

# Manage and Secure Distributed Services with Anthos Service Mesh

IstioCon 2022 Workshop

## Before we begin...

Please login into your qwiklabs account with the account you registered with for this workshop!

[googlesolutions.qwiklabs.com](https://googlesolutions.qwiklabs.com)



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<b>Architecture &amp; Workshop Setup</b>	<b>02</b>
<b>Setting up Anthos Service Mesh</b>	<b>03</b>
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<b>Address Policy Violations</b>	<b>06</b>
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**Customization Required** - delete this label after updates

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# Agenda

11:00a PDT / 2:00p EDT

**Intro to Anthos Service Mesh**

11:20a PDT / 2:20p EDT

**Architecture and Workshop Overview**

11:20a PDT / 2:20p EDT

**[Lab] Hands-On Configuring Anthos Service Mesh**

12:15p PDT / 3:15p EDT

**Break** ☕

12:20p PDT / 3:20p EDT

**[Lab Continuation] Hands-On Policy Management with Anthos Service Mesh**

1:10p PDT / 4:10p EDT

**Closing & Next Steps**



# Anthos Service Mesh



Kubernetes



Google Kubernetes Engine

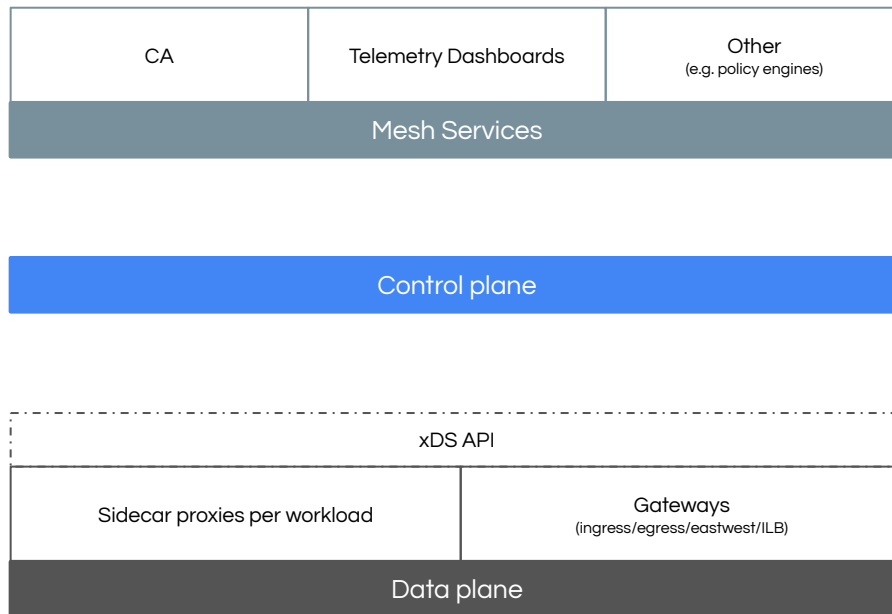


