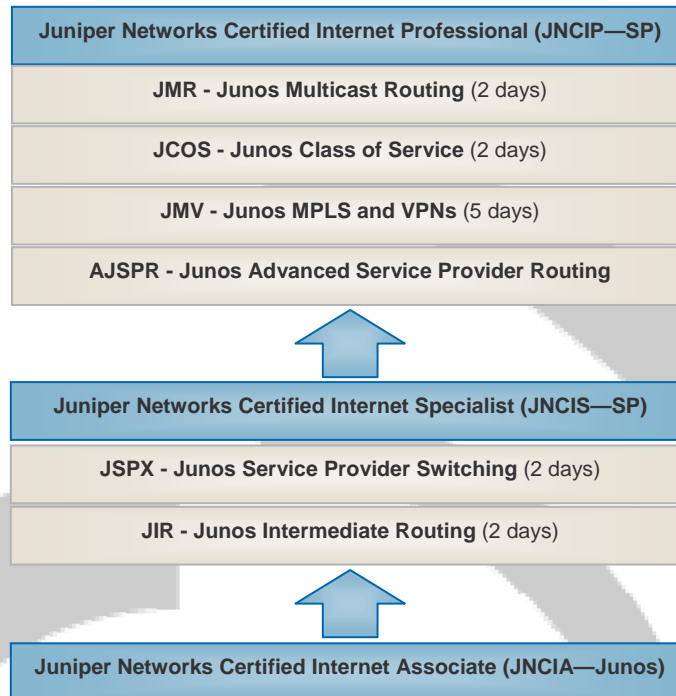




JUNIPER JUNOS SERVICE PROVIDER (SUPERSEDED)



**New certification track roadmap for 2011 does not relate to this course. Contact us now to discuss equivalent or replacement training.

Introduction to the Session and Resource Control (ISRC)

Course Overview

This course is designed to provide a solid foundation to the Session and Resource Control Policy Engine (SRC-PE) when managing routers running JUNOS software. The SRC-PE software runs on the C-series Controller. In this type of environment, the SRC-PE software typically manages residential and wireless LAN (WLAN) users. This course provides an overview of the SRC-PE architecture, which operates in a distributed environment, although you perform the labs in a local, single-system configuration.

Objectives

After successfully completing this course, you should be able to:

- Describe the SRC-PE application and how it manages JUNOS-based routers in a residential and WLAN environment.
- Describe the different layers in the next-generation networking architecture.
- Identify the products in the Juniper Networks Session and Resource Control portfolio.
- List the open interfaces used by the portfolio components.
- Identify C2000 and C4000 components and the field-replaceable units (FRUs).
- Describe the purpose of the universal serial bus (USB) storage device that ships with each unit.
- Use the SRC-PE command-line interface (CLI) and the C-Web graphical user interface (GUI) to configure and monitor a C-series Controller.
- Explain the role of each of the various network and SRC-PE components.
- Explain the purpose of the Lightweight Directory Access Protocol (LDAP).
- Configure new subscribers using the SRC-PE CLI and the C-Web GUI.
- Describe packet flow in Point-to-Point Protocol (PPP) and Dynamic Host



Configuration Protocol (DHCP) environments.

- Explain the role of the redirect server and default policies in captive portal processing.
- Explain service activation engine (SAE) redundancy.
- Use the SRC-PE CLI to create new policies and services.
- Use the JUNOSe router CLI to view and troubleshoot policy configuration.
- List the benefits of using global and local parameters within policies.
- Describe the purpose of the interface and subscriber classification scripts.
- Configure a wholesaler/retailer environment using shared subscriber profiles.
- Troubleshoot configuration issues using the SRC-PE log files.
- Describe the purpose of the DHCP classification script and DHCP profiles.
- Configure the SRC-PE to support DHCP network access.
- Describe the purpose of the network information collector (NIC).
- Describe the purpose of internal and external plug-ins.
- Modify the default internal plug-in configuration using the SRC-PE CLI.
- Configure dynamic subscriber interfaces on the JUNOSe router.
- Configure the SRC-PE to manage dynamic subscriber interfaces.
- Configure the SRC-PE from a factory-default configuration.
- Test and troubleshoot the new SRC-PE environment

Target Audience

This course is intended for technical network professionals responsible for the integration, configuration, and management of the SRC-PE software.

