SCOR-IMPLEMENTING AND OPERATING CISCO SECURITY CORE TECHNOLOGIES V1.0

Course Code: 100494

This course helps you prepare for the CCNP Security and CCIE Security certifications and for senior-level security roles featuring Cisco security solutions.

In the SCOR - Implementing and Operating Cisco Security Core Technologies v1.0 course you will master the skills and technologies you need to implement core Cisco security solutions to provide advanced threat protection against cybersecurity attacks. You will learn security for networks, cloud and content, endpoint protection, secure network access, visibility and enforcements. You will get extensive hands-on experience deploying Cisco Firepower Next-Generation Firewall and Cisco ASA Firewall; configuring access control policies, mail policies, and 802.1X Authentication; and more. You will get introductory practice on Cisco Stealthwatch Enterprise and Cisco Stealthwatch Cloud threat detection features.

Learn more about this topic. View the recorded webinar Remote Business – 5 Ms to Success.

What You’ll Learn

• Describe information security concepts and strategies within the network
• Describe common TCP/IP, network application, and endpoint attacks
• Describe how various network security technologies work together to guard
against attacks

- Implement access control on Cisco ASA appliance and Cisco Firepower Next-Generation Firewall
- Describe and implement basic email content security features and functions provided by Cisco Email Security Appliance
- Describe and implement web content security features and functions provided by Cisco Web Security Appliance
- Describe Cisco Umbrella security capabilities, deployment models, policy management, and Investigate console
- Introduce VPNs and describe cryptography solutions and algorithms
- Describe Cisco secure site-to-site connectivity solutions and explain how to deploy Cisco IOS VTI-based point-to-point IPsec VPNs, and point-to-point IPsec VPN on the Cisco ASA and Cisco FirePower NGFW
- Describe and deploy Cisco secure remote access connectivity solutions and describe how to configure 802.1X and EAP authentication
- Provide basic understanding of endpoint security and describe AMP for Endpoints architecture and basic features
- Examine various defenses on Cisco devices that protect the control and management plane
- Configure and verify Cisco IOS Software Layer 2 and Layer 3 Data Plane Controls
- Describe Cisco Stealthwatch Enterprise and Stealthwatch Cloud solutions
- Describe basics of cloud computing and common cloud attacks and how to secure cloud environment

Who Needs to Attend

- Security Engineer
- Network Engineer
- Network Designer
- Network Administrator
- Systems Engineer
- Consulting Systems Engineer
- Technical Solutions Architect
- Cisco Integrators/Partners
- Network Manager
- Cisco integrators and partners

Prerequisites

- Skills and knowledge equivalent to those learned in Implementing and Administering Cisco Solutions (CCNA) v1.0 course
- Familiarity with Ethernet and TCP/IP networking
- Working knowledge of the Windows operating system
- Working knowledge of Cisco IOS networking and concepts
- Familiarity with basics of networking security concepts
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CLASSROOM LIVE $4,295 USD 5 days

Classroom Live Outline

• Describing Information Security Concepts*
  - Information Security Overview
  - Managing Risk
  - Vulnerability Assessment
  - Understanding CVSS

• Describing Common TCP/IP Attacks*
  - Legacy TCP/IP Vulnerabilities
  - IP Vulnerabilities
  - ICMP Vulnerabilities
  - TCP Vulnerabilities
  - UDP Vulnerabilities
  - Attack Surface and Attack Vectors
  - Reconnaissance Attacks
  - Access Attacks
  - Man-In-The-Middle Attacks
  - Denial of Service and Distributed Denial of Service Attacks
  - Reflection and Amplification Attacks
  - Spoofing Attacks
  - DHCP Attacks

• Describing Common Network Application Attacks*
  - Password Attacks
  - DNS-Based Attacks
  - DNS Tunneling
  - Web-Based Attacks
  - HTTP 302 Cushioning
  - Command Injections
● SQL Injections
● Cross-Site Scripting and Request Forgery
● Email-Based Attacks

