

# MCA: Windows Server Hybrid Administrator Study Guide: AZ-800 & AZ-801

Chapter 1: Introduction to  
Windows Server 2022

# Features and Advantages of Windows Server 2022 <sup>(1/4)</sup>

- Built-In Security
- Active Directory Certificate Services (AD CS)
- Active Directory Domain Services (AD DS)
- Active Directory Federation Services (AD FS)
- Active Directory Lightweight Directory Services (AD LDS)
- Active Directory Rights Management Services (AD RMS)
- Application Server
- BitLocker
- BranchCache
- Containers

# Features and Advantages of Windows Server 2022 (2/4)

- Credential Guard
- Dynamic Host Configuration Protocol (DHCP)
- Domain Name Service (DNS)
- Failover Clustering
- File Server Resource Manager (FSRM)
- File and Storage Services
- Group Policy
- Hyper-V
- IP Address Management (IPAM)
- Kerberos Authentication
- Managed Service Accounts
- Nested Virtualization

# Features and Advantages of Windows Server 2022 (3/4)

- Nano Server
- Networking
- Network Load Balancing (NLB)
- Network Policy and Access Services (NPS)
- Print and Document Services
- PowerShell Direct
- Remote Desktop Services
- Security Auditing
- Smart Cards
- Software-Defined Networking (SDN)
- Telemetry
- TLS/SSL (Schannel SSP)

# Features and Advantages of Windows Server 2022 (4/4)

- Volume Activation
- Web Server (IIS)
- Windows Deployment Services (WDS)
- Windows PowerShell Desired State Configuration
- Windows Server Backup Feature
- Windows Server Updates Services (WSUS)

# Which Windows Server 2022 Version to Use?

- Datacenter - full Windows Server functionality with unlimited virtual instances.
- Standard - full Windows Server functionality with two virtual instances.
- Datacenter: Azure Edition - designed specifically to operate either as an Azure IaaS VM or as a VM on an Azure Stack HCI cluster.
- Essentials - simpler interface and preconfigured connectivity to cloud-based services but no virtualization rights.

# Server 2022 Locks and Limits

Locks and Limits	Windows Server 2022 Standard	Windows Server 2022 Datacenter
Maximum number of users	Based on CALs	Based on CALs
Maximum SMB connections	16,777,216	16,777,216
Maximum RRAS connections	unlimited	unlimited
Maximum IAS connections	2,147,483,647	2,147,483,647
Maximum RDS connections	65,535	65,535
Maximum number of 64-bit sockets	64	64
Maximum number of cores	unlimited	unlimited
Maximum RAM	24 TB	24 TB
Can be used as virtualization guest	Yes, 2 virtual machines, plus one Hyper-V host per license	Yes, unlimited virtual machines, plus one Hyper-V host per license
Server can join a domain	yes	yes
Edge network protection/firewall	no	no
DirectAccess	yes	yes
DLNA codecs and web media streaming	Yes, if installed as Server with Desktop Experience	Yes, if installed as Server with Desktop Experience

# Windows Server 2022 Upgrade Path Recommendations

Current System	Upgraded System
Windows Server 2012 Standard	Windows Server 2016 Standard or Datacenter
Windows Server 2012 Datacenter	Windows Server 2016 Datacenter
Windows Server 2012 R2 Standard	Windows Server 2022 Standard or Datacenter
Windows Server 2012 R2 Datacenter	Windows Server 2022 Datacenter
Windows Server 2012 R2 Essentials	Windows Server 2022 Essentials
Windows Storage Server 2016 Standard	Windows Storage Server 2022 Standard
Windows Storage Server 2016 Datacenter	Windows Storage Server 2022 Datacenter



# Type of Installation

There are three ways to install Windows Server 2022:

- Windows Server 2022 (Desktop Experience)
- Windows Server 2022 Server Core
- Windows Server 2022 Nano Server

# Windows Server 2022 (Desktop Experience)

- Most familiar with administrators.
- Uses Microsoft Management Console (MMC) windows.
- Allows the use of a mouse to navigate through the installation.

# Windows Server 2022

## Server Core <sup>(1/2)</sup>

The bare-bones installation of Windows Server 2022.

Does not have the normal Windows interface or GUI.  
Configured using the command line or by using the Remote Server Administration Tools from a full version of Windows Server 2022.

Benefits Include:

- Reduced Management
- Minimal Maintenance
- Smaller Footprint
- Tighter Security
- Server Core App Compatibility Feature on Demand

# Windows Server 2022

## Server Core (2/2)

Supports a limited number of roles, some include:

- Active Directory Certificate Services (AD CS)
- Active Directory Domain Services (AD DS)
- Active Directory Federation Services (AD FS)
- Active Directory Lightweight Directory Services (AD LDS)
- Active Directory Rights Management Services (AD RMS)
- Application Server
- DHCP Server
- DNS Server
- BranchCache
- Hyper-V
- Network Load Balancing

# Windows Server 2022 Nano Server

Allows an administrator to remotely administer the server operating system.

Designed and optimized for private clouds and datacenters.

Similar to Server Core, but:

- uses smaller hard drive space
- no local logon capability
- Supports only 64-bit applications and tools
- must be administered remotely

# Windows Server Removed Features

The following are Features and Services were replaced starting with Windows Server 2022:

- IIS 6 Management Compatibility
- IIS Digest Authentication
- Internet Storage Name Service (iSNS)
- RSA/AES Encryption for IIS
- Windows PowerShell 2.0