

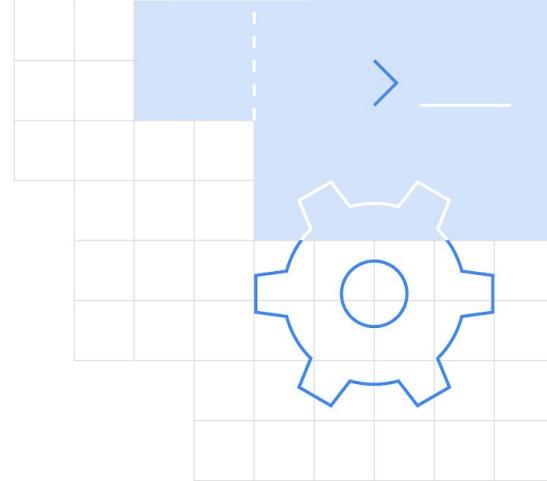
# Apps Modernization with Google Cloud

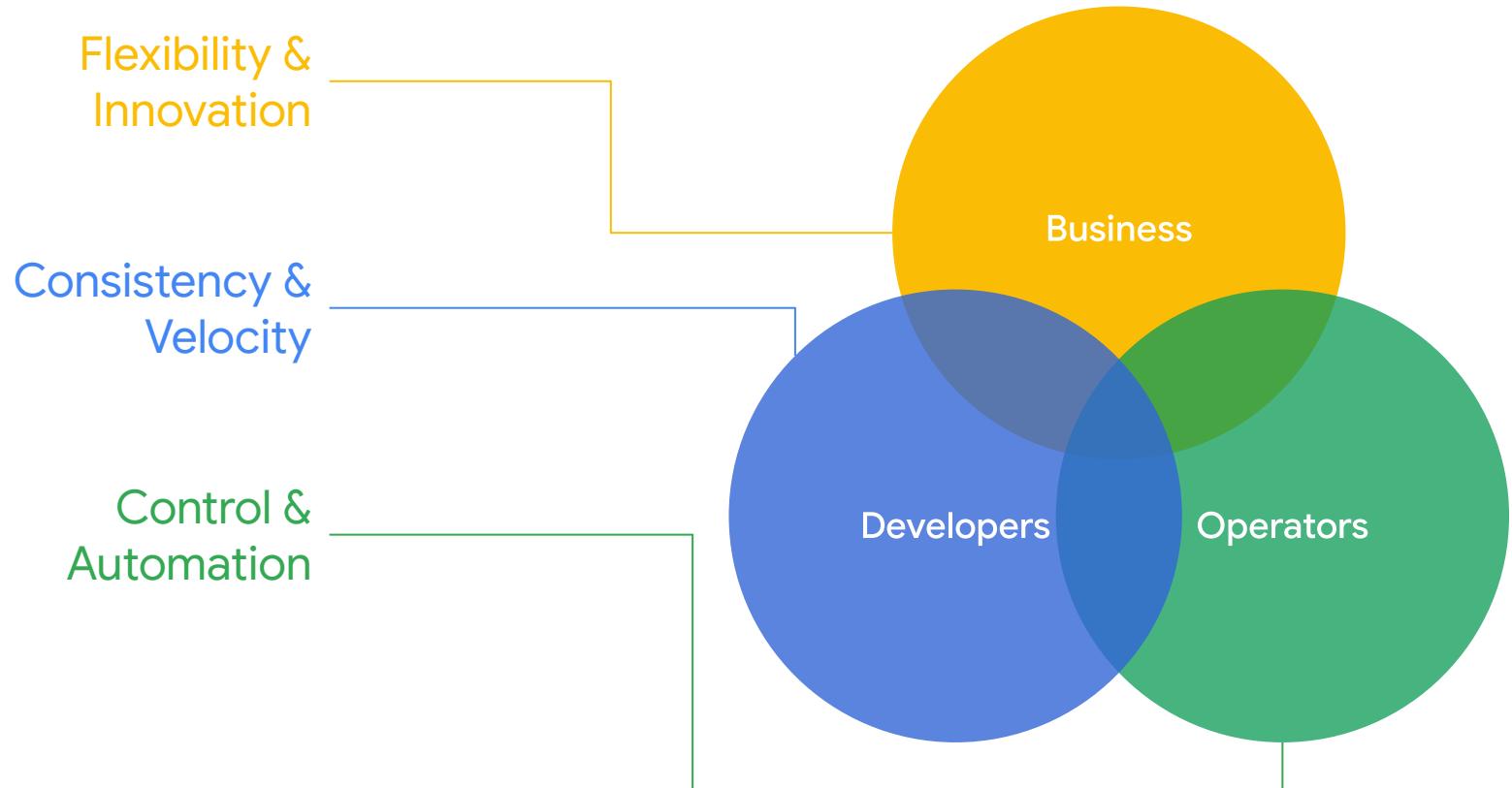


Mathieu Benoit

Customer Engineer, Google Cloud

