



ADINUSA PRO TRAINING

Study Plan Istio Administration (IS-ADM)



About This Course

This course provides a comprehensive introduction to Istio, a powerful open-source service mesh that helps manage, secure, and observe microservices in a cloud-native environment. Designed for developers, DevOps engineers, and system administrators, the course explores how Istio simplifies traffic management, enforces policies, secures communication, and enhances observability without changing application code.

You will learn how to deploy and configure Istio in a GKE environment, route traffic intelligently, apply security policies using mutual TLS (mTLS), monitor service health with built-in telemetry, and perform canary deployments and A/B testing with confidence.



Summary



Training Duration: 32 Hours (4 Days)

Course Main Subjects

- Introduction to Service Mesh and Istio
- Setup GKE Cluster and Installing Istio
- Configure Observability Tools
- Traffic Management
- Adaptive Traffic Strategies
- Istio Ingress and Egress on GCP
- Istio Security
- Configure Domain and DNS
- Best Practices



Target Audience

System Administrators, Cloud Administrators, Developers, Site Reliability Engineer.

Prerequisites

Participants are required to have the following before attending the course:

- Familiarity with the Linux command line.
- Basic Understanding of cloud-native application concepts.
- Completion of the Docker Administration (DO-ADM) course.
- Basic Understanding Kubernetes

Learning Outcomes

Participants will gain the following skills:

1. Understanding how to deploy GKE Cluster.
2. Understanding about Istio r.
3. Management Traffic with Istio.

Technical Requirements

Participants must have a laptop or computer with the following minimum specifications and tools installed:

Specification	Details
Operating System	Windows, Linux, or MacOS
Processor	Intel Core i3
Memory	4 GB RAM
SSH Client	Termius / Putty / MobaXTerm
Text Editor	Sublime Text / VSCode
Browser	Chrome and Firefox
VPN (Optional)	https://client.pritunl.com/



Facilities and Resources

Participants will have access to the following resources on and after the training:

- **Virtual machine lab** : Available until H+5 post-training for hands-on practice and experimentation.
- **Discussion group** : Available until H+30 post-training for ongoing support and collaboration with peers.
- **Class materials** : Access to all class materials for 1 year (start day one training)
- **Certificate** : Participants will receive a certificate of completion upon finishing the course.
- **Recording Class** : Access to recorded sessions for review and reinforcement of learning.



Terms and Conditions

Course Purchase Rules

- **Registration:**

Participants must register through the official ADINUSA website and fill out the registration form with accurate and complete information.

- **Payment:**

Course payment must be made in full before access to training materials is granted. Accepted payment methods include bank transfer, credit card, and digital payment.

- **Purchase Confirmation:**

After payment is received, participants will receive a confirmation email containing course details and instructions for accessing the materials.

- **Schedule Changes:**

ADINUSA reserves the right to change the course schedule or replace instructors if necessary. Participants will be notified of such changes via email or whatsapp.



Terms and Conditions

Access Management

- **Access License:**

Each participant will be granted an access license for 1 year, starting from the date of registration. This license includes access to all relevant training materials.

- **Use of Materials:**

Training materials may only be used for personal purposes and may not be distributed, sold, or published without written permission from ADINUSA.

- **Account Security:**

Participants are responsible for maintaining the confidentiality of their account information. ADINUSA is not liable for any losses arising from unauthorized account use.

- **Access Termination:**

ADINUSA reserves the right to terminate a participant's access to training materials if violations of the applicable terms and conditions are found, including but not limited to unauthorized distribution of materials.

For detailed information regarding our terms and conditions, please visit [Terms and Conditions](#).

Certification

Upon successful completion of the course, participants will receive two certificates with validation 2 years:



