Document Generated: 07/27/2024

Learning Style: Virtual Classroom

Provider: Cisco

Difficulty: Intermediate

Course Duration: 2 Days

ASR 1000 Series Essentials v3.9.05 (ASR1K)

About this course:

The Cisco ASR 1000 Essentials version 3.9.0S instructor-led course is a lab-intensive course that introduces you to the Cisco ASR 1000 Series Aggregation Services Routers running Cisco IOS XE Software Release 3.9.0S. You will learn the major features, functions, characteristics, and connectivity options of the Cisco ASR

1000 Series routers. The online Cisco ASR course includes detailed platform-specific information about the hardware. Also included in this Cisco ASR class is the functional operation of high availability (HA), In-Service Software Upgrade (ISSU), quality of service (QoS), security, and multicast services in the Cisco ASR 1000 Series router. This ASR training course combines lecture materials and hands-on labs throughout to make sure that you are able to successfully deploy a Cisco ASR 1000 Series Aggregation Services Router.

Course Objective:

Upon completing this course, the learner will be able to meet these overall objectives:

- List and describe features, benefits, and functions of Cisco ASR 1000 Series routers
- List and describe the architecture, features, and functions of the hardware elements of the Cisco ASR 1000 Series chassis, route processor, embedded services processor (ESP), SPA interface processor (SIP), Cisco QuantumFlow ProcessorTM, and shared port adapters (SPAs)
- Explain the Cisco ASR 1000 operating system and functionality
- Describe the way packets are processed and list the various components in this process
- Install software and successfully reboot a Cisco ASR 1000 Series router
- Initiate a failover and describe the Cisco ASR 1000 high-availability capabilities
- Install software and describe the Cisco ASR 1000 ISSU capabilities
- Explain how QoS is implemented in hardware and how QoS features provide improved and more predictable network service
- Describe and configure QoS for ingress queueing and egress shaping
- Describe and configure multicast services

Audience:

This course is for technical professionals who need to know how to implement Cisco ASR 1000 Series routers in their network environment. The following are considered the primary audience for this course:

- Technical support personnel
- System engineers

Prerequisite:

The knowledge and skills that a learner should have before attending this course are as follows:

- Attendance at the Interconnecting Cisco Network Devices (ICND) course or equivalent experience
- Knowledge of Cisco IOS Software commands
- Understanding of principles of QoS, multicast, and IPSec services

Course Outline:

Module 1: Cisco ASR 1000 System Introduction

Module 2: Cisco ASR 1000 Hardware Architecture

Module 3: Cisco ASR 1000 Software Architecture

Module 4: Cisco ASR 1000 Operations

Module 5: Cisco ASR 1000 High Availablility

Module 6: Cisco ASR 1000 In-Service Software Upgrade

Module 7: Quality of Service

Module 8: Multicast Services

Module 9: Security Services

Module 10: Cisco ASR 1000 Packet Flow and Troubleshooting

Lab Outline

- Lab 1: Lab Access and Cisco ASR 1000 Orientation
- Lab 2: Performing System Software Maintenance Functions
- Lab 3: Configuring and Testing High Availability
- Lab 4: Configuring and Testing ISSU
- Lab 5: Configuring QoS and Viewing Results
- Lab 6: Configuring and Testing Multicast
- Lab 7: Monitoring Statistics and Counters for Troubleshooting

Credly Badge:

Display your Completion Badge And Get The Recognition You Deserve.

Add a completion and readiness badge to your Linkedin profile, Facebook page, or Twitter account to validate your professional and technical expertise. With badges issued and validated by Credly, you can:

- Let anyone verify your completion and achievement by clicking on the badge
- Display your hard work and validate your expertise
- Display each badge's details about specific

skills you developed.

Badges are issued by QuickStart and verified through Credly.

[Find Out More](#) or [See List Of Badges](#)