Configuring and Managing Red Hat OpenShift Networking (DO282)

ID DO282 **Price** 3,740.— €(excl. VAT) **Duration** 4 days

Who should attend

- Network Architects and Network Administrators who are responsible for designing, managing, and optimizing network infrastructure within OpenShift clusters
- Platform Engineers and Cloud Administrators who support containerized and virtualized workloads on OpenShift platforms
- System Administrators: System administrators who seek to move traditional hypervisor-based workloads to OpenShift Virtualization and to manage their networking
- System Administrators who manage OpenShift clusters and require a deep knowledge of advanced networking features for diverse application requirements.

Prerequisites

Red Hat OpenShift Administration II: Configuring a Production Cluster (DO280)

Course Objectives

Impact on the Organization

This course, DO282: Configuring and Managing Red Hat OpenShift Networking, is vital for organizations scaling their OpenShift deployments in complex, multi-tenant, or performance-sensitive environments. By providing deep expertise in key areas like User Defined Networks (UDNs) for workload isolation and VM live migration, secure Ingress/Egress traffic management, and advanced network observability, the course enables the organization to design and deploy more secure, scalable, and production-grade network solutions. This expertise directly mitigates the risk of prolonged network incidents and ensures the organization fully leverages OpenShift's advanced platform capabilities.

Impact on the Individual

For individuals, the course closes critical skill gaps by offering a deep, hands-on dive into the operational aspects of OpenShift networking. Learners will gain practical proficiency in managing the core OVN-Kubernetes CNI internals, implementing and troubleshooting User Defined Networks (UDNs and CUDNs), inspecting and configuring DNS, managing Ingress and Egress traffic with Routes and Firewalls, and utilizing Network Observability tools. This mastery empowers the individual—whether a Network Architect, Platform Engineer, or System Administrator—to confidently design, deploy, and troubleshoot sophisticated network architectures in a production OpenShift cluster.

Course Content

Implement advanced OpenShift networking features to design, secure, and maintain scalable, production-grade network solutions.

This course is designed to close the skill gap by offering a deep dive into OpenShift Networking with version 4.20, with a strong emphasis on mastering User Defined Networks (UDNs) as a tool for architectural flexibility, workload isolation, and VM mobility. Through hands-on labs and real-world scenarios, learners will gain practical proficiency in core openshift networking, DNS, managing ingress and egress traffic, implementing native BGP functionality, node networking and network observability.

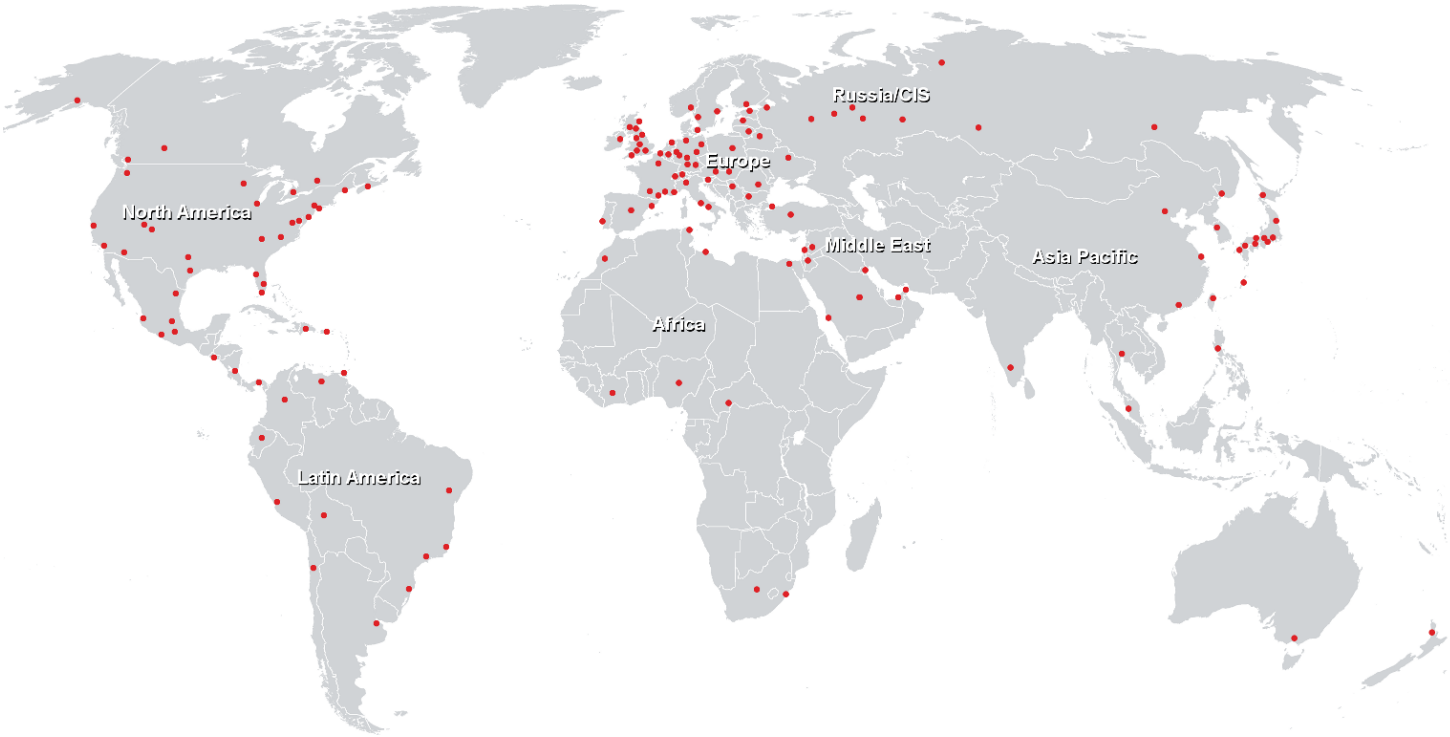
Following course completion, you will receive a 45-day lab access to hands-on labs for any course that includes a virtual lab environment.

Course Content Summary

- Manage pod and service networks with CNIs, CNO, OVN-Kubernetes, and Multus.
- Provide workload isolation, multi-network connectivity, efficient traffic management, VM live migration, and external access using UDNs and CUDNs.
- Describe OpenShift DNS architecture, inspect CoreDNS, troubleshoot resolution, and implement forwarding.
- Design, implement, and manage comprehensive ingress networking.

- Implement and manage egress traffic control, including Egress Firewalls, Egress IPs, Egress Routers, and route overrides.
- Enable, configure, and manage native BGP routing with FRR and implement OVN-Kubernetes Route Advertisements.
- Configure OpenShift node networking and VM connectivity using the Kubernetes NMState Operator for high availability.
- Explain OpenShift Network Observability for visibility, troubleshooting, monitoring, and security enforcement.

Training Centres worldwide



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