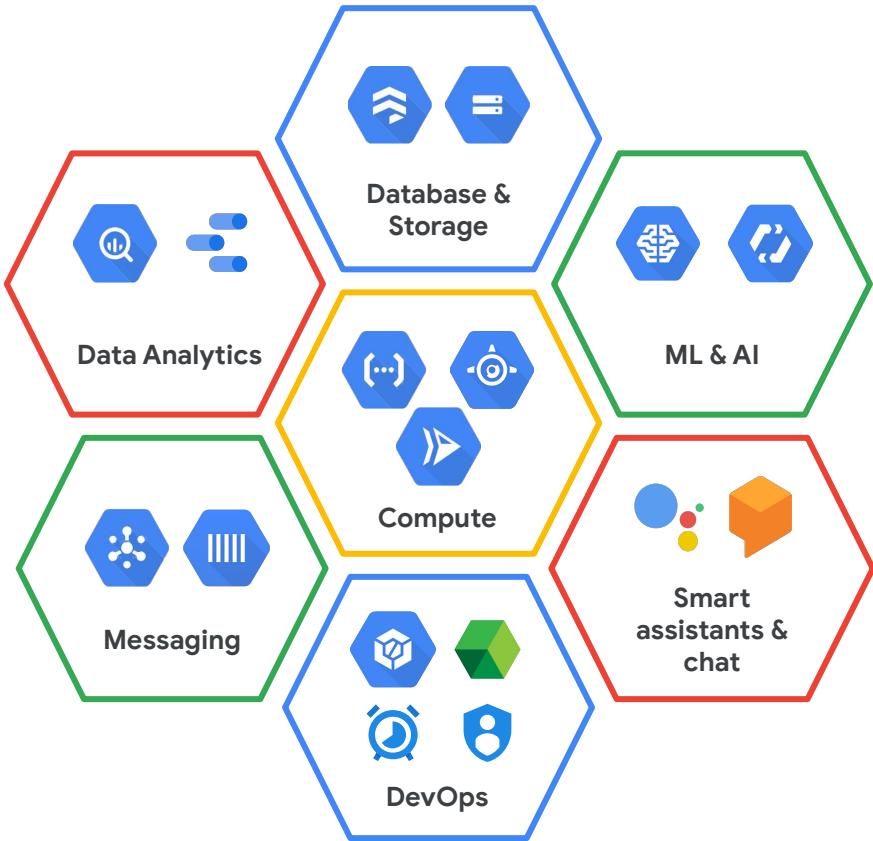
<https://alwaysupalwayson.com>



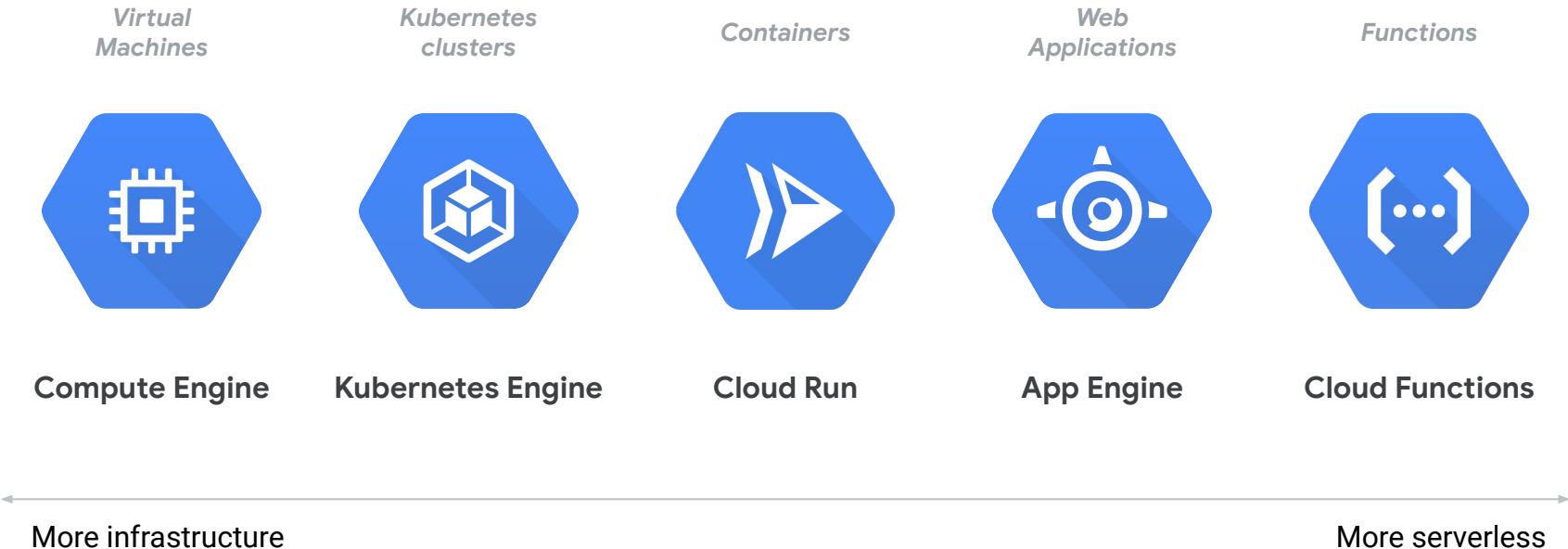


# Apps Modernization

