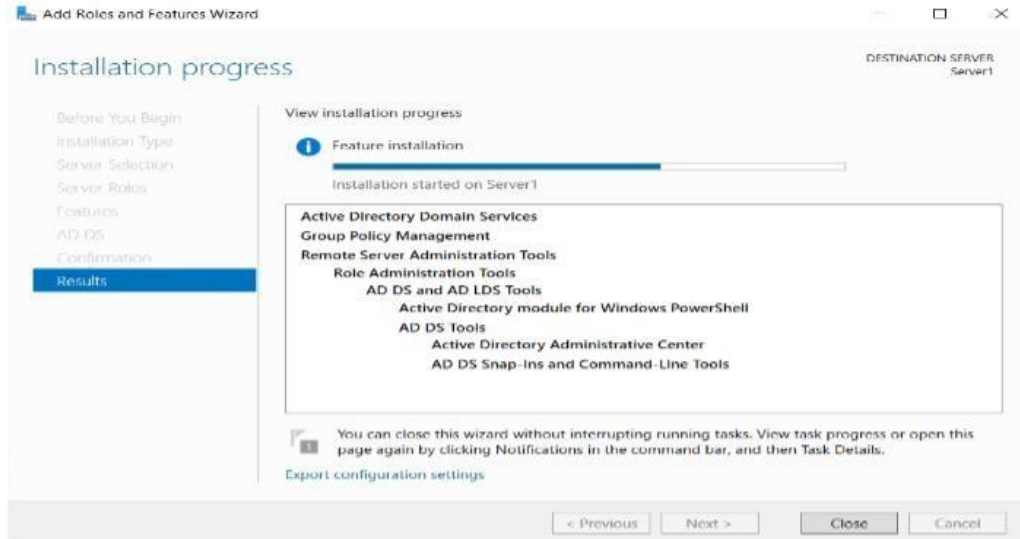


Figure 9 Result of installation

4.10) Now, navigate back to the server manager Dashboard then click on yellow sign then click on "Promote the server to domain controller".

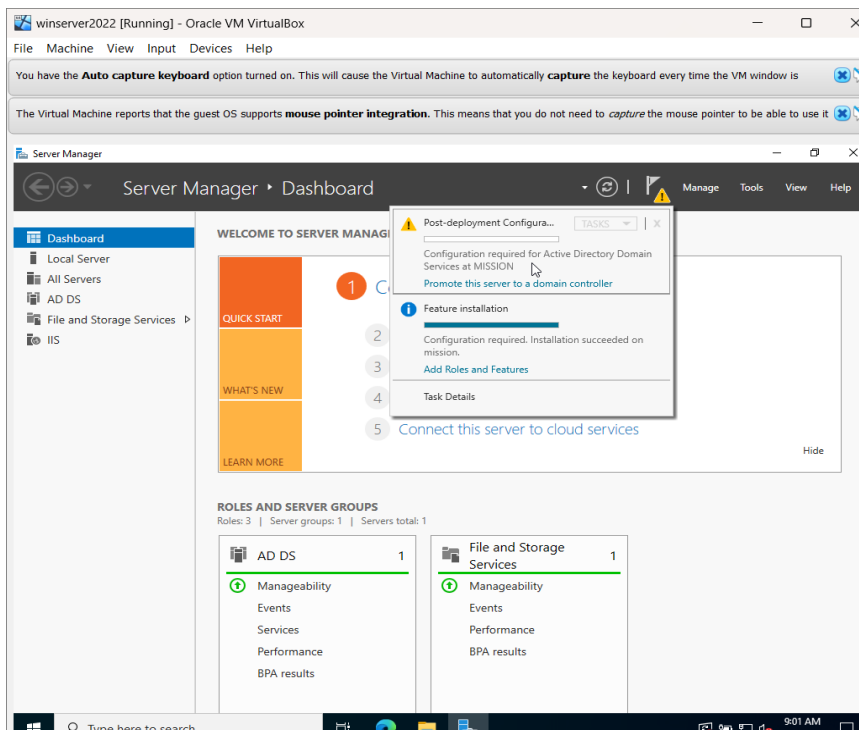


Figure 10 promoting the server to domain controller

4.11) Selecting add a new forest then type “domain.com” and clicking next.