Istio

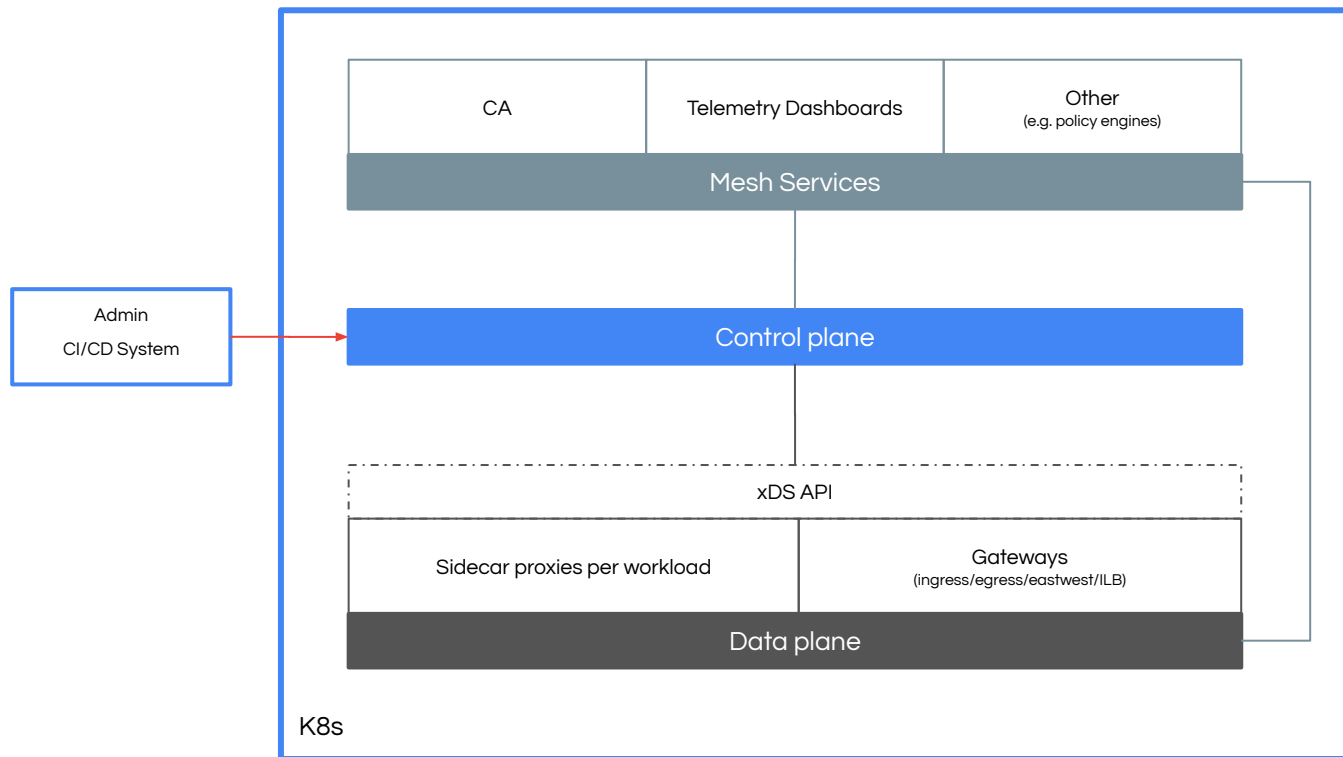


Anthos Service Mesh

## Istio Architecture components

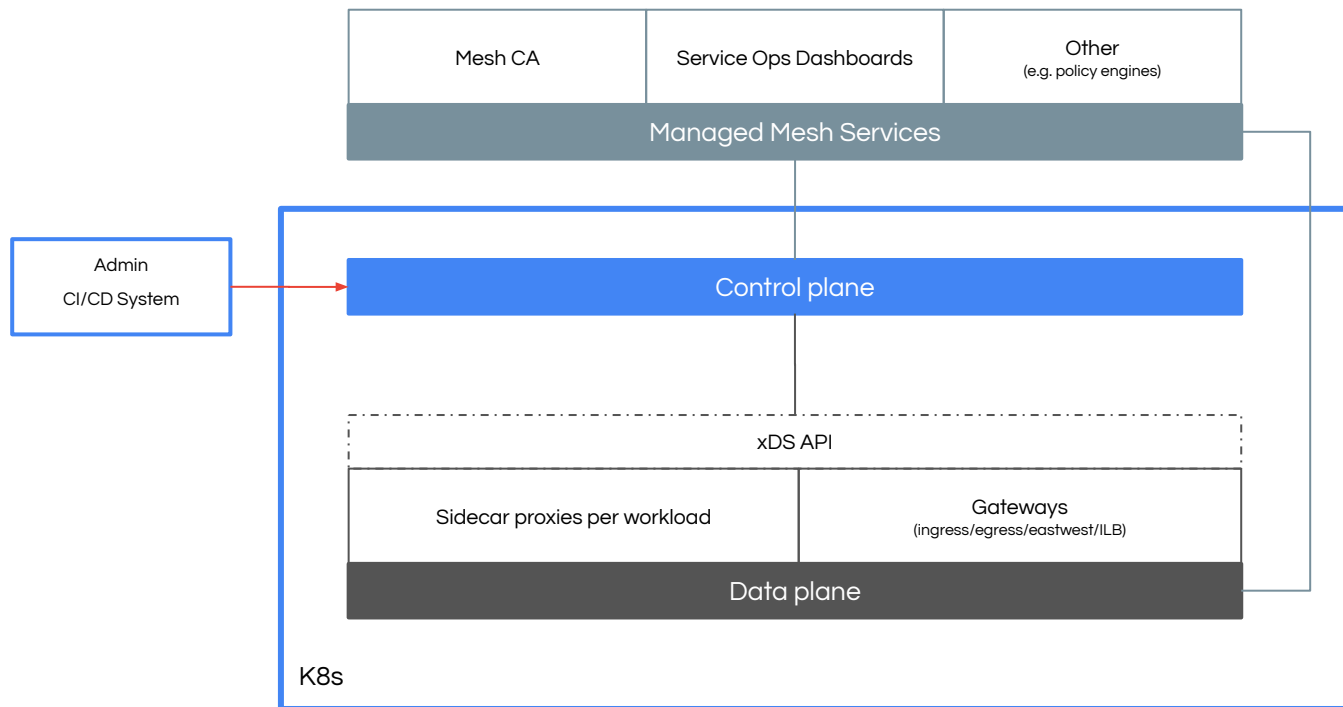


## ASM Architecture components

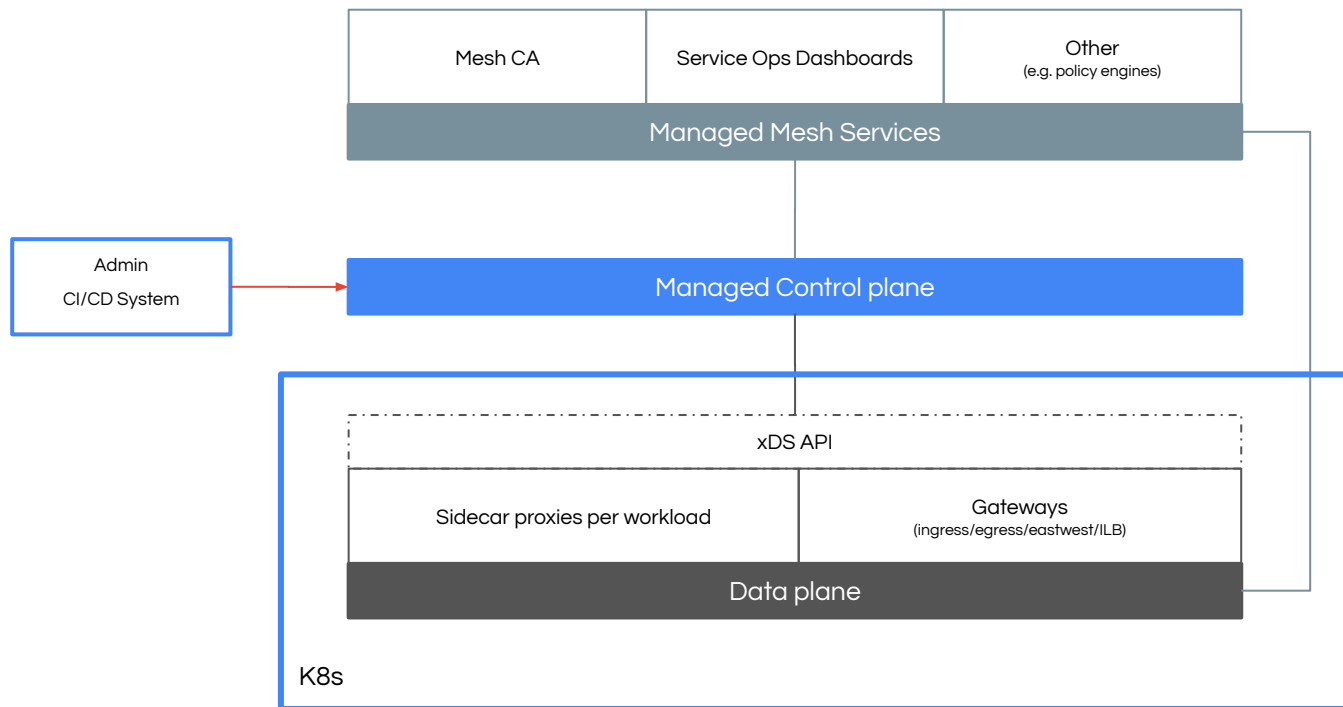




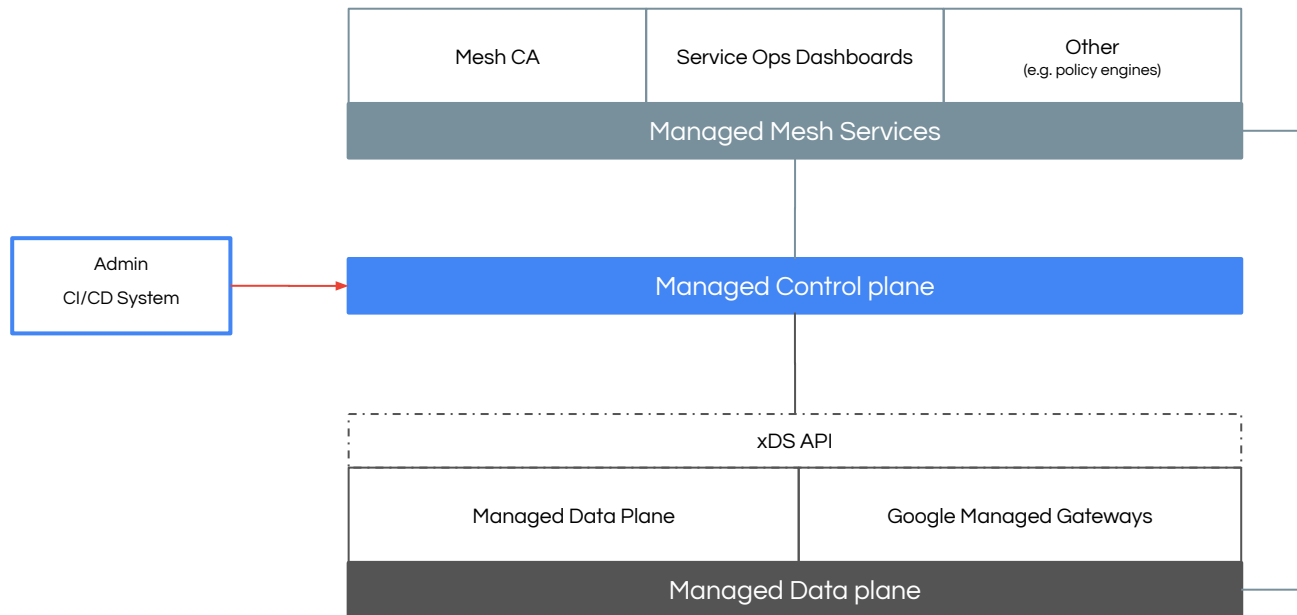
## ASM Architecture components



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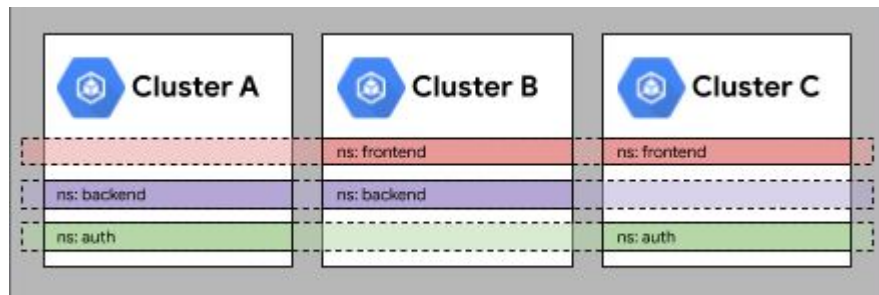


