Cisco ASR 9000 Series IOS XR 64-Bit Software Migration and Operational Enhancements (IOSXR211) v1.0

What you'll learn in this course

The **Cisco ASR 9000 Series IOS XR 64-Bit Software Migration and Operational Enhancements** (IOSXR211) v1.0 course covers the migration from classic 32-bit Cisco IOS® XR software to Cisco IOS XR 64-Bit software on the Cisco® ASR 9000 Series Aggregation Services Routers. This course will also examine the software architecture, boot process, and auto-provisioning of the Cisco IOS XR 64-bit software, as well as showing you how to install Cisco IOS XR and third-party software packages. In addition, it will investigate data models and show you how to implement telemetry, model-driven programmability, and application hosting services.

Course duration

- Instructor-led training: 3 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 4 days of web-based classes with hands-on lab practice

How you'll benefit

This course will help you:

- Understand the software architecture, boot process, and auto-provisioning of Cisco IOS XR 64-Bit software
- Learn to migrate an ASR 9000 Series router from classic Cisco IOS XR software to Cisco IOS XR 64-Bit software
- Practice installing Cisco IOS XR and third-party software packages
- Learn to implement telemetry, model-driven programmability, and application hosting services

Who should enroll

- System installers
- System integrators
- System administrators
- Network administrators
- Solutions designers

How to enroll

Instructor-led training

- Find a class at the Cisco Learning Locator.
- Arrange training at your location through Cisco Private Group Training.

Technology areas

- Routing and switching
- Service provider

Course details

Objectives

After completing this course, you should be able to:

- Describe the Cisco IOS XR 64-Bit software architecture and Linux system fundamentals
- Describe the major differences between classic Cisco IOS XR software and Cisco IOS XR 64-Bit software on the ASR 9000 Series routers
- Migrate an ASR 9000 Series router from classic IOS XR software to Cisco IOS XR 64-Bit software
- Perform and explain Cisco IOS XR 64-Bit software installations
- Configure and describe Cisco IOS XR 64-Bit software features

Prerequisites

- The **Introduction to IOS XR** (IOSXR100) course
- The Cisco **Aggregation Services Router 9000 Series Essentials** (ASR9KE) course
- Familiarity with implementing routing protocols on Cisco IOS XR software-based network devices
- Experience working with Cisco IOS XR Command-Line Interface (CLI)-based network devices

Outline

- Software Architecture and Linux Fundamentals
  - Cisco IOS XR 64-Bit Software Fundamentals
  - Cisco ASR 9000 Series IOS XR 64-Bit Software vs. Classic 32-Bit Software
- Cisco IOS XR 64-Bit Software Installation
  - Examining Resource Allocations and Media Mappings
  - Migrating to Cisco IOS XR 64-Bit Software
- Cisco IOS XR 64-Bit Software Features
  - Investigating Data Models
  - Implementing Telemetry

Lab outline

- Using Basic Linux Commands and Creating User Profiles
- Migrating to Cisco IOS XR 64-Bit Software
- Configuring Auto-Provisioning
- Installation of Cisco IOS XR Packages
- Configuring Model-Driven Telemetry
- Configuring Devices by Using Model-Driven Programmability
- Using the YANG Development Kit
- Deploying Native Application Hosting
- Hosting an Application Within an LXC Container
- Hosting an Application Within a Docker Container