

CPNR + CPCP Bundle - Cisco Prime Network Registrar (CPNR) + Implementing Cisco Prime Cable Provisioning 6.1 (CPCP) Bundle

COURSE OVERVIEW:

The Cisco Prime® Network Registrar (PNR) and Cisco Prime Cable Provisioning (PCP or formerly known as Cisco Broadband Access Center) instructor-led course provides you with an introduction and advanced knowledge and skill sets required to successfully deploy, maintain, and troubleshoot Cisco Prime Network Registrar and Cisco Prime Cable Provisioning in a typical network environment. You will learn the fundamental concepts upon which the DHCP and DNS servers are based – this solidifies your understanding of how to troubleshoot and solve problems relating to installation and configuration. You will configure Dynamic Host Configuration Protocol (DHCP), you will use the WebUI and the command line interface (CLI) to monitor the health, status, and functionality of the PNR application. You will learn the fundamental concepts upon which device provisioning using PCP servers is based. This course covers the key components of the Cisco PCP server architecture, along with the knowledge and hands-on skills you need to configure, manage, and troubleshoot RDU Servers, DPE Servers, and DHCP Extension Points. You will gain hands-on experience configuring lab servers hosted in a virtual environment.

WHO WILL BENEFIT FROM THIS COURSE?

This course is designed for technical professionals who need to know how to deploy, maintain, and troubleshoot Cisco Prime Network Registrar and Cisco Broadband Access Center in their network environments.

The primary audience for this course includes:

- System engineers and Integrators
- Solutions support personnel
- Technical-support personnel
- Network Admins and Solution Architects
- Channel partners and Resellers

PREREQUISITES:

Students should have foundational knowledge and/or experience with –

- The Internet and IPv4/IPv6
- TCP/IP networks, DNS, and DHCP principles of operation
- Basic Service Provider networking – including OSS/BSS functions
- Cisco IOS Command Line Interface (CLI)

COURSE OBJECTIVES:

After completing this course, the student should be able to:

- Describe the function of the regional Cisco Prime Network Registrar server and local DHCP, authoritative DNS, caching DNS, and TFTP servers
- Configure DHCP servers with class-of-service options for IPv4 and IPv6
- Configure DHCP failover
- Configure PNR authoritative DNS servers
- Configure dynamic DNS and high-availability DNS pairs

- Configure PNR caching DNS servers
- Understand Prime Cable Provisioning (PCP) architecture
- Understand PCP installation in a Linux environment
- Configuring RDU Extensions using REST API
- Upgrade and migrate PCP components

COURSE OUTLINE:

CNR Content: 3 Days

- Introduction to Cisco Prime Network Registrar
- Cisco Prime Network Registrar User Interfaces
- Regional Cluster Functions
- Cisco Prime Network Registrar Synchronization and Replication
- Management of Administrators, Groups, and Roles
- Cisco PNR Command Line Interface
- DHCP Protocol Review
- DHCPv4 Configuration
- Client Class and Client Configuration
- DHCPv6 Configuration
- DHCP Failover
- DHCP Troubleshooting
- DHCP Expressions and Extensions
- Cisco PNR Server Database Management

CPCP Content: 2 days

- Configuring CNR to use PCP
- Installation of PCP on a Linux Server
- DOCSIS Provisioning with PCP server components
- DPE Configuration
- RDU Configuration
- Device Bootup Testing using Device Simulator Tools
- Configuring RDU Data using the WebUI
- Troubleshooting device provisioning failures

Lab Outline:

- Installing Cisco Prime Network Registrar on Linux
- Navigating the Regional GUI
- Using the Cisco Prime Network Registrar CLI
- Configuring Cisco PNR DHCPv4
- Configuring Client Classes and Clients
- Configuring DHCPv6
- Using Cisco Prime Network Registrar DHCP Server Logs
- Configuring DHCP Failover
- Cisco Prime Network Registrar Database Recovery

- Using DHCP Extensions and Expressions
- Installing and Configuring PCP Extension for PNR
- Installing and Configuring a DPE
- Configuring RDU with the WebUI
- Lab Testing with RDU Defaults
- Configuring RDU Objects with the WebUI
- Troubleshooting

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Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

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- The goal of our instructors during class is ensure students understand the material, guide them through our labs and encourage questions and interactive discussions.

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