

## CISCO 8000 SERIES ROUTERS ESSENTIALS V1.0

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The Cisco 8000 Series Routers Essentials (SP8KE) v1.0 course introduces you to the features and functions of the Cisco® 8000 Series router platforms. Through a combination of lectures and labs, you will gain an understanding of all major aspects of the platform, including hardware, software, Layer 2 and Layer 3 services, Quality of Service (QoS) features, network virtualization, and programmability.

#### How you'll benefit

This class will help you:

- Increase your experience with the Cisco 8000 Series system
- Describe and implement the Cisco 8000 Series system and its components
- Gain hands-on experience with the Cisco 8000 Series system in a lab setting

#### Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

#### Who Should Attend

The primary audience for this course is as follows:

- System Engineers
- Technical Support Personnel
- Channel Partners and Resellers

#### OUTLINE

**Module 1: Cisco 8000 Series Hardware Fundamentals**

**Module 2: Cisco 8000 System Architecture**

**Module 3: Packet Flow Through the Cisco 8000 Series Router**

**Module 4: Traffic Management and QoS on Cisco 8000 Routers**

**Module 5: SONiC Basics**

**Module 6: Cisco IOS XR Software Architecture**

**Module 7: Cisco IOS XR Software Installation**

#### Course Duration

5 days

#### Course Price

\$4,195.00 or 42 CLCs

#### Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

**Module 8: Automatic Provisioning**

**Module 9: Cisco IOS XR MPLS**

**Module 10: Introducing Segment Routing**

**Module 11: Segment Routing TI-LFA and Traffic Engineering**

**Module 12: EVPN Layer 2 Basics**

**Module 13: Layer 3 VPNs**

**Module 14: Advanced SR-TE Features**

**Module 15: SRv6**

**Module 16: Telemetry**

**Module 17: Cisco IOS XR Programmability**

**Module 18: Application Hosting Overview**

## **LAB OUTLINE**

- **Lab 1: Investigate and Monitor Cisco 8000 Series Hardware**
- **Lab 2: Troubleshoot Traffic Through the Cisco 8000 Router**
- **Lab 3: Cisco IOS XR Software Installation**
- **Lab 4: Configure and Verify Zero Touch Provisioning (ZTP)**
- **Lab 5: Configure and Verify Multiprotocol Label Switching**
- **Lab 6: Configure and Verify Segment Routing (SR)**
- **Lab 7: Configure and Verify SR TI-LFA Using IS-IS**
- **Lab 8: Configure and Verify SR TI-LFA Using OSPF**
- **Lab 9: Configure and Verify SR-TE Using IS-IS**
- **Lab 10: Configure and Verify SR-TE Using OSPF**
- **Lab 11: Configure and Verify Basic EVPN**
- **Lab 12: Configure and Verify Layer 3 VPN**
- **Lab 13: Configure and Verify On-Demand Next-Hop (ODN) and Flexible Algorithm**
- **Lab 14: Configure and Verify Segment Routing over IPv6 (SRv6)**
- **Lab 15: Configure and Verify Model-Driven Telemetry**

- **Lab 16: Configure and Verify Devices by Using Model-Driven Programmability**
- **Lab 17: Configure and Verify Application Hosting Within a Docker Container**