

# G-MAC

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## Microsoft Certified IT Professional (MCITP): Server Administrator

No. of Course(s): 3

Duration per Course: 40 Hours

Total Duration: 120 Hours

Course: TS: Windows Server 2008 Active Directory, Configuring

Content:

### Configuring Domain Name System (DNS) for Active Directory (16 percent)

- Configure zones.

May include but is not limited to: Dynamic DNS (DDNS), Non-dynamic DNS (NDDNS), and Secure Dynamic DNS (SDDNS), Time to Live (TTL), GlobalNames, Primary, Secondary, Active Directory Integrated, Stub, SOA, zone scavenging, forward lookup, reverse lookup

- Configure DNS server settings.

May include but is not limited to: forwarding, root hints, configure zone delegation, round robin, disable recursion, debug logging, server scavenging

- Configure zone transfers and replication.

May include but is not limited to: configure replication scope (forestDNSzone, domainDNSzone), incremental zone transfers, DNS Notify, secure zone transfers, configure name servers, application directory partitions

### Configuring the Active Directory infrastructure (25 percent)

- Configure a forest or a domain.

May include but is not limited to: remove a domain, perform an unattended installation, Active Directory Migration Tool (ADMT) v3 (pruning and grafting), raise forest and domain functional levels, interoperability with previous versions of Active Directory, alternate user principal name (UPN) suffix, forestprep, domainprep

- Configure trusts.

May include but is not limited to: forest trust, selective authentication versus forest-wide authentication, transitive trust, external trust, shortcut trust, SID filtering

- Configure sites.

May include but is not limited to: create Active Directory subnets, configure site links, configure site link costing, configure sites infrastructure

- Configure Active Directory replication.

May include but is not limited to: Distributed File System, one-way replication, bridgehead server, replication scheduling, configure replication protocols, force intersite replication

- Configure the global catalog.

May include but is not limited to: Universal Group Membership Caching (UGMC), partial attribute set, promote to global catalog

- Configure operations masters.

May include but is not limited to: seize and transfer, backup operations master, operations master placement, Schema Master, extending the schema, time service

#### Configuring additional Active Directory server roles (9 percent)

- Configure Active Directory Lightweight Directory Service (AD LDS).

May include but is not limited to: migration to AD LDS, configure data within AD LDS, configure an authentication server, server core, Windows Server 2008 Hyper-V

- Configure Active Directory Rights Management Service (AD RMS).

May include but is not limited to: certificate request and installation, self-enrollments, delegation, Active Directory Metadirectory Services (AD MDS), Windows Server virtualization

- Configure the read-only domain controller (RODC).

May include but is not limited to: unidirectional replication, Administrator role separation, read-only DNS, BitLocker, credential caching, password replication, syskey, Windows Server virtualization

- Configure Active Directory Federation Services (AD FS).

May include but is not limited to: install AD FS server role, exchange certificate with AD FS agents, configure trust policies, configure user and group claim mapping, Windows Server virtualization

#### Creating and maintaining Active Directory objects (24 percent)

- Automate creation of Active Directory accounts.

May include but is not limited to: bulk import, configure the UPN, create computer, user, and group accounts (scripts, import, migration), template accounts, contacts, distribution lists

- Maintain Active Directory accounts.

May include but is not limited to: configure group membership, account resets, delegation, AGDLP/AGGUDLP, deny domain local group, local versus domain, Protected Admin, disabling accounts versus deleting accounts, deprovisioning, contacts, creating organizational units (OUs), delegation of control

- Create and apply Group Policy objects (GPOs).

May include but is not limited to: enforce, OU hierarchy, block inheritance, and enabling user objects, Group Policy processing priority, WMI, Group Policy filtering, Group Policy loopback

- Configure GPO templates.

May include but is not limited to: user rights, ADMX Central Store, administrative templates, security templates, restricted groups, security options, starter GPOs, shell access policies

- Configure GPO templates.

May include but is not limited to: user rights, ADMX Central Store, administrative templates, security templates, restricted groups, security options, starter GPOs, shell access policies

- Configure software deployment GPOs.

May include but is not limited to: publishing to users, assigning software to users, assigning to computers, software removal

- Configure account policies.

May include but is not limited to: domain password policy, account lockout policy, fine-grain password policies

- Configure audit policy by using GPOs.

