Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh (DO328)

ID DO328 **Price** 2,805.— €(excl. tax) **Duration** 3 days

Course Overview

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

Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh (DO328) is an introduction to Red Hat OpenShift Service Mesh that teaches students installation, service monitoring, service resilience, and service security with Red Hat OpenShift Service Mesh.

Red Hat OpenShift created an enterprise-ready, multitenant 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 is increasingly difficult. Red Hat OpenShift Service Mesh comprises three products: Istio, Jaeger, and Kiali, facilitating a zero-trust network for managing secure service interactions, providing service tracing, and creating a visual representation of communication pathways.

This course is based on Red Hat OpenShift® Container Platform 4.6 and Red Hat OpenShift Service Mesh 2.0.

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

Who should attend

This course is designed for developers who want to deploy, manage, and secure microservices applications on Red Hat OpenShift.

This course is part of the following Certifications

Red Hat Certified Specialist in Building Resilient Microservices (RHCS-BRM)

Prerequisites

- Take our free assessment to gauge whether this offering is the best fit for your skills.
- Attending Red Hat Cloud-native Microservices Development with Quarkus (DO378) or demonstrating equivalent experience in creating microservice applications is recommended, but not required
- Attending Red Hat OpenShift Administration I: Operating a Production Cluster (DO180) and Red Hat OpenShift Developer II: Building and Deploying Cloud-native Applications (DO288), and passing the Red Hat Certified OpenShift Application Developer Exam (EX288), or possessing basic OpenShift experience, is strongly recommended.

Course Objectives

Impact on the organization

Microservice architectures with Red Hat OpenShift Service Mesh enable organizations to improve application security, resilience, and scalability, while decreasing developer overhead. Red Hat OpenShift Service Mesh adds an additional level of security for data in transit with mutual TLS encryption and a zero-trust network. 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.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

Impact on the individual

You will be able to use the concepts in this course to simplify and more efficiently manage their service interactions. You will learn

how to install and configure Red Hat OpenShift Service Mesh to define, monitor, manage, and secure service interaction within their microservice architecture. This course is intended to illustrate the ease of Red Hat OpenShift Service Mesh's "sidecar" approach and to highlight the benefits of service resilience and monitoring that the product provides.

Course Content

- Install Red Hat OpenShift Service Mesh on a Red Hat 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.

Detailed Course Outline

Introduction to Red Hat OpenShift Service Mesh

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

Install Red Hat OpenShift Service Mesh

Deploy Red Hat OpenShift Service Mesh on Red Hat 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 OpenShift Service Mesh.

Release applications with service mesh

Release applications with canary and mirroring release strategies.

Test service resilience with chaos testing

Gauge the resiliency of Red Hat OpenShift Service Mesh with chaos testing.

Build resilient services

Use OpenShift Service Mesh strategies to create resilient services.

Secure services with OpenShift Service Mesh

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

About Fast Lane

Fast Lane is a global, award-winning specialist in technology and business training as well as consulting services for digital transformation. As the only global partner of the three cloud hyperscalers- Microsoft, AWS and Google- and partner of 30 other leading IT vendors, Fast Lane offers qualification solutions and professional services that can be scaled as needed. More than 4,000 experienced Fast Lane professionals train and advise customers in organizations of all sizes in 90 countries worldwide in the areas of cloud, artificial intelligence, cyber security, software development, wireless and mobility, modern workplace, as well as management and leadership skills, IT and project management.

Fast Lane Services

- ✓ High End Technology Training
- ✓ Business & Soft Skill Training
- ✓ Consulting Services
- ✓ Managed Training Services
- ✓ Digital Learning Solutions
- ✓ Content Development
- ✓ Remote Labs
- ✓ Talent Programs
- ✓ Event Management Services

Training Methods

- ✓ Classroom Training
- ✓ Instructor-Led Online Training
- ✓ FLEX Classroom – Classroom & Online Hybrid
- ✓ Onsite & Customized Training
- ✓ E-Learning
- ✓ Blended & Hybrid Learning
- ✓ Mobile Learning

Technologies & Solutions

- ✓ Digital Transformation
- ✓ Artificial Intelligence
- ✓ Cloud
- ✓ Networking
- ✓ Cyber Security
- ✓ Wireless & Mobility
- ✓ Modern Workplace
- ✓ Data Center

Worldwide Presence
with high-end training centers around the globe

Multiple Awards
from vendors such as AWS, Microsoft, Cisco, Google, NetApp, VMware

Experienced SMEs
with over 19.000 combined certifications

Germany
Fast Lane Institute for Knowledge Transfer GmbH
Tel. +49 40 25334610
info@flane.de / www.flane.de

Austria
ITLS GmbH
(Partner of Fast Lane)
Tel. +43 1 6000 8800
info@itls.at / www.itls.at

Switzerland
Fast Lane Institute for Knowledge Transfer (Switzerland) AG
Tel. +41 44 8325080
info@flane.ch / www.flane.ch