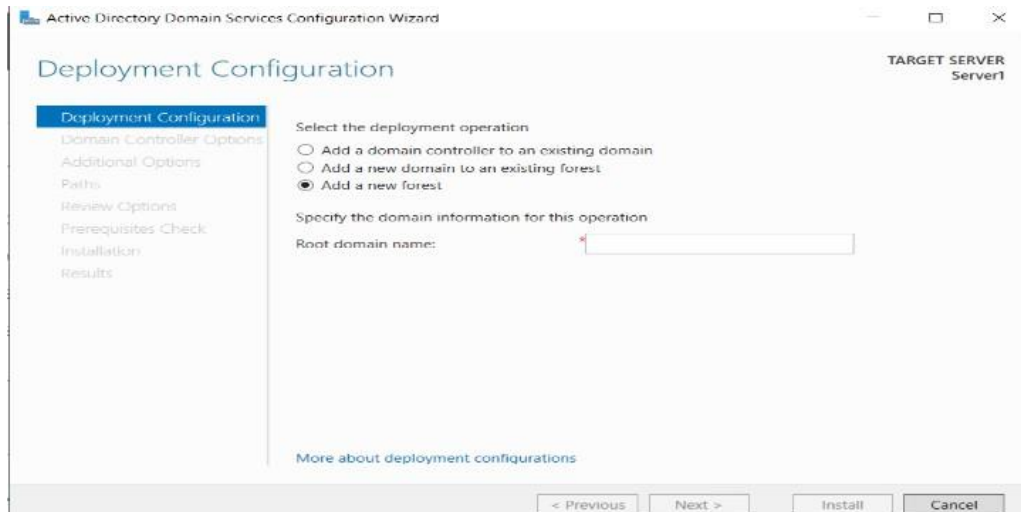


Figure 11 Domain name is given

4.12) Providing a password

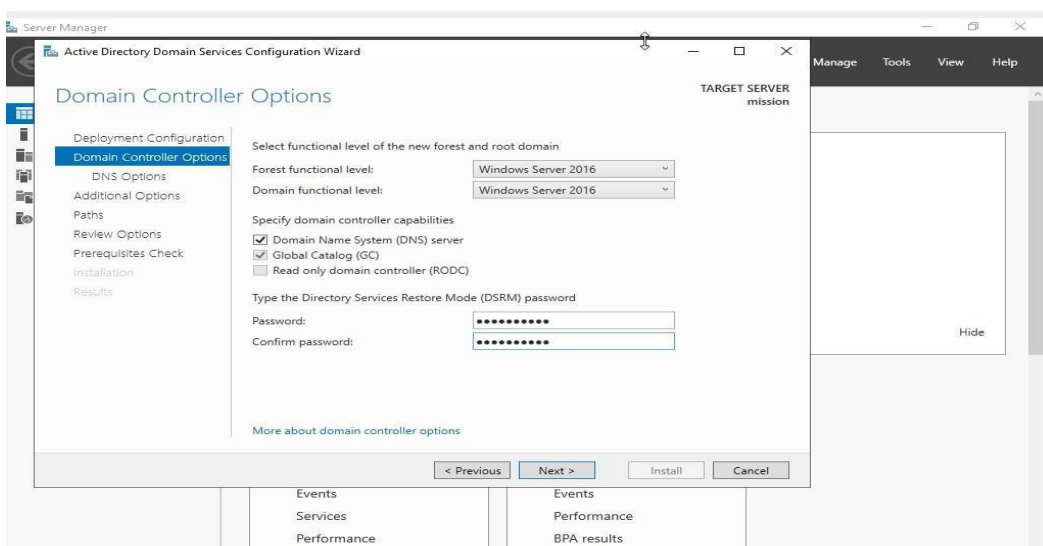


Figure 12 Password is given

4.13) Clicking on “Next” button.