• Describing Common Endpoint Attacks*
  ● Buffer Overflow
  ● Malware
  ● Reconnaissance Attack
  ● Gaining Access and Control
  ● Gaining Access via Social Engineering
  ● Gaining Access via Web-Based Attacks
  ● Exploit Kits and Rootkits
  ● Privilege Escalation
  ● Post-Exploitation Phase
  ● Angler Exploit Kit

• Describing Network Security Technologies
  ● Defense-in-Depth Strategy
  ● Defending Across the Attack Continuum
  ● Network Segmentation and Virtualization Overview
  ● Stateful Firewall Overview
  ● Security Intelligence Overview
  ● Threat Information Standardization
  ● Network-Based Malware Protection Overview
  ● IPS Overview
  ● Next Generation Firewall Overview
  ● Email Content Security Overview
  ● Web Content Security Overview
  ● Threat Analytic Systems Overview
  ● DNS Security Overview
  ● Authentication, Authorization, and Accounting Overview
  ● Identity and Access Management Overview
  ● Virtual Private Network Technology Overview
  ● Network Security Device Form Factors Overview

• Deploying Cisco ASA Firewall
  ● Cisco ASA Deployment Types
  ● Cisco ASA Interface Security Levels
  ● Cisco ASA Objects and Object Groups
  ● Network Address Translation
  ● Cisco ASA Interface ACLs
  ● Cisco ASA Global ACLs
  ● Cisco ASA Advanced Access Policies
  ● Cisco ASA High Availability Overview

• Deploying Cisco Firepower Next-Generation Firewall
  ● Cisco Firepower NGFW Deployments
  ● Cisco Firepower NGFW Packet Processing and Policies
  ● Cisco Firepower NGFW Objects
Cisco Firepower NGFW NAT
Cisco Firepower NGFW Prefilter Policies
Cisco Firepower NGFW Access Control Policies
Cisco Firepower NGFW Security Intelligence
Cisco Firepower NGFW Discovery Policies
Cisco Firepower NGFW IPS Policies
Cisco Firepower NGFW Malware and File Policies

Deploying Email Content Security
  Cisco Email Content Security Overview
  SMTP Overview
  Email Pipeline Overview
  Public and Private Listeners
  Host Access Table Overview
  Recipient Access Table Overview
  Mail Policies Overview
  Protection Against Spam and Graymail
  Anti-virus and Anti-malware Protection
  Outbreak Filters
  Content Filters
  Data Loss Prevention
  Email Encryption

Deploying Web Content Security
  Cisco WSA Overview
  Deployment Options
  Network Users Authentication
  HTTPS Traffic Decryption
  Access Policies and Identification Profiles
  Acceptable Use Controls Settings
  Anti-Malware Protection

Deploying Cisco Umbrella*
  Cisco Umbrella Architecture
  Deploying Cisco Umbrella
  Cisco Umbrella Roaming Client
  Managing Cisco Umbrella
  Cisco Umbrella Investigate Overview

Explaining VPN Technologies and Cryptography
  VPN Definition
  VPN Types
  Secure Communication and Cryptographic Services
  Keys in Cryptography
  Public Key Infrastructure

Introducing Cisco Secure Site-to-Site VPN Solutions
  Site-to-Site VPN Topologies
  IPsec VPN Overview
  IPsec Static Crypto Maps
IPsec Static Virtual Tunnel Interface
Dynamic Multipoint VPN
Cisco IOS FlexVPN

- Deploying Cisco IOS VTI-Based Point-to-Point
  - Cisco IOS VTIs
  - Static VTI Point-to-Point IPsec IKEv2 VPN Configuration

- Deploying Point-to-Point IPsec VPNs on the Cisco ASA and Cisco Firepower NGFW
  - Point-to-Point VPNs on the Cisco ASA and Cisco Firepower NGFW
  - Cisco ASA Point-to-Point VPN Configuration
  - Cisco Firepower NGFW Point-to-Point VPN Configuration

