

IS50: Service Mesh and Istio Fundamentals

Istio & Service Mesh Fundamentals in One Day

The Istio Service Mesh and Istio Fundamentals (IS50) by Mirantis is an introductory one day course covering Service Mesh, Istio Architecture, and Envoy Proxy. Students will gain hands-on experience with Istio's core features including Traffic management and Security for applications running on Kubernetes.

The intended audience for this course are Software Engineers, Cloud Operations Engineers, DevOps Engineers, Cloud Architects, and Site Reliability Engineers looking to adopt Istio as the service mesh provider on Kubernetes.

Duration: 1 Day

Audience & Prerequisites

The IST50 course is intended for Software Engineers, Cloud Operations Engineers, Site Reliability Engineers, DevOps Engineers and Cloud Architects. It is recommended that you have a strong Linux command line background. KD250 Bootcamp or equivalent experience is necessary (students should be fully knowledgeable of Kubernetes resources).

What's Included

- Presentations and Workbooks provided by Instructor
- Access to Cloud based labs for duration of class
- Certificate of Completion

Lab Requirements

- To access our cloud hosted lab environment, students will need a laptop computer with a ssh client and a web browser.

Course Outline

By the end of this course students will have an understanding of Service Mesh and its ecosystem and build a solid foundation of Istio architecture and traffic management knowledge.

This course contains the following theory & labs:

- **Theory:** Introduction to Service Mesh and Ecosystem
- **Theory:** Istio architecture and component overview
- **Lab:** Environment setup
- **Lab:** App deployment and sidecar injection techniques
- **Theory:** Istio Ingress & Egress Controllers
- **Lab:** Istio Ingress Controller
- **Theory:** Traffic Control
- **Lab:** Shifting and Steering Traffic with Canary deployments
- **Theory:** Telemetry with Istio
- **Lab:** Monitoring microservices with Prometheus, Distributed Tracing with Jaeger, Viewing Service Graphs with Kiali
- **Theory:** Security Policies
- **Lab:** Configuring network policy via Pilot and Envoy

This course is currently under development and is expected to launch in Q3'19. For the latest information make sure to visit the IST50 course page.