

Multiplayer Kubernetes: GitOps with Friends



MESHERY

Pranav Singh

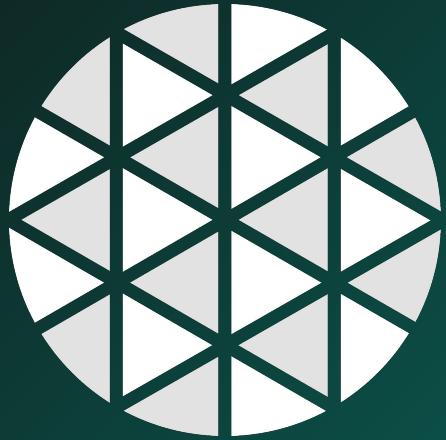
LFX intern at **LAYERS**

 layer5.io/community/members/pranav-singh

 @theBeginner86

 github.com/theBeginner86

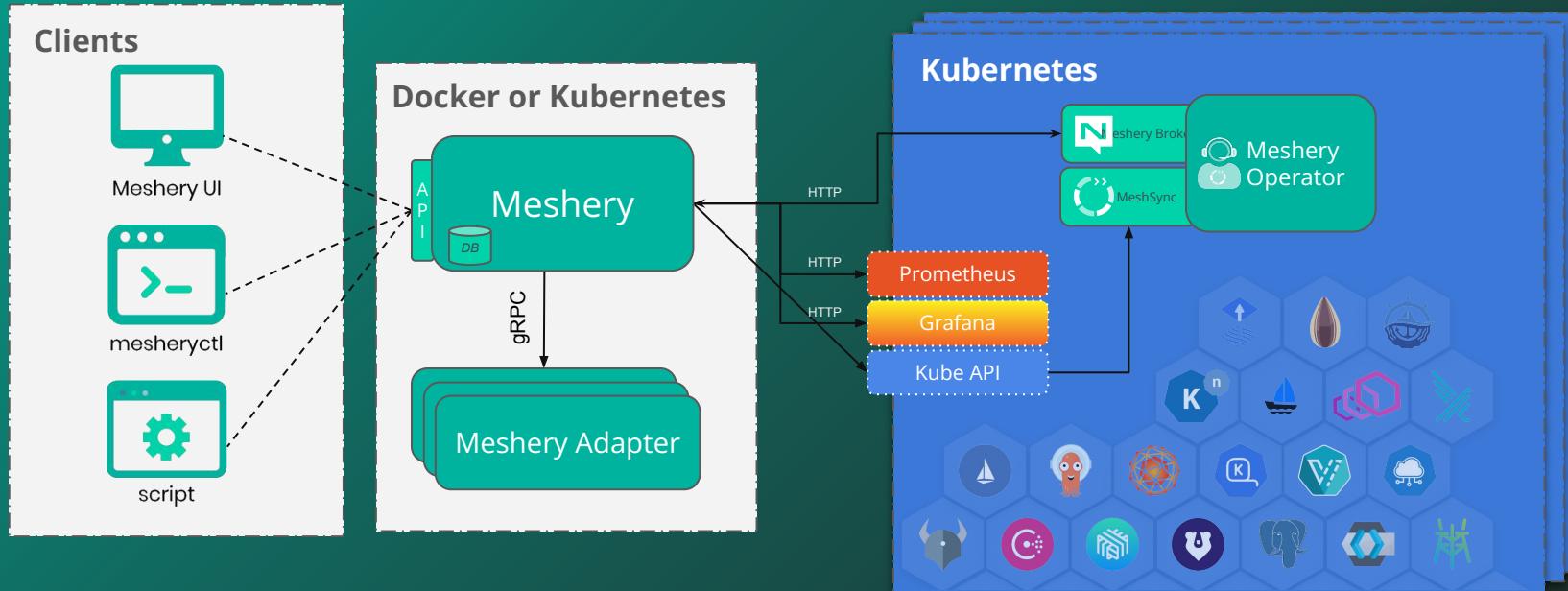




Cloud Native Management

Meshery Architecture

Clients





The cloud native management platform

Meshery



CLOUD NATIVE
COMPUTING FOUNDATION

- ✓ Kubernetes, Mesh and Application Lifecycle
- ✓ Continuous Optimization
 - Operational resiliency and business performance optimizers
- ✓ Low-Code Visual Configuration
 - GitOps-based, ready-made GitHub Actions, dry run
- ✓ Service Catalog
 - Operational best practices
 - Chaos patterns, WASM filters, eBPF programs*
- ✓ Policy-driven Workflow*
 - Governance w/multi-cluster, multi-cloud, multi-tenancy

