



Deploying Cisco ASA VPN Solutions 1.0(VPN)

BUILDING TRAINING SOLUTIONS
FOR THE IT WORLD

Days: 5
Format: Instructor-Led
Class Code: VPN
Certification Exams:
Certification Track:

Recommended Course Sequence

Knowledge of prerequisites noted below.

Course content is subject to change without notice.

Course Description:

The Deploying Cisco ASA VPN Solutions (VPN) 1.0 course is an instructor-led course that is presented by Cisco Learning Partners to their end-user customers. This five-day course aims at choosing, configuring, and troubleshooting the majority of Cisco ASA adaptive security appliance remote access and site-to-site VPN features to reduce risk to IT infrastructure and its applications.

Target Student:

- Network Security Engineers
- Anyone with their CCNA Security Certification and/or working towards CCNP Security Certification

Prerequisites:

To fully benefit from this course, students should have the following prerequisite skills and knowledge:

- Knowledge and skills gained from attending CCNA Certification
- Knowledge and skills gained from attending IINS (CCNA Security Certification).
- Knowledge and skills gained from attending SECURE
- Working knowledge of the Microsoft Windows operating system

Course Objectives:

After completing this course, students will be able to...

- Evaluate the Cisco ASA adaptive security appliance VPN subsystem
- Deploy Cisco ASA adaptive security appliance IPsec VPN solutions
- Deploy Cisco ASA adaptive security appliance Cisco AnyConnect remote access VPN solutions
- Deploy Cisco ASA adaptive security appliance clientless remote access VPN solutions
- Deploy advanced Cisco ASA adaptive security appliance VPN solutions

Course Outline

Module 1: Evaluation of the Cisco ASA Adaptive Security Appliance VPN Subsystem

Lesson 1: Evaluating the Cisco ASA Adaptive Security Appliance Software Architecture	
■	Cisco ASA Adaptive Security Appliance Access Control Model Refresher
■	Cisco ASA Adaptive Security Appliance Packet Routing Refresher
■	Cisco ASA Adaptive Security Appliance NAT Refresher

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<ul style="list-style-type: none">■ Cisco ASA Adaptive Security Appliance AAA Refresher
Lesson 2: Evaluating the Cisco ASA Adaptive Security Appliance VPN Subsystem Architecture
<ul style="list-style-type: none">■ PKI Technology■ Comparison of Cisco ASA Adaptive Security Appliance VPN Technologies■ VPN Termination on Cisco ASA Adaptive Security Appliance Network Interfaces■ Packet Flow in Cisco ASA Adaptive Security Appliance VPN Functions■ Cisco ASA Adaptive Security Appliance VPN Access Control Model■ Cisco ASA Adaptive Security Appliance VPN Licensing
Lesson 3: Applying Common Cisco ASA Adaptive Security Appliance Remote Access VPN Configuration Concepts
<ul style="list-style-type: none">■ Cisco ASA Adaptive Security Appliance VPN Policy Configuration■ Connection Profiles■ Group Policies■ External Policy Storage

Module 2: Deployment of Cisco ASA Adaptive Security Appliance IPsec VPN Solutions

Lesson 1: Deploying Basic Site-to-Site IPsec VPNs
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Configuring Basic Peer Authentication■ Configuring Transmission Protection■ Troubleshooting a Cisco ASA Adaptive Security Appliance Site-to-Site VPN
Lesson 2: Deploying Certificate Authentication in Site-to-Site IPsec VPNs
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Deploying Certificate-Based Authentication■ Configuring PKI-Based Peer Authentication
Lesson 3: Deploying the Cisco VPN Client
<ul style="list-style-type: none">■ Evaluating Cisco VPN Client Features■ Installing Cisco VPN Client Software■ Configuring Cisco VPN Client Profiles■ Configuring Advanced Profile Settings
Lesson 4: Deploying Basic Cisco Easy VPN Solutions
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Configuring Basic Cisco ASA Adaptive Security Appliance Cisco Easy VPN Server Features■ Configuring Group PSK Authentication■ Configuring Extended User Authentication■ Configuring Client Network Settings

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<ul style="list-style-type: none">■ Configuring Basic Access Control and Split Tunneling■ Configuring the Cisco VPN Client■ Troubleshooting Basic Cisco Easy VPN Operation
Lesson 5: Deploying Advanced Authentication in Cisco Easy VPN Solutions
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Deploying Cisco VPN Client Certificate Authentication■ Configuring Hybrid Authentication■ Deploying Advanced PKI Integration■ Troubleshooting PKI Integration
Lesson 6: Deploying the Cisco ASA 5505 Adaptive Security Appliance as Cisco Easy VPN Remote
<ul style="list-style-type: none">■ Choosing Cisco Easy VPN Remote Modes■ Deploying a Basic Cisco Easy VPN Remote Profile■ Configuring Advanced Cisco Easy VPN Remote Features■ Troubleshooting the Cisco Easy VPN Remote

