

# Cisco Aggregation Services Router 9000 Series Essentials

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.



## Przeznaczenie szkolenia

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



## Korzyści wynikające z ukończenia szkolenia

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



## Oczekiwane przygotowanie słuchaczy

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



## Język szkolenia

- Szkolenie: polski
- Materiały: angielski



## Czas trwania

4 dni / 28 godzin

## Agenda szkolenia

### 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

#### Lab outline

- ASR 9904 Hardware Discovery Lab
- Device Discovery and Initial Configuration
- Installing Cisco IOS XR 64-Bit Software
- Cisco IOS XR 64-Bit Software Operations
- Configuring IS-IS Routing
- Configuring OSPF Routing
- Configuring Internal BGP (iBGP) Routing
- IPv4 Multicast Configuration
- Configuring Multiprotocol Label Switching
- Configuring and Verifying IGP Segment Routing
- Configuring Layer 3 Virtual Private Network
- Local E-Line Service
- EoMPLS Service