

## Course 2824 — Instructor-led

### Course Length: 5 days

#### At the end of this course, students will be able to:

- Describe the functionality provided by ISA Server 2004, and explain valid deployment scenarios for ISA Server 2004.
- Install and maintain ISA Server 2004, and install and configure ISA Server clients.
- Configure secure access to Internet resources for internal network clients using ISA Server 2004.
- Configure ISA Server 2004 as a firewall between the Internet and the internal network.
- Configure secure access to internal network resources for Internet clients who are using Web and server publishing rules.
- Configure ISA Server to provide secure access to Exchange Server for servers and clients located on the Internet.
- Implement application and Web filters on ISA Server 2004.
- Implement a virtual private network for remote clients and remote networks using ISA Server 2004.
- Implement Web proxy caching on ISA Server 2004.
- Monitor server performance, security, and usage

on ISA Server 2004.

- Plan an ISA Server 2004 Enterprise Edition deployment and install ISA Server 2004 Enterprise Edition.
- Implement ISA Server 2004 Enterprise Edition in a back-to-back firewall scenario.
- Implement ISA Server 2004 Enterprise Edition in a site-to-site VPN scenario.

#### Prerequisites:

#### To ensure your success, we recommend training or the equivalent knowledge of:

- Successful completion of Course 2810: Fundamentals of Network Security, or equivalent knowledge of networking security.
- Successful completion of Course 2273: Managing and Maintaining a Microsoft Windows Server 2003 Environment, or equivalent knowledge of the Windows Server 2003 operating system and network concepts, or equivalent knowledge of Microsoft Windows 2000 Server operating system and network concepts.
- Experience implementing network resources such as Web, FTP, and Microsoft Exchange servers.

### Course Outline

#### Module 1: Overview of Microsoft ISA Server 2004

This module provides an introduction to ISA Server 2004. It introduces the core functionality provided by ISA Server 2004 and presents an overview of how ISA Server 2004 integrates with other security practices to form a defense-in-depth approach to network security. The module also describes the most common deployment scenarios for ISA Server 2004.

##### Lessons

- Introducing ISA Server 2004

##### Deployment Scenarios for ISA Server 2004

- Lab A: Introducing ISA Server 2004
- Designing an ISA Server Deployment at Contoso Pharmaceuticals
- Designing an ISA Server Deployment at Blue Yonder Airlines

#### Module 2: Installing and Maintaining ISA Server 2004

This module describes how to install ISA Server 2004,

how to install and configure the ISA Server client software, and how to maintain ISA Server 2004 after installation.

##### Lessons

- Installing ISA Server 2004
- Choosing ISA Server Clients
- Installing and Configuring Firewall Clients
- Advanced Firewall Client Configuration
- Securing ISA Server 2004
- Maintaining ISA Server 2004
- Lab A: Installing and Maintaining ISA Server 2004
- Performing an Unattended Installation of ISA Server 2004
- Migrating an ISA Server Configuration
- Securing ISA Server 2004

#### Module 3: Enabling Access to Internet Resources

This module explains how to provide access to Internet resources for internal corporate clients while maintaining network security. The module discusses different ways to implement this and also how to configure rules for access.

# Implementing Microsoft Internet Security and Acceleration Server 2004

## Course 2824 — continued

### Lessons

- ISA Server 2004 as a Proxy Server
- Configuring Multi-Networking on ISA Server
- Configuring Access Rule Elements
- Configuring Access Rules for Internet Access
- Lab A: Enabling Access to Internet Resources
- Configuring ISA Server Access Rule Elements
- Configuring ISA Server Access Rules
- Testing ISA Server Access Rules

### Module 4: Configuring ISA Server 2004 as a Firewall

This module explains how to configure ISA Server 2004 to provide firewall capabilities and restrict traffic into and out of the network. The module describes how to configure firewall policies and rules to provide specific functionality.

### Lessons

- Using ISA Server as a Firewall
- Examining Perimeter Networks and Templates
- Configuring System Policies
- Configuring Intrusion Detection and IP Preferences
- Lab A: Configuring ISA Server as a Firewall
- Restoring Firewall Access Rules
- Modifying the ISA Server System Policy
- Testing the Policy Modifications

### Module 5: Configuring Access to Internal Resources

This module explains how to configure Web and server publishing rules to publish internal network resources to the Internet without compromising internal network security.

### Lessons

- Introduction to Publishing
- Configuring Web Publishing
- Configuring Secure Web Publishing
- Configuring Server Publishing
- Configuring ISA Server Authentication
- Lab A: Configuring Access to Internal Resources
- Configuring ISA Server Authentication and Secure Publishing
- Testing the ISA Server Configuration

### Module 6: Integrating ISA Server 2004 and Microsoft Exchange Server

This module explains how Microsoft Exchange Server is a critical network service that is virtually always accessible from the Internet and how ISA Server 2004 can be used to provide security for Exchange Server and for securing client connections to Exchange.