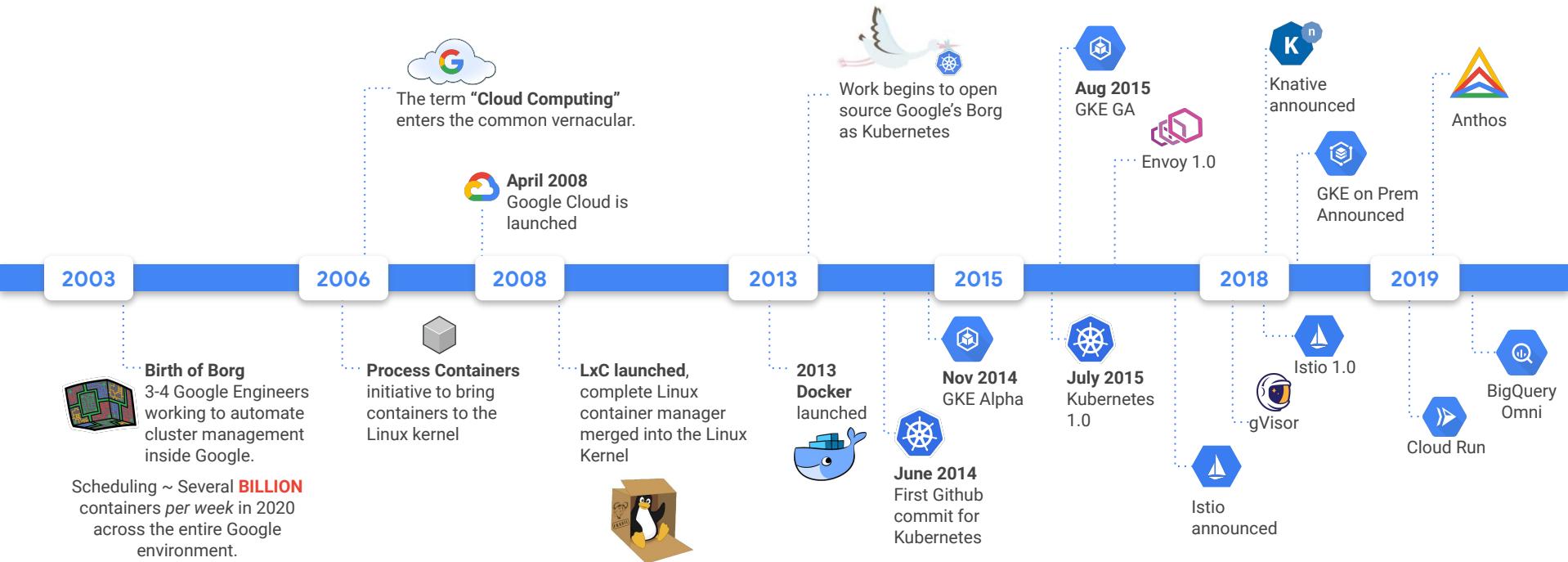
- No infrastructure to manage
- Composable architecture
- Integrated logging/monitoring
- Managed security
- Pay only for usage



