



# Join us For New CCIE Security v6 Program

**Trainer - Mr. Atin CCIE Security #61100**

**24\*7 Online Lab Access , Join Free Demo Class**

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## **Module 1 :- Cisco ASA**

### **Day 1 – 120 mins**

- Introduction to the course
- Course Material
- Planning for CCIE
- Discuss the Table of Content

### **Day 2 – 120mins**

#### Cisco ASA Overview

- Firewall Overview
- Firewall Techniques
- Stateless Packet Filtering
- Stateful Packet Filtering

#### Cisco ASA Product Family

- Introducing the Cisco ASA 5500-X Series NGFW
- Introducing the Cisco ASA v
- Difference between UTM and NGFW

### **Day 3 – 120mins**

#### Cisco ASA Features

- Using the CLI
- Using the Cisco ASDM
- Understanding Factory default configuration
- Working on the configuration file

#### Cisco ASA Firewall Interfaces

- Configuring Physical interfaces
- Configuring Vlan interfaces

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- Redundant Interface
- Configuring Interface Security Parameters
- Naming the interface
- Security Level
- Assigning the IP Address

### **Day 4 – 120mins**

#### Cisco ASA IP Connectivity

- Configuring the Static Routing
- Routing with EIGRP
- Routing with OSPF
- Routing with BGP
- Verifying the routing Table
- Configuring the SSH and Telnet
- Configuring HTTP/S

### **Day 5/6 – 240mins**

#### Cisco ASA NAT (Address Translation)

- Understanding the NAT
- Methods of NAT
- Inside NAT
- Outside NAT
- Implementation of NAT
- Auto NAT
- Manual NAT
- Types of NAT
- Static
- NAT
- PAT
- Dynamic

- NAT
- PAT
- Twice NAT
- Identity NAT

#### Cisco ASA ACL

- Inside/ Outside ACL.
- Object and object-group ACL.
- Life of a Packet on the Cisco

#### Day 7 – 120mins

##### Cisco ASA Modes

- Transparent Mode
- Routed Mode

##### Cisco ASA Context

- Admin Context
- System Context
- User Context
- Deployment Guide

#### Day 8/9/10 – 360mins

##### Cisco High Availability

- ASA Failover
- Active/Standby
- Active/Active
- Verifying failover Operations
- Clustering ASA firewall
- Wireshark Capture

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## **Module 2 :- Cisco Firepower**

**Day 10/11/12/13/14 – 600mins**

What is NGFW and UTM

- Components of NGFW
- Introduction of the SourceFire and Snort Rules
- Cisco Acquisitions
- Cisco FTD, NGIPS
- Off Box Management and On Box Management
- FMC and FDM GUI
- Licensing on the FMC
- Registration of FMC with FTD and NGIPS
- Configuration of the Sensor Interface
- Configuring NAT and Routing
- Configuring the Policies
- Access Control Policy
- SSL Policy
- Pre-Filter Policy
- Security Intelligence
- DNS Policy
- HTTP Response
- Blocking Gambling and Social Networking Sites
- Intrusion Policy

Life of a Packet on the Cisco Next Generation Firewall

High availability

## **MODULE 3 :- VPN**

**Day 15– 120 mins**

Cryptography Overview

- Hash Algorithm

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- Encryption Overview
- Cryptanalysis
- Symmetric Encryption Algorithm
- Asymmetric Encryption Algorithm
- Digital Signatures
- PKI Overview
- PKI Operations

### **Day 16 – 120 mins**

#### Fundamentals of VPN Technologies and IPsec

- What is VPN
- Introduction of Isec Terminology
- VPN Types
- Isec Features
- Confidentiality, Integrity, Availability and Anti-Replay.
- IPsec Protocols: - IKE, ESP and AH
- IKE Modes
- IKE Phases
- NAT-T
- Security Associations and Components
- How to configure cisco IOS as CA

### **Day 17/18 – 240 mins**

#### Site to Site VPN

- What is Site-to Site VPN
- Wireshark Capture
- GRE
- Gre over IPsec
- Site-to-Site VPN Labs

## **Day 19/20 – 240mins**

### Deploying DMVPN

- DMVPN Overview
- DMVPN Terminologies
- NHRP
- MGRE
- DMVPN Working
- DMVPN Advantages and Limitations
- DMVPN Phase 1, 2 and 3
- DMVPN Labs
- DMVPN Redundancy – Dual Hub DMVPN Deployment

## **Day 21– 120 mins**

### Remote Access VPN

- Remote Access VPN Introduction
- Remote Access VPN modes
- Client Mode Software
- Client Mode Hardware
- Remote Access with DVTI
- Remote Access Working
- Remote Access Labs