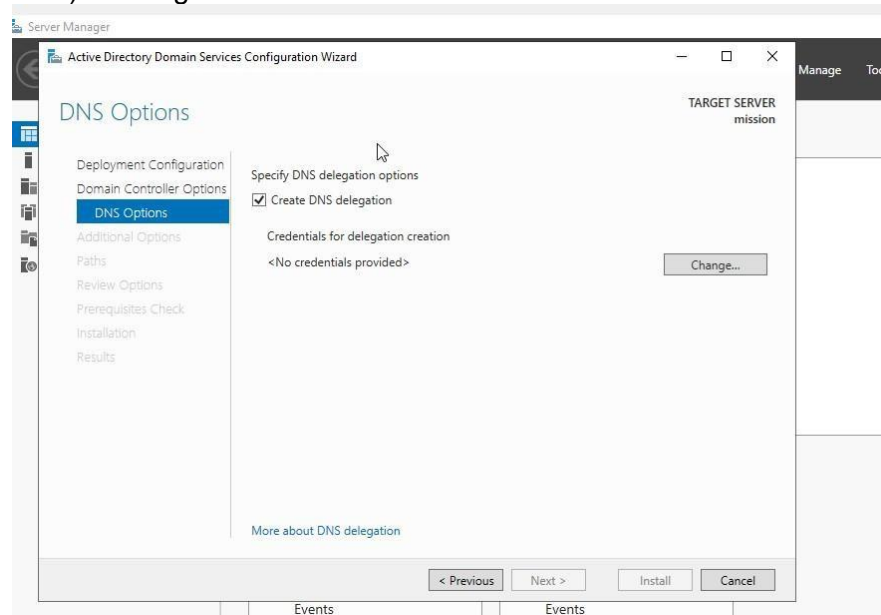


Figure 13 Click on next options

4.14) Verifying NetBIOS name then clicking on “Next”.

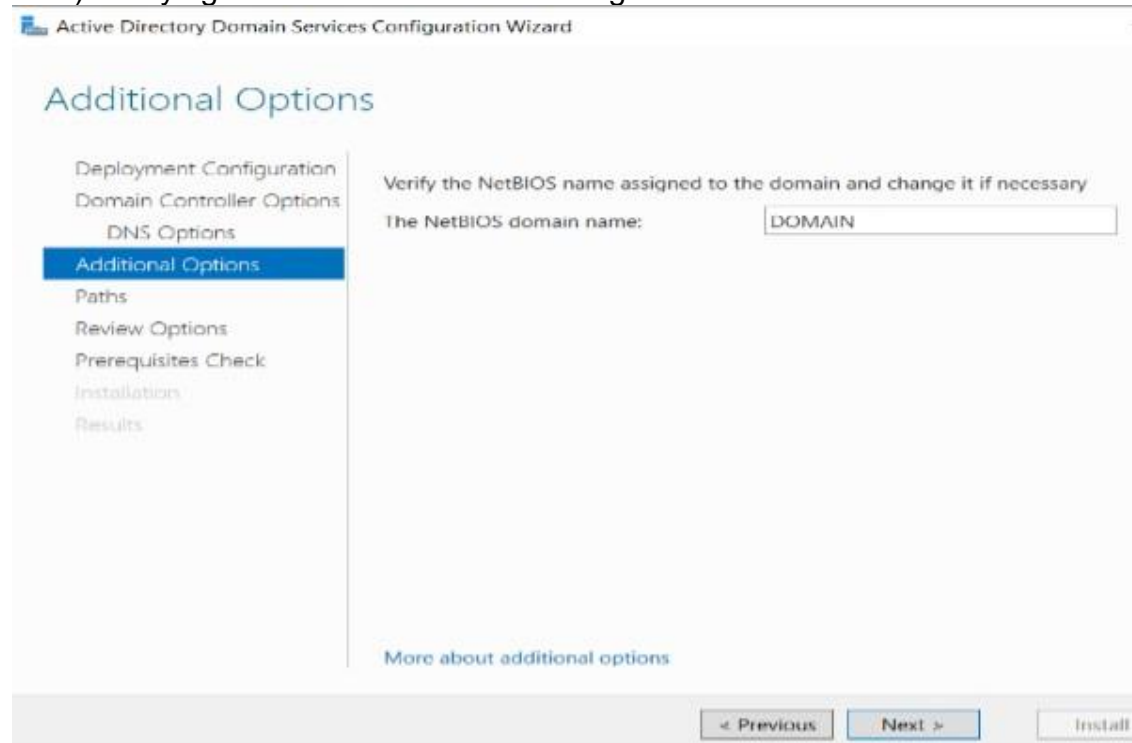


Figure 14 NetBIOS name is verified

4.15) Clicking next to select the path.