## ASM Architecture components



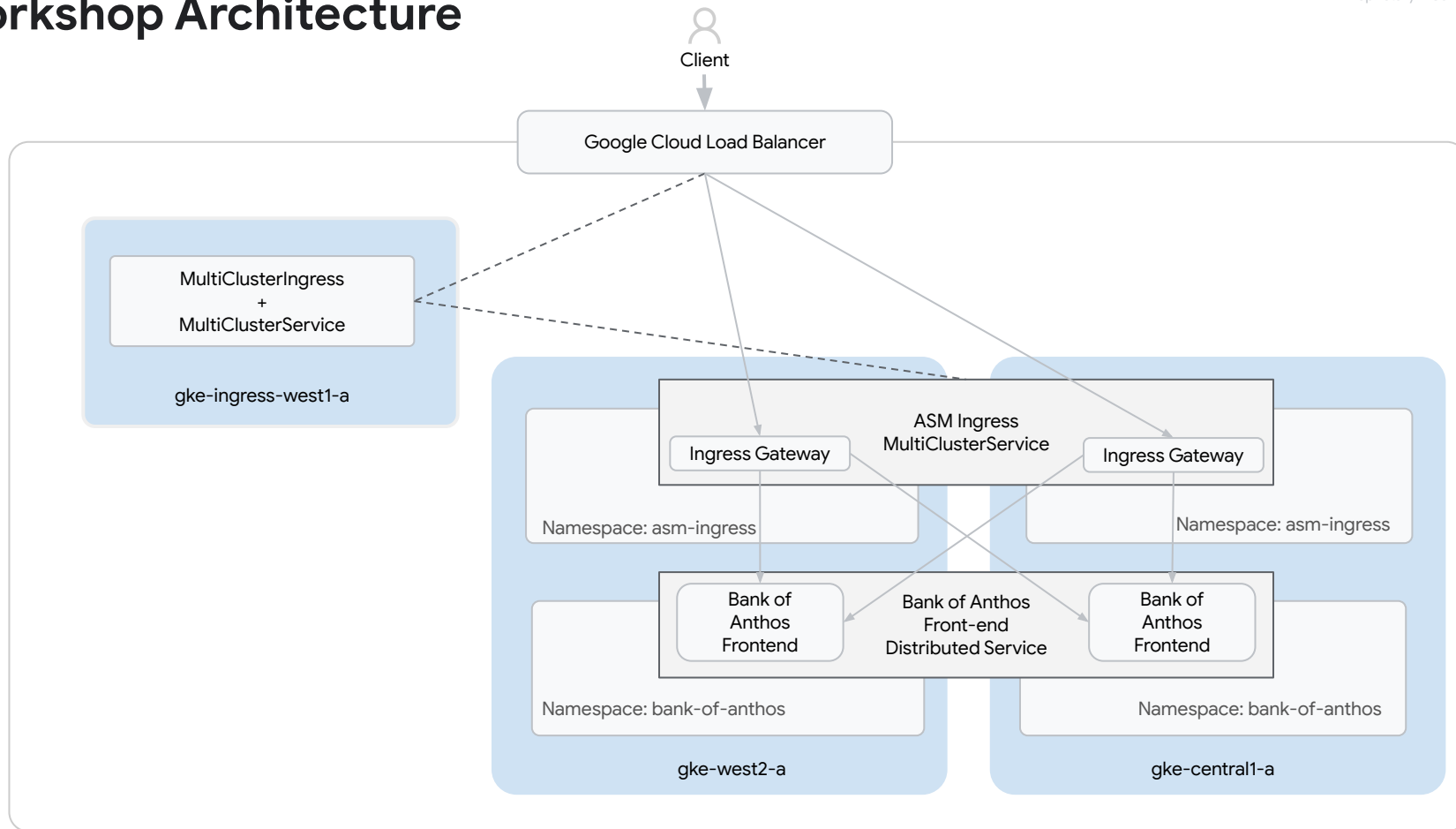
# Fleets

- Logically group clusters and resources
- Helps ensure consistent configurations
- Easily install features including ASM, MCI, and ACM
- Leverages “sameness”
  - Namespace
  - Service



