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## Exam 70-642:

### TS: Windows Server 2008 Network Infrastructure, Configuring

Published:	March 06, 2008
Language(s):	English, French, German, Italian, Japanese, Korean, Russian, Spanish, Portuguese (Brazil), Chinese (Simplified)
Audience(s):	IT Professionals
Technology:	Windows Server 2008
Type:	Proctored Exam

#### About this Exam

The Microsoft Certified Technology Specialist (MCTS) on Windows Server 2008 credential is intended for IT professionals who work in the complex computing environment of medium-sized to large companies.

#### Audience Profile

The Microsoft Certified Technology Specialist (MCTS) on Windows Server 2008 credentials are intended for information technology (IT) professionals who work in the complex computing environment of medium to large companies. The MCTS candidate should have at least one year of experience implementing and administering Windows Server 2008 R2 in an environment that has the following characteristics:

- 250 to 5,000 or more users
- multiple physical locations
- multiple domain controllers
- network services and resources such as messaging, databases, file and print, a firewalls, Internet access, an intranet, Public Key Infrastructure, remote access, remote desktop, virtualization, and client computer management
- connectivity requirements such as connecting branch offices and individual users in remote locations to corporate resources and connecting corporate networks

#### Credit Toward Certification

When you pass Exam 70-642: TS: Windows Server 2008 Network Infrastructure, Configuring, you complete the requirements for the following certification(s):

- [Microsoft Certified Technology Specialist \(MCTS\): Windows Server 2008 Network Infrastructure, Configuring](#)

Exam 70-642: TS: Windows Server 2008 Network Infrastructure, Configuring: counts as credit toward the following certification(s):

- [Microsoft Certified IT Professional \(MCITP\): Enterprise Administrator](#)
- [Microsoft Certified IT Professional \(MCITP\): Server Administrator](#)

**Note** This preparation guide is subject to change at any time without prior notice and at the sole discretion of Microsoft. Microsoft exams might include adaptive testing technology and simulation items. Microsoft does not identify the format in which exams are presented. Please use this preparation guide to prepare for the exam, regardless of its format.

#### Skills Being Measured

This exam measures your ability to accomplish the technical tasks listed below.

The percentages indicate the relative weight of each major topic area on the exam.

##### 1. Configuring Addressing and Services (24 percent)

- Configure IPv4 and IPv6 addressing.

- May include but is not limited to: configure IP address options; subnetting; supernetting; multi-homed; interoperability between IPv4 and IPv6
- 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; DHCPv6
- Configure routing.
  - May include but is not limited to: static routing; persistent routing; Routing Internet Protocol (RIP); metrics; choosing a default gateway; maintaining a routing table; demand-dial routing; IGMP proxy
- Configure Windows Firewall with Advanced Security.
  - May include but is not limited to: inbound and outbound rules; custom rules; authorized users; authorized computers; configure firewall by using Group Policy; network location profiles; service groups; import/export policies; isolation policy; IPsec group policies; Connection Security Rules

#### **Configuring Names 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; socket pooling; cache locking
- Configure DNS zones.
  - May include but is not limited to: zone scavenging; zone types; Active Directory integration; Dynamic Domain Name System (DDNS); Secure DDNS; GlobalNames; zone delegation; DNS Security Extensions (DNSSEC); reverse lookup zones
- Configure DNS records.
  - May include but is not limited to: record types; Time to live (TTL); weighting records; registering records; netmask ordering; DnsUpdateProxy group; round robin; DNS record security; auditing
- Configure DNS replication.
  - May include but is not limited to: DNS secondary zones; DNS stub zones; Active Directory Integrated replication scopes; securing zone transfer; SOA refresh; auditing
- Configure name resolution for client computers.
  - May include but is not limited to: configuring HOSTS file; Link-Local Multicast Name Resolution (LLMNR); broadcasting; resolver cache; DNS server list; Suffix Search order; DNS devolution

