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 – Netwerk'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

ACKNOWLWDGEMENT

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

Prerequire - Domain member or Domain controller - AD Install

DHCP

DNS

NTFS partition

Local admin privilege

WDS client side prerequire

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

-------------------------------------------------------------------------------------------------------------------------------