

#### **MCSA**

# 1. 70 – 640 - Windows Server 2008 Active Directory, Configuring:

## **Configuring DNS for Active Directory**

- -Configuring zones
- -Configuring DNS server settings
- -Configuring zone transfer and

Replication -Configuring the AD

infrastructure -Configuring a forest or a

domain -Configuring trusts

- -Configuring sites
- -Configuring AD replication
- -Configuring the global catalog
- -Configuring operation masters
- -Configuring additional AD server roles
- -Configuring AD Lightweight Directory Services (AD LDS)
- -Configuring AD Rights Management Service (AD RMS)
- -Configuring read-only domain controller (RODC)
- -Configuring AD Federation Services (AD FS)

# Configuring and maintaining AD objects

- -Automate creation of AD accounts
- -Maintain AD accounts
- -Create and apply Group Policy objects (GPOs) -Configure GPO templates
- -Configure software deployment
- GPOs -Configure account polices
- -Configure audit policy by using GPOs

## Maintaining the AD environment

- -Configuring backup and recovery
- -Perform offline maintenance
- -Monitor AD

## **Configuring AD Certificate Services**

-Install AD Certificate Services

- -Configure CA server settings
- -Manage certificate templates
- -Manage Enrollments
- -Manage Certificate revocations

# 2. 70-642 - Windows Server 2008 Network Infrastructure, Configuring:

Configuring IP Addressing and Services

- -Configuring IPv4 and IPv6 addressing
- -Configuring Dynamic Host Configuration Protocol

(DHCP) -Configuring routing

-Configuring IPsec

## **Configuring Name Resolution**

- -Configuring DNS Server
- -Configuring DNS zones
- -Configuring DNS records
- -Configuring DNS replication
- -Configuring name resolution for client computers

## **Configuring Network Access**

- -Configure remote access
- -Configure Network Access Protection (NAP)
- -Configure network authentication -Configure wireless access
- -Configure firewall settings

#### **Configuring File and Print Services**

- -Configure a file server
- -Configure Distributed File System (DFS)
- -Configure shadow copy services -Configure backup and restore -Manage Disk Quotas
- -Configure and monitor print services

# **Monitoring and Managing a Network Infrastructure**

- -Configure Windows Server Update Services (WSUS) server settings
- -Capture performance data
- -Monitor event logs
- -Gather network data

# 3. 70-646 -Windows Server 2008 Application Infrastructure, Configuring: Deploy Servers

- -Deploy images by using Windows Deployment Services
- -Configure Microsoft Windows Activation
- -Configure high availability
- -Configure storage

## **Configuring Terminal Services**

- -Configure Windows Server 2008 Terminal Services RemoteApp (TS RemoteApp)
- -Configure Terminal Services Gateway
- -Configure Terminal Services load balancing
- -Configure and monitor Terminal Services resources
- -Configure Terminal Services Licensing
- -Configure Terminal Services client connections
- -Configure Terminal Services server options

## **Configuring a Web Services Infrastructure**

- -Configure Web applications
- -Manage Web sites
- -Configure a File Transfer Protocol (FTP) server
- -Configure Simple Mail Transfer Protocol (SMTP).
- -Manager Internet Information Services (IIS)
- -Configure SSL security
- -Configure Web site authentication and permissions

#### **Configuring Network Application Services**

- -Configure Windows Media Server
- -Configure Digital Rights Management (DRM)
- -Configure Microsoft Windows SharePoint Services server options
- -Configure Windows SharePoint Services e-mail integration.

## 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

Configure local storage

Design storage spaces; configure basic and dynamic disks; configure MBR and GPT disks; manage volumes; create and mount virtual hard disks (VHDs); configure storage pools and disk pools

## 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
- 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 dayto-day management tasks; configure multi-server management; configure Server Core; configure Windows Firewall

## 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 virtual machine storage

Create VHDs and VHDX; configure differencing drives; modify VHDs; configure pass-through disks; manage snapshots; implement a virtual Fibre Channel adapter

Create and configure virtual networks

Implement Hyper-V Network Virtualization; configure Hyper-V virtual switches; optimize network performance; configure MAC addresses; configure network isolation; configure synthetic and legacy virtual network adapters

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

Configure IPv4 and IPv6 addressing

Configure IP address options; configure subnetting; configure supernetting; configure interoperability between IPv4 and IPv6; configure 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

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 filtering

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 (15–20%)

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

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

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

#### Configure file and print services (15–20%)

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

☐ Configure File Server Resource Manager (FSRM)

Install the FSRM role; configure quotas; configure file screens; configure reports

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 (15–20%)

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 Direct Access

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

#### Configure a Network Policy Server infrastructure (10–15%)

Configure Network Policy Server (NPS)

Configure multiple RADIUS server infrastructures; configure RADIUS clients; manage RADIUS 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); manage NPS templates; import and export NPS policies

#### Configure Network Access Protection (NAP)

Configure System Health Validators (SHVs); configure health policies; configure NAP enforcement using DHCP and VPN; configure isolation and remediation of non-compliant computers using DHCP and VPN; configure NAP client settings

# Configure and manage Active Directory (15–20%)

# Configure service authentication

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

# Configure Domain Controllers

Configure Universal Group Membership Caching (UGMC); transfer and seize operations masters; 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 account policies

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

## **Configure and manage Group Policy (15–20%)**

## 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; configure client-side extension (CSE) behavior

Configure Group Policy settings

Configure settings including software installation, folder redirection, scripts, and administrative template settings; import security templates; import custom administrative template file; convert administrative templates using ADMX Migrator; 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

Configure Group Policy Preferences (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 itemlevel targeting

# **Exam 70-412 Configuring Advanced Windows Server 2012 Services**

#### Configure and manage high availability (15–20%)

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

Manage failover clustering roles

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

Manage Virtual Machine (VM) movement

Perform Live Migration; perform quick migration; perform storage migration; import, export, and copy VMs; migrate from other platforms (P2V and V2V)

## Configure file and storage solutions (15–20%)

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

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

## Implement business continuity and disaster recovery (15–20%)

Configure and manage backups

Configure Windows Server backups; configure Windows Online backups; configure rolespecific backups; manage VSS settings using VSSAdmin; create System Restore snapshots

Recover servers

Restore from backups; perform a Bare Metal Restore (BMR); recover servers using Windows Recovery Environment (Win RE) and safe mode; apply System Restore snapshots; 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