#### **Configuring Network Access (22 percent)**

- Configure remote access.
  - May include but is not limited to: dial-up; Remote Access Policy; Network Address Translation (NAT); VPN protocols, such as Secure Socket Tunneling Protocol (SSTP) and IKEv2; Routing and Remote Access Services (RRAS); packet filters; Connection Manager; VPN reconnect; RAS authentication by using MS-CHAP, MS-CHAP v2, and EAP
- Configure Network Access Protection (NAP).
  - May include but is not limited to: network layer protection; DHCP enforcement; VPN enforcement; RDS enforcement; configure NAP health policies; IPsec enforcement; 802.1x enforcement; flexible host isolation; multi-configuration System Health Validator (SHV)
- Configure DirectAccess.
  - May include but is not limited to: IPv6; IPsec; server requirements; client requirements; perimeter network; name resolution policy table
- Configure Network Policy Server (NPS).
  - May include but is not limited to: IEEE 802.11 wireless; IEEE 802.3 wired; group policy for wireless; RADIUS accounting; Connection Request policies; RADIUS proxy; NPS templates

#### **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); BitLocker; Access-Based Enumeration (ABE); branch cache; Share and Storage Management console
- Configure Distributed File System (DFS).
  - May include but is not limited to: DFS namespace; DFS configuration and application; creating and configuring targets; DFS replication; read-only replicated folder; failover cluster support; health reporting
- Configure backup and restore.
  - May include but is not limited to: backup types; backup schedules; managing remotely; restoring data; shadow copy services; volume snapshot services (VSS); bare metal restore; backup to remote file share
- Manage file server resources.
  - May include but is not limited to: FSRM; quota by volume or quota by user; quota entries; quota templates; file classification; Storage Manager for SANs; file management tasks; file screening
- 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 Performance Monitor to monitor print servers; print pooling; print priority; print driver isolation; location-aware printing; print management delegation

#### **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
- Configure performance monitoring.
  - May include but is not limited to: Data Collector Sets; Performance Monitor; Reliability Monitor; monitoring System Stability Index; page files; analyze performance data
- Configure event logs.
  - May include but is not limited to: custom views; application and services logs; subscriptions; attaching tasks to events find and filter
- Gather network data.
  - May include but is not limited to: Simple Network Management Protocol (SNMP); Network Monitor; Connection Security Rules monitoring

#### **Preparation Tools and Resources**

To help you prepare for this exam, Microsoft Learning recommends that you have hands-on experience with the product and that you use the following training resources. These training resources do not necessarily cover all of the topics listed in the "Skills Measured" tab.

#### **Classroom Training**

- [6421B: Configuring and Troubleshooting a Windows Server 2008 Network Infrastructure \(5 Days\)](#)

#### **Microsoft E-Learning**

- 6421BE: Configuring and Troubleshooting a Windows Server 2008 Network Infrastructure (15 Hours)

#### **Microsoft Press Books**

- [MCTS Self-Paced Training Kit \(Exam 70-642\): Configuring Windows Server 2008 Network Infrastructure \(2nd Edition\)](#)

#### **Practice Tests**

- [MeasureUp](#)  
(Measureup.com)
- [Self Test Software](#)  
(Selftestsoftware.com)

**Microsoft Online Resources**

- [Windows Server 2008 – Learning Portal](#): Find special offers and information on training and certification.
- [Product information](#): Visit the Windows Server 2008 Web site for detailed technology information.
- [Microsoft Learning Community](#): Join newsgroups and visit community forums to connect with your peers for suggestions on training resources and advice on your certification path and studies.
- [TechNet](#): Designed for IT professionals, this site includes how-to instructions, best practices, downloads, technical resources, newsgroups, and chats.
- [MSDN](#): Designed for developers, the Microsoft Developer Network (MSDN) features code samples, technical articles, downloads, newsgroups, and chats.

**Have Questions?**

For advice about training and certification, connect with peers:

- [Visit the training and certification forum](#)

For questions about a specific certification, chat with a Microsoft Certified Professional (MCP):

- [Visit our MCP newsgroups](#)

To find out about recommended blogs, Web sites, and upcoming Live Meetings on popular topics, visit our community site:

- [Visit the Microsoft Learning community](#)