

## Service Mesh

### Kort om undervisningen

This course will teach you about the Istio service mesh and how it can be used to manage traffic. You will learn about the different components of Istio, such as Envoy, Mixer, and Pilot, and how they work together to provide a powerful traffic management solution. You will also learn how to configure Istio for different types of traffic, such as HTTP, gRPC, and TCP. Finally, you will learn how to use Istio to monitor and debug your applications.

### Indhold

- Introduction to Istio and Service Mesh
- Preparing for Istio
- Traffic Management with Istio
  - Allows to control the flow of traffic and API calls between services.
  - Routing rules (headers, method, path etc.)
  - Timeouts
  - Circuit Breakers
  - Retries
- Security with Istio
  - Mutual TLS
  - Service-to-Service access control
  - Request Authentication
  - Peer Authentication
- Observability with Istio
  - Metrics
  - Distributed Traces
  - Access Logs
- Istio Architecture - Overview
  - Logically split into a **data plane** and **control plane**
  - The data plane is set of proxies (Envoy) deployed as sidecars
  - The control plane manages and configures the proxies to route traffic, provides certificates for secure traffic, etc.
- Introduction to Kiali

### Forudsætninger

Knowledge of Kubernetes, Container technology (Docker), Yaml, git, linux will be a benefit but not a requirement.

## *Målgruppe*

The course is aimed at developers who are using OpenShift or plain Kubernetes for deployment of containers. Disclaimer: The course does **not** cover administrative tasks associated with management of OpenShift clusters.

## *Efter kurset kan deltageren*

After the course, the participant can explain what Istio is, how to use it to manage traffic, secure services-based communication, and collect telemetry data. The participant can discuss the tradeoffs, when using the features of Istio.

## *Kommende afholdelsesdatoer*

Klik på nedenstående links for tilmelding til en af vores planlagte afholdelser

[04/05 2026](#) - Storkøbenhavn

[28/09 2026](#) - Storkøbenhavn

Oplysning om yderligere afholdelser findes på vores [hjemmeside](#). Andre spørgsmål besvares meget gerne ved brug af vores [kontaktformular](#) eller på telefon (+45) 33 861 861