

# Implementing and Configuring Cisco Identity Services Engine (SISE) v3.0

## What you'll learn in this course

The **Implementing and Configuring Cisco Identity Services Engine (SISE) v3.0** course shows you how to deploy and use Cisco® Identity Services Engine (ISE) v2.4, an identity and access control policy platform that simplifies the delivery of consistent, highly secure access control across wired, wireless, and VPN connections. This hands-on course provides you with the knowledge and skills to implement and use Cisco ISE, including policy enforcement, profiling services, web authentication and guest access services, BYOD, endpoint compliance services, and TACACS+ device administration. Through expert instruction and hands-on practice, you will learn how to use Cisco ISE to gain visibility into what is happening in your network, streamline security policy management, and contribute to operational efficiency.

## Course duration

- Instructor-led training: 5 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 5 days of web-based classes with hands-on lab practice

## How you'll benefit

This class will help you use SISE to

- Provide secure business and context-based access based on policies
- Centrally configure and manage profiler, posture, guest, authentication, and authorization services in a single web-based GUI console
- Provide a streamlined experience for implementing and customizing guest network access
- Gain leading-edge career skills for high-demand job roles and responsibilities focused on enterprise security

## Who should enroll

- Network security engineers
- ISE administrators
- Wireless network security engineers
- Cisco integrators and partners

## How to enroll

- For instructor-led training, visit the [Cisco Learning Locator](#).
- For private group training, visit [Cisco Private Group Training](#).

## Technology areas

- Security
- Wireless

## Course details

### Objectives

After taking this course, you should be able to:

- Describe Cisco ISE deployments, including core deployment components and how they interact to create a cohesive security architecture. Describe the advantages of such a deployment and how each Cisco ISE capability contributes to these advantages.
- Describe concepts and configure components related to 802.1X and MAC Authentication Bypass (MAB) authentication, identity management, and certificate services.
- Describe how Cisco ISE policy sets are used to implement authentication and authorization, and how to leverage this capability to meet the needs of your organization.
- Describe third-party Network Access Devices (NADs), Cisco TrustSec<sup>®</sup>, and Easy Connect.
- Describe and configure web authentication, processes, operation, and guest services, including guest access components and various guest access scenarios.
- Describe and configure Cisco ISE profiling services, and understand how to monitor these services to enhance your situational awareness about network-connected endpoints. Describe best practices for deploying this profiler service in your specific environment.
- Describe BYOD challenges, solutions, processes, and portals. Configure a BYOD solution, and describe the relationship between BYOD processes and their related configuration components. Describe and configure various certificates related to a BYOD solution.
- Describe the value of the My Devices portal and how to configure this portal.
- Describe endpoint compliance, compliance components, posture agents, posture deployment and licensing, and the posture service in Cisco ISE.
- Describe and configure TACACS+ device administration using Cisco ISE, including command sets, profiles, and policy sets. Understand the role of TACACS+ within the Authentication, Authorization, and Accounting (AAA) framework and the differences between the RADIUS and TACACS+ protocols.
- Migrate TACACS+ functionality from Cisco Secure Access Control System (ACS) to Cisco ISE, using a migration tool.

### Prerequisites

To fully benefit from this course, you should have the following knowledge:

- Familiarity with the Cisco IOS<sup>®</sup> Software Command-Line Interface (CLI)
- Familiarity with Cisco AnyConnect<sup>®</sup> Secure Mobility Client
- Familiarity with Microsoft Windows operating systems
- Familiarity with 802.1X

Recommended Cisco learning offerings that may help you meet these prerequisites:

- Cisco CCNP<sup>®</sup> Security Certification training
- Introduction to 802.1X Operations for Cisco Security Professionals (802.1X)

## Outline

- Introducing Cisco ISE Architecture and Deployment
  - Using Cisco ISE as a Network Access Policy Engine
  - Cisco ISE Use Cases
  - Describing Cisco ISE Functions
  - Cisco ISE Deployment Models
  - Context Visibility
- Cisco ISE Policy Enforcement
  - Using 802.1X for Wired and Wireless Access
  - Using MAC Authentication Bypass for Wired and Wireless Access
  - Introducing Identity Management
  - Configuring Certificate Services
  - Introducing Cisco ISE Policy
  - Implementing Third-Party Network Access Device Support
  - Introducing Cisco TrustSec
  - Cisco TrustSec Configuration
  - Easy Connect
- Web Authentication and Guest Services
  - Introducing Web Access with Cisco ISE
  - Introducing Guest Access Components
  - Configuring Guest Access Settings
  - Configuring Sponsor and Guest Portals
- Cisco ISE Profiler
  - Introducing Cisco ISE Profiler
  - Profiling Deployment and Best Practices
- Cisco ISE BYOD
  - Introducing the Cisco ISE BYOD Process
  - Describing BYOD Flow
  - Configuring the My Devices Portal
  - Configuring Certificates in BYOD Scenarios
- Cisco ISE Endpoint Compliance Services
  - Introducing Endpoint Compliance Services
  - Configuring Client Posture Services and Provisioning in Cisco ISE
- Working with Network Access Devices
  - Review TACACS+
  - Cisco ISE TACACS+ Device Administration
  - Configure TACACS+ Device Administration
  - TACACS+ Device Administration Guidelines and Best Practices
  - Migrating from Cisco ACS to Cisco ISE

## Lab outline

- Access the SISE Lab and Install ISE 2.4
- Configure Initial Cisco ISE Setup, GUI Familiarization, and System Certificate Usage
- Integrate Cisco ISE with Active Directory
- Configure Basic Policy on Cisco ISE
- Configure 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 Cisco ISE Compliance Services
- Configure Client Provisioning
- Configure Posture Policies
- Test and Monitor Compliance-Based Access
- Test Compliance Policy
- Configure Cisco ISE for Basic Device Administration
- Configure TACACS+ Command Authorization



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