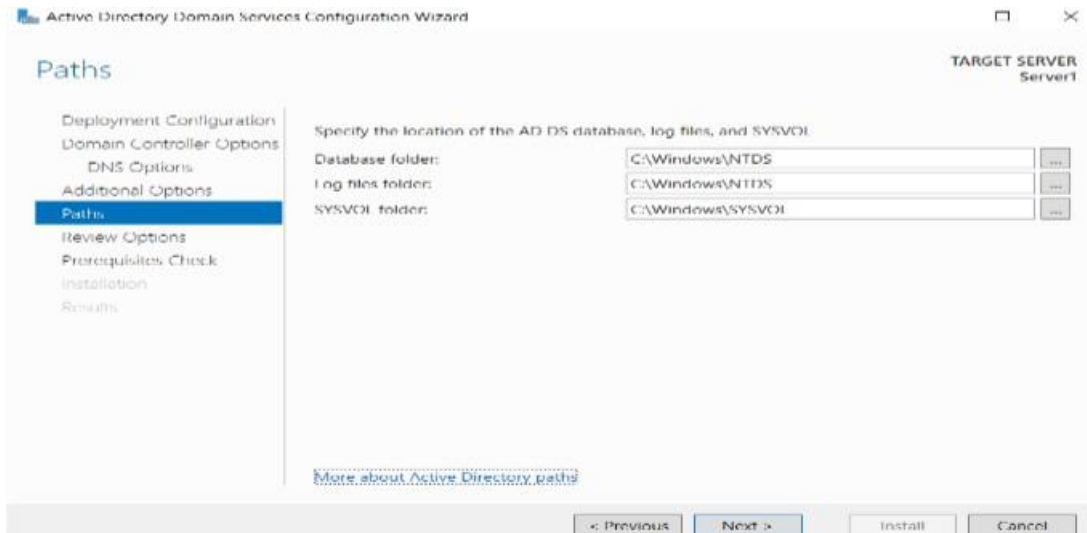


Figure 15 Selection of Path

4.16) Reviewing of the entire configuration then click on next button.

