

Implementing and Configuring Cisco Identity Services Engine (ISE)

Course Summary

Description

This course discusses the Cisco Identity Services Engine, an identity and access control policy platform that provides a single policy plane across the entire organization, combining multiple services, including authentication, authorization, and accounting (AAA), posture, profiling, device on-boarding, and guest management, into a single context-aware identity-based platform. The training provides students with the knowledge and skills to enforce security posture compliance for wired and wireless endpoints as well as enhance infrastructure security using the Cisco ISE.

Objectives

After taking this course, students will be able to:

- Describe Cisco ISE architecture, installation, and distributed deployment options
- Configure Network Access Devices (NADs), policy components, and basic authentication and authorization policies in Cisco ISE
- Implement Cisco ISE web authentication and guest services
- Deploy Cisco ISE profiling, posture, and client provisioning services
- Describe administration, monitoring, troubleshooting, and TrustSec SGA security
- Configure device administration using TACACS+ in Cisco ISE

Topics

- Introducing Cisco ISE Architecture and Deployment
- Cisco ISE Policy Enforcement
- Web Authentication and Guest Services
- Cisco ISE Profiler
- Cisco ISE BYOD
- Cisco ISE Endpoint Compliance Services
- Cisco ISE with AMP and VPN-Based Services
- Cisco ISE Integrated Solutions with APIs
- Working with Network Access Devices
- Cisco ISE Design
- Configuring Third Party NAD Support

Audience

This course is designed for those wanting to learn the knowledge and skills to enforce security posture compliance for wired and wireless endpoints as well as enhance infrastructure security using the Cisco ISE.

Prerequisites

It is recommended that students have the following prior to attending this course:

- Familiarity with Cisco IOS CLI
- Familiarity with Cisco ASA
- Familiarity with Cisco VPN clients
- Familiarity with MicroSoft Windows Operating Systems
- Familiarity with 802.1x

Duration

Five days

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Course Outline

- I. *Introducing Cisco ISE Architecture and Deployment***
 - A. Using Cisco ISE as a Network Access Policy Engine
 - B. Introducing Cisco ISE Deployment Models
- II. *Cisco ISE Policy Enforcement***
 - A. Introducing 802.1x and MAB Access: Wired and Wireless
 - B. Introducing Identity Management
 - C. Configuring Certificate Services
 - D. Introducing Cisco ISE Policy
 - E. Configuring Cisco ISE Policy Sets
 - F. Implementing Third-Party
 - G. Introducing Cisco TrustSec
 - H. Introducing EasyConnect
- III. *Web Authentication and Guest Services***
 - A. Introducing Web Access with Cisco ISE
 - B. Introducing ISE Guest Access Components
 - C. Configuring Guest Access Settings
 - D. Configuring Portals: Sponsors and Guests
- IV. *Cisco ISE Profiler***
 - A. Introducing Cisco ISE Profiler
 - B. Configuring Cisco ISE Profiling
- V. *Cisco ISE BYOD***
 - A. Introducing the Cisco ISE BYOD Process
 - B. Describing BYOD Flow
 - C. Configuring My Devices Portal Settings
 - D. Configuring Certificates in BYOD Scenarios
- VI. *Cisco ISE Endpoint Compliance Services***
 - A. Introducing Endpoint Compliance
 - B. Configuring Client Posture Services and Provisioning in Cisco ISE
- VII. *Cisco ISE with AMP and VPN-Based Services***
 - A. Introducing VPN Access Using Cisco ISE
 - B. Configuring Cisco AMP for ISE
- VIII. *Cisco ISE Integrated Solutions with APIs***
 - A. Introducing Location-Based Authorization
 - B. Introducing Cisco ISE 2.x pxGrid
- IX. *Working with Network Access Devices***
 - A. Configuring TACACS+ for Cisco ISE Device Administration
- X. *Cisco ISE Design***
 - A. Designing and Deployment Best Practices
 - B. Performing Cisco ISE Installation and Configuration Best Practices
 - C. Deploying Failover and High-Availability
- XI. *Configuring Third Party NAD Support***
 - A. Configuring Third-Party NAD Support
- XII. *Labs***
 - Configure Initial Cisco ISE setup, GUI familiarization, system certificate usage
 - Integrate Cisco ISE with Active Directory
 - Configure Basic Policy on Cisco ISE
 - Configure Conversion to Policy Sets
 - Configure Access Policy for Easy Connect
 - Configure Guest Access
 - Configure Guest Access Operations
 - Create Guest Reports
 - Configure Profiling
 - Customize the Cisco ISE Profiling Configuration
 - Create Cisco ISE Profiling Reports
 - Configure BYOD
 - Blacklisting a Device
 - Configure Compliance Services on Cisco ISE
 - Configure Client Provisioning
 - Configure Posture Policies
 - Test and Monitor Compliance Based Access
 - Test Compliance Policy
 - Configure Cisco ISE for VPN Access
 - Configure Threat-Centric NAC using Cisco AMP
 - Configure Cisco ISE pxGrid and Cisco WSA Integration
 - Configure Cisco ISE for Basic Device Administration
 - Configure TACACS+ Command Authorization