

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

ID ROKD Preis US \$ 4'000.– (exkl. MwSt.) Dauer 4 Tage

## Zielgruppe

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.

## Voraussetzungen

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

## Kursziele

- 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.

## Kursinhalt

- 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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## Weltweite Trainingscenter



## Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3  
CH-8304 Wallisellen  
Tel. +41 44 832 50 80

info@flane.ch, <https://www.flane.ch>