# Cisco Aggregation Services Router 9000 Series Essentials ASR9KE

**Category:** Networking & Security | **Vendor:** Cisco

**Duration:** 32.00 hours (4 days) **26.0 CPD Hours**

**Rating:** ⭐ 4.6 (5,878 reviews)

## Course Information

**Delivery Format:** Instructor Led - Online

## Course Overview

The Cisco Aggregation Services Router 9000 Series Essentials (ASR9KE) v6.1 course introduces you to the features and functions of the Cisco® Aggregation Services Router (ASR) 9000 Series platforms. Through a combination of lecture and hands-on labs, you will gain an understanding of all major aspects of the platform, including hardware, Layer 2 and Layer 3 services, routing protocols including Segment Routing, Layer 2 and Layer 3 multicast, Quality of Service (QoS) features, and network virtualization. The course investigates Cisco Internetworking Operating System (IOS) XR 64-Bit Linux-based feature parity in the environment, as well as how to install Cisco IOS® XR 64-Bit software packages.

How you'll benefit

This course will help you:

- Understand the essential features and functions of the ASR 9000 Series routers running Cisco IOS XR 64-Bit software
- Practice Cisco IOS XR 64-Bit configurations on the ASR 9900 Series router in lab exercises
- Configure Cisco ASR 9900 configuration changes and restore older versions of the configuration
- Install the Cisco IOS XR 64-Bit Software operating system, Package Information Envelopes (PIEs), and Software Maintenance Updates (SMUs)
- Understand data flow through the Cisco ASR 9000 and ASR 9900 Series router

## About This Course

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- Understand data flow through the Cisco ASR 9000 and ASR 9900 Series router

## Who Should Attend

This course is designed for technical professionals who need to know how to deploy Cisco ASR 9000 Series routers in their network environment. The primary audience for this course includes:

- System engineers
- Technical support personnel
- Channel partners, resellers

## Prerequisites & Entry Requirements

**General Prerequisites:**

Before attending this course, you should have the following knowledge and skills:

- Basic IOS XR 64-Bit Software configuration commands
- Basic knowledge of router installation and some experience with installation tools
- Routing protocol configuration experience with BGP, Intermediate System-to-Intermediate System (IS-IS), and Open Shortest Path First (OSPF)
- Knowledge of Layer 2 IEEE switching and related protocols
- Strong knowledge of MPLS configuration or multicast configuration experience
- Experience troubleshooting Cisco routers in a large network environment

## Learning Outcomes

**Upon successful completion of this course, participants will be able to:**

After taking this course, you should be able to:

- List and describe the major features and benefits of a Cisco ASR 9000 Series router
- List and describe the major features and benefits of the Cisco 64-Bit IOS XR operating system
- Understand data flow through the Cisco ASR 9000 Series router
- Configure Cisco ASR 9000, back out of configuration changes, and restore older versions of the configuration
- Install the Cisco IOS XR 64-Bit Software operating system, package information envelopes, and software maintenance updates
- Enable multicast routing on a Cisco ASR 9900 Series router
- Configure Layer 3 VPN services
- Configure Ethernet link bundles
- Configure local Ethernet Line (E-Line) Layer 2 VPN (L2VPN)
- Configure Ethernet over Multiprotocol Label Switching (EoMPLS) E-Line L2VPN
- Configure EoMPLS with pseudowire backup
- Configure local Ethernet LAN (E-LAN) L2VPN
- Describe Virtual Private LAN Service (VPLS) L2VPN
- Describe VPLS with Border Gateway Protocol (BGP) autodiscovery
- Configure service-based Connectivity Fault Management (CFM)
- Configure Layer 2 multicast features
- Describe basic QoS implementation
- Describe how to configure and verify network Virtualization (nV) on the ASR 9000 series

## Detailed Course Outline

- Cisco ASR 9000 Series Hardware
- Cisco IOS XR 64-Bit Software Architecture and Linux Fundamentals
- Cisco IOS XR 64-Bit Software Installation

- Cisco IOS XR 64-Bit Software Configuration Basics
- Cisco IOS XR 64-Bit Software Routing Protocols
- Multicast Routing
- Cisco Multiprotocol Label Switching
- Cisco IOS XR 64-Bit Segment Routing
- Layer 3 VPNs
- Cisco ASR 9000 Layer 2 Architecture
- Point-to-Point Layer 2 Services
- Layer 2 Multicast
- Quality of Service

**Skills You Will Learn:**

After taking this course, you should be able to:<br><br><br><br>- List and describe the major features and benefits of a Cisco ASR 9000 Series router<br>- List and describe the major features and benefits of the Cisco 64-Bit IOS XR operating system<br>- Understand data flow through the Cisco ASR 9000 Series router<br>- Configure Cisco ASR 9000, back out of configuration changes, and restore older versions of the configuration<br>- Install the Cisco IOS XR 64-Bit Software operating system, package information envelopes, and software maintenance updates<br>- Enable multicast routing on a Cisco ASR 9900 Series router<br>- Configure Layer 3 VPN services<br>- Configure Ethernet link bundles<br>- Configure local Ethernet Line (E-Line) Layer 2 VPN (L2VPN)<br>- Configure Ethernet over Multiprotocol Label Switching (EoMPLS) E-Line L2VPN<br>- Configure EoMPLS with pseudowire backup<br>- Configure local Ethernet LAN (E-LAN) L2VPN<br>- Describe Virtual Private LAN Service (VPLS) L2VPN<br>- Describe VPLS with Border Gateway Protocol (BGP) autodiscovery<br>- Configure service-based Connectivity Fault Management (CFM)<br>- Configure Layer 2 multicast features<br>- Describe basic QoS implementation<br>- Describe how to configure and verify network Virtualization (nV) on the ASR 9000 series

# Frequently Asked Questions

### Q: What delivery options are available for Cisco Aggregation Services Router 9000 Series Essentials ASR9KE?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

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### Q: How many CPD hours does this course provide?

The 4-day Cisco Aggregation Services Router 9000 Series Essentials ASR9KE course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

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### Q: What is the duration of the Cisco Aggregation Services Router 9000 Series Essentials ASR9KE training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

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### Q: Do you provide corporate training for Cisco Aggregation Services Router 9000 Series Essentials ASR9KE?

Yes, we provide corporate training, dedicated training, and closed classes for Cisco Aggregation Services Router 9000 Series Essentials ASR9KE. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

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### Q: What related terms do people search for?

Popular related searches include: Cisco Aggregation Services Router 9000 Series Essentials, Cisco Networking, ASR9KE

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### Q: Why choose Nexus Human for Cisco Aggregation Services Router 9000 Series Essentials ASR9KE?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

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### Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Cisco Aggregation Services Router 9000 Series Essentials ASR9KE training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.


## Nexus Human

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