Network Automation using Contrail Cloud

Längd: 2 Days Kurskod: NACC

Sammanfattning:

This two-day course is designed to provide students with the knowledge required to work with the Juniper Contrail software-defined networking (SDN) solution. Students will gain in-depth knowledge of how to use the OpenStack and Contrail Web UIs and APIs to perform the required tasks. Through demonstrations and hands-on labs, students will gain experience with the features of Contrail. This course is based on Contrail Release 2.21.
This course replaces the CMC - Configuring and Monitoring Contrail course.

Målgrupp:

This course benefits individuals responsible for working with software-defined networking solutions in data center, service provider, and enterprise network environments.
Network Automation using Contrail Cloud is an intermediate-level course.

Målsättning:

- After successfully completing this course, you should be able to:
- Define basic SDN principles and functionality.
- Define basic OpenStack principles and functionality.
- Define basic Contrail principles and how they relate to OpenStack.
- List and define the components that make up the Contrail solution.
- Explain where Contrail fits into NFV and SDN.
- Describe the functionality of the Contrail control and data planes.
- Describe Nova Docker support in Contrail.
- Describe extending Contrail cluster with physical routers.
- Understand support for TOR switches and OVSDB.
- Gain an understanding of the OpenStack and Contrail WebUIs.
- Create a tenant project.
- Create and manage virtual networks.
- Create and manage policies.
- Create and assign floating IP addresses.
- Add an image and launch an instance from it.
- Describe how a tenant is created internally.
- Use Contrail's API to configure OpenStack and Contrail.
- Describe service chaining within Contrail.
- Set up a service chain.
- Explain the use of Heat Templates with Contrail.
- Manipulate the WebUI monitoring section.
- Extract key information regarding the Contrail infrastructure.
- Extract key information regarding traffic flows and packet analysis.
- Create various types of filters and queries to generate data.
- Understand Ceilometer support in a Contrail Cloud.
- Perform TTL Configuration for Analytics Data.
- Use various troubleshooting tools for debugging Contrail.

Förkunskaper:

The prerequisites for this course are as follows:

- Basic TCP/IP skills
- General understanding of data center virtualization
- Basic understanding of the Junos operating system
- Attendance of the Introduction to the Junos Operating System

(IJOS) and Juniper SDN Fundamentals (JSDNF) courses prior to attending this class.

Fortsättningskurs:

The JIR - Junos Intermediate Routing Course or the JSEC - Junos Security course are suitable follow on courses.

Innehåll:

Contrail Overview

- SDN Overview
- Contrail Overview

Architecture and Installation

- Contrail Components and Building Blocks
- Contrail Stack
- Deployment Options

Basic Configuration

- Tenant Creation Walkthrough
- Creating and Managing Projects
- Creating and Managing Virtual Networks
- Image Management in OpenStack
- Implementing Floating IPs
- Configuring with API scripting
- Lab: Basic Tenant Implementation and Management

Service Chaining

- Service Chaining Overview
- In-Network Service Chain and Configuration
- Transparent Service Chain and Configuration
- Lab: Service Chains

Contrail Analytics

- Monitor > Infrastructure Workspace
- Monitor > Networking Workspace
- Analyzing Live Traffic
- Flow Queries and Logs

Troubleshooting

- Contrail CLI Commands
- Fabric Utility Scripts
- OpenStack CLI Usage
- Lab: Performing Analysis and Troubleshooting in Contrail

Appendix - Installation

- Supported Platforms
- Using Server Manager
- Installing Contrail on VMware ESXi
- Upgrading Contrail Software
- Lab: Installation (optional)

Övrig information:

För mer information eller kursbokning, vänligen kontakta oss på telefon. 020-73 73 73

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