May include but is not limited to: audit logon events, audit account logon events, audit policy change, audit access privilege use, audit directory service access, audit object access

#### Maintaining the Active Directory environment (13 percent)

- Configure backup and recovery.

May include but is not limited to: using Windows Server Backup, backup files and system state data to media, backup and restore by using removable media, perform an authoritative or non-authoritative Active Directory restore, linked value replication, Directory Services Recovery Mode (DSRM) (reset admin password), back up and restore GPOs

- Perform offline maintenance.

May include but is not limited to: offline defragmentation and compaction, Restartable Active Directory, Active Directory database storage allocation

- Monitor Active Directory.

May include but is not limited to: Network Monitor, Task Manager, Event Viewer, RepMon, RepAdmin, Windows System Resource Manager, Reliability and Performance Monitor, Server Performance Advisor, RSOP

#### Configuring Active Directory Certificate Services (13 percent)

- Install Active Directory Certificate Services.

May include but is not limited to: standalone versus enterprise, CA hierarchies—root versus subordinate, certificate requests, certificate practice statement

- Configure CA server settings.

May include but is not limited to: key archival, certificate database backup and restore, assigning administration roles

- Manage certificate templates.

May include but is not limited to: certificate template types, securing template permissions, managing different certificate template versions, key recovery agent

- Manage enrollments.

May include but is not limited to: network device enrollment service (NDES), autoenrollment, Web enrollment, smart card enrollment, creating enrollment agents

- Manage certificate revocations.

May include but is not limited to: configure Online Responders, Certificate Revocation List (CRL), CRL Distribution Point (CDP), Authority Information Access (AIA)

Course: TS: Windows Server 2008 Network Infrastructure, Configuring

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#### Configuring IP Addressing and Services (24 percent)

- Configure IPv4 and IPv6 addressing. May include but is not limited to: configure IP options, subnetting, supernetting, alternative configuration
- Configure Dynamic Host Configuration Protocol (DHCP). May include but is not limited to: DHCP options, creating new options, PXE boot, default user profiles, DHCP relay agents, exclusions, authorize server in Active Directory, scopes, server core, Windows Server Hyper-V
- Configure routing. May include but is not limited to: static routing, persistent routing, Routing Internet Protocol (RIP), Open Shortest Path First (OSPF)
- Configure IPsec. May include but is not limited to: create IPsec policy, IPsec Authentication Header (AH), IPsec Encapsulating Security Payload (ESP)

#### Configuring Name Resolution (27 percent)

- Configure a Domain Name System (DNS) server. May include but is not limited to: conditional forwarding, external forwarders, root hints, cache-only, server core, WINS and DNS integration, Windows Server virtualization
- Configure DNS zones. May include but is not limited to: DNS Refresh no-refresh, intervals, DNS listserv address (NSLOOKUP), primary/secondary zones, Active Directory integration, Dynamic Domain Name System (DDNS), GlobalNames, SOA refresh
- Configure DNS records. May include but is not limited to: record types, host, pointer, MX, SRV, NS, dynamic updates, Time to Live (TTL)
- Configure DNS replication. May include but is not limited to: DNS secondary zones, DNS stub zones, DNS scavenging interval, replication scope
- Configure name resolution for client computers. May include but is not limited to: DNS and WINS integration, configuring HOSTS file, LMHOSTS, node type, Link-Local Multicast Name Resolution (LLMNR), broadcasting, resolver cache, DNS Server list, Suffix Search order, manage client settings by using group policy

#### Configuring Network Access (22 percent)

- Configure remote access. May include but is not limited to: dial-up, Remote Access Policy, Network Address Translation (NAT), Internet Connection Sharing (ICS), VPN, Routing and Remote Access Services (RRAS), inbound/outbound filters, configure Remote Authentication Dial-In User Service (RADIUS) server, configure RADIUS proxy, remote access protocols, Connection Manager
- Configure Network Access Protection (NAP). May include but is not limited to: network layer protection, DHCP enforcement, VPN enforcement, configure NAP health policies, IPsec enforcement, 802.1x enforcement, flexible host isolation
- Configure network authentication. May include but is not limited to: LAN authentication by using NTLMv2 and Kerberos, WLAN authentication by using 802.1x, RAS authentication by using MS-CHAP, MS-CHAP v2, and EAP
- Configure wireless access. May include but is not limited to: Set Service Identifier (SSID), Wired Equivalent Privacy (WEP), Wi-Fi Protected Access (WPA), Wi-Fi Protected Access 2 (WPA2), ad hoc versus infrastructure mode, group policy for wireless
- Configure firewall settings. May include but is not limited to: incoming and outgoing traffic filtering, Active Directory account integration, identify ports and protocols, Microsoft Windows Firewall versus Windows Firewall with Advanced Security, configure firewall by using group policy, isolation policy

