

# IMPLEMENTING CISCO EDGE NETWORK SECURITY SOLUTIONS

DURATION: **5 DAYS**

## COURSE OVERVIEW

This course has been designed to provide students with the knowledge and skills required to implement and manage security on Cisco ASA firewalls, Cisco Routers with the firewall feature set and Cisco Switches. Students will gain hands-on experience with configuring various perimeter security solutions to mitigate outside threats and secure network zones. At the end of the course, students should be able to reduce the risk to their IT infrastructures and applications and provide detailed operations support for Cisco Switches, Cisco ASA, and Router security appliance features.

## TARGET AUDIENCE

This course is aimed at network professionals involved in the support and deployment of Cisco Edge Security solutions utilizing Cisco Switches, Cisco Routers and Cisco ASA Firewalls, as well as Individuals looking to obtain the Cisco Certified Network Professional Certification.

## COURSE OBJECTIVES

**After attending this course you should be able to:**

1. Understand current security threat landscape
2. Understand and implement Cisco modular Network Security Architectures such as Secure X and Trust Sec
3. Deploy Cisco Infrastructure management and control plane security controls
4. Configure Cisco layer 2 and layer 3 data plane security controls
5. Implement and maintain Cisco ASA Network Address Translations (NAT)
6. Implement and maintain Cisco IOS Software Network Address Translations (NAT)
7. Design and deploy Cisco Threat Defense solutions on a Cisco ASA utilizing access policy and application and identity based inspection
8. Implement Botnet Traffic Filters
9. Deploy Cisco IOS Zone-Based Policy Firewalls (ZBFW)
10. Configure and verify Cisco IOS ZBFW Application Inspection Policy

## **COURSE CONTENT**

### **Cisco Secure Design Principles**

1. Network Security Zoning
2. Cisco Module Network Architecture
3. Cisco Secure X Architecture
4. Cisco Trust Sec Solutions

### **Implement Network Infrastructure Protection**

1. Introducing Cisco Network Infrastructure Architecture
2. Deploying Cisco IOS Control Plane Security Controls
3. Deploying Cisco IOS Management Plane Security Controls
4. Deploying Cisco ASA Management Plane Security Controls
5. Deploying Cisco Traffic Telemetry Methods
6. Deploying Cisco IOS Layer 2 Data Plane Security Controls
7. Deploying Cisco IOS Layer 3 Data Plane Security Controls

### **Deploying NAT on Cisco IOS and Cisco Adaptive Security Appliance**

1. Introducing Network Address Translation
2. Deploying Cisco ASA Network Address Translation
3. Deploying Cisco IOS Software Network Address Translation

### **Deploying Threat Controls on Cisco ASA**

1. Introducing Cisco Threat Controls
2. Deploying Cisco ASA Basic Access Controls
3. Deploying Cisco ASA Application Inspection Policies
4. Deploying Cisco ASA Botnet Traffic Filtering
5. Deploying Cisco ASA Identity Based Firewall

### **Deploying Threat Controls on Cisco IOS Software**

1. Deploying Cisco IOS Software with Basic Zone-Based Firewall Policies
2. Deploying Cisco IOS Software Zone-Based Firewall with Application Inspection Policies

### **Labs**

1. Lab 2-1: Configuring Configure Cisco Policy Protection (CPP) and Management Plane Protection (MPP)
2. Lab 2-2: Configure Traffic Telemetry Methods

3. Lab 2-3: Configure Layer 2 Data Plan Security
4. Lab 2-4: Configure Layer 2 Data Plan Security
5. Lab 3-1: Configure NAT on Cisco Adaptive Security Appliance (ASA) Firewall
6. Lab 3-2: Configure NAT on Cisco IOS Software
7. Lab 4-1: Configure Cisco ASA Access Policy
8. Lab 4-2: Configure Cisco ASA Application Inspection Policy
9. Lab 4-3: Configure Cisco ASA Botnet Traffic Filter
10. Lab 4-4: Configure Cisco ASA Identity Based Firewall
11. Lab 5-1: Configure Cisco IOS Software Zone-Based Firewall (ZBFW)
12. Lab 5-2: Configure Cisco IOS Software ZBFW Application Inspection Policy

## COURSE PREREQUISITES

**Attendees should meet the following prerequisites:**

1. Cisco Certified Network Associate (CCNA®) certification
2. Cisco Certified Network Associate (CCNA®) Security certification
3. Knowledge of Microsoft Windows Operating System

## TEST CERTIFICATION

**Recommended preparation for exam(s):**

**300-206** - Implementing Cisco Edge Network Security Solutions

## FOLLOW ON COURSES

*Delegates looking to achieve the Cisco Certified Network Professional Certification for Security should also attend the following courses.*

SITCS - Implementing Cisco Threat Control Solutions

SISAS - Implementing Cisco Secure Access Solutions

SIMOS - Implementing Cisco Secure Mobility Solutions