

Windows 2008 Server features

- 1.Active Directory Administrative Center
-

Windows 2019 Server features

- 1.Windows Admin Centre
 - 2.System Insights
 - 3.Desktop Experience
 - 4.Servercoreapp compatibility feature on demand (FOD)
 - 5.HTTP/2 for a faster and safer web
 - 6.Storage migration service
 - 7.Windows defender advanced threat protection (ATP)
 - 8.Windowsdefender ATP exploit guard
 - 9.Network protection
 - 10.Controlled folder access
 - 11.Exploit protection
 - 12.Linux shielded VM
 - 13.Linux container on windows
 - 12.Encrypted network
-

Processor - 1.4 GHZ 64-bit

RAM - 512MB (2GB for server with desktop experience)

Disk - HDD - 32GB

Server - Service provides a system (Serve the services)

Workgroup - Collection of computer on a LAN share common group name , All computer work independently

Domain - Logical collection of object in a network , Centralize admin

Domain Controller - which computer control the domain , running the domain management service and maintaining the domain database - ADS (Active Directory Services)

ADS - Windows domain management services

Requirement to install AD DS (Active Directory Domain Services)

1.Windows Server OS

2.NIC - Driver installed , Static IP , Preferred DNS Server IP Configured

3.NTFS Partition (Anyone drive)

Active Directory Services & DNS Services Integrated - Same machine

Preferred DNS Server - Same machine IP (Active directory domain services install machine IP)

Add a domain controller to an existing domain - New domain controller add in old setup

Add a new domain to an existing forest - New domain add in old setup

Add a new forest - New domain create

DSRM (Directory Services Restore Mode) Password - Active Directory Backup

How to go DSRM Mode

System Boot - F8 - Advanced Boot Options - Directory Services Restore or Repair mode

NetBIOS name – Identifying computer on a network

Active directory database path - C:\Windows\NTDS

SYSVOL - Domain Public files - Default shared folder - E.g.) Two or more domain controller there access the same data - Machine Use these folders.

Groups - Security - Permission configure (Folder Access)

Distribution - Email enabled to group

Domain local- Only single domain access only

Global- Forest level access

Universal- Forest & Trust level access

Organizational unit - Organize the user

Particular PC only logging - Goto User and Computer - Username - Properties - Account - Log on to - Select computer

Login time restriction - Account - Log on hours - Set timing

Account Expiry Date set - Account - Account expires set

Home folder configure - Folder mapping - First create folder in fileserver - User Read/Write permission - Network sharing - Manually Configure

Goto User account - Properties - Profile - Connect driver letter choose & Path set

Logon Script - How to configure - Single user

Open Text file C:\Windows\System32\calc.exe save to C:\Windows\SYSVOL\domain\scripts save to the file extension .bat

User profile set the logon script - User - Properties - Profile - Logon script set

Profiles - Local profile - Locally store

Roaming profile – Network'ly store

Mandatory Profile - Temporally storage

Roaming profile configure - Profile path %username%

Mandatory profile - Goto user - Username open - Unhidden all files - NTUSER.DAT Rename the file name NTUSER.MAN (User must logoff the account)

Group Policy - Particular OU assign and Entire domain assign

Password Policy - Domain controller login - Goto Group Policy Management - Domain select - Edit - Computer configuration - Windows setting - Security setting - Account policy - Password Policy

Group policy object - Goto Group policy management editor - Select OU - right click - Create a GPO in this domain and link it here

Group policy configure - Log on script - OU

Open Text file C:\Windows\System32\calc.exe save to C:\Windows\SYSVOL\domain\policies\Find the directory\Save to the file extension .bat

How to find my directory - Goto Group policy management - User configuration - Windows setting - Script (Logon/Logoff) - Logon click Goto properties - Show files - Go to directory folder

Software Restriction policy - Goto Group policy management editor - User configuration - Security setting - Software restriction policy - Additional rules - Create new path rule - Add path C:\Windows\System32\notepad.exe - Select security level disallowed - Ok

Folder redirection - Create new folder in file server - Give read permission and specific user - Goto Group policy management editor - User configuration - Windows setting - Folder redirection - Documents - Advanced redirection - Choose OU - Ok

Software deployment - Common shared folder in all software - Goto Group policy management editor - User configuration - Policies - Software installation - Properties - Path select - Publish ,Assign,Advanced - Click Assign -Ok

Which software install

Software Installation - New - Package - Package add

Package click - Properties - Deployment - Install the application at logon --> User logon the system automatically installs the software

Publish mean - appwiz.cpl - Install a program from network - list

Assign mean - Automatically installed

Advanced - User customize

Group policy Backup/Restore

Group policy management - Domain name expand - Group policy object - Right click - Backup all - Ok -->Backup

Domain name expand - Group policy object - Right click - Manage backup - Select backup - Ok -->Restore

Permission - Share Permission - Folder sharing - User access the network - What permission give folder the same permission applies the subfolder

Security/NTFS Permission - Set as Allow or Deny

Share permission - Full control

Change Permission

Read Permission

Security/NTFS Permission - Allow

Deny

Permission inheritance - What permission give folder the same permission applies the subfolder is called permission inheritance

Take ownership - File Properties - Security - Advanced - Owner change

Disk quota - NTFS file system only set - Disk properties - Quota - Enable quota management - Enable the Deny disk space to users exceeding quota limit - Set disk space

