Anthos Service Mesh
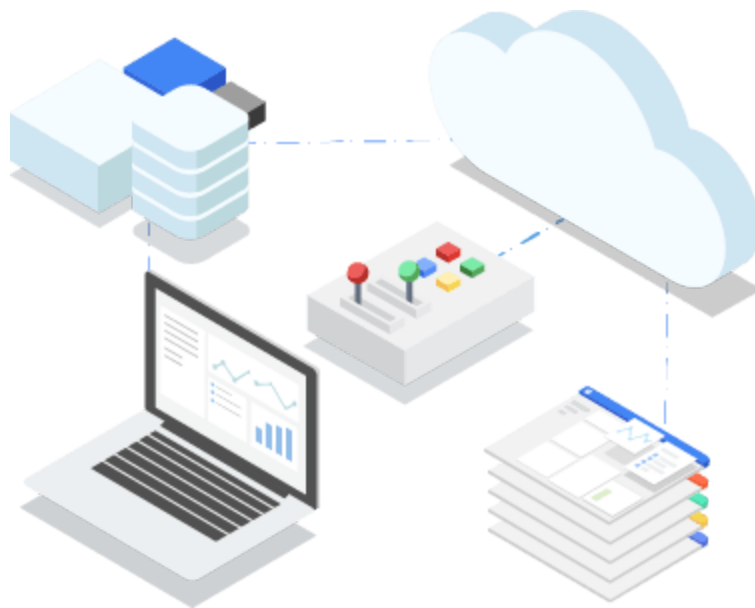
The fully managed service mesh for your complex microservices architectures.

Contact sales (https://cloud.google.com/contact/?form=anthos)

<u>View documentation</u> (https://cloud.google.com/service-mesh/docs/) for this product.

Think services first

Anthos Service Mesh is a key component of <u>Anthos</u> (https://cloud.google.com/anthos/). Microservices architectures present a range of benefits, but they introduce many challenges. Anthos Service Mesh, Google's fully managed service mesh, lets you manage these complex environments and get all the benefits they promise. Anthos Service Mesh provides a fully managed platform that simplifies operating services across the board, from traffic management and mesh telemetry to securing communications between services, thereby taking a significant burden off your operations and development teams.

Fully managed, full stop

Since it's a fully managed offering, Anthos Service Mesh takes all the guesswork and effort out of procuring and managing your service mesh solution. You focus on developing great apps; let us worry about your mesh.

Security without complexity

Securing your service mesh can feel daunting. Anthos Service Mesh helps you embrace a zero-trust security model, giving you the tools to automatically secure your services and their communication and manage authentication, authorization, and encryption between services with a diverse set of features — all with little or no changes required to the applications themselves. This makes your mesh more secure and frees developers to focus on application-level security.

Deep insights into your mesh

Your mesh can't be at its most efficient if you can't see how it's operating. Anthos Service Mesh's robust tracing, monitoring, and logging features give you deep insights into the performance and health of your mesh. Observe how your services

are performing, see how that performance affects other processes, and detect any issues quickly.

Traffic management made simple

With Anthos Service Mesh, you can control traffic flows and API calls between services, while at the same time getting better visibility into your traffic. This not only makes calls more reliable and your network more robust, even in adverse conditions, it enables you to catch issues before they become problems.

Features

Zero-effort Stackdriver

Anthos Service Mesh's integration with Stackdriver opens up a wide range of monitoring, logging, and tracing features. Anthos Service Mesh also provides you with the ability to monitor SLOs at a per-service level. Set SLO targets for latency and availability, and Stackdriver can automatically generate graphs, track your compliance over time, and let you know how you stack up vs. your "error budget."

Authenticate and encrypt seamlessly

Transport authentication via mTLS has never been easier. Secure your service-to-service and end-user-to-service communications with mTLS with a single click install or implement it incrementally.

Flexible authorization

Determine who has access to what services in your mesh with easy-to-use role-based access control (RBAC). You specify the permissions, then grant access to them at the level you choose, from namespace all the way down to users.

Fine-grained traffic management

Anthos Service Mesh decouples traffic flow from infrastructure scaling, opening up many traffic management features—including dynamic request routing for A/B testing, canary deployments, and gradual rollouts—all outside of your application code.

Failure recovery out of the box

Anthos Service Mesh provides a number of critical failure-recovery features out of the box that can be configured dynamically at runtime, including timeouts, circuit breakers, active health checks, and bounded retries.

Easy-to-configure fault injection

Even with robust failure-recovery features, it's critical to test the resiliency of your mesh. That's where fault injection comes in. Easily configure delay and abort faults to be injected into requests that match certain conditions, and even restrict the percentage of requests that should be subjected to faults.

Load balancing

Choose between round robin (each healthy upstream host is selected in round robin order), random (the random load balancer selects a random healthy host), and weighted-least-request load balancing.

Security insights

Traffic encryption, auditing, and fine-grained access policies help mitigate inside and outside threats to your data, endpoints, communications, and platform.

Resources

Welcome to the service mesh era

Read blog post → (https://cloud.google.com/blog/ to-the-service-mesh-era-introduc series)

Introducing Anthos: Build and manage modern hybrid applications across environments

Learn more → (https://cloud.google.com/anth

Istio Homepage

Next '19: Onramp to Istio: An Adoption Story

View
documentation ↗ (https://istio.io/)

Watch ▶ (https://www.youtube.com/w
video v=SMhTl0Pjn1Q&autoplay=1)

Get started

Anthos Service Mesh

Learn more about Anthos and how it can help your business.

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View documentation (https://cloud.google.com/service-mesh/docs/)