# Google's “compute continuum”



# Built on a decade of experience



# App Modernization: Components and Personas



Apps developer



Apps & Platform  
Security



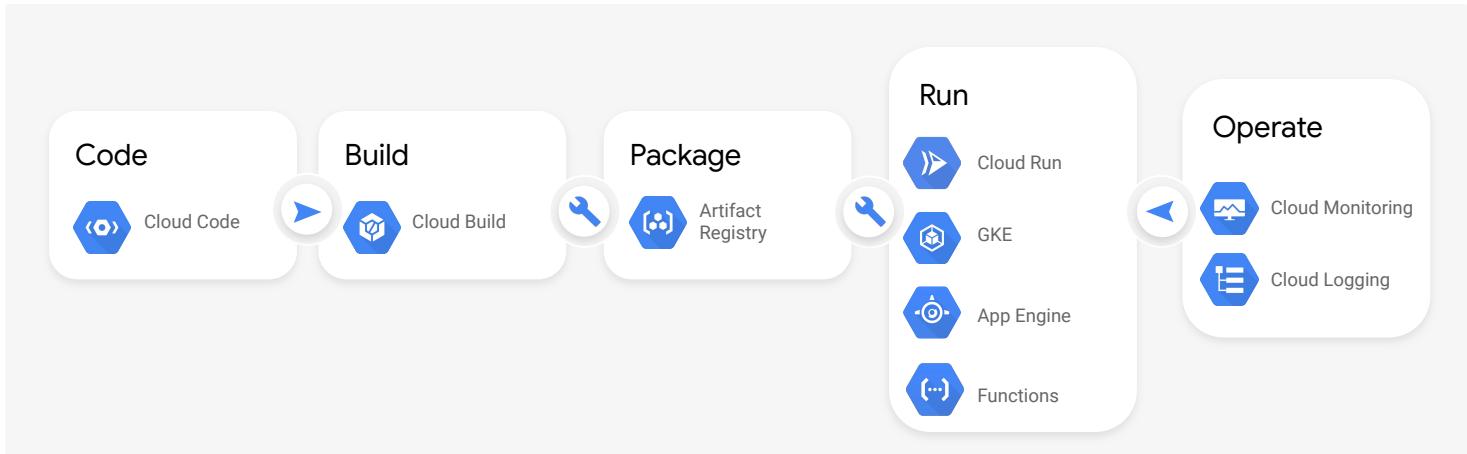
Platform Admin



Services Operator

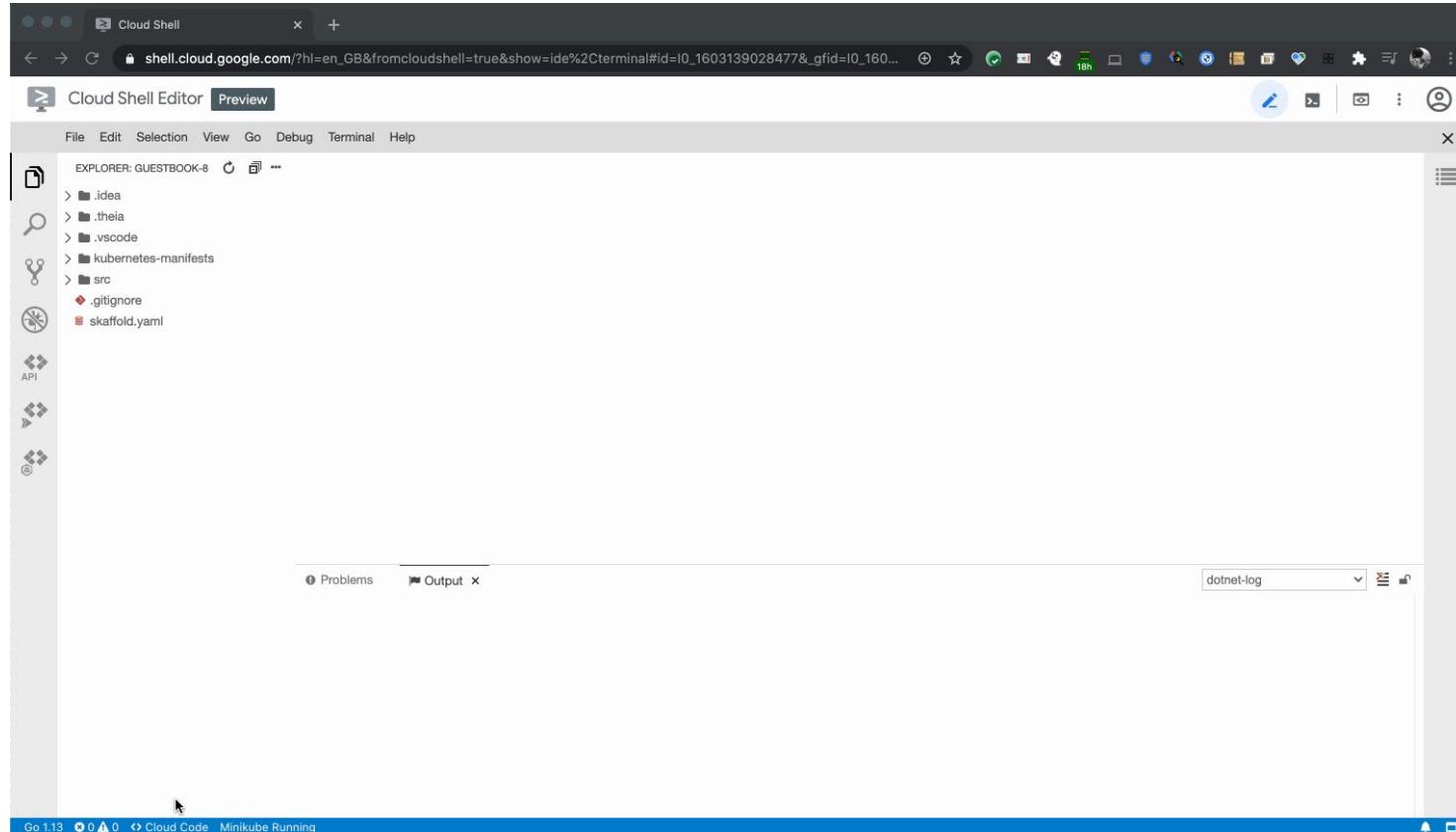


# End-to-end automation



# Developers

Build and debug cloud-native apps locally



# Platform

Simplify and orchestrate the different components and personas