Course Level

Intermediate to Advanced

Prerequisites

- The following are the prerequisites for this course:
- The Introduction to Juniper Networks Routers—E-series course or equivalent knowledge;

- The E-series B-RAS Configuration Basics course or equivalent knowledge;
- Basic understanding of fundamental Broadband Remote Access Server (B-RAS) concepts, including the Point-to-Point Protocol over Ethernet (PPPoE) and bridged IP connections using DHCP;
- Basic understanding of the E-series Policy Manager, including classifier lists, rate-limit profiles, and policy lists; and
- A solid knowledge of IP, including addressing, subnetting, and basic routing concepts.

Course Contents

Day One

Chapter 2: Session and Resource Control Overview

- Network Evolution
- Lab Network Overview
- Lab 1: Introduction to Session and Resource Control—Policy Engine

Chapter 3: C-series Controller Overview

- Hardware Overview
- Network Management Options

Chapter 4: SRC-PE User Interface Options User Interface Options, Authentication, and Authorization

- Using the Command-Line Interface in Operational Mode
- Using the Command-Line Interface in Configuration Mode
- Using the C-Web Graphical User Interface
- Lab 2: SRC-PE User Interface Options

Day Two

Chapter 5: SRC-PE Component Overview

- High-Level Data Flow for Internet Access Using PPP
- Network and SRC-PE Components
- LDAP Overview
- Configuring New Subscribers
- Lab3: Managing Retailers and Subscribers
- Chapter 6: SRC-PE Operation in a PPP Environment
- SAE Initialization Overview
- PPP Session Establishment Details



- Service Activation
- Captive Portal Processing
- SAE Redundancy

Chapter 7: Creating Policies and Services

- Policy Manager Review
- PPP Default Policies on the Router
- Default Policy Configuration on the C-series Controller
- Policy and Service Configuration Using the SRC-PE CLI
- Simple Parameterization
- Lab 4: Creating Policies and Services
- Life of a Packet Review

Day Three

Chapter 8: Interface Classification and Subscriber Classification

- Classification Script Overview
- Interface Classification Operation and Configuration
- Interface Classification Troubleshooting
- Subscriber Classification Operation and Configuration
- Subscriber Classification Troubleshooting
- Shared Subscriber Profile Operation and Configuration
- Lab 5: Configuring Classification Scripts
- Chapter 9: SRC-PE Operation in a DHCP Environment
- DHCP Terminology
- IP Interfaces on the JUNOSe Router in a DHCP Environment
- Obtaining an IP Address Using DHCP
- DHCP Subscriber Portal Login and Logout Processing
- Lab 6: Configuring DHCP Network Access
- DHCP Life of a Packet Review

Day Four

- Chapter 10: Network Information Collector Overview
- DHCP Lab Environment Challenges
- NIC Components and Data Flow
- Basic NIC Configuration Using the OnePop Scenario
- NIC test Commands and NIC Logging
- Lab 7: Network Information Collector Overview

Chapter 11: Introduction to Plug-Ins

- Default SAE Authorization and Tracking Processing
- SAE Plug-In Overview
- Configuring SAE Internal Authentication and Tracking Plug-Ins
- Lab 8: Introduction to Plug-Ins

Chapter 12: Managing Dynamic Subscriber Interfaces

- Default DHCP Processing Review
- Subscriber Interfaces on the JUNOSe Router
- DHCP Classification Script and DHCP Profiles
- Managing DSIs Using the SRC-PE Software
- Lab 9: Configuring and Managing DSIs
- Life of a Packet Review

Day Five

Chapter 13: Configuration, Troubleshooting, and System Administration

- JUNOSe Router Configuration and Verification
- C-series Controller Initial Configuration
- SRC-PE Component Configuration
- Captive Portal Configuration
- C-series Controller System Administration
- Lab 10: SRC-PE Configuration and Troubleshooting

Cost AUD \$4,099 inc. GST

For Available Dates & Terms and Conditions see:
www.crystalecho.com

