Learning Services

Cisco WAE Implementation with Cisco NSO Integration

The Cisco WAE Implementation with Cisco NSO Integration\(^1\) (NSO101) course is an instructor-led, lab-based, hands-on course offered by Cisco\(^\circ\) Learning Services. This course introduces learners to the basic knowledge necessary to plan, deploy, configure, and maintain the Cisco WAN Automation Engine (WAE) solution. Extensive hands-on labs help learners gain the necessary skills to install and maintain Cisco WAE systems.

Duration

Instructor-led training (ILT): 4 days

Target audience

The primary audience for this course is system installers, system integrators, system administrators, network administrators, and solutions designers.

\(^1\) Course content is dynamic and subject to change without notice.
Objectives covered

- Learn the system architecture of Cisco WAE and WAE network abstraction
- Plan and deploy Cisco WAE Planning components, including Collector, WAE Design Archive, and WAE Live
- Plan and deploy Cisco WAE Automation components, including WAE Core and WAE Open SDN Controller (OSC), as well as learn the basics of WAE APIs
- Learn how to deploy changes to the network using Cisco WAE and OSC, as well as to determine how to integrate WAE with Cisco Network Services Orchestrator (NSO)
- Learn how to use the Cisco WAE Design application to solve problems and achieve business goals

Recommended prerequisites

Cisco recommends that you have the following prerequisite knowledge and skills:

- Knowledge and skills that can be obtained by attending the Cisco NSO Foundation (NSO100) class equivalent
- Knowledge of general networking and routing concepts
- Basic knowledge of routing protocols (Open Shortest Path First [OSPF], Intermediate System-to-Intermediate System [IS-IS], Border Gateway Protocol [BGP])
- Understanding of Multiprotocol Label Switching (MPLS) and traffic engineering (TE) technologies
- Basic knowledge of Linux server operation and Linux tools
- Knowledge of accessing, configuring, and managing network devices
- Basic understanding of network automation and software-defined networking (SDN) concepts

Course outline

- Module 1: WAE Introduction and Architecture Overview
  - Introduction to WAE
  - WAE Architecture and Design
- Module 2: WAE Server and Collector Implementation
  - Planning the Deployment
  - WAE Deployment
  - Overview of the Collection Process
  - Embedded Web Server
  - Configuring WAE Collector
  - Configuring WAE Core Server
- Module 3: WAE Design for Network Engineers
  - Getting Started with WAE Design
  - Working with Layouts
  - Describing Traffic with Demands
  - Failures and Simulation Analysis
• Module 4: WAE Design Traffic Engineering (IGP)
  ◦ Engineering Traffic Using Metrics
  ◦ Engineering Traffic Using RSVP-TE
• Module 5: WAE Live Deployment
  ◦ The Basic Components of WAE Live
  ◦ WAE Live Configuration
  ◦ Templates for Visual Elements Control
• Module 6: WAE Live Features
  ◦ WAE Live Map
  ◦ WAE Live Explore
  ◦ WAE Live Analytics
  ◦ WAE Live Inventory
  ◦ WAE Live Administration
• Module 7: WAE Maintenance and Troubleshooting
  ◦ WAE Maintenance
  ◦ WAE Troubleshooting

Lab outline

• Lab 1: Lab: Virtual Learning Lab – Getting Started
• Lab 2: WAE Collector Configuration
• Lab 3: Augmented Collection Configuration
• Lab 4: Configuring WAE Core
• Lab 5: Getting Started with WAE Design
• Lab 6: Working with Layouts
• Lab 7: Describing Traffic with Demands
• Lab 8: Failures and Simulation Analysis
• Lab 9: Engineering Traffic Using Metrics
• Lab 10: Modeling MPLS RSVP-TE LSPs
• Lab 11: Configuring WAE Live
• Lab 12: WAE Live Explore and Map
• Lab 13: WAE Live Analytics
• Lab 14: Configuring WAE Live Inventory
• Lab 15: WAE Backup

Registration

For more information about schedules and registration for this course, contact aeskt_registration@cisco.com.
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- Cisco Learning Services for Cisco products and technologies: [http://www.cisco.com/go/cls](http://www.cisco.com/go/cls)