## Scheduling

Decide where my containers should run

## Lifecycle and health

Keep my containers running despite failures

## Scaling

Make sets of containers bigger or smaller

## Naming and discovery

Find where my containers are now

## Load balancing

Distribute traffic across a set of containers

## Storage volumes

Provide data to containers

## Logging and monitoring

Track what's happening with my containers

## Debugging and introspection

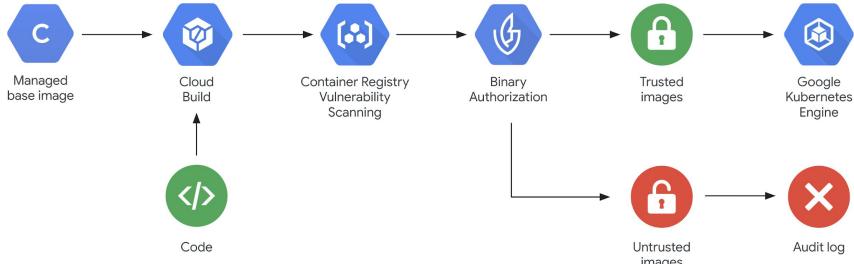
Enter or attach to containers

## Identity and authorization

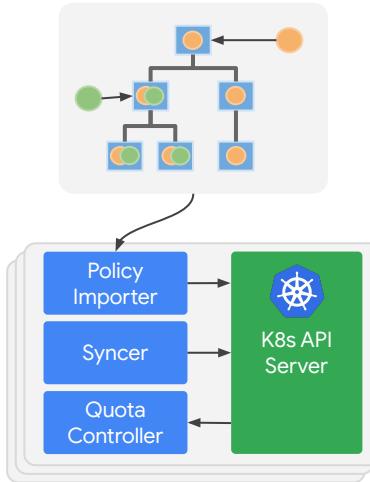
Control who can do things to my containers

# Security

Secure the software supply chain



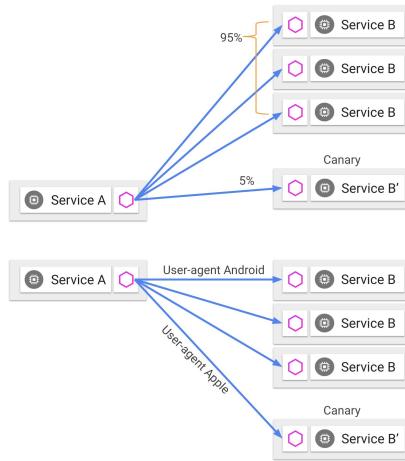
Modern software lifecycle with secure CI/CD pipeline, vulnerability scanning, and binary authorization



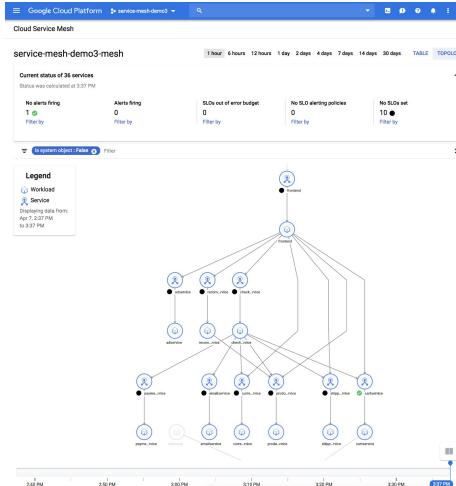
Automate security policy and configuration at scale with continuous enforcement and auditability

