

Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh with exam (DO329)

Duration: 4 Days **Course Code: DO329**

Overview:

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.

Objectives:

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

Follow-on-Courses:

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.

Content:

Introduction to Red Hat OpenShift Service Mesh	Control Service Traffic	Build Resilient Services
Describe the basic concepts of microservice architecture and Red Hat Service Mesh.	Manage and route traffic with Red Hat Service Mesh.	Leverage OpenShift Service Mesh strategies for creating resilient services.
Install Red Hat Service Mesh	Release Applications with Service Mesh	Secure an OpenShift Service Mesh
Deploy Red Hat Service Mesh on OpenShift Container Platform.	Releasing applications with canary and mirroring release strategies.	Secure and encrypt services in your application with Red Hat OpenShift Service Mesh.
Observe a Service Mesh	Test Service Resilience with Chaos Testing	
Trace and visualize an OpenShift Service Mesh with Jaeger and Kiali.	Test the resiliency of an OpenShift Service Mesh with Chaos Testing.	

Additional Information:

Impact on the organization

Microservice architectures with OpenShift and Service Mesh enable Organizations to improve application resilience and scalability, while decreasing developer overhead. This leads organizations to improved time to market as well as improved insight into their microservice architecture by being able to visualize and trace data flow throughout their applications. These insights can dictate better resource allocation for applications as well as more quickly identifying defects in specific microservices.

Impact on the individual

Students will be able to use the concepts in this course to simplify and more efficiently manage their service interactions. Students will learn how to install and configure Service Mesh to define, monitor, and manage service interaction within their microservice architecture. This course is intended to illustrate the ease of Service Mesh's "sidecar" approach and to highlight the benefits of service resilience and monitoring that the product provides.

Technology Considerations

Internet access required.

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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