

## DO329

# Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh with exam

## Course description

### Control, manage, trace, monitor, and test your microservices with Red Hat OpenShift Service Mesh

OpenShift created an enterprise-ready, multi-tenant platform that made deploying and scaling microservice applications efficient and 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 three products, Istio, Jaeger, and Kiali that facilitate managing service interaction, provide service tracing, and create a visual representation of communication pathways. This offering is an introduction to Red Hat OpenShift Service Mesh that teaches students installation, service monitoring, service management, and service resilience with Red Hat OpenShift Service Mesh.

The [Red Hat Certified Specialist in Building Resilient Microservices exam \(EX328\)](#) is included in this offering.

## Recommended training

[Red Hat OpenShift I: Containers & Kubernetes \(DO180\)](#), [Red Hat OpenShift Development II: Containerizing Applications \(DO288\)](#), [Red Hat Certified Specialist in OpenShift Application Development exam \(EX288\)](#), or basic OpenShift experience is strongly recommended.

- It is recommended that learners also enroll in the [Red Hat Certified OpenShift Administration certification courses](#) in addition to taking CS220 and CS221

## Course Outline

### Introduction to Red Hat OpenShift Service Mesh

Describe the basic concepts of microservice architecture and Red Hat Service Mesh.

### Install Red Hat Service Mesh

Deploy Red Hat Service Mesh on OpenShift Container Platform.

### Observe a Service Mesh

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

### Control Service Traffic

Manage and route traffic with Red Hat Service Mesh.

### Release Applications with Service Mesh

Releasing applications with canary and mirroring release strategies.

### Test Service Resilience with Chaos Testing

Test the resiliency of an OpenShift Service Mesh with Chaos Testing.

### Build Resilient Services

Leverage OpenShift Service Mesh strategies for creating resilient services.

### Secure an OpenShift Service Mesh

Secure and encrypt services in your application with Red Hat OpenShift Service Mesh.