Learning Services

Cisco Training on Demand

Cisco ASR 1000 Series Essentials (ASR1KE)

Overview

Cisco® ASR 1000 Series Essentials (ASR1KE) Version 2.0 is a Cisco Training on Demand course. It introduces you to the Cisco Aggregation Services Routers (ASR) 1000 Series running Cisco IOS® XE Software Release 3.9.0S. You learn the major features, functions, characteristics, and connectivity options of the Cisco ASR 1000 Series routers. This course includes detailed platform-specific information about the hardware.

A core element of this course is the ability to learn new concepts and reinforce understanding through a wide range of integrated lab scenarios. You learn the functional operation of high availability, in-service software upgrade (ISSU), quality of service (QoS), security, and multicast services in the Cisco ASR 1000 Series routers.

Interested in purchasing this course in volume at discounts for your company? Contact ctod-sales@cisco.com.

Duration

The ASR1KE Training on Demand course consists of 10 modules totaling over 10 hours of video instruction along with 8 hands-on lab exercises.

Target Audience

This course is designed for systems engineers, technical support personnel, and systems integrators who need to know how to deploy Cisco ASR 1000 Series routers.
Objectives
After completing this course, you should be able to:

- Describe the major features, functions, characteristics, and connectivity options of the Cisco ASR 1000 Series Aggregation Services Routers
- Describe the detailed platform-specific information on the hardware and software operations of the Cisco ASR 1000 Series Aggregation Services Routers
- Describe packet flows, the functional operation of high availability, ISSU, QoS, security, multicast services and troubleshooting the Cisco ASR 1000 Series Aggregation Services Routers

Course Prerequisites
The knowledge and skills recommended before attending this course are:

- Knowledge of the topics covered in the Interconnecting Cisco Networking Devices Part 1 (ICND1) course, or knowledge of basic networking fundamentals, LAN switching fundamentals, and Internet routing fundamentals
- Knowledge of Cisco IOS software commands
- Understanding of QoS, multicast, and IP Security (IPsec) services

Course Outline
- Module 1: Cisco ASR 1000 System Introduction
- Module 2: Cisco ASR 1000 Hardware Architecture
- Module 3: Cisco ASR 1000 Series Routers Software Overview
- Module 4: Cisco ASR 1000 Operations
- Module 5: Cisco ASR 1000 High Availability Features
- Module 6: Cisco ASR 1000 In-Service Software Upgrade
- Module 7: Cisco ASR 1000 Quality of Service
- Module 8: Cisco ASR 1000 Multicast Services
- Module 9: Cisco ASR 1000 Security Services
- Module 10: Cisco ASR 1000 Packet Flow and Troubleshooting
Labs Outline

This course contains 8 hands-on virtual lab exercises, powered by Cisco Learning Labs and Cisco IOL (IOS on Linux).

**Figure 1.** Topology for All Labs in Cisco ASR 1000 Series Essentials

The labs included in this course are:

- ASR1KE Lab 1: Cisco ASR 1000 Lab Access and Network Orientation
- ASR1KE Lab 2: Performing System Software Maintenance Functions
- ASR1KE Lab 3: Configuring and Testing High Availability
- ASE1KE Lab 4: Performing ISSU Operations
- ASR1KE Lab 5: Configuring and Testing QoS
- ASE1KE Lab 6: Configuring and Testing Multicast Routing
- ASR1KE Lab 7: Cisco ASR 1000 Router Troubleshooting
- ASR1KE Lab 8: Optional Cisco ASR 1013 Familiarization

**Instructor: Gene Bartos**

Gene Bartos is a technical trainer and course developer for Cisco Systems Service Provider products. He has developed and taught both IOS and IOS XR routing products, including more recently ASR 9000, ASR 1000, and ASR 903. He also teaches MEF Carrier Ethernet Certified Professional training. He has more than 25 years’ experience as an educator in the networking industry.

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