SD-WAN with Contrail Service Orchestration (SD-CSO)

COURSE OVERVIEW

This three-day course is designed to provide students with the knowledge required to work with the Juniper Contrail Service Orchestration solution. Students will gain in-depth knowledge of how to use Contrail Service Orchestration (CSO) and SRX Series devices to instantiate SD-WAN, standalone NGFW, and brownfield NGFW deployments of the Juniper Networks solution.

Through demonstrations and hands-on labs, students will gain experience with features of each of these deployments. This course is updated on a monthly cadence, so that the course reflects the latest CSO release.

COURSE LEVEL

Advanced

AUDIENCE

This course benefits individuals responsible for working with software-defined networking solutions in service provider and enterprise environments, particularly those focused on SD-WAN.

PREREQUISITES

- Basic TCP/IP skills;
- General understanding of software defined networking;
- Basic understanding of the Junos operating system; and
- Attendance of the *Juniper Cloud Fundamentals (JCF)* course prior to attending this class

RELEVANT JUNIPER PRODUCT

- NFX Series
- SRX Series
- VMX/VSRX
- CSO Contrail Services Orchestration

CONTACT INFORMATION

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OBJECTIVES

- Describe a traditional enterprise network.
- Explain the purpose of Contrail Service Orchestration.
- Describe the differences between each CSO use case.
- Describe the basic features of the CSO portals.
- Describe how to add a new tenant to CSO.
- Navigate the CSO customer portal.
- Describe the SD-WAN deployment model.
- Provide an overview of the SD-WAN workflow.
- Implement enterprise intent-based policies.
- Configure SLA profiles and SD-WAN policies.
- Instantiate an SD-WAN topology using CSO and SRX Series devices.
- Describe the NGFW deployment model.
- Describe the workflow for the standalone NGFW deployment.
- Describe the Stage 1 configuration of the SRX Series device created by CSO.
- Describe how to implement intent-based policy using CSO.
- Instantiate a standalone NGFW site using CSO and SRX Series devices.
- Describe the workflow for the brownfield NGFW deployment.
- Describe how to add a brownfield NGFW to CSO.
- Describe the available RBAC features.
- Describe the day one operational features.
- Describe the monitoring features.
- Generate reports.

Course content subject to change. See www.juniper.net/courses for the latest details.

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COURSE CONTENT

DAY 1

| 1 | **Course Introduction** |

| 2 | **Introduction to Contrail Service Orchestration** |

- SDN/NFV Overview
- Today's Enterprise Network
- Juniper's CSO Solution Overview

| 3 | **CSO User Interfaces** |

- Basic Navigation
- Administrator Portal Walkthrough
- Adding a Tenant
- Customer Portal Walkthrough
- Verifying the State of CSO

Lab 1: CSO User Interface

| 4 | **SD-WAN** |

- Contrail SD-WAN Deployment Model
- SecureOAM
- Dynamic VPN
- AppQoE
- Intent-Based Policies
- SD-WAN SLA Policies

DAY 2

| 5 | **SD-WAN Configuration** |

- SD-WAN Deployment Workflow
- Adding OAM Hubs
- Adding Enterprise Hubs
- Adding Spoke Sites
- Adding Licenses and IPD Signatures
- Configuring Intent-Based Firewall Policies
- Configuring Application Routing and SLA Profiles

Lab 2: Contrail SD-WAN Deployment

| 6 | **Standalone NGFW** |

- NGFW Deployment Model
- NGFW Deployment Workflows
- Zone-Based Policies

Lab 3: Standalone NGFW Deployment

Continued on the next column.

DAY 3

| 7 | **Brownfield NGFW** |

- Brownfield NGFW Deployment Workflow
- Adding a Brownfield NGFW

| 8 | **Administration and Monitoring** |

- Role-Based Access Control
- Monitoring
- Reporting

| A | **What's New in Contrail Service Orchestration** |

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