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Learning Style: On Demand

Technology: Cisco

Difficulty: Intermediate

Course Duration: 40 Hours

Introduction to 802.1X Operations for Cisco Security Professionals (802.1X) v3.0 - On Demand



About this course:

The Introduction to 802.1X Operations for Cisco Security Professionals (802.1X) v3.0 e-learning course shows you how to configure and prepare to deploy Cisco® Identity-Based Networking Services (IBNS) solutions based on Cisco Identity Services Engine (ISE), Cisco Catalyst switches, and Cisco Wireless LAN Controllers.

You will learn the fundamentals of the 802.1X protocol and configuration, Cisco IBNS, configuring access for non-supplicant devices, Cisco ISE deployment options, architectural components, considerations with 802.1X, and more. You will also gain hands-on experience configuring 802.1X–based network services using the Cisco Identity Services Engine and a Cisco Catalyst switch.

Course Objective:

After taking this course, you should be able to:

- Describe Cisco Identity-Based Networking Services (IBNS) for providing access control to corporate networks.
- Describe Extensible Authentication Protocol (EAP) authentication types and methods, and the role of RADIUS in EAP communications.
- Describe how to configure Cisco Catalyst switches, Cisco Wireless LAN Controllers (Cisco WLCs), and Cisco ISE for 802.1X operation.
- Describe how to configure access for non-supplicant devices in an 802.1X deployment.
- Describe how to plan and deploy Cisco IBNS Networks with Cisco ISE and 802.1X.

Audience:

- Security architects
- Design engineers
- Network engineers
- Cisco integrators and partners

Prerequisite:

To fully benefit from this course, you should have knowledge of these topics:

- Cisco Wireless LAN Controllers
- Basic command-line configuration of Cisco Catalyst switches
- Microsoft Windows Server Active Directory

Here are some recommended Cisco learning offerings that can help you meet these

prerequisites:

- Cisco CCNA Security certification training
- Cisco CCNA Routing and Switching certification training
- Cisco CCNA Wireless certification training

Course Outline:

Describing Cisco Identity-Based Networking Services

- Cisco IBNS Overview
- Authentication, Authorization, and Accounting (AAA) Role in Cisco IBNS
- Compare Cisco IBNS and Cisco ISE Solutions
- Explore Cisco IBNS Architecture Components
- Explore Cisco TrustSec

Describing 802.1X EAP Authentication

- Explore the IEEE 802.1X Standard
- Explore 802.1X and EAP
- Explain EAP Methods
- Describe the Role of RADIUS in EAP Communications

Configuring Devices for 802.1X Operation

- Identify 802.1X Components and Topologies
- Configure Cisco Catalyst Switch for 802.1X
- Compare IBNS 1.0 and 2.0 on Cisco Catalyst Switch
- Configure Cisco WLC for 802.1X
- Configure Cisco ISE for 802.1X
- Configure Supplicants for 802.1X Operation

Configuring Access for Non-Supplicant Devices

- Configure Cisco IBNS for Non-Supplicant Devices
- Explore IBNS 2.0 for Non-Supplicant Devices
- Configure Cisco Central Web Authentication for Guests

Designing Cisco IBNS Networks with Cisco ISE and 802.1X

- Cisco ISE Architectural Components
- Introducing the Cisco ISE Bring Your Own Device (BYOD) Process
- Identify Cisco ISE Deployment Options
- Identify Component Compatibilities with 802.1X
- Review 802.1X Design Considerations

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