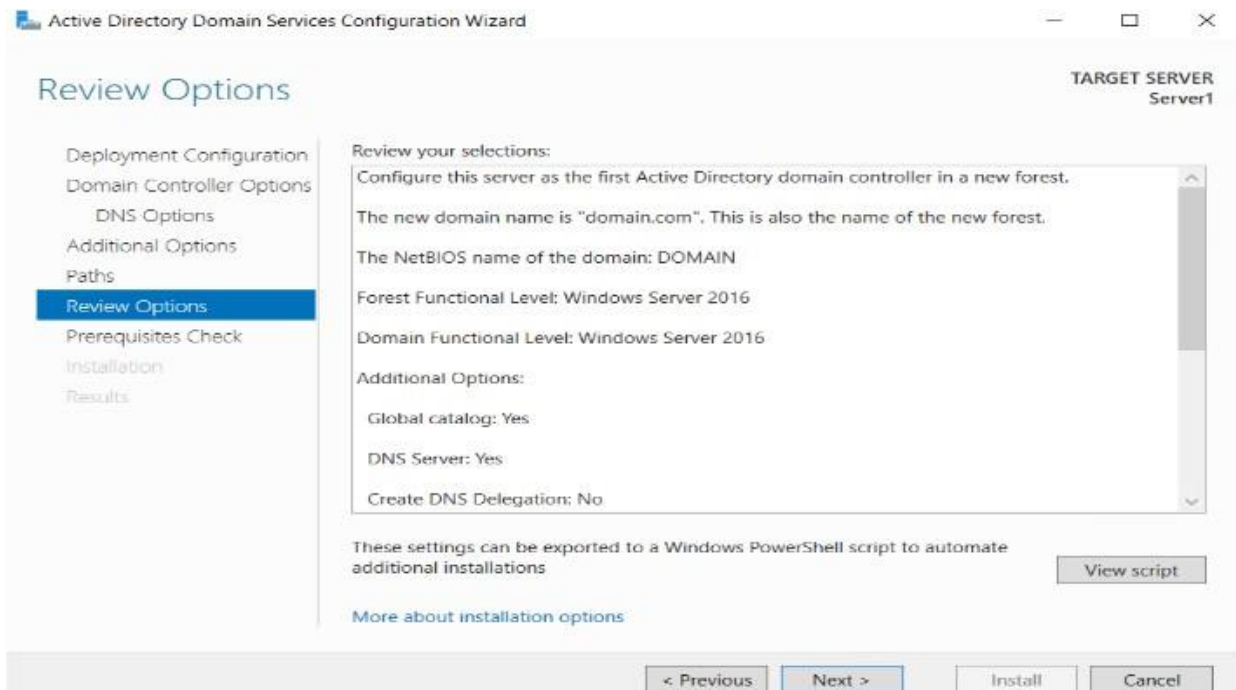


Figure 16 Review configurations

4.17) Then, you have to check if prerequisites are successful then click on Install button.

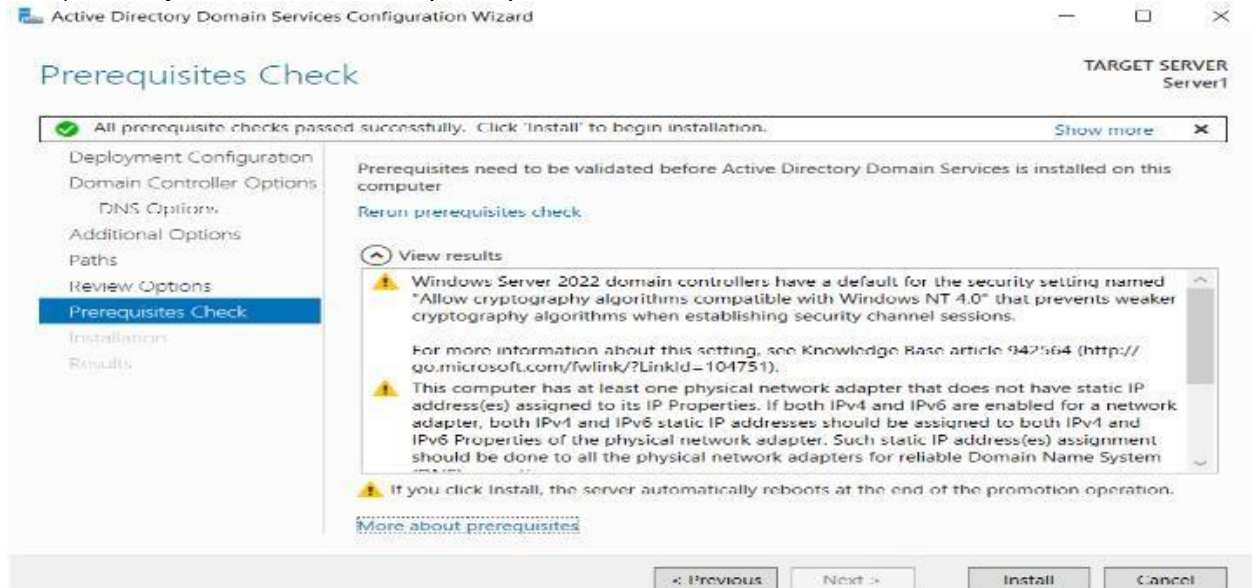


Figure 17 Check Prerequisites

4.18) Verification of Domain controller is set up. Writing command "Get-Service adws,kdc,netlogon,dns"