# Operations

Increase reliability and response time



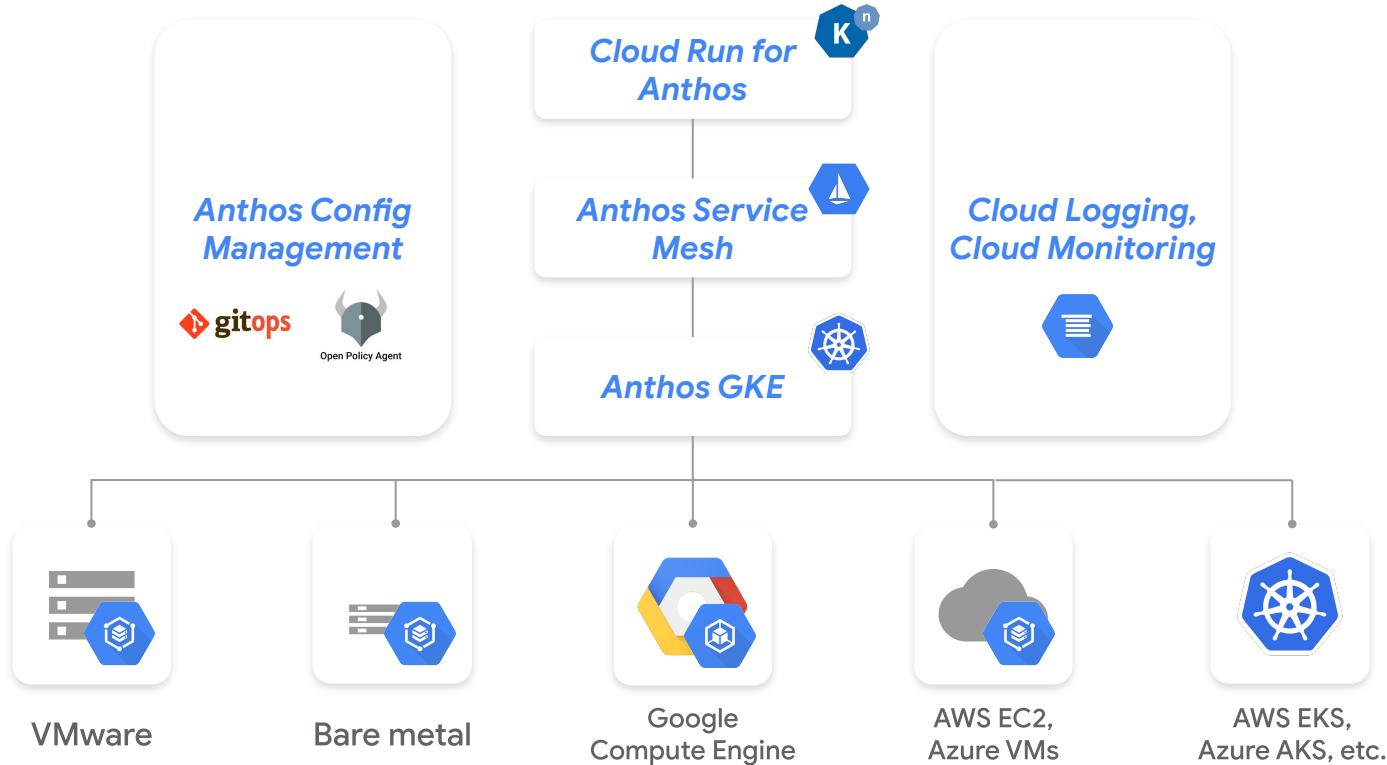
Safer and more reliable roll-outs  
enable speed with stability



Uniform observability provides  
birds-eye view, reduces time to  
detect and triage problems

# Anthos

Apply the Scale and Innovation of Google to Application Modernization



# http://4words.dev



## Google Cloud

**DEVELOPER'S CHEAT SHEET**

**V2020.4.7**  
Created by the Google Developer Relations Team  
Maintained at <https://4words.dev>

Feedback? [@4wordsdev](mailto:feedback@4words.dev)

**COMPUTE**

- Cloud Run
- Cloud Functions
- Compute Engine
- Compute Engine (GKE)
- App Engine
- Bare Metal Solution
- Cloud Functions V2
- Shielded VMs
- Scalable nodes

