

Course Outline
DCOM 204
Microsoft Proxy Server
3 Semester Hours

The Community College of Baltimore County

Description

Proxy Server

Presents essential technical knowledge necessary for supporting users of Microsoft Proxy Server Software; covers the skills that will enable the implementation, administration, and troubleshooting of client/server network systems that incorporate Microsoft Proxy Server. Prepares the student for one of the MCP (Microsoft Certified Professional) examinations.

Prerequisite: DCOM 201 or DCOM 202 or permission of program director.

Overall Course Objectives

Upon completion of this course the student will be able to:

- A. Choose a secure access strategy for various situations.
- B. Plan an Internet site or an Intranet site.
- C. Choose a strategy to balance Internet access across multiple Proxy Server computers.
- D. Choose a rollout plan for integrating a Proxy Server with an existing network.
- E. Choose a fault tolerance strategy.
- F. Configure server authentication.
- G. Configure Windows NT to support Microsoft Proxy Server.
- H. Configure Microsoft Proxy Server for Internet access.
- I. Select and use software configuration management tools.
- J. Identify the licensing requirements for a given Proxy Server site.
- K. Grant or restrict access to the Internet for selected outbound users and groups who use the various Proxy Server services to access the Internet.
- L. Use the Proxy Server client Setup program to configure client computers.
- M. Monitor performance of functions by using Performance Monitor.
- N. Use Performance Monitor logs to identify the appropriate configuration.
- O. Resolve Proxy Server and Proxy Server client installation and access problems.
- P. Resolve security problems, WINS server access problems, caching problems, and hardware problems.
- Q. Troubleshoot Internet/intranet routing hardware and software.

Major Topics

- A. Introduction to Microsoft Proxy Server 2.0
 - 1. Understand the basic history of proxy servers, from firewalls to content caching
 - 2. Understand the need for and use of a proxy server
 - 3. Identify the key benefits of a proxy server
 - 4. Understand the main components of Proxy Server 2.0

5. Identify the hardware and software requirements of Proxy Server 2.0
- B. Microsoft Proxy Server 2.0 Architecture
 1. Understand where Microsoft Proxy Server fits in a Windows NT network
 2. Understand the components and functions of each service offered by Proxy Server
- C. Understanding TCP/IP
 1. Understand IP addressing, classes, and subnet masks
 2. Comprehend the role of gateways in a TCP/IP network
 3. Configure TCP ports
 4. Explore DHCP and WINS and how they are used for address management
 5. Understand the Domain Name System
- D. Internet Information Server Overview
- E. Planning Your Proxy Server Implementation
 1. Plan your Proxy Server deployment
 2. Determine your current and required network capacity
 3. Assess your Internet access needs
 4. Understand the services and capabilities offered by Proxy Server
 5. Design a network and Proxy Server layout
 6. Plan out the hardware needs of the Proxy Server host
- F. Installing Microsoft Proxy Server 2.0
 1. Configure and establish a connection with an ISP
 2. Configure the Local Address Table (LAT)
 3. Configure Microsoft Proxy Server 2.0 for multiple protocols and various levels of user authentication
- G. Proxy Client Configuration
 1. Determine which clients require which proxy services
 2. Configure Proxy Server clients
 3. Modify the client configuration files
- H. Proxy Server Configuration
- I. Managing and Tuning Proxy Server 2.0
 1. Perform Web Proxy administrative tasks
 2. Perform WinSock Proxy administration tasks
 3. Perform SOCKS Proxy administration tasks
 4. Monitor Proxy Server performance
- J. Internet Access Via Proxy Server
- K. Managing Multiple Proxy Servers
 1. Configure and manage a multiple proxy environment
 2. Configure Proxy Servers into arrays
 3. Configure Proxy Server routing
- L. Network Address Translation and DNS Issues
- M. Complex Deployment and Configuration Issues
- N. Troubleshooting Proxy Server
 1. Understanding the Windows NT Registry Editor
 2. Use the Microsoft Performance Monitor application
 3. Use the Microsoft Event Viewer

Course Requirements

Grading/exams: Procedures for grading will be determined by the individual faculty member; there will be a *minimum* of 10 graded assignments. A final examination is required. Other graded assignments may come from any combination of the following categories: quizzes, hourly exams, a midterm exam, group projects, individual reports/presentations, or lab projects.

Writing: The individual faculty member will determine specific writing assignments.

Other Course Information

This course is taught in a computerized environment.

This course is a required course in the MCSE (Microsoft Certified Systems Engineer) concentration.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

Date Revised: 6/7/00