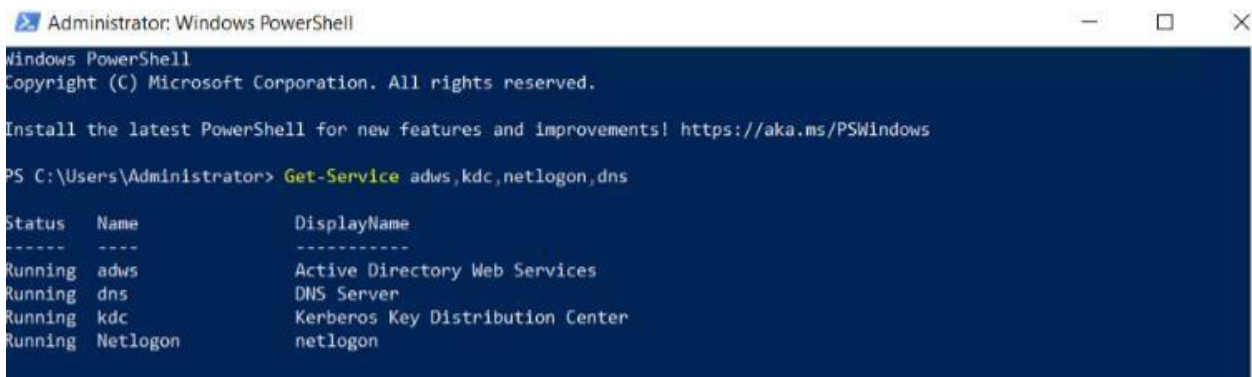
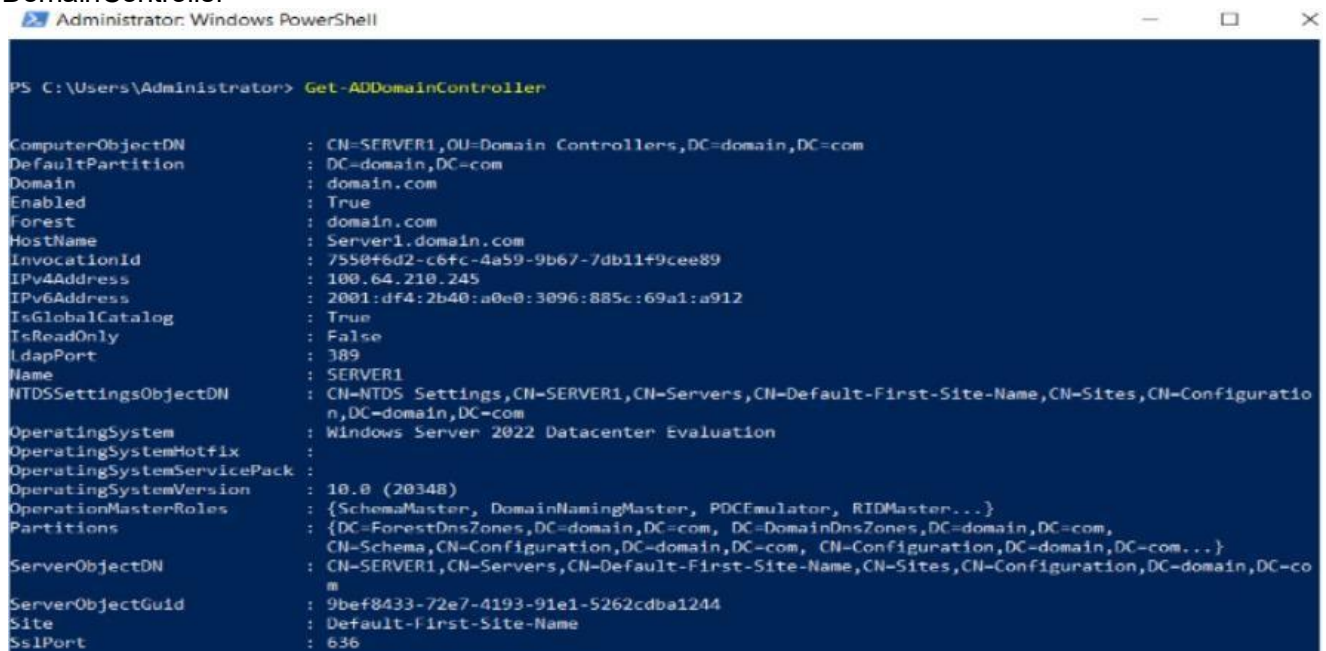


Figure 18 Verification of domain control

4.19) Display all the configuration details of the domain controller. Writing command “Get-ADDomainController”



