

Module 12: Installation, Storage, and Compute with Windows Server

1. What two options are provided in the type of installation window during Windows Server 2016 installation?

ANS: During installation of windows server 2016 it provide two option following:

- Windows server standard (Core or GUI)
- Windows server Datacenter (Core or GUI)

2. Write the step How to configure server step by step?

ANS: configure the Static ip on the server

- Rename the server
- Set time zone , date and time
- Add server roles
 - a) Active directory
 - b) DNS server
 - c) DHCP server
 - d) FTP server
- Configure the firewall to allow traffic of dns , ftp server

3. What are the Pre installation tasks?

ANS:

- Check and verify the system requirement
- Backup the old data
- Check the disk space

4. What are the Post installation tasks?

ANS:

- Set strong Administrative password
- Activate the windows
- Rename the server
- Set static ip address
- Correct the date and time, time zone
- Install latest updates
- Install the roles

5. What is the standard upgrade path for Windows Server?

ANS: we can directly upgrade following versions :

- Windows server 2008 R2 **to** Windows server 2016
- Windows server 2012 **to** Windows server 2016
- Windows server 2012 R2 **to** Windows server 2016
- Windows server 2016 **to** Windows server 2019
- Windows server 2019 **to** Windows server 2022

6. What is the Physical structure of AD?

ANS: The key physical components are described following:

- a. Domain controllers (DC) : The server that manages the Active Directory Database
- b. Sites : represents the physical location (like branch)
- c. Subnet : IP address range with associated AD sites

7. What is the Logical components of Active Directory?

ANS: the logical components of AD are described following:

A. Domain

A group of computers and devices on network that administered as a unit with common rules and procedures.

A domain is used to manage all user function, including username/passwords and shared system resources authentication and access.

B. Tree

Domain tree are collections of the domains that are grouped together in hierarchical structures.

When you add a domain to a tree, it becomes a child of the tree root domain.

The domain to which a child domain is connected is called as parents domain.

C. Forest

A forest is complete instance of Active Directory.

Each forest acts as top-level container.

A forest can contain one or more domain container objects.

D. Organizational Unit (OU)

A container within a domain

Used to organize and apply policies to objects (users, computers)

Supports delegation of administration

8. What is the Full form Of LDAP?

ANS: Full form of LDAP is Lightweight Directory Access Protocol

9. What is the location of the AD database?

ANS: The location of AD database is C:\Windows\NTDS\NTDS.dit

10. What is child DC?

ANS: Child DC is a subdomain of parent domain. It handles authentication, replication and Directory services.

11. Explain the term forest in AD

ANS: A forest is complete instance of Active Directory. Each forest acts as top-level container.

A forest can contain one or more domain container objects.

12. What is Active Directory? Check all that apply.

A. An open-source directory server

B. A Windows-only implementation of a directory server

C. Microsoft's implementation of a directory server

D. An LDAP-compatible directory server

13. When you create an Active Directory domain, what's the name of the default user account?

A. Superuser

B. Root

C. Username

D. Administrator

14. AD domain provides which of the following advantages? Check all that apply.

A. Centralized authentication

B. More detailed logging

C. Centralized management with GPOs

D. Better performance

15. What are the minimum hardware requirements for installing Windows Server 2016?

ANS: The minimum hardware requirements for Windows Server 2016 are described following:

Processor: 64 bit architecture, 1.4 GHZ speed

RAM : 512 MB for Core(CLI), 2 GB for GUI

Storage: 32 GB

16. Explain the different editions of Windows Server 2016 and their features.

ANS:

A. Windows server standard (Core or GUI)

It used for small to medium sized business. it doesn't support replication of server. it supports only two virtual machines

B. Windows server Datacenter (Core or GUI)

It supports large-scale business. It supports multiple replication of server. It supports unlimited virtual machine.

