Red Hat, OpenShift, Kubernetes, Docker in Juniper Cloud Deployments (ROKD)

ID ROKD **Price** US $ 4,000.—(excl. VAT) **Duration** 4 days

Who should attend

Individuals responsible for working with software-defined networking solutions in data center, service provider, and enterprise network environments. It is beneficial for learning and applying the foundational knowledge of cloud technologies prior to working Contrail Networking.

Prerequisites

- Basic TCP/IP skills
- General understanding of data center virtualization

Course Objectives

- List the various open source technologies and their basic differences.
- Describe how each open source technology plays a role in a Contrail solution.
- Describe the basic architecture of Red Hat Linux and other distributions.
- Configure namespaces and virtual networking using Linux and OVS bridges.
- Describe the function of libvirt.
- Instantiate virtual machines using Virtual Machine Manager.
- Create and import and OVS bridge into libvirt.
- Instantiate a VXLAN tunnel between OVS bridges.
- Instantiate virtual machines using virsh.
- Describe the purpose of OpenStack.
- Identify the function of each of the main OpenStack projects.
- Use the OpenStack CLI.
- Describe the OpenStack networking features available to workloads.
- Describe traditional OpenStack block and object storage.
- Describe how Ceph can be integrated with OpenStack.
- Use Ceph storage to better scale an RHOSP deployment.
- Describe the usage of TripleO in a RHOSP deployment.
- Describe the functions of the undercloud.
- Describe the functions of the overcloud.
- Describe the networks used in an RHOSP deployment.
- Describe how to deploy the undercloud.
- Describe how to deploy the overcloud while using YAML files.
- Describe the benefits of containers.
- Describe the reasons to use Docker.
- Describe the basic CLI commands for Docker.
- Describe how to run a container in Docker.
- Describe the difference between attached and detached mode.
- Describe how to interact with Dockerhub.
- Describe how to network a Docker container.
- Describe how to inspect and view the logs of a Docker container.
- Describe how to build and image using a Dockerfile.
- Describe the difference between CMD and ENTRYPOINT.
- Describe how to compose a Docker container.
- Describe how to build a private registry.
- Describe the k8s architecture.
- Describe the usage of k8s pods.
- Describe the basic usage of the k8s CLI.
- Instantiate a pod using YAML.
- Describe the function replication controllers and sets.
- Describe how to create a deployment.
- Describe networking in k8s.
- Describe how to use namespaces with k8s.
- Describe the basic differences between k8s and OpenShift.
- Describe the basic CLI commands of OpenShift.
- Describe the basic functionality of the OpenShift web UI.

Course Content

- Open Source Cloud Technologies
- Linux Architecture
- Linux Virtualization
- OpenStack Fundamentals
- OpenStack Configuration
- OpenStack Networking
- OpenStack Storage
- RHOSP
- Docker Basics
- Advanced Docker
- Kubernetes Basics
- K8s Advanced Topics
- Red Hat OpenShift

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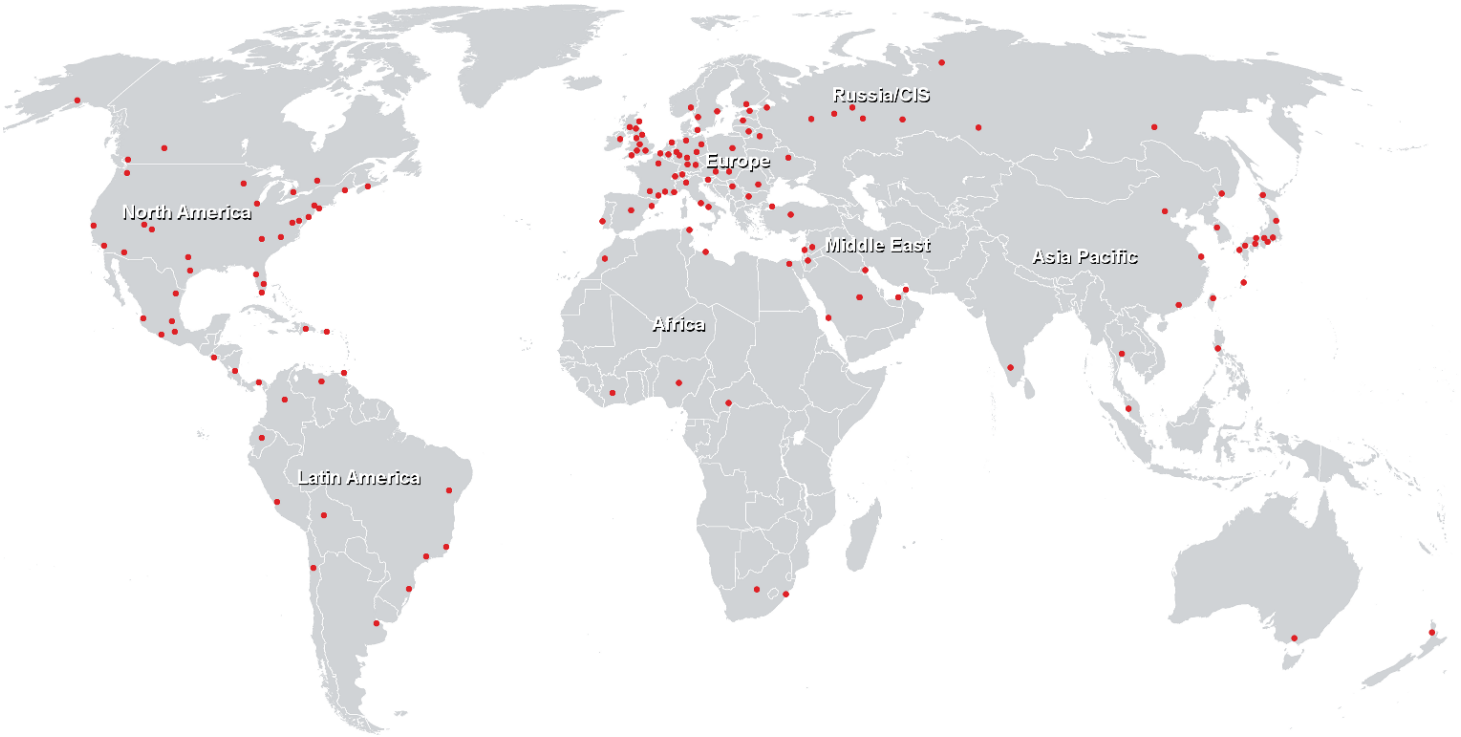

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