# Workshop Architecture

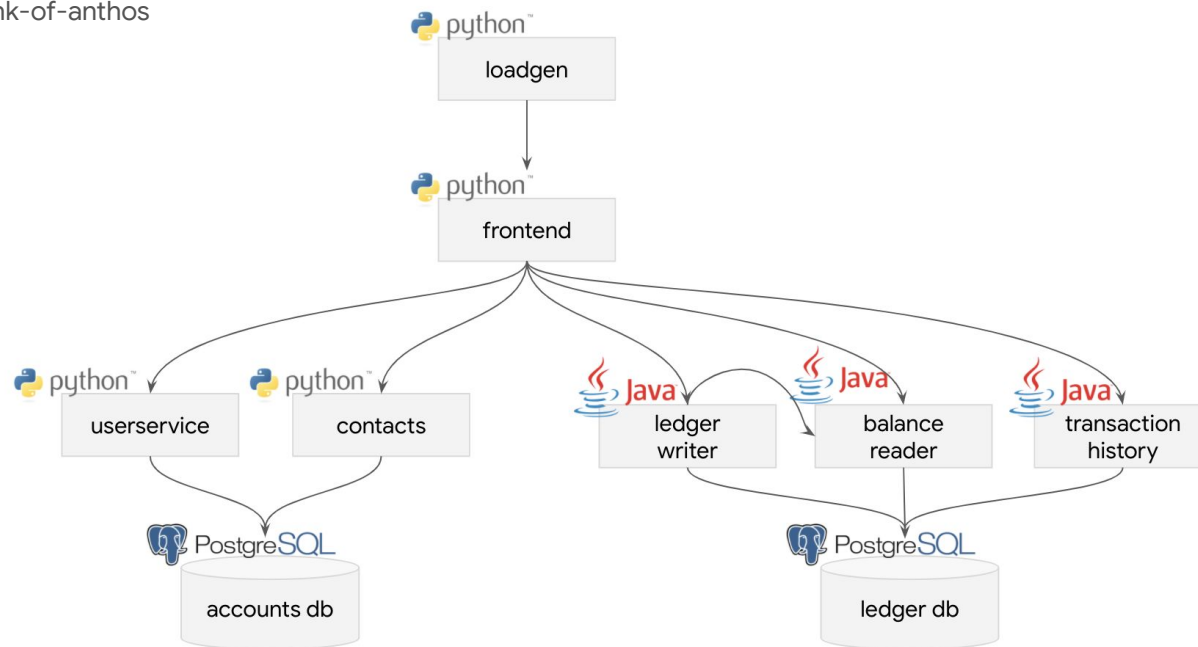
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# Bank of Anthos

