

MCSA: Windows Server 2012 – Skills Measured

NOTE: The bullets that appear below each of the skills measured are intended to illustrate how we are assessing that skill. This list is not definitive or exhaustive.

NOTE: In most cases, exams do NOT cover preview features, and some features will only be added to an exam when they are GA (General Availability).

Exam 70-410: Installing and Configuring Windows Server 2012

Install and configure servers (15–20%)

Install servers

- plan for a server installation, plan for server roles, plan for a server upgrade, install Server Core, optimize resource utilization by using Features on Demand, migrate roles from previous versions of Windows Server

Configure servers

- configure Server Core, delegate administration, add and remove features in offline images, deploy roles on remote servers, convert Server Core to/from full GUI, configure services, configure NIC teaming, install and configure Windows PowerShell Desired State Configuration (DSC)

Configure local storage

- design storage spaces, configure basic and dynamic disks, configure master boot record (MBR) and GUID partition table (GPT) disks, manage volumes, create and mount virtual hard disks (VHDs), configure storage pools and disk pools, create storage pools by using disk enclosures

Configure server roles and features (15–20%)

Configure file and share access

- create and configure shares, configure share permissions, configure offline files, configure NTFS permissions, configure access-based enumeration (ABE), configure Volume Shadow Copy Service (VSS), configure NTFS quotas, create and configure Work Folders

Configure print and document services

- configure the Easy Print print driver, configure Enterprise Print Management, configure drivers, configure printer pooling, configure print priorities, configure printer permissions

Configure servers for remote management

- configure WinRM, configure down-level server management, configure servers for day-to-day management tasks, configure multi-server management, configure Server Core, configure Windows Firewall, manage non-domain joined servers

Configure Hyper-V (15–20%)

Create and configure virtual machine settings

- configure dynamic memory, configure smart paging, configure Resource Metering, configure guest integration services, create and configure Generation 1 and 2 virtual machines, configure and use enhanced session mode, configure RemoteFX

Create and configure virtual machine storage

- create VHDs and VHDX, configure differencing drives, modify VHDs, configure pass-through disks, manage checkpoints, implement a virtual Fibre Channel adapter, configure storage Quality of Service

Create and configure virtual networks

- configure Hyper-V virtual switches, optimize network performance, configure MAC addresses; configure network isolation, configure synthetic and legacy virtual network adapters, configure NIC teaming in virtual machines

Deploy and configure core network services (15–20%)

Configure IPv4 and IPv6 addressing

- configure IP address options, configure IPv4 or IPv6 subnetting, configure supernetting, configure interoperability between IPv4 and IPv6, configure Intra-site Automatic Tunnel Addressing Protocol (ISATAP), configure Teredo

Deploy and configure Dynamic Host Configuration Protocol (DHCP) service

- create and configure scopes, configure a DHCP reservation, configure DHCP options, configure client and server for PXE boot, configure DHCP relay agent, authorize DHCP server

Deploy and configure DNS service

- configure Active Directory integration of primary zones, configure forwarders, configure Root Hints, manage DNS cache, create A and PTR resource records

Install and administer Active Directory (15–20%)

Install domain controllers

- add or remove a domain controller from a domain, upgrade a domain controller, install Active Directory Domain Services (AD DS) on a Server Core installation, install a domain controller from Install from Media (IFM), resolve DNS SRV record registration issues, configure a global catalog server, deploy Active Directory infrastructure as a service (IaaS) in Microsoft Azure

Create and manage Active Directory users and computers

- automate the creation of Active Directory accounts; create, copy, configure, and delete users and computers; configure templates; perform bulk Active Directory operations; configure user rights; offline domain join; manage inactive and disabled accounts

Create and manage Active Directory groups and organizational units (OUs)

- configure group nesting; convert groups, including security, distribution, universal, domain local, and domain global; manage group membership using Group Policy; enumerate group membership; delegate the creation and management of Active Directory objects; manage default Active Directory containers; create, copy, configure, and delete groups and OUs

Create and manage Group Policy (15–20%)

Create Group Policy objects (GPOs)

- configure a Central Store, manage starter GPOs, configure GPO links, configure multiple local Group Policies

Configure security policies

- configure User Rights Assignment, configure Security Options settings, configure Security templates, configure Audit Policy, configure Local Users and Groups, configure User Account Control (UAC)

Configure application restriction policies

- configure rule enforcement, configure AppLocker rules, configure Software Restriction Policies

