

# Implementing Cisco Identity Services Engine for Wireless Engineers

**DURATION: 2 DAYS**

## COURSE OVERVIEW

This course has been designed to enable wireless engineers understand the concepts, architecture, and use cases of the Cisco Identity Services Engine Solution. This course provides students with the knowledge and skills required to implement a basic Cisco ISE solution. The focus is on ensuring that students can implement the core features required in most Identity Services Engine Solution deployments. Students should already be familiar with basic Cisco Wireless LAN Controller and Access Point configuration.

This course is on ISE 1.2

## TARGET AUDIENCE

Wireless Engineers new to deploying Cisco's Identity Services Engine Solutions.

## COURSE OBJECTIVES

**After attending this course you should be able to:**

1. Describe the business drivers, architecture, components, and scalability factors related to typical Cisco ISE deployment
2. Provision secure network access by configuring AAA services and common CoA options
3. Configure profiling processes, components, options, and best practices
4. Provision a guest user access solution and the different options that are available
5. Describe and implement a BYOD solution, with a focus on configuring BYOD using a single SSID
6. Integrate Cisco ISE with a partner MDM solution
7. Use Cisco ISE tools to gather useful information related to historical trending and to troubleshoot

## **COURSE CONTENT**

### **Introduction to Cisco ISE**

1. Business Benefits of ISE
2. ISE Architecture and Components
3. ISE Nodes and Personas
4. Different ISE Deployment Options
5. ISE Licensing Options and Considerations

### **Provisioning Secure Access**

1. Authentication Services available with ISE
2. Validating Credentials from Different Identity Sources.
3. Configuring Authentication Identity Sources and Policies
4. ISE Authorization Policies and their Components
5. Configuring Authorization Components and Policies
6. Define and Understand CoA and review common permission elements, including dACLs, named ACLs, VLANs, and SGT

### **Configuring Profiling**

1. Functions and Purpose of Profiling
2. Profiler Probes and Attributes associated with these Probes
3. Configuring Profiler Policies
4. Configuring Profiling
5. Verifying Profiler Operation
6. Best practices for Configuring Profiling

### **Providing Guest Access**

1. Concept of Guest Web Access
2. Configuring the Components of a CWA-based Guest Access Solution
3. Guest Accounts, Roles, and Data stores
4. Functionality of ISE Portals used for Guest Access
5. Configuring Support for Guest Reporting
6. Best Practices for ISE Guest Services

### **Implementing BYOD**

1. Overview of BYOD Components
2. Advantages of a BYOD Solution

3. Common BYOD Use Cases
4. BYOD Deployment and Configuration Options
5. BYOD Flow and On-Boarding Process when a Single SSID is used
6. Implementing an Authentication Policy for BYOD Deployments
7. Implementing an Authorization Policy for BYOD Deployments

### **Exploring MDM Integration**

1. MDM Integration Processes
2. Adding an MDM Server
3. MDM Supported Attributes
4. MDM Configuration

### **Monitoring and Troubleshooting Cisco ISE Security Solutions**

1. ISE Dashboard
2. Navigate ISE Alarm and Logging Features to assist in Diagnosing Problems
3. Using the Live Authentications Log feature of Cisco ISE
4. Use the Global Search and Session Trace features of Cisco ISE
5. Use the TCP Dump feature of Cisco ISE
6. Use the Evaluate Configuration Validator tool

### **Labs**

Lab 2-1: Basic Authentication and Authorization

Lab 3-1: Configuring and Validating Cisco ISE Profiling

Lab 4-1: Configuring Cisco ISE Guest Services

Lab 5-1: BYOD On-Boarding using a Single SSID

Lab 5-2: Testing On-Boarding

Lab 7-1: Monitoring and Troubleshooting Cisco ISE (Optional)

## **COURSE PREREQUISITES**

**Attendees should meet the following prerequisites.**

Knowledge of basic 802.1X (It is recommended that the student take the free 802.1X E-learning on PEC before attending this training.)

Basic understanding of Microsoft Active Directory or LDAP

CCNA-level route and switch knowledge -  
**ICND1** and **ICND2** or **CCNABC**

## TEST CERTIFICATION

**Recommended as preparation for exam(s):**

There are currently no exams associated to this course

## FOLLOW ON COURSES

**Students looking for a more in-depth understanding of Cisco's Identity Services Engine should consider:**

SISE - Implementing and Configuring Cisco Identity Services Engine - ISE 1.1

SISAS - Implementing Cisco Secure Access Solutions - ISE 1.2