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namespace: bank-of-anthos



<https://github.com/GoogleCloudPlatform/bank-of-anthos>

Google Cloud

# Preprovisioned Infrastructure & Setup

*Present when you begin your Qwiklab*



## GKE Clusters

- 2 Workload Clusters
- 1 Config Cluster



## Firewall

- Firewall Rule across clusters

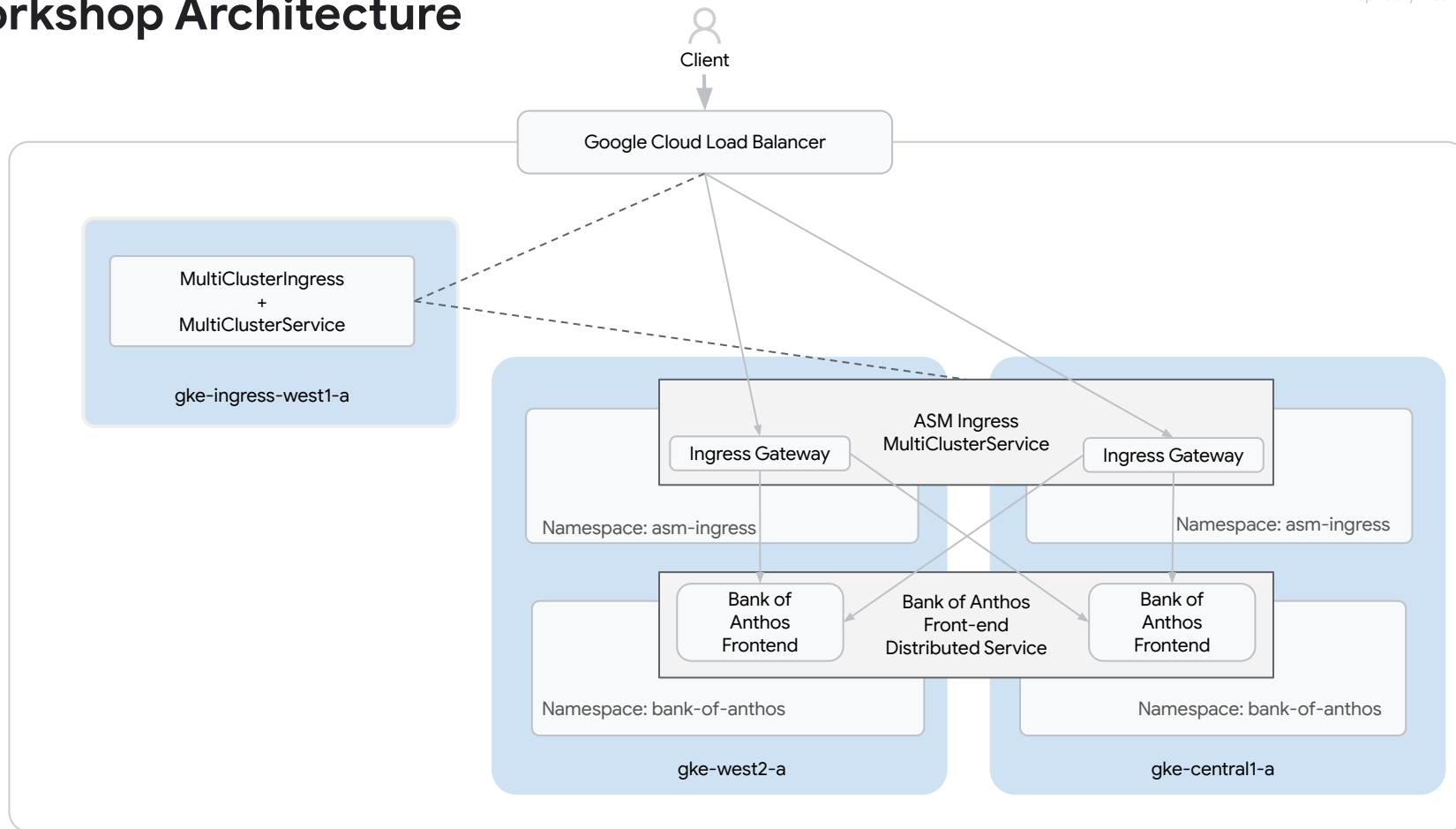


## gcloud APIs

- Enabled Anthos Service Mesh
- Enabled Anthos Config Management

# Workshop Architecture

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# Preparing for the hands on labs

1. Navigate to [goo.gle/asmworkshop](https://goo.gle/asmworkshop)
2. If you haven't already, register with your email address
3. Navigate to your assigned classroom and select **IstioCon 2022 Anthos Service Mesh (ASM) Workshop**
4. Click '**Start Lab**'



# Preparing for the hands on labs

“Open Google Console” in Incognito mode

Right click,  
Open link in incognito  
mode

← IstioCon 2022: Anthos Service Mesh (ASM) Workshop

The output is similar to:

End Lab 05:48:05

**Caution:** When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. [Learn more.](#)

Open Google Console

GCP Username  
student-04-824340f3704e

```
pod/accounts-db-0 con
pod/balancereader-76d
pod/contacts-674b7859
pod/frontend-6d869779
pod/ledger-db-0 condi
pod/ledgerwriter-b794
pod/loadgenerator-c6d
pod/transactionhistor
pod/userservice-85547
```



# Setting up ASM

# Break

---

**05:00**

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# Takeaways



## Investigate these technologies

- Anthos Service Mesh
- Anthos Config Management
- Multicluster Ingress + Service



## Follow Google Cloud

- Google Cloud Tech on Youtube
- Follow @googlecloudtech on twitter



## Get Involved with Istio

- Join the community
- Ask questions!



