

Cisco Carrier Routing Systems Product Enhancements (CCRSPE)

Length: 4-day Workshop

The Cisco Carrier Routing Systems Product Enhancements version 3.0 instructor-led course offered by High-Touch Delivery Learning Services course introduces you to the Cisco® CRS product enhancements, which include Cisco CRS-3 switch fabric cards, Cisco CRS-3 line cards, Cisco CRS-3 physical layer interface modules (PLIMs), performance route processors (PRPs) and modular power systems, and their features and functions. In addition, the Cisco CRS-3 back-to-back (B2B) multishelf routing system, the new 4X40Gb/s Ethernet OTN PLIM, and 1X100Gb/s Ethernet IPoDWDM PLIM and online diagnostics are covered. You will learn the important theoretical concepts on which the Cisco CRS-1 and Cisco CRS-3 are based and gain the practical knowledge and skills to successfully deploy them in your network. You will be able to determine which Cisco CRS product enhancements are right for your routing systems based on the requirements of your network. In the hands-on labs, you will explore new ASIC features and functions on the Cisco CRS-3 switch fabric cards, line cards, and PLIMs and compare those features and functions to Cisco CRS-1 hardware. In addition, you will explore the ASIC features and functions and investigate modular power systems that can be installed in either a Cisco CRS-1 or Cisco CRS-3 routing system. You will be able to verify proper operation of various CRS-3 hardware, including the 140Gb/s switch fabric, 140Gb/s line cards, 14- and 20-port 10 Gigabit Ethernet PLIMs, the PRP, and the new modular power systems, and perform basic troubleshooting. This course combines lecture materials and hands-on labs throughout to make sure that you are able to successfully deploy Cisco CRS product enhancements in your network.

You will learn to:

- Describe the major features and benefits of the Cisco CRS-3
- Describe the major features and benefits of the 140Gb/s line cards
- Describe the major features and benefits of the 14- and 20-port 10Gb/s and 100Gb/s Ethernet PLIMs
- Describe the major features and functions of the modular power systems
- Describe the major features and functions of the PRPs
- Describe the steps to migrate the 40Gb/s switch fabric to the 140Gb/s switch fabric
- Describe the steps to migrate from a fixed power system to the modular power system and verify its proper operation
- Describe the steps to migrate from an RP-B to the PRP and verify its proper operation
- Migrate the Cisco IOS® XR Software operating system from Release 3.8.x to Release 4.2.1
- Install the Cisco IOS XR Software operating system, package information envelopes, and software maintenance updates
- Upgrade field-programmable device (FPD) and ROMMON code
- Describe the major features and functions of the Cisco CRS-3 B2B routing system
- Describe the major features and functions of the 4X40Gb/s Ethernet OTN and 1X100Gb/s Ethernet IPoDWDM PLIMs
- Enable online diagnostics in Cisco CRS routing systems
- Troubleshoot basic Cisco CRS-3 hardware and software problems

Recommended for:

This course is designed for technical professionals who need to know how to deploy Cisco CRS-1 and Cisco CRS-3 routing systems in their network environment. This course is not recommended for those who have attended the Cisco CRS-3 Essentials course. The primary audience for this course includes:

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

Prerequisites:

- Strong knowledge of Cisco CRS-1 routing system