Goto Quota entries - Specific user apply

FSRM (File server resource management) - single folder apply the quota limit

Distributed file system (DFS) - Provides a logically group shares on multiple servers and transparently link shares into a single hierarchical namespace

Create a DFS Namespace (Share name) - All server shared folder link to DFS --> Easily access the data in end user side

How to install

Server manager - File and storage services - DFS Namespaces, DFS replication enable - Install role

All server creates a shared folder a, b, c, d - Permission specific people - read/write these group

DFS namespace - Namespace - New namespace - all server adds - enter name - edit setting - Use custom permission - add project group add - Ok

Every server add and permission give the project group add

iSCSI (Internet Small Computer System Interface) -

Server manager - File and storage services - iSCSI Target server, iSCSI Storage server - Install role

iSCSI initiator Start -

NIC (Network Interface Card) Teaming - Configure the network card Two or more (Merge the Card)

IIS (Internet Information Services) Server - Web server - Default Windows OS

Server manager - Web Server (IIS) -Install role

C:\inetpub\wwwroot -->Once IIS role install automatically create the folder

1 Network card - 54 IP assigned --> One NIC card assign the 54 IP - ncpa.cpl - IPV4 - advanced - IP add - Ok

DNS - Domain Name System - Name Resolution Service

DNS Client Service --> means Preferred DNS server

DNS Server maintained the database - Resource record database or Zone database

Resource record - Host (A) - NetBIOS/DNS/IP address - Name to IP Resolve

Alias (C Name) - Alternate name other than the host name

Name server (NS) - Store the Name and IP address

Mail exchange (MX) - Store the details of mail server

Pointer (PTR) - IP to Name Resolve -->Reverse Lookup zone

Start of authority (SOA) - Authorize DNS server --> Primary DNS Server

Service locator (SRV) - Services located - Active directory service locate -->ldap, kerberos, global catalog services

DNS Zone - Source of information about each DNS domain name --> DNS Resource record maintained -->Source Container

Primary zone - Primary source of information --> Resolving name

Secondary zone -Maintained Primary zone Read-Only Copy but Active Directory No Integrate

Stub zone - Maintained the Read-Only Copy but Active directory intergrade -->Replication Process active directory integrates

Maintain the record A, NS and SOA

DNS Lookup zones - Forward lookup zones - Name to IP resolve Records maintained

Reverse lookup zones - IP to Name resolve Records maintained

DNS Forwarder - Forwarded DNS queries for external DNS server (Outsides the network)

Root hint - Locate the DNS root server

Root server - Internet Registered DNS server (Resolve the internet DNS names)

Query - Name resolution request

DNS resolver - Forward to name resolution Cache/local DNS/Internet DNS server

DNS Aging - Identifying stale or old DNS records

DNS scavenging - Removal and clean up stale or old records from DNS zone

DHCP - Dynamic Host Configuration Protocol

DHCP - Assign IP address for client system automatically - MAC address

When to ask DHCP IP - System boot on - Network connection service start - Obtain IP automatically -
Automatically triggered DHCP client service - Start to discover process

DHCP DISCOVER

OFFER

REQUEST

ACKNOWLEDGEMENT

DORA Process

If failure

DHCP NO ACK

DECLINE

RELEASE

DHCP Configure the member server

Scope - Range of IP address - Normal scope - Create DHCP IP range only support

Super scope - Group of scope - Multiple IP range - Create the member scope - Every member scope different IP range - VLAN

Multicast scope - Class D range - Not assign to system (Manually configure - Secondary address - Used to Media streaming, Video conference etc...,

Dynamic allocation protocol (MADCAP) - Assigned help

DHCP Database location - C:/Windows/System32/dhcp/backup

Manually backup - Server name click - Click backup - Select folder - Save

WDS - Windows Deployment Services - Network based deployment - OS install through network

Prerequisite - Domain member or Domain controller - AD Install

DHCP

DNS

NTFS partition

Local admin privilege

WDS client side prerequisite

PXE Boot

User account must be member of Domain users' group

512MB RAM - minimum

Boot image- Client system boot in network via - (OS DVD \Sources\boot. Wim file there)

Install image - Client system install in network via (Install group - Multiple OS add)

Capture image - How to create (Backup your pc all software installed)

Run-sysprep - execute the file-select enter system out-of-box experience - Generalize tick-Ok - Run the client system (Once all software installs after do the step)

Server side configure

Boot image - Right click - Create capture image - save to the path .wim extension - Once finish - Add image to the windows deployment server now - Tick the box (add to boot image)

Goto network boot - Click the capture image - Directory of capture (Which disk copy or OS disk select) - Path select .wim extension

WSUS - Windows Server Update Services - Patches deploy

Upstream server means - Download the patch once check after push the main server

NTFS Partition - 30GB

IIS Port used 8530

How to configure client system Update mostly default update in Microsoft patch but in my office, setup configure the patch server - So how to contact client to wsus

Goto gpedit.msc - computer configuration-administrative templates-windows components-windows update - specify intranet microsoft update service location-enabled- mention the WSUS server ip address-http://192.168.1.1:8530 https:8531 port number use

Automatic updates detection frequently - Enabled - 24 Hours

Configure automatic updates - enabled

Manually contact client system - cmd - wuauclt.exe /detectnow

RDS - Remote Desktop Services - Remote environment

Remote Desktop Service Roles - Remote Desktop Session Host

Connection Broker

Gateway

Web access

Licensing
