

Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh

Code:	DO328
Length:	4 days
URL:	View Online

Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh (DO328) teaches students installation, service monitoring, service management, and service resilience of Red Hat OpenShift® Service Mesh. OpenShift created an enterprise-ready, multi-tenant platform that made deploying and scaling microservice applications efficient and easily repeatable. But as these architectures become larger and more complex, defining how these services interact with each other becomes increasingly difficult. Red Hat OpenShift Service Mesh comprises 3 products—Istio, Jaeger, and Kiali—that facilitate service interaction management, provide service tracing, and create a visual representation of communication pathways.

- This course is based on Red Hat OpenShift® Container Platform 4.4 and Red Hat OpenShift Service Mesh 1.1.

Skills Gained

- Install Red Hat OpenShift Service Mesh on an OpenShift cluster.
- Apply release strategies by controlling service traffic.
- Build service resilience with load balancing and failovers.
- Test service resilience with chaos testing.
- Enforce service security.
- Observe, measure, and trace network traffic with OpenShift Service Mesh.

Who Can Benefit

This course is designed for developers who want to deploy and scale microservices applications.

Prerequisites

- Attending Red Hat Application Development II: Implementing Microservice Architectures (DO283) or demonstrating equivalent experience in creating microservice applications is recommended, but not required
- Attending Red Hat OpenShift I: Containers & Kubernetes (DO180) and Red Hat OpenShift Development II: Containerizing Applications (DO288), and passing the Red Hat Certified Specialist in OpenShift Application Development exam (EX288), or possessing basic OpenShift experience, is strongly recommended

Course Details

Outline

Introduce Red Hat OpenShift Service Mesh

- Describe the basic concepts of microservice architecture and OpenShift Service Mesh.

Observe a service mesh

- Trace and visualize an OpenShift Service Mesh with Jaeger and Kiali.

Control service traffic

- Manage and route traffic with OpenShift Service Mesh.

Release applications with OpenShift Service Mesh

- Release applications with canary and mirroring release strategies.

Test service resilience with chaos testing

- Gauge the resiliency of an OpenShift Service Mesh with chaos testing.

Build resilient services

- Use OpenShift Service Mesh strategies to create resilient services.

Secure an OpenShift Service Mesh

- Encrypt and secure services in your application with OpenShift Service Mesh.