Physical Certificate



Digital Certificate



Learning Strategies



Pre-Test



Theory



Hands-on Lab



Post-Test



Internal Exam



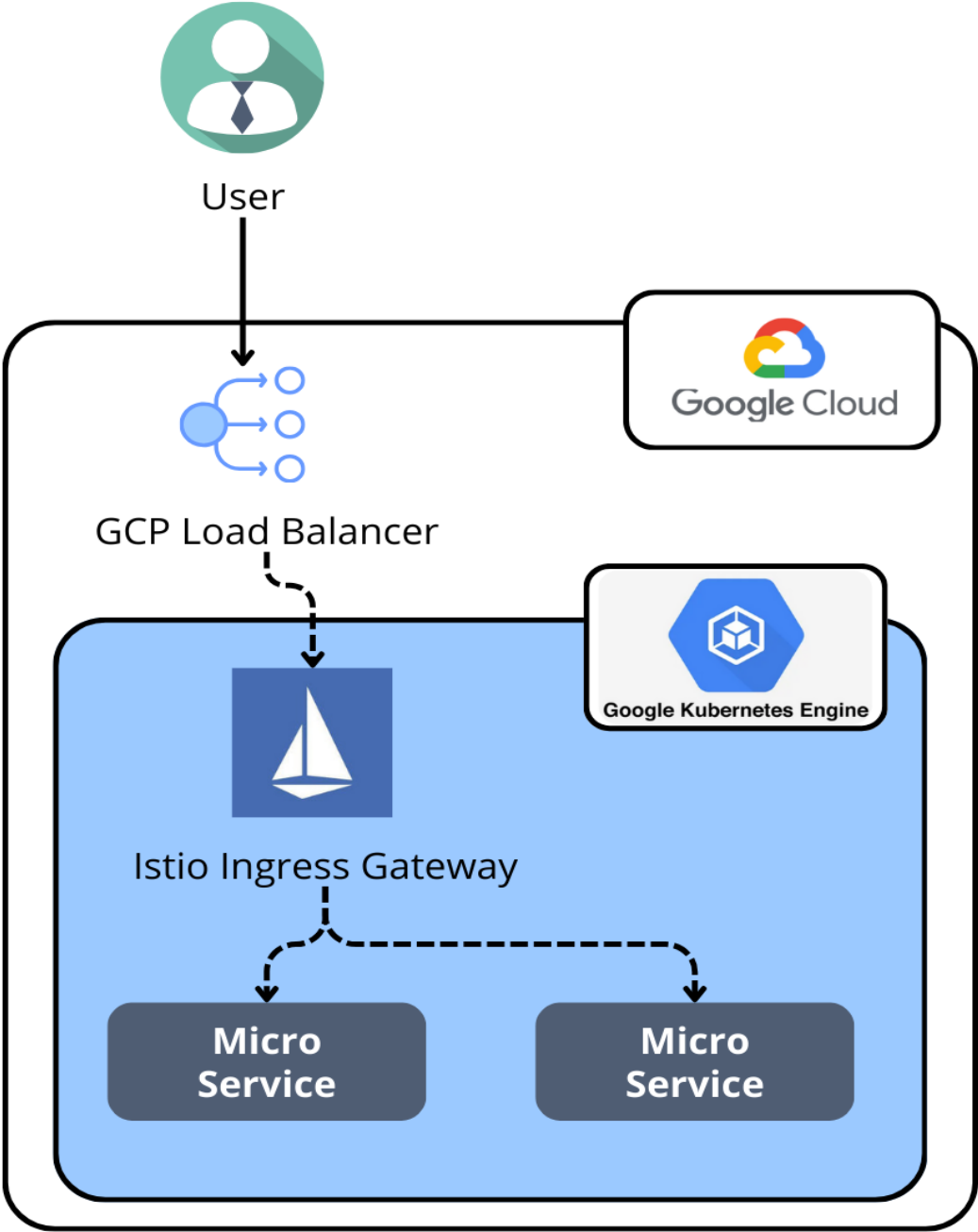
Reporting



Forum
Discussion



Topologi Training



Learning Modules

Training Plan	
Module	Outcome
Introduction to Serice Mesh and Istio	Understand the concept of microservices technology in building applications Understanding Istio concepts
Setup GKE Cluster and Install Istio	Preparation GKE Cluster Installation Installing Istio on GKE Cluster
Configure Observability Tools	Observability with Istio (Prometheus, Grafana, Kiali) Benefit about Observability
Traffic Management	Introducing Managemnt Traffic in Istio Introducing Virtual Mastering Traffic Routing, Policies, and Gateways
Adaptive Traffic Strategies	Introducing Reliability and Resilience Understand Requests Timeouts Controll, fault Injection, Traffic Shifting and Rollout Understand Circuit Breaking Preventing Cascading

Istio Ingress and Engress on GCP	Introducing GCP Network for Istio Introducing and Configure VPC and Firewall Rules Introducing Istio Ingress and Engress Gateway Concepts and Differences Istio Ingress and Engress with Kubernetes Ingress
Istio Security	Introducing Identity and Certificate Management Introducing Authentication Securing Service Identity Introducing Mutual TLS (mTLS) Introducing Authorization Controlling Access
Configure Domain and DNS	Introducing Cloud DNS in GCP Understanding Istio and DNS Interaction
Best Practice	Best Practice for Deployment, Observability, Traffic Management and Security

Thank You

Explore our full course offerings in the training catalog:

<https://adinusa.id/pro-training/catalogue>

For further assistance, please contact us at:

Phone: +62 8111123242

Email: kontak@adinusa.id