






Diploma in Windows Networking (200) – Windows Server 2000 Network Infrastructure

Prerequisites: Knowledge in Windows operating system.	Corequisites: A pass or higher in Certificate in Networking or equivalence.
Aim: Candidates will learn how to install, configure, manage, and support a Windows Server network infrastructure. Focus on a variety of networking topics, including Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Windows Internet Naming Service (WINS), Certificate Services, Internet Protocol Security (IPSec), routing, Network Address Translation (NAT), and configuring remote access. This course prepare the candidates to analyse the business requirements and design a directory service architecture, including: unified directory services such as Active Directory and Windows domains; connectivity between and within systems, system components, and applications and data replication such as directory replication and database replication	
Required Materials: Recommended Learning Outcomes.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
Special Requirements: The course requires a combination of lectures, demonstrations, discussions, and hands-on labs.	
<p>Intended Learning Outcomes:</p> <p>1 Describe many of the new features of Windows Server. Detail differences between the four main Windows Server product family members</p> <p>2 Describe the history of the TCP/IP protocol stack. Identify TCP/IP addresses, classes, and subnet masks. Create a subnetting scheme for a given TCP/IP network address</p> <p>3 Describe the dynamic host configuration protocol (DHCP). Describe the dynamic IP leasing process</p> <p>4 Provide an overview of the Domain Name System (DNS). Describe the features of DNS in Windows Server</p> <p>5 Provide an overview of NETBIOS naming and NetBIOS name resolution. Describe the features of the Windows Internet Name Service (WINS). Explain in detail the new features in the Windows Server implementation of</p>	<p>Assessment Criteria:</p> <p>1.1 Explain the Windows Server networking architecture</p> <p>1.2 Define the major networking protocols supported by Windows Server</p> <p>1.3 Recognise many of the networking services available in Windows Server</p> <p>2.1 Define and assign static and dynamic TCP/IP addresses to Windows Server machines</p> <p>2.2 Establish TCP/IP packet filtering</p> <p>2.3 Optimise networking protocol bindings</p> <p>3.1 Configure a client to use DHCP</p> <p>3.2 Install the DHCP server service</p> <p>3.3 Configure scopes within the DHCP server service</p> <p>3.4 Define and create scope options</p> <p>3.5 Authorise a DHCP server in Active Directory</p> <p>3.6 Configure DHCP for integration with DNS</p> <p>3.7 Manage, monitor, and troubleshoot DHCP</p> <p>4.1 Install the DNS server</p> <p>4.2 Configure a DNS server; create resource records manually</p> <p>4.3 Configure a client to use DNS</p> <p>4.4 Manage, monitor, and troubleshoot DNS</p> <p>5.1 Install WINS; configure replication between WINS servers</p> <p>5.2 Configure a client to use WINS</p> <p>5.3 Manage, monitor, and troubleshoot WINS</p> <p>6.1 Configure inbound RRAS Connections</p> <p>6.2 Create a remote access policy</p> <p>6.3 Configure a remote access profile</p> <p>6.4 Configure a Virtual Private Network</p>

<p>WINS</p> <p>6 Describe the use of Routing and Remote Access Service (RRAS). Understand how to install RRAS</p> <p>7 Describe the differences between interior and exterior routing protocols. Describe the routing protocols supported by Windows Server, including RIP and OSPF</p> <p>8 Describe the features and benefits of the IP Security protocol. Describe the modes of operation for IP Security. Describe the IP Security authentication and architecture</p> <p>9 Explain the differences between Internet Connection Sharing (ICS) and Network Address Translation. Describe the address translation process</p> <p>10 Describe the components of a public key infrastructure. Explain the public/private key encryption process. Explain the use of certificates</p>	<p>6.5 Configure remote access security, including encryption and authentication protocols</p> <p>6.6 Configure multilink connections</p> <p>6.7 Configure routing and remote access for DHCP integration</p> <p>6.8 Manage, monitor, and troubleshoot remote access</p> <p>7.1 Configure static routing</p> <p>7.2 Configure demand-dial routing</p> <p>7.3 Manage and monitor border routing</p> <p>7.4 Manage and monitor interior routing</p> <p>7.5 Manage and monitor RIP and OSPF</p> <p>7.6 Manage, monitor, and troubleshoot network traffic</p> <p>8.1 Configure IP Security for transport mode on a Windows Server</p> <p>8.2 Configure IP Security for tunnel mode on a Windows Server</p> <p>8.3 Customise IP Security policies and rules</p> <p>8.4 Manage and monitor IP Security</p> <p>9.1 Install and configure ICS on Windows Server or Professional</p> <p>9.2 Install and configure NAT on Windows Server</p> <p>9.3 Monitor and manage NAT</p> <p>10.1 Install and configure Microsoft Certificate Server; issue, manage, and revoke certificates</p> <p>10.2 Remove EFS recovery keys</p>
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Recommended Learning Resources: Windows 2000 Server Infrastructure

<p>Text Books</p>	<ul style="list-style-type: none"> • MCSE Guide to Designing a Microsoft Windows Network Infrastructure (MSCE) by Chuck Holcombe. ISBN-10: 0619016930 • Implementing a Microsoft Windows Network Infrastructure by Corp. ISBN-10: 0595148190 • MCSE Training Guide: (70-216) Windows 2000 Network Infrastructure by Dave Bixler. SBN-10: 0789728788
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>Windows Server</p>

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