Supports 200+ Integrations meshery.io/integrations



*Roadmap item

The screenshot shows the Meshery Dashboard interface. On the left is a sidebar with a tree view of management categories: Dashboard, Lifecycle (Citrix Service Mesh, Consul, Istio, Kuma, Linkerd, Network Service Mesh, Octarine, Open Service Mesh, Traefik Mesh), Configuration, Applications, Filters, Patterns, Performance, Profiles, Conformance, and Service Mesh Interface.

Service Mesh

Istio

Control Plane Pods	Component	Version
istiod-6bf8dd57f8-lz8x9	istiod	1.10.3
grafana-56585969bcd-pb24g	grafana	7.5.5
istio-ingressgateway-67c99c69bd-z59lc	istio	1.10.3
prometheus-55db9cf9b6-bq4gn	prometheus	v0.5.0

Kuma

Control Plane Pods	Component	Version
kuma-control-plane-5475f9d66-ncdv6	kuma	1.2.2

Open Service Mesh

Control Plane Pods	Component	Version
osm-controller-568f88d8f-hz9nw	osm	v0.9.1
osm-injector-5d65bf7d67-x6qvh	osm	v0.9.1

Connection Status

Kubernetes: docker-desktop

Adapters

meshery-consul, meshery-cpx, meshery-istio, meshery-kuma, meshery-linkerd, meshery-nsm, meshery-octarine, meshery-osm, meshery-traefik-mesh

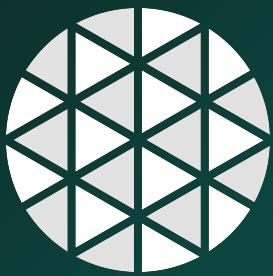
Metrics

<http://host.docker.internal:9090>, <http://10.98.168.114:3000>

Release

Channel Subscription: Edge, Version: edge-latest

Running latest Meshery version.



Configuration



Discover best practices. Publish design patterns.

Meshery Catalog meshery.io/catalog



WASM Filters

TRAFFIC MGMT

Singleton Queue

WA WEBASSEMBLY

WA MESHERY023

SECURITY

Sesson Authorizer

WA WEBASSEMBLY

WA MESHERY019

TRAFFIC MGMT

JWT Transformer

WA WEBASSEMBLY

WA MESHERY034

OBSERVABILITY

HTTP Metrics

WA WEBASSEMBLY

WA MESHERY028

- Users can share:
- Operational designs
 - Network Filters
 - Governance Policies
 - Mesh Add-ons



- Teams can:
- Create private catalogs visible only to your teams and approved by your org.