## **Day 22– 120mins**

### Deploying Clientless SSL VPN

- SSL VPN Overview
- SSL Handshake
- SSL VPN Modes
- Clientless and Thick Client
- SSL VPN Working
- SSL VPN Labs

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## **Day 23 – 120 mins**

### Anyconnect Overview

- Connection Policies
- Group Policies
- Split Tunnelling
- Client Profile
- Anyconnect Image Upload

## **Day 24 – 120 mins**

### GET VPN

- GET VPN Terminologies
- GDOI
- Key Server (KS)
- KEK (Key Encryption Key)
- TEK (Traffic Encryption Key)
- Rekey Process (Unicast and Multicast)
- Group Member (GM)
- GET VPN Lab and Working

## **Day 25/26– 240mins**

### Flex VPN

- Introduction and Working IOS Flex VPN
- Flex VPN Labs

## **MODULE 4 :- ISE**

## **Day 27 – 120 mins**

### Introducing Cisco ISE Architecture and Deployment

- Security challenges

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- Cisco ISE solutions Use Cases
- Secure Access Control
- ISE function
- ISE deployment components
- Context visibility
- ISE Personas
- ISE Licensing
- Infrastructure Components
- Identity Source

### **Day 28– 120mins**

#### Fundamentals of AAA

- AAA.
- Radius Overview
- Radius Messages
- AV Pair
- IEEE 802.1x Primer.
- EAP
- Types of EAP
- Tunnel EAP
- EAP-FAST
- PEAP
- EAP-TLS
- LEAP
- Non-Tunnel EAP
- EAP-MD5
- MSCHAP
- EAP GTC
- Host Mode
- Deployment of 802.1x

**Day 29 – 120 mins**

## Bootstrap Network Access Devices

- Radius Commands
- AAA Commands

**Day 30 – 120mins**

## Introduction to ISE GUI

- AD overview and configuration
- Admin Access
- Administrative Work
- Certificate in ISE
- Personas
- Probes for ISE
- Backup/Restore
- Maintenance

**Day 31/32/33 – 360mins**

- Configuring Authentication and Authorization Policy
- Wired and Wireless Dot1x Authentication and Authorization
- Wired and Wireless MAB Authentication and Authorization
- Access-point and IP-PHONE Authentication and Authorization
- Device Administration

**Day 34/35 – 240 mins**

- Configuring Posturing and Profiling
- Posturing
- Profiling of Devices
- Cisco TrustSec and Its Component
- SGT/SGN Tagging

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- Classification
- Propagation
- Inline
- SXP
- Enforcement ACL

### **Day 36/37 – 240 mins**

#### Miscellaneous Topics

- Configuring the Cisco WLC and AP via GUI and CLI
- #### Cisco VPN Authentication
- Cisco Anyconnect VPN authentication from ISE

#### Troubleshooting ISE

- Radius Live Log
- Diagnostic Validator
- Logs Management
- Radius Messages with Attribute Type

### **MODULE 5 :- WSA/ESA**

#### **Day 38/39/40/41 – 480mins**

- Describe the Cisco WSA
- Install and verify the WSA
- Deploy proxy services for the WSA
- WCCP Services and Transparent Proxy
- Utilize authentication with the WSA
- Configure various policies for the WSA
- Enforce acceptable use using the WSA
- Defend against malware
- Configure data security
- Perform Administration and Troubleshooting of WSA's

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## MODULE 6 :- Cisco Stealth Watch and Cisco Umbrella

### Day 42/43/44 –360mins

- Introduction to Netflow
- Why we need Cisco StealthWatch
- Components of StealthWatch
- Advance Features of StealthWatch
- Configuring the Stealthwatch Management Console
- Using the Appliance Setup Tool with the SMC
- Configuring the Stealthwatch Flow Collector
- Finalising the Flow Collector Configuration
- Adding a Flow Collector to the SMC
- Exploring Where to Enable NetFlow on a Network
- Configuring NetFlow on Cisco IOS Routers/ASA/Switches
- An Example of a NetFlow Config Generator Tool
- Introduction to the Stealthwatch GUIs
- Organizing Hosts with Host Groups
- Analyzing Flows
- Enabling Cognitive Analytics
- Configuring Encrypted Traffic Analytics
- Creating Custom Policies
- Acknowledging Alarms
- Installing Stealthwatch Apps
- Capturing Packets for Diagnostics
- Logs, Stats, and Diagnostic Packs

### **Day 45/46– 240mins**

- Cisco Umbrella – Security Solution
- Implementing Cisco Umbrella
- Roaming Client
- Umbrella Roaming Security
- Reporting
- Active Directory User Sync

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