17. Walk through the steps of installing Windows Server 2016 using GUI mode.

ANS:

- Insert your bootable USB/DVD.
- Restart your system.
- Press the appropriate key (F12, Esc, F2)
- Select your bootable media
- Select the language
- Click Install now
- Select Edition : Windows Server 2016 Standard (Desktop Experience or core) or Windows Server 2016 Datacenter (Desktop Experience or core)
- Accept the license
- Choose Installation Type : custom or upgrade
- Partition the Disk : select the unallocated space or existing drive
- After completion of installation enter a strong administrator password

16. Describe the steps for installing Windows Server 2016 in Server Core mode.

- ANS: Insert your bootable USB/DVD.
- Restart your system.
- Press the appropriate key (F12, Esc, F2)
- Select your bootable media
- Select the language
- Click Install now
- Select Edition : Windows Server 2016 Standard (core) or Windows Server 2016 Datacenter (core)
- Accept the license
- Choose Installation Type : custom or upgrade
- Partition the Disk : select the unallocated space or existing drive
- After completion of installation enter a strong administrator password
- Press Ctrl + Alt + Delete and enter administrator password for command prompt

17. How do you configure network settings during Windows Server 2016 installation?

ANS:

- Go to network and sharing center
- Click on change adapter setting and go to properties
- Select Internet Protocol Version 4 (TCP/IPv4) and Click Properties
- Enter IP address, subnet mask, default gateway and preferred DNS
- Click OK

18. Explain the process of promoting a Windows Server to a domain controller.

ANS:

Step 1: Install Active Directory Domain Services (AD DS)

- Open Server Manager.
- Click Manage then go to Add Roles and Features.
- Select Role-based or feature-based installation.
- Select the local server.
- Check Active Directory Domain Services role.
- Click Add Features when prompted.
- Click Next and then Install

Step 2: Promote to Domain Controller

- After installation, click the flag icon in Server Manager.
- Click Promote this server to a domain controller.
- Choose:
 - Add a new forest
 - Enter Root domain name (lion.com).
- Click Next.

Step 3: Domain Controller Options

- select:Domain Name System (DNS) and Global Catalog (GC)
- Set a DSRM password.
- Click Next.

Step 4: Reboot the system

19. Discuss the steps involved in upgrading from a previous version of Windows Server to Windows Server 2016.

ANS:

- Insert the Windows Server 2016 installation media.
- Run setup.exe from within the existing server OS (do not boot from media).
- Choose "Download updates, drivers and optional features (recommended)"
- Choose the correct Windows Server 2016 edition (must match license and features).
- Select: Keep personal files and apps (for in-place upgrade).
- Click Install to start the upgrade process.
- Wait for the upgrade to complete. The system will reboot several times.

20. What is Active Directory Domain Services (AD DS), and what are its key components?

ANS: Key Components of AD DS:

A. Domain

A group of computers and devices on network that adminsterd as a unit with common rules and procedures.

A domain is used to manage all user function, including username/passwords and shared system resources authentication and access.

B. Tree

Domain tree are collections of the domains that are grouped together in hierarchical structures.

When you add a domain to a tree, it becomes a child of the tree root domain.

The domain to which a child domain is connected is called as parents domain.

C. Forest

A forest is complete instance of Active Directory.

Each forest acts as top-level container.

A forest can contain one or more domain container objects.

D. 5. Domain Controllers (DCs)

Servers that store a copy of the AD database.

Responsible for authenticating and authorizing users and services.

E. Schema

Defines object classes (like user, computer) and attributes (like username, email).

Ensures consistency in the structure of data stored in AD.

21. How do you create a new Active Directory user account in Windows Server ?

ANS:

- go to Server Manager > Tools > Active Directory Users and Computers
- Right-click the Organizational Unit (OU) where you want to add the user.
- Select New > User.
- Enter user details: First name, Last name, User logon name
- Set a password:

22. Explain the process of creating and managing Group Policy Objects (GPOs) in Windows Server 2016 or 2019.

ANS:

- Open Server Manager > Tools > Group Policy Management
- In GPMC, expand the Forest > Domains > yourdomain.local
- Right-click Group Policy Objects > New
- Give the GPO a name
- Edit the GPO

23. What are Organizational Units (OUs) in Active Directory, and how do you use them?

ANS: OU is a container within a domain. It is used to organize and apply policies to objects (users, computers). Supports delegation of administration

24. Describe the process of delegating administrative privileges in Active Directory.

ANS:

- Open Active Directory Users and Computers
- Navigate to the Target OU
- Right-click on the Organizational Unit (OU) where you want to delegate control.
- Select “Delegate Control” , This opens the Delegation of Control Wizard.
- click Add, and select the user or group to whom you want to give permissions.
And next
- Choose Tasks to Delegate
- Finish the Wizard