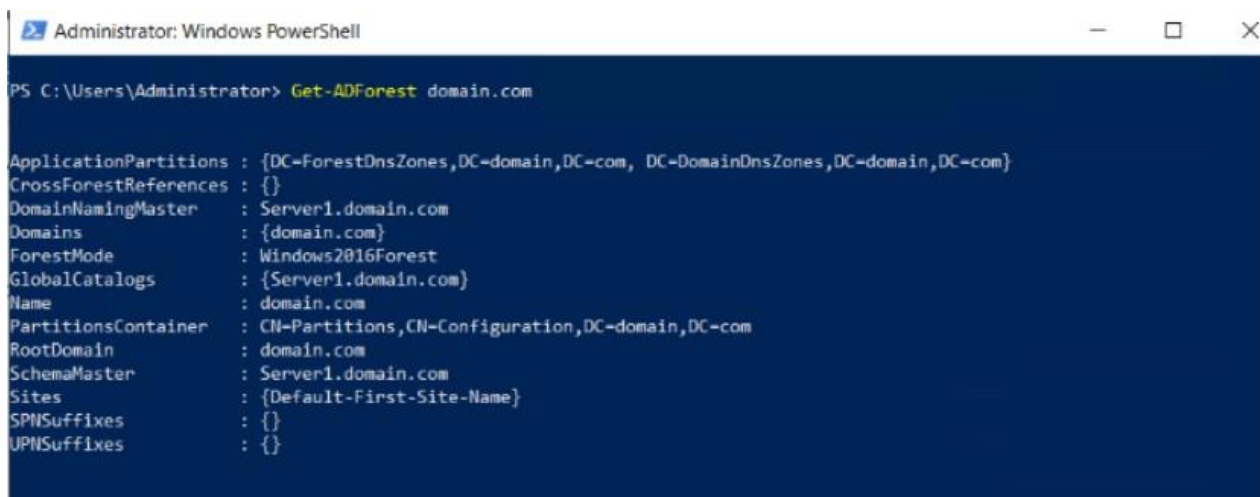
```
Administrator: Windows PowerShell

PS C:\Users\Administrator> Get-ADDomainController

ComputerObjectDN      : CN=SERVER1,OU=Domain Controllers,DC=domain,DC=com
DefaultPartition      : DC=domain,DC=com
Domain                : domain.com
Enabled               : True
Forest                : domain.com
HostName              : Server1.domain.com
InvocationId          : 7550f6d2-c6fc-4a59-9b67-7db11f9cee89
IPv4Address           : 100.64.210.245
IPv6Address           : 2001:df4:2b40:a0e0:3096:885c:69a1:a912
IsGlobalCatalog       : True
IsReadOnly            : False
LdapPort              : 389
Name                  : SERVER1
NTDSSettingsObjectDN  : CN=NTDS Settings,CN=SERVER1,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configurat
n,DC=domain,DC=com
OperatingSystem        : Windows Server 2022 Datacenter Evaluation
OperatingSystemHotfix  :
OperatingSystemServicePack :
OperatingSystemVersion : 10.0 (20348)
OperationMasterRoles   : {SchemaMaster, DomainNamingMaster, PDCEmulator, RIDMaster...}
Partitions             : {DC=ForestDnsZones,DC=domain,DC=com, DC=DomainDnsZones,DC=domain,DC=com,
CN=Schema,CN=Configuration,DC=domain,DC=com, CN=Configuration,DC=domain,DC=com...}
ServerObjectDN         : CN=SERVER1,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=domain,DC-co
m
ServerObjectGuid       : 9bef8433-72e7-4193-91e1-5262cdba1244
Site                   : Default-First-Site-Name
SslPort                : 636
```

Figure 19 Displaying configuration details

4.20) Retrieving detailed information about your domain. Writing command “Get-ADForest Domain.com”



```
Administrator: Windows PowerShell

PS C:\Users\Administrator> Get-ADForest domain.com

ApplicationPartitions : {DC=ForestDnsZones,DC=domain,DC=com, DC=DomainDnsZones,DC=domain,DC=com}
CrossForestReferences : {}
DomainNamingMaster    : Server1.domain.com
Domains               : {domain.com}
ForestMode             : Windows2016Forest
GlobalCatalogs        : {Server1.domain.com}
Name                  : domain.com
PartitionsContainer    : CN=Partitions,CN=Configuration,DC=domain,DC=com
RootDomain             : domain.com
SchemaMaster           : Server1.domain.com
Sites                 : {Default-First-Site-Name}
SPNSuffixes           : {}
UPNSuffixes           : {}
```

Figure 20 Showing detailed information about domain

5. Conclusion

This logbook allows us to set up Active Directory, which improves the management of network resources and boosts security. By following these steps, we can successfully install our own network infrastructure.