### Lessons

- Issues in E-Mail Security
- Configuring ISA Server to Secure SMTP Traffic
- Configuring ISA Server to Secure Web Client Connections
- Configuring ISA Server to Secure Client Connections
- Lab A: Integrating ISA Server 2004 and Microsoft Exchange Server
- Enabling RPC over HTTP Client Connections
- Configuring a Forms-Based Authentication for Microsoft Outlook Web Access

### Module 7: Advanced Application and Web Filtering

This module explains how application and Web filtering can be used for very specific filtering of traffic that flows through the ISA Server. The module shows how to configure application and Web filtering to provide advanced protection for the internal network.

### Lessons

- Advanced Application and Web Filtering Overview
- Configuring HTTP Web Filters
- Configuring Additional Application and Web Filters
- Lab A: Advanced Application and Web Filtering
- Identifying an Application Method and Signature
- Modifying the HTTP Web Filter

### Module 8: Configuring Virtual Private Network Access for Remote Clients and Networks

This module explains how to provide access to the internal network for remote users while maintaining network security by implementing a virtual private network (VPN). The module shows how to configure ISA Server 2004 to provide a VPN solution.

### Lessons

- Virtual Private Networking Overview
- Configuring Virtual Private Networking for Remote Clients
- Configuring Virtual Private Networking for Remote Sites
- Configuring VPN Quarantine Control Using ISA Server 2004
- After completing this module, students will be able to:
  - Describe how VPNs work and the components required to configure VPNs.
  - Configure ISA Server to enable VPNs for remote clients.
  - Configure ISA Server to enable VPNs for remote sites.

- Configure ISA Server to enable VPN quarantine service.

**Module 9: Implementing Caching to Improve Browsing Performance**

This module explains how ISA Server can cache content that clients request from the Internet to provide a quicker response to the client. This module discusses how to configure caching for maximum efficiency.

*Lessons*

- Caching Overview
- Configuring General Cache Properties
- Configuring Cache Rules
- Configuring Content Download Jobs
- Lab A: Configuring Caching on ISA Server 2004
- Testing and Monitoring ISA Server Caching

**Module 10: Monitoring ISA Server 2004**

This module explains how administrators can use monitoring features of ISA Server to track network activity and monitor ISA Server performance.

*Lessons*

- Monitoring Overview
- Configuring Alerts
- Configuring Session Monitoring
- Configuring Logging
- Configuring Reports
- Monitoring Connectivity
- Monitoring Services and Performance
- Lab A: Configuring Caching on ISA Server 2004
- Exercise 1: Testing the Alerts Feature
- Exercise 2: Testing the Reporting Feature
- Exercise 3: Testing the Connectivity Monitoring Feature

**Module 11: Implementing ISA Server 2004 Enterprise Edition**

This module will focus on the concepts related to planning and implementing an ISA Server 2004 infrastructure. This module will highlight the differences between ISA Server 2004 Standard Edition and Enterprise Edition and explain how to implement the Enterprise Edition features.

*Lessons*

- Overview of ISA Server 2004 Enterprise Edition
- Planning an ISA Server 2004 Enterprise Edition Deployment
- Implementing ISA Server 2004 Enterprise Edition

**Module 12: Implementing ISA Server 2004 Enterprise Edition: Back-to-Back Firewall Scenario**

The primary focus of this module is the lab where the students will implement ISA Server Enterprise Edition in a back-to-back firewall configuration that includes network load balancing and shared caching. The module information will introduce the complexities of implementing a back-to-back firewall configuration and then provide guidelines for deploying this configuration. In the lab, the students will implement and test a back-to-back firewall scenario. This module should prepare students to implement a scalable back-to-back firewall solution using ISA Server Enterprise Edition based on a minimal but realistic set of business requirements.

*Lessons*

- Implementing a Back-to-Back Firewall Scenario
- Lab A: Implementing the Back-to-Back Firewall Scenario
- Exercise 1: Enabling Network Load Balancing for the Main\Front-End Array
- Exercise 2: Configuring the Front-End Array Server
- Exercise 3: Configuring Firewall Rules for Resource Access

**Module 13: Implementing ISA Server 2004 Enterprise Edition: Site-to-Site VPN Scenario**

The primary focus of this module is the lab where the students will implement ISA Server Enterprise Edition in a branch office site-to-site VPN scenario that include VPN network load balancing. The module information will introduce the complexities of implementing a branch office site-to-site VPN scenario and then provide guidelines for deploying this configuration. In the lab, the students will implement and test the deployment scenario. This module should prepare students to implement a scalable site-to-site VPN solution using ISA Server Enterprise Edition. The scenario will demonstrate how to implement a site-to-site VPN scenario that reflects a minimal but realistic set of business requirements.

*Lessons*

- Implementing the Site-to-Site VPN Scenario
- Lab A: Implementing ISA Server Enterprise Edition
- Exercise 1: Enabling NLB and CARP for the Main/Front-End Array
- Exercise 2: Configuring the Main-Office Array for a Site-to-Site VPN
- Exercise 3: Deploying ISA Server Services in a Remote Site
- Exercise 4: Configure the Remote Site for a Site-to-Site VPN