Configure Windows Firewall

- configure rules for multiple profiles using Group Policy; configure connection security rules; configure Windows Firewall to allow or deny applications, scopes, ports, and users; configure authenticated firewall exceptions; import and export settings

Exam 70-411: Administering Windows Server 2012

Deploy, Manage, and Maintain Servers

Deploy and manage server images

- install the Windows Deployment Services (WDS) role; configure and manage boot, install, and discover images; update images with patches, hotfixes, and drivers; install features for offline images; configure driver groups and packages

Implement patch management

- install and configure the Windows Server Update Services (WSUS) role; configure group policies for updates; configure client-side targeting; configure WSUS synchronization; configure WSUS groups; manage patch management in mixed environments

Monitor servers

- configure Data Collector Sets (DCS); configure alerts; monitor real-time performance; monitor virtual machines (VMs); monitor events; configure event subscriptions; configure network monitoring; schedule performance monitoring

Configure File and Print Services

Configure Distributed File System (DFS)

- install and configure DFS namespaces; configure DFS Replication Targets; configure Replication Scheduling; configure Remote Differential Compression settings; configure staging; configure fault tolerance; clone a DFS database; recover DFS databases; optimize DFS replication

Configure File Server Resource Manager (FSRM)

- install the FSRM role service; configure quotas; configure file screens; configure reports; configure file management tasks

Configure file and disk encryption

- configure Bitlocker encryption; configure the Network Unlock feature; configure Bitlocker policies; configure the EFS recovery agent; manage EFS and Bitlocker certificates including backup and restore

Configure advanced audit policies

- implement auditing using Group Policy and AuditPol.exe; create expression-based audit policies; create removable device audit policies

Configure Network Services and Access

Configure DNS zones

- configure primary and secondary zones; configure stub zones; configure conditional forwards; configure zone and conditional forward storage in Active Directory; configure zone delegation; configure zone transfer settings; configure notify settings

Configure DNS records

- create and configure DNS Resource Records (RR) including A, AAAA, PTR, SOA, NS, SRV, CNAME, and MX records; configure zone scavenging; configure record options including Time To Live (TTL) and weight; configure round robin; configure secure dynamic updates

Configure VPN and routing

- install and configure the Remote Access role; implement Network Address Translation (NAT); configure VPN settings; configure remote dial-in settings for users; configure routing; configure Web Application proxy in passthrough mode

Configure DirectAccess

- implement server requirements; implement client configuration; configure DNS for Direct Access; configure certificates for Direct Access

Configure a Network Policy Server Infrastructure

Configure Network Policy Server (NPS)

- configure a RADIUS server including RADIUS proxy; configure RADIUS clients; configure NPS templates; configure RADIUS accounting; configure certificates

Configure NPS policies

- configure connection request policies; configure network policies for VPN clients (multilink and bandwidth allocation, IP filters, encryption, IP addressing); import and export NPS policies

Configure and Manage Active Directory

Configure service authentication

- create and configure Service Accounts; create and configure Group Managed Service Accounts; configure Kerberos delegation; manage Service Principal Names (SPNs); configure virtual accounts

Configure Domain Controllers

- transfer and seize operations master roles; install and configure a read-only domain controller (RODC); configure Domain Controller cloning

Maintain Active Directory

- back up Active Directory and SYSVOL; manage Active Directory offline; optimize an Active Directory database; clean up metadata; configure Active Directory snapshots; perform object- and container-level recovery; perform Active Directory restore; configure and restore objects by using the Active Directory Recycle Bin

Configure account policies

- configure domain and local user password policy settings; configure and apply Password Settings Objects (PSOs); delegate password settings management; configure account lockout policy settings; configure Kerberos policy settings

Configure and Manage Group Policy

Configure Group Policy processing

- configure processing order and precedence; configure blocking of inheritance; configure enforced policies; configure security filtering and WMI filtering; configure loopback processing; configure and manage slow-link processing and Group Policy caching; configure client-side extension (CSE) behavior; force Group Policy Update

Configure Group Policy settings

- configure settings including software installation, folder redirection, scripts, and administrative template settings; import security templates; import custom administrative template file; configure property filters for administrative templates

Manage Group Policy objects (GPOs)

- back up, import, copy, and restore GPOs; create and configure Migration Table; reset default GPOs; delegate Group Policy management

Configure Group Policy Preferences (GPP)

- configure GPP settings including printers, network drive mappings, power options, custom registry settings, Control Panel settings, Internet Explorer settings, file and folder deployment, and shortcut deployment; configure item-level targeting