- Introducing Cisco Secure Remote Access VPN Solutions
  - Remote Access VPN Components
  - Remote Access VPN Technologies
  - SSL Overview

- Deploying Remote Access SSL VPNs on the Cisco ASA and Cisco Firepower NGFW
  - Remote Access Configuration Concepts
  - Connection Profiles
  - Group Policies
  - Cisco ASA Remote Access VPN Configuration
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- Explaining Cisco Secure Network Access Solutions
  - Cisco Secure Network Access
  - Cisco Secure Network Access Components
  - AAA Role in Cisco Secure Network Access Solution
  - Cisco Identity Services Engine
  - Cisco TrustSec

- Describing 802.1X Authentication
  - 802.1X and EAP
  - EAP Methods
  - Role of RADIUS in 802.1X Communications
  - RADIUS Change of Authorization

- Configuring 802.1X Authentication
  - Cisco Catalyst Switch 802.1X Configuration
  - Cisco WLC 802.1X Configuration
  - Cisco ISE 802.1X Configuration
  - Supplicant 802.1x Configuration
  - Cisco Central Web Authentication

- Describing Endpoint Security Technologies*
  - Host-Based Personal Firewall
  - Host-Based Anti-Virus
  - Host-Based Intrusion Prevention System
  - Application Whitelists and Blacklists
  - Host-Based Malware Protection
Sandboxing Overview
File Integrity Checking

• Deploying Cisco AMP for Endpoints*
  ◦ Cisco AMP for Endpoints Architecture
  ◦ Cisco AMP for Endpoints Engines
  ◦ Retrospective Security with Cisco AMP
  ◦ Cisco AMP Device and File Trajectory
  ◦ Managing Cisco AMP for Endpoints

• Introducing Network Infrastructure Protection*
  ◦ Identifying Network Device Planes
  ◦ Control Plane Security Controls
  ◦ Management Plane Security Controls
  ◦ Network Telemetry
  ◦ Layer 2 Data Plane Security Controls
  ◦ Layer 3 Data Plane Security Controls

• Deploying Control Plane Security Controls*
  ◦ Infrastructure ACLs
  ◦ Control Plane Policing
  ◦ Control Plane Protection
  ◦ Routing Protocol Security

• Deploying Layer 2 Data Plane Security Controls*
  ◦ Overview of Layer 2 Data Plane Security Controls
  ◦ VLAN-Based Attacks Mitigation
  ◦ STP Attacks Mitigation
  ◦ Port Security
  ◦ Private VLANs
  ◦ DHCP Snooping
  ◦ ARP Inspection
  ◦ Storm Control
  ◦ MACsec Encryption

• Deploying Layer 3 Data Plane Security Controls*
  ◦ Infrastructure Antispoofing ACLs
  ◦ Unicast Reverse Path Forwarding
  ◦ IP Source Guard

Classroom Live Labs

• Configure Network Settings And NAT On Cisco ASA
• Configure Cisco ASA Access Control Policies
• Configure Cisco Firepower NGFW NAT
• Configure Cisco Firepower NGFW Access Control Policy
• Configure Cisco Firepower NGFW Discovery and IPS Policy
• Configure Cisco NGFW Malware and File Policy
• Configure Listener, HAT, and RAT on Cisco ESA
• Configure Mail Policies
• Configure Proxy Services, Authentication, and HTTPS Decryption
• Enforce Acceptable Use Control and Malware Protection
• Examine the Umbrella Dashboard
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• Explore DNS Ransomware Protection by Cisco Umbrella
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Oct 19 - 23, 2020 | 8:30 AM - 4:30 PM EST
Oct 26 - 30, 2020 | 8:30 AM - 4:30 PM EST
Nov 2 - 6, 2020 | 8:30 AM - 4:30 PM EST
Nov 16 - 20, 2020 | 8:30 AM - 4:30 PM EST
Dec 14 - 18, 2020 | 8:30 AM - 4:30 PM EST
Jan 11 - 15, 2021 | 8:30 AM - 4:30 PM EST
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PRIVATE GROUP TRAINING 5 days

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