



Enhanced Network Solutions Group

Systems Integration • Learning Solutions • CIO Consulting
Managed Outsourcing • Healthcare Solutions • Security Solutions

7224 Engle Road - Fort Wayne, IN 46804 - Phone: (260) 432-1364 - Fax: (260) 432.3168

IINS Implementing Cisco IOS Network Security

IINS Rev 05.11

5 days

Description

This five-day course focuses on the necessity of a comprehensive security policy and how it affects the posture of the network. Learners will be able to perform basic tasks to secure a small branch type office network using Cisco IOS security features available through web-based GUIs (Cisco Router and Security Device Manager [SDM]) and the command-line interface (CLI) on the Cisco routers and switches.

Prerequisites

- *Skills and knowledge equivalent to those learned in Interconnecting Cisco Network Devices Part 1 (ICND1)*
- *Working knowledge of the Windows operating system*

Course Objectives

After completing this course, the learner will be able to meet these overall objectives:

- *Develop a comprehensive network security policy to counter threats against information security*
- *Configure routers on the network perimeter with Cisco IOS Software security features*
- *Configure a Cisco IOS zone-based firewall to perform basic security operations on a network*
- *Configure site-to-site VPNs using Cisco IOS features*
- *Configure IPS on Cisco network routers*
- *Configure LAN devices to control access, resist attacks, shield other network devices and systems, and protect the integrity and confidentiality of network traffic*

Course Outline

Module 1: Introduction to Network Security Principles

- Network Security Fundamentals
- Attack Methodologies
- Operations Security
- Cisco Self-Defending Networks

Module 2: Perimeter Security

- Administrative Access to Cisco Routers
- Cisco SDM
- AAA on a Cisco Router Using the Local Database and on Secure ACS
- Secure Management/Reporting
- Locking Down the Router

Module 3: Network Security Using Cisco IOS Firewalls

- Firewall Technologies
- Static Packet Filters Using ACLs
- Cisco IOS Zone-Based Policy Firewall



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Module 4: Site-to-Site VPNs

- Cryptographic Services
- Symmetric Encryption
- Examining Cryptographic Hashes and Digital Signatures
- Asymmetric Encryption and PKI
- IPsec Fundamentals
- Site-to-Site IPsec VPN
- IPsec on a Site-to-Site VPN Using Cisco SDM

Module 5: Network Security Using Cisco IOS IPS

- IPS Technologies
- Cisco IOS IPS Using Cisco SDM

Module 6: LAN, SAN, Voice, and Endpoint Security Overview

- Endpoint Security
- SAN Security
- Voice Security
- Layer 2 Attacks



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