### Configuring File and Print Services (13 percent)

- Configure a file server. May include but is not limited to: file share publishing, Offline Files, share permissions, NTFS permissions, encrypting file system (EFS)
- Configure Distributed File System (DFS). May include but is not limited to: DFS namespace, DFS configuration and application, creating and configuring targets, DFS replication
- Configure shadow copy services. May include but is not limited to: recover previous versions, set schedule, set storage locations
- Configure backup and restore. May include but is not limited to: backup types, backup schedules, managing remotely, restoring data
- Manage disk quotas. May include but is not limited to: quota by volume or quota by user, quota entries, quota templates
- Configure and monitor print services. May include but is not limited to: printer share, publish printers to Active Directory, printer permissions, deploy printer connections, install printer drivers, export and import print queues and printer settings, add counters to Reliability and Performance Monitor to monitor print servers, print pooling, print priority

### Monitoring and Managing a Network Infrastructure (14 percent)

- Configure Windows Server Update Services (WSUS) server settings. May include but is not limited to: update type selection, client settings, Group Policy object (GPO), client targeting, software updates, test and approval, disconnected networks
- Capture performance data. May include but is not limited to: Data Collector Sets, Performance Monitor, Reliability Monitor, monitoring System Stability Index
- Monitor event logs. May include but is not limited to: custom views, application and services logs, subscriptions, DNS log
- Gather network data. May include but is not limited to: Simple Network Management Protocol (SNMP), Baseline Security Analyzer, Network Monitor

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### Planning for Server Deployment (19 percent)

- Plan server installations and upgrades. May include but is not limited to: Windows Server 2008 edition selection, rollback planning, Bitlocker implementation requirements
- Plan for automated server deployment. May include but is not limited to: standard server image, automation and scheduling of server deployments
- Plan infrastructure services server roles. May include but is not limited to: address assignment, name resolution, network access control, directory services, application services, certificate services
- Plan application servers and services. May include but is not limited to: virtualization server planning, availability, resilience, and accessibility
- Plan file and print server roles. May include but is not limited to: access permissions, storage quotas, replication, indexing, file storage policy, availability, printer publishing

### Planning for Server Management (23 percent)

- Plan server management strategies. May include but is not limited to: remote administration, remote desktop, server management technologies, Server Manager and ServerManagerCMD, delegation policies and procedures
- Plan for delegated administration. May include but is not limited to: delegate authority, delegate Active Directory objects, application management
- Plan and implement group policy strategy. May include but is not limited to: GPO management, GPO backup and recovery, group policy troubleshooting, group policy planning

#### Monitoring and Maintaining Servers (20 percent)

- Implement patch management strategy. May include but is not limited to: operating system patch level maintenance, Windows Server Update Services (WSUS), application patch level maintenance
- Monitor servers for performance evaluation and optimization. May include but is not limited to: server and service monitoring, optimization, event management, trending and baseline analysis
- Monitor and maintain security and policies. May include but is not limited to: remote access, monitor and maintain NPAS, network access, server security, firewall rules and policies, authentication and authorization, data security, auditing

#### Planning Application and Data Provisioning (19 percent)

- Provision applications. May include but is not limited to: presentation virtualization, terminal server infrastructure, resource allocation, application virtualization alternatives, application deployment, System Center Configuration Manager
- Provision data. May include but is not limited to: shared resources, offline data access

#### Planning for Business Continuity and High Availability (19 percent)

- Plan storage. May include but is not limited to: storage solutions, storage management
- Plan high availability. May include but is not limited to: service redundancy, service availability
- Plan for backup and recovery. May include but is not limited to: data recovery strategy, server recovery strategy, directory service recovery strategy, object level recovery

#### Exam(s):

70-240 TS: Windows Server 2008 Active Directory, Configuring

70-642 TS: Windows Server 2008 Network Infrastructure, Configuring

70-646 Pro: Windows Server 2008, Server Administrator