**STORAGE**

- Cloud Storage
- Cloud Storage for Metrics
- Cloud Disk
- Local SSD

**DATABASE**

- Cloud Spanner
- Cloud Firestore
- Cloud Memorystore
- Cloud Spanner
- Cloud SQL

**DATA AND ANALYTICS**

- RipQuery
- RipQuery BI Engine
- RipQuery Data Engineering
- Cloud Composer
- Cloud Data Fusion
- Cloud Dataflow
- Cloud Dataproc
- Cloud Datastore
- Data Catalog
- Data Studio
- Looker

**HYBRID AND MULTI-CLOUD**

- Anthos GKE
- Anthos Config Management
- Cloud Run for Anthos
- Cloud Run for Anthos Marketplace
- Cloud Run for Anthos Operations
- Cloud Build
- Traffic Director
- Argo AI Management

## AI/ML

- AI Hub
- AI Platform Data Labeling
- AI Platform Data Labeling V2s
- AI Platform Data Labeling Container
- AI Platform Notebooks
- AI Platform Pipelines
- AI Platform Predictive
- AI Platform Training
- AI Platform
- AI Platform Natural Language
- AI Platform Tables
- AI Platform Vision
- Cloud Natural Language API
- Cloud Natural Language V2 API
- Cloud Talent Solutions API
- Cloud Text-to-Speech API
- Cloud TPU
- Cloud Translation API
- Cloud Video Intelligence API
- Cloud Vision API
- Contact Center AI
- Dialogflow
- Document AI
- Datamine AI
- Recommendations AI
- Vision Product Search

## IDENTITY AND SECURITY (CONT.)

- Titan Security Key
- VPC Service Controls

## GOOGLE MAPS PLATFORM (CONT.)

- Places Library
- Maps JS API
- Places SDK for Android
- Places SDK for iOS
- Places API
- Street View State API
- Street View Time API

## G-SUITE PLATFORM

- Admin SDK
- API for Email
- Apps Script
- Calendar API
- Classroom API
- Cloud Search
- Drive API
- Drive Activity API
- Drive API
- Drive Picker
- Email Markup
- File API
- G Suite Marketplace
- General API
- Hangout Photos Beta
- People API
- Sheets API
- Slides API
- Task API
- Vault API

## MOBILE (FIREBASE)

- Cloud Firestore
- Cloud Functions for Firebase
- Cloud Messaging for Firebase
- Crash reporting and analytics
- Firebase A/B Testing
- Firebase App Distribution
- Firebase Authentication
- Firebase Dynamic Links
- Firebase Extensions
- Firebase In-App Messaging
- Firebase Performance Monitoring
- Firebase Realtime Database
- Firebase Realtime Database
- Firebase Remote Config
- Firebase Test Lab
- Google Analytics for Firebase
- M.Kit for Firebase

## ADDITIONAL RESOURCES

- Google Cloud Home Page
- Google Cloud Blog
- Google Cloud YouTube Channel
- Cloud DevTalks
- GDP Medium Publication
- Argo Blog
- Firecracker
- E Suite Developers Blog
- G Suite Developers
- G Suite Twitter
- Google Cloud Certifications
- Google Cloud Status
- Google Cloud Training
- Google Developers Blog
- Google Cloud Support Blog
- Google Open Source Blog
- Google Security Blog
- Kubernetes
- Kubernetes Blog
- Regions and Network Map

# Where to start?

Google Cloud docs

<https://cloud.google.com/docs>

Start running workloads for free

<https://cloud.google.com/free>

<ide.cloud.google.com>

[Cloud Run | Kubernetes Engine](#)

Start your K8s learning journey with hands-on training at no cost

<https://inthecloud.withgoogle.com/kubernetes-training-offer/register.html>

Introducing the Anthos Developer Sandbox—free with a Google account

<https://cloud.google.com/blog/topics/anthos/introducing-the-anthos-developer-sandbox>



Thank you!