

CIW Server Administrator Series – Course 2: Advanced Internet System Management (October 2002)

Advanced Internet System Management is a comprehensive 18-hour course that teaches students how to implement mission-critical services on the Windows 2000 and Red Hat Linux platforms. Students install and configure Web, newsgroup, e-mail and proxy servers; receive in-depth understanding of how to connect e-commerce databases to Web servers; and learn how to enable CGI on Windows 2000 and Linux. Students also learn about backup and load balancing issues, and receive foundational knowledge concerning Internet security. This course is designed for personnel responsible for implementing real-world solutions for company intranets or ISPs that provide Internet Web services.

Topics

Mission-Critical Services

- Services Overview
- Foundational Services
- Types of Mission-Critical Services
- System Logging
- Performance Monitoring and Server Optimization
- Fault Tolerance
- High Availability Clustering
- Parallel Processing
- Backup
- Storage Area Networks
- The Concurrent Version System

Installing and Configuring a Web Server

- Web Servers
- Server Naming
- Aliases and Virtual Directories
- Directory Browsing and Default Documents
- Common Web Browsers and Servers
- Configuring IIS
- Virtual Servers
- Apache Server
- Administering Apache Server
- Virtual Servers and Apache

Advanced Web Server Configuration

- Web Server Configuration
- Hypertext Transfer Protocol (HTTP)
- Web Applications and E-Commerce
- Server-side Applications and E-Commerce
- Web Applications and MIME
- E-Commerce Web Servers and Perl
- Script Execution in IIS 5.0
- Server-side Includes and Application Mapping in Windows 2000
- Apache Server and Perl
- E-Commerce Web Servers and Gateways
- Active Server Pages (ASP)
- Open Database Connectivity (ODBC), Web Gateways and E-Commerce
- Streaming Media Servers

Enabling Secure Sockets Layer

- Secure Sockets Layer (SSL)
- SSL Handshake
- Applying SSL Encryption
- Requesting and Installing Certificates
- Certificate Concerns

Configuring and Managing a News Server

- News Servers
- Network News Transfer Protocol (NNTP) Service
- Proprietary Newsgroup Server Considerations

E-Mail Server Essentials

- Email Servers
- Sending and Delivering E-Mail
- E-Mail Agents
- E-Mail Server Terminology
- Simple Mail Transfer Protocol (SMTP)
- Post Office Protocol 3 (POP3)
- Internet Message Access Protocol (IMAP)
- Lightweight Directory Access Protocol (LDAP)
- Web Mail
- List Servers

Configuring E-Mail Servers

- MX Records and E-Mail Servers
- Intradomain E-Mail
- Interdomain E-Mail

Proxy Servers

- Using Proxy Servers
- Proxy Server Considerations

Logging Activity

- Logging Information
- HTTP Server Log Files
- FTP Log Files
- File Analysis Software
- Additional Services

Monitoring and Optimizing Internet Servers

- Analyzing Server Performance
- Queues and Bottlenecks
- Correcting Bottlenecks
- Hardware Concerns

Fault Tolerance and System Backup

- Protecting Data
- Fault Tolerance
- Additional Fault Tolerance Options
- Tape Backup
- Planning a Backup Strategy
- Disaster Assessment and Recovery

Security Overview

- System Security
- Server Vulnerabilities
- Auditing Your System
- Enhancing Server Security
- Firewalls
- Intrusion Detection Systems
- Security Tradeoffs
- Recognizing Security Breaches

CIW Server Administrator Series – Course 2:

Advanced Internet System Management (October 2002) Continued

Target Audience

LAN/WAN administrators, systems administrators, systems managers, intranet administrators, network engineers, and internetworking engineers.

Job Responsibilities

Manage and tune corporate Internet and intranet infrastructure; monitor Web server systems, FTP, news and mail servers; configure and deploy e-business solutions servers.

Prerequisites

Students must have CIW Foundations certification or equivalent experience, and have completed the *Internet System Management* course or have equivalent experience with TCP/IP networking and Windows 2000 operation.

Duration

18 hours