- Advanced users can:
- Build your WASM Filters and eBPF Programs



Patterns

TRAFFIC MGMT

Circuit Breaker

MESHERY003

RESILIENCY

Retries

MESHERY012

OBSERVABILITY

L7 Traces

WA MESHERY045

SECURITY

L7 Denial

WA MESHERY046

OBSERVABILITY

Correlate Event

WA MESHERY055

SECURITY

Single Tenant

WA MESHERY059

SECURITY

Mutual TLS

MESHERY014

DEPLOYMENT

Multi-Cluster

MESHERY013

RESILIENCY

Retry Deadline

WA MESHERY044

DEPLOYMENT

Node Agent

WA MESHERY043

RESILIENCY

Only w/Agent

WA MESHERY057

DEPLOYMENT

Pre-provision

WA MESHERY056



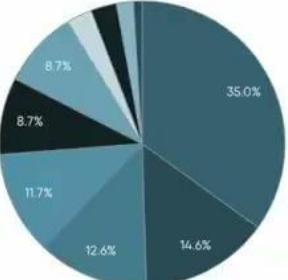
Demo

Dashboard | Meshery

playground.meshery.io

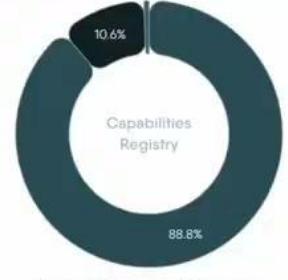
Dashboard

MeshModel Categories



Category	Percentage
Dark Blue	35.0%
Medium Blue	14.6%
Light Blue	12.6%
Teal	11.7%
Dark Grey	8.7%
Light Grey	8.7%

MeshModel Constructs



Construct	Percentage
Capabilities Registry	88.8%
Models	10.6%
Components	0%
Relationships	0%

Workloads

All Workloads

Resources	Count
PersistentVolume	1
PersistentVolumeClaim	1

v0.6.108

Join the Layer5 Community!



How do I start?

- Jump into our [Slack](#)
- Review our [beginner guides](#)
- Get a [MeshMate](#)

How do I become a member?

- Submit a Community [Member Form](#)
- Earn a [member profile](#) through consistent engagement
- Join the [Newcomers' meeting](#)

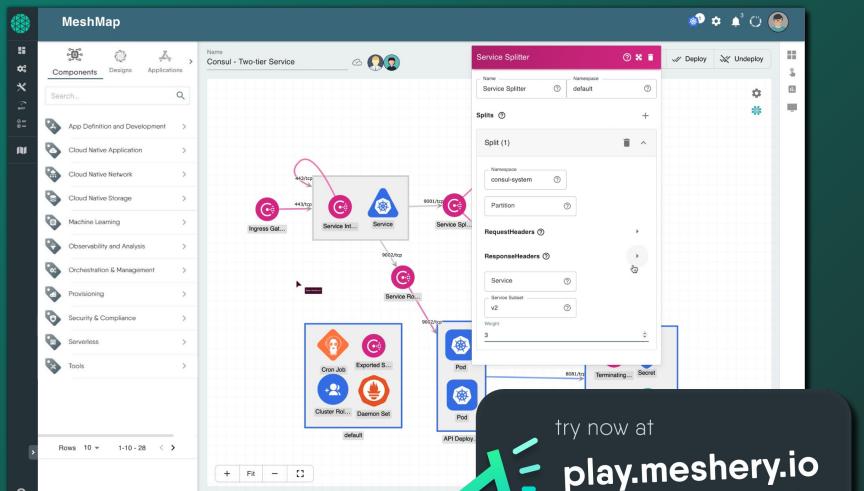
Where do I find an area to contribute?

- See the [repositories overview](#)
- Explore the "[help wanted](#)" issues (~200 currently)
- Jump on [discussion forum](#), [mailing lists](#), & [meetings](#)



The screenshot shows the LF Mentorship program dashboard. Key statistics include 7.3K Applications, 306 Accepted, and 171 Graduated. A large circular badge indicates \$708.5K Stipends Paid. Below this, a "Most Popular Mentors" section lists Shua Khan (300), Greg Kroah-hartman (115), Sridhar Rao (51), and Grzegorz Bazor (48). A "Most Popular Programs" section lists Meshery (2.3K), Confidential Computing Fellowship (586), Linux Kernel: Evaluate And Improve (352), and Open Horizon (281). A "Top 10 Organizational Supporters" section includes Cloud Native Computing Foundation (\$309.6K), Hyperledger (\$193.6K), DLF Networking (\$190K), and The Linux Foundation (\$143K).

#1 Most Popular Project
in Linux Foundation Mentorship Program



github.com/meshery



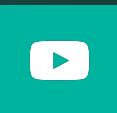
@mesheryio



linkedin.com/company/meshery



slack.meshery.io



youtube.com/c/Layer5io



discuss.layer5.io

Thank you