Module 3: Deployment of Cisco ASA Adaptive Security Appliance Cisco AnyConnect Remote Access VPN Solutions

Lesson 1: Deploying a Basic Cisco AnyConnect Full Tunnel SSL VPN Solution
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Configuring Basic Cisco ASA Adaptive Security Appliance SSL VPN Gateway Features■ Configuring Local Password-Based User Authentication■ Configuring Client IP Address Management, Basic Access Control, and Split Tunneling■ Installing and Configuring the Cisco AnyConnect Client■ Troubleshooting Basic Full Tunnel SSL VPN Operation
Lesson 2: Deploying Advanced Cisco AnyConnect VPN Client
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Deploying DTLS■ Managing Cisco AnyConnect Software■ Configuring Cisco AnyConnect Client Profiles■ Deploying Advanced Cisco AnyConnect Operating System Integration Options■ Customizing the Cisco AnyConnect User Interface
Lesson 3: Deploying Advanced Authentication in Cisco AnyConnect Full Tunnel SSL VPNs
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Deploying External AAA Authentication■ Deploying Certificate-Based Client Authentication Using the Cisco ASA Adaptive Security Appliance Local CA

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- Deploying Advanced PKI Integration
- Deploying Multiple Client Authentication

Module 4: Deployment of Cisco ASA Adaptive Security Appliance Clientless Remote Access VPN Solutions

Lesson 1: Deploying a Basic Clientless VPN Solution
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedure, and Required Input Parameters■ Configuring Basic Cisco ASA Adaptive Security Appliance SSL VPN Gateway Features■ Configuring Local Password-Based User Authentication■ Configuring Basic Portal Features and Access Control■ Troubleshooting Clientless SSL VPNs
Lesson 2: Deploying Advanced Application Access for Clientless SSL VPN
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Configuring Application Plug-Ins■ Configuring Smart Tunnels■ Configuring Port Forwarding■ Troubleshooting Advanced Application Access
Lesson 3: Deploying Advanced Authentication and SSO in a Clientless SSL VPN
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required input Parameters■ Deploying Client Certificate-Based Authentication■ Deploying Advanced Gateway PKI Integration, External Certificate Authorization, and Double Authentication■ Troubleshooting PKI Integration■ Deploying Clientless SSL VPN SSO
Lesson 4: Customizing the Clientless SSL VPN User Interface and Portal
<ul style="list-style-type: none">■ Deploying Basic Navigation Customization■ Deploying Full Portal Customization■ Deploying Portal Localization■ Deploying Portal Help Customization■ Cisco AnyConnect Portal Integration

Module 5: Deployment of Advanced Cisco ASA Adaptive Security Appliance VPN Solutions

Lesson 1: Deploying VPN Authorization, Access Control, and Accounting
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Deploying Local Authorization■ Deploying External Authorization■ Configuring Session Accounting■ Troubleshooting Authorization and Accounting of a

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Clientless SSL VPN
Lesson 2: Deploying Cisco Secure Desktop in SSL VPNs
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Installing, Enabling, and Customizing Cisco Secure Desktop■ Configuring Prelogin Criteria■ Configuring Prelogin Policies■ Configuring Advanced Endpoint Assessment■ Troubleshooting Cisco Secure Desktop Operation for Clientless Connections
Lesson 3: Deploying Dynamic Access Policies
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Configuring DAP■ Aggregating DAP Records■ Integrating Cisco Secure Desktop with DAP■ Using LUA Expressions in Dynamic Access Policies■ Troubleshoot DAP
Lesson 4: Deploying High Availability and High Performance in SSL and IPsec VPNs
<ul style="list-style-type: none">■ Configuration Choices, Basic Procedures, and Required Input Parameters■ Deploying Redundant Peering■ Deploying Cisco ASA Adaptive Security Appliance Active/Standby Failover■ Deploying Dynamic-Routing-Based VPN Failover■ Deploying Cisco ASA Adaptive Security Appliance VPN Clustering■ Deploying High Availability and High Performance Using Network Server Load Balancing■ Deploying VPN QoS■ Troubleshooting Cisco ASA Adaptive Security Appliance VPN Failover and Clustering