

# Junos OS Evolved for Cloud Networking (JECN)

ID JECN Prix sur demande Durée 3 jours

#### A qui s'adresse cette formation

This course benefits individuals responsible for working with Junos Evolved.

#### Pré-requis

The prerequities for this course include:

 An intermediate-level understanding of Junosconfiguration and troubleshooting.

#### **Objectifs**

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

- Identify key differences between Junos OS and Junos Evolved
- Explain the high-level architecture of Junos
  Evolved•Identify the components of Junos Evolved
- Explain basic Linux functions in the context of Junos
  Evolved
- Perform configuration tasks in Junos Evolved
- · Perform management tasks in Junos Evolved
- Deploy third-party and custom applications in Junos Evolved
- Explain the fundamentals of Docker containers
- Deploy Docker container-based applications on Junos Evolved
- Understand how Junos Evolved manages system state
- Understand the Junos Evolved network stack and host packet path
- · Explain logging and tracing in Junos Evolved
- · Perform basic troubleshooting tasks in Junos Evolved

## Contenu

#### DAY 1

### **Course Introduction**

#### 2 Junos Evolved Overview

· Junos OS versus Junos Evolved

• High Level Junos Evolved Architecture

## 3 Junos Evolved Software Architecture

- Junos Evolved components that manage system state
- Junos Evolved components that form nodes into a coherent system
- Junos Evolved components that manage upgrades

#### 4 Linux Basics for Junos OS Evolved

- Linux Components of Junos Evolved Configuration
- Common Linux Commands

#### **5 Junos OS Evolved Configuration Tasks**

- Host VPN
- Management VRF

Lab 1: Configuring Junos Evolved

#### **6 Junos OS Evolved Management Tasks**

- Perform root password recovery
- · Upgrade or downgrade Junos Evolved software
- Configure the Two-Way Active Measurement Protocol

Lab 2: Managing Junos OS Evolved

#### DAY 2

#### 7 Third-Party Applications on Junos Evolved

- Describe third-party application support
- Deploy a custom application
- Daemonize a custom application

Lab 3: Deploying Third-Party Applications on Junos Evolved

#### **8 Docker Basics**

- · Explain key Docker concepts
- Use Docker commands to create and managecontainers

Lab 4: Docker Basics

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## 9 Third Party Applications with Docker

- Explain the requirements for Docker applications on Junos Evolved
- Deploy a Docker collectd container on Junos Evolved
- Deploy a monitoring infrastructure based on Prometheus and Grafana on Junos Evolved

Lab 5: Docker Containers on Junos Evolved

# 10 Case Study: Deploying a Custom Application on Junos Evolved

 Deploy a custom Juniper DDS client whichpublishes to a Kafka topic

#### DAY 3

## 11 Troubleshooting Junos Evolved - System State

- Describe how to query Junos Evolved system state
- Troubleshoot object dependency issues

# 12 Troubleshooting Junos Evolved – Network Stack and Host Packet Path

• Explain the Linux and Junos network stacks

# 13 Troubleshooting Junos Evolved – Logging and Tracing

- Explain the system logging and tracing infrastructure in Junos Evolved
- Explain how to retrieve support information and statistics
- Explain how to inspect Docker container statistics and configuration details

Lab 6: Troubleshooting Junos Evolved

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