Exam 70-412: Configuring Advanced Windows Server 2012 Services

Configure and Manage High Availability

Configure Network Load Balancing (NLB)

- install NLB nodes; configure NLB prerequisites; configure affinity; configure port rules; configure cluster operation mode; upgrade an NLB cluster

Configure failover clustering

- configure Quorum; configure cluster networking; restore single node or cluster configuration; configure cluster storage; implement Cluster Aware Updating; upgrade a cluster; configure and optimize clustered shared volumes; configure clusters without network names; configure storage spaces

Manage failover clustering roles

- configure role-specific settings including continuously available shares; configure VM monitoring; configure failover and preference settings; configure guest clustering

Manage Virtual Machine (VM) movement

- perform Live Migration; perform quick migration; perform storage migration; import, export, and copy VMs; configure Virtual Machine network health protection; configure drain on shutdown

Configure File and Storage Solutions

Configure advanced file services

- configure NFS data store; configure BranchCache; configure File Classification Infrastructure (FCI) using File Server Resource Manager (FSRM); configure file access auditing

Implement Dynamic Access Control (DAC)

- configure user and device claim types; implement policy changes and staging; perform access-denied remediation; configure file classification; create and configure Central Access rules and policies; create and configure resource properties and lists

Configure and optimize storage

- configure iSCSI Target and Initiator; configure Internet Storage Name server (iSNS); implement thin provisioning and trim; manage server free space using Features on Demand; configure tiered storage

Implement Business Continuity and Disaster Recovery

Configure and manage backups

- configure Windows Server backups; configure Windows Azure backups; configure role-specific backups; manage VSS settings using VSSAdmin

Recover servers

- restore from backups; perform a Bare Metal Restore (BMR); recover servers using Windows Recovery Environment (Win RE) and safe mode; configure the Boot Configuration Data (BCD) store

Configure site-level fault tolerance

- configure Hyper-V Replica including Hyper-V Replica Broker and VMs; configure multi-site clustering including network settings, Quorum, and failover settings; configure Hyper-V Replica extended replication; configure Global Update Manager; recover a multi-site failover cluster

Configure Network Services

Implement an advanced Dynamic Host Configuration Protocol (DHCP) solution

- create and configure superscopes and multicast scopes; implement DHCPv6; configure high availability for DHCP including DHCP failover and split scopes; configure DHCP Name Protection; configure DNS registration

Implement an advanced DNS solution

- configure security for DNS including DNSSEC, DNS Socket Pool, and cache locking; configure DNS logging; configure delegated administration; configure recursion; configure netmask ordering; configure a GlobalNames zone; analyze zone level statistics

Deploy and manage IPAM

- provision IPAM manually or by using Group Policy; configure server discovery; create and manage IP blocks and ranges; monitor utilization of IP address space; migrate to IPAM; delegate IPAM administration; manage IPAM collections; configure IPAM database storage

Configure the Active Directory Infrastructure

Configure a forest or a domain

- implement multi-domain and multi-forest Active Directory environments including interoperability with previous versions of Active Directory; upgrade existing domains and forests including environment preparation and functional levels; configure multiple user principal name (UPN) suffixes

Configure trusts

- configure external, forest, shortcut, and realm trusts; configure trust authentication; configure SID filtering; configure name suffix routing

Configure sites

- configure sites and subnets; create and configure site links; manage site coverage; manage registration of SRV records; move domain controllers between sites

Manage Active Directory and SYSVOL replication

- configure replication to Read-Only Domain Controllers (RODCs); configure Password Replication Policy (PRP) for RODCs; monitor and manage replication; upgrade SYSVOL replication to Distributed File System Replication (DFSR)

Configure Access and Information Protection Solutions

Implement Active Directory Federation Services (AD FS)

- install AD FS; implement claims-based authentication including Relying Party Trusts; configure authentication policies; configure multi-factor authentication

Install and configure Active Directory Certificate Services (AD CS)

- install an Enterprise Certificate Authority (CA); configure CRL distribution points; install and configure Online Responder; implement administrative role separation; configure CA backup and recovery

Manage certificates

- manage certificate templates; implement and manage certificate deployment, validation, and revocation; manage certificate renewal; manage certificate enrollment and renewal to computers and users using Group Policies; configure and manage key archival and recovery

Install and configure Active Directory Rights Management Services (AD RMS)

- install a licensing or certificate AD RMS server; manage AD RMS Service Connection Point (SCP); manage RMS templates; configure Exclusion Policies, back up and restore AD RMS