Cisco® Developing Solutions Using Cisco® IoT and Edge Platforms v1.0 (DEVIOT)

Register Online

Schedule

Class Length: 5 Days

G2R = "Guaranteed to Run" | OLL = "Online LIVE"
ILT = "Instructor-Led-Training"

This course is not currently available on the public schedule. Please contact us using the information in the footer below to inquire about future dates or to schedule a private class.

Overview

This course prepares you to develop Internet of Things (IoT) applications for Cisco® IoT edge compute and network architecture. Through a combination of lessons and hands-on experience, you will learn to implement and deploy Cisco IOx applications using Cisco Field Network Director and Cisco Kinetic. This course covers designing, deploying, and troubleshooting edge applications, and understanding the use of management tools, so you can control your industrial network and connected devices at scale. This course will prepare you for the certification exam 300-915 Developing Solutions Using Cisco IoT and Edge Platforms (DEVIOT), a concentration in the CCNP DevNet track.

Prerequisite Comments

Before taking this course, you should have the following knowledge and skills:
General software development or coding skills
Basic functional and object-oriented programming skills
Basic understanding of where applications live and how they are deployed in real-world scenarios
Basic understand of how networking works
Basic Linux OS skills: installing code language dependencies, installing code libraries, and general scripting
Understanding of how to store code using git or another Version-Control System (VCS)

Target Audience

This course is designed primarily for network and software engineers who are interested in learning about automation and programmability and hold the following job roles:
Consulting systems engineer
IoT Designer
Network administrator
Network engineer
Network manager
Sales engineer
Systems engineer
Technical solutions architect

Course Objectives

After taking this course, you should be able to:
Explain the fundamentals of Cisco IoT and list common devices involved
List the common protocols, standards, and data flows of IoT
Explain the Cisco IoT, common needs, and the corresponding solutions
Explain how programmability can be used to automate and make operations, deployment, and support of Cisco IoT more effective
Describe common Cisco IoT applications and how they apply to Cisco IoT use cases
Explain the functions and use cases for Cisco security applications and Cisco IoT

Course Outline

1 - Course Outlines

DEFINING CISCO IOT
IOT NETWORKING AND OTHER DEVICES
EXAMINING IOT PROTOCOLS
EXAMINING IOT STANDARDS
RECOGNIZING CISCO IOT NEEDS AND SOLUTIONS
USING PROGRAMMABILITY WITH CISCO IOT
DESCRIBING CISCO IOT APPLICATIONS: CISCO IOX
DESCRIBING CISCO IOT APPLICATIONS: CISCO KINETIC AND CISCO FIELD NETWORK DIRECTOR
DEFINING CISCO SECURITY APPLICATIONS

2 - Lab outline

Use an MQTT Consumer to Subscribe to Sensor Data
Use Cisco IOx Applications to Receive and Process Sensor Data
Troubleshoot a Sensor Connection
Use and Interpret Freeboard Data
Use and Interpret Grafana Data
Use and Interpret Kibana Data
Cisco IOx Familiarity Lab
Develop and Deploy a Cisco IOx Application
Troubleshoot Cisco IOx
Navigate Cisco Field Network Director
Explore Cisco Field Network Director API