Learning Services

Cisco Training on Demand

Cisco CRS-3 Hardware Overview

Overview

Cisco® CRS-3 Hardware Overview Cisco Training on Demand course introduces you to the Cisco CRS-3 Carrier Routing System and its features and functions. You learn the important theoretical concepts on which the Cisco CRS-3 solution is based and gain the practical knowledge and skills to successfully deploy it on your network. You can determine the right Cisco CRS-3 system based on the requirements of your network.

In addition, you can verify correct operation of various Cisco CRS-3 hardware, including the 140 Gbps switch fabric, 140 Gbps line cards, 14- and 20-port 10 Gigabit and 1-port 100 Gigabit Ethernet physical layer interface modules (PLIMs), the Cisco CRS Performance Route Processors (CRS-PRPs), and the new modular power systems. You also perform basic troubleshooting.

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

Duration

The Cisco CRS-3 Hardware Overview Training on Demand course consists of 4 hours of coursework, including 21 videos and 6 hands-on lab exercises.

Target Audience

This course is intended for network professionals, including designers, implementation staff, network operations center personnel, and support staff who are involved with the deployment, operations, and maintenance of the Cisco CRS-3 Carrier Routing System.
Objectives

After completing this course, you should be able to:

- Describe the Cisco Carrier Routing System
- List the physical design characteristics of line cards and chassis
- Enumerate the line card chassis and how they are different
- Explore the commonalities between chassis
- Describe how data flows across a chassis
- Describe a performance route processor and switch fabric
- Describe multishelf architecture and how it works

Course Prerequisites

- Fundamental knowledge of Cisco IOS® XR Software-based router and operation.
- Experience maintaining Cisco IOS XR Software routers in a service provider or enterprise production environment.

Course Outline

- Module 1: Course Overview
- Module 2: Introduction to the CRS
- Module 3: CRS 16-Slot LCC Hardware
- Module 4: 8-Slot LCC Hardware
- Module 5: CRS 4-Slot LCC Hardware
- Module 6: CRS LCC Common Elements
- Module 7: Modular Power Systems
- Module 8: New Performance Route Processors
- Module 9: 140 Gb/s Architecture
- Module 10: Cisco CRS Multishelf Architecture
- Module 11: CRS-3 B2B
Labs Outline

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

**Figure 1.** Topology for All Labs in Cisco CRS-3 Hardware Overview

The labs included in this course are:

- Lab 1: Hardware Discovery and Initial Configuration
- Lab 2: Modular Power Systems
- Lab 3: Performance Route Processor (PRP)
- Lab 4: 140Gb/s Switch Fabric
- Lab 5: 140Gb/s Line Cards
- Lab 6: New Physical Layer Interface Modules

**Instructor: Joe Chapman**

Joe Chapman has more than 25 years of industry experience from the mundane to the complex. He's been helping customers design, build, and maintain voice and data systems built on Cisco technology for 15 years. Despite having a Chicago street address, Chapman has spent most of his time all over the United States and the world where he helps bring complex concepts into clear focus for talented professionals looking to transform their careers.
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