# Thank you.

@twitter

mikecoleman@google.com

@christineskim\_

christineskim@google.com

@twitter

nimjay@google.com

<Url >

mabenoit@google.com

## Next Steps

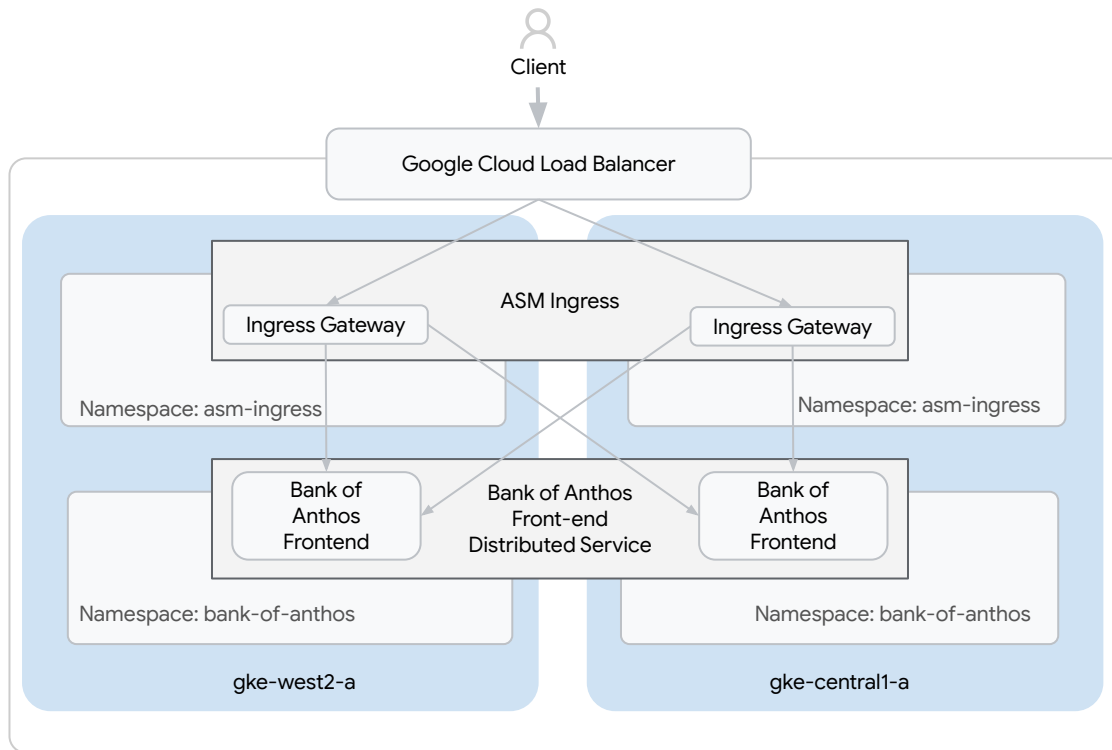
01 | **Investigate these technologies**

02 | **Follow @googlecloudtech on Twitter**

03 | **Get Involved with Istio**

# Workshop Architecture

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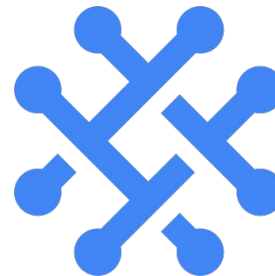




# icons



ACM



ASM

# Anthos Service Mesh (ASM)

- [Istio](#) service mesh simplifies service management:
  - Service identity, AuthN/Z, and mTLS
  - Traffic management
  - Observability
- **Anthos Service Mesh**, in turn, simplifies Istio management:
  - Managed control plane
  - Managed Certificate Authority
  - SRE dashboard with SLO management
- Support for GKE, Anthos clusters, and services deployed in Cloud Run **Preview**

