



# Google Cloud Platform



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Google Cloud

# ¿Que es Cómputo Cloud?

Entrega de recursos de **cómputo on-demand** a través de una red (Internet).



# Cómputo Tradicional

- La información se almacena en el disco duro de un ordenador o en un servidor.
- Si el equipo falla, existe el riesgo de perder la información almacenada.
- Si se requiere un nuevo software hay que instalarlo.
- Se debe pagar por el software que se instale.
- Si se trata de un ordenador, solo se puede acceder a la información desde ese equipo.

VS

# Cloud

- La información siempre está segura
- Se puede trabajar desde cualquier lugar y en cualquier momento,
- La nube es fácil de utilizar y muy intuitiva, tiene una configuración rápida y sencilla.
- Se reduce o desaparece la inversión en software o sistemas operativos.
- El cómputo de nube ofrece recursos flexibles, virtualmente infinitos y se pueden consumir on demand en el cual pagas lo que usas.

# Cómputo Tradicional



VS

# Cloud



## OnPrem Tradicional

You Manage



## IaaS Infrastructure as a Service

You Manage

Vendor Manages



## PaaS Platform as a Service

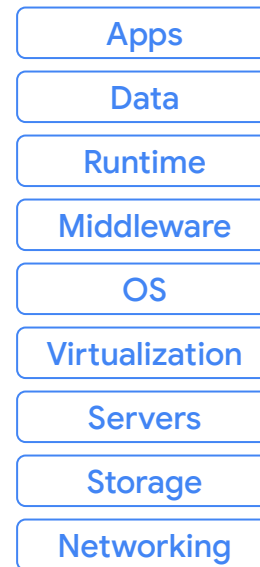
You manage

Vendor Manages



## SaaS Software as a Service

Vendor Manages



## Cloud Native

- Aplicaciones/Soluciones diseñadas para explotar las funcionalidades, dinamismo y flexibilidad de la nube

## Cloud Ready

- Aplicaciones o soluciones compatibles con la nube, no explotan todos los beneficios de vivir en una nube

## Cloud Based

- Aplicaciones o soluciones que se ejecutan en una infraestructura de nube

## Cloud Enabled

- Aplicaciones o soluciones que fueron modificados para correr en la nube pero no fueron diseñados para correr en ella

## Nube Pública

Servicios que un proveedor pone disponibles a través de internet. Los recursos de la nube son propiedad de otro proveedor.

## Nube Privada

Es una extensión del centro de datos tradicional de una empresa que se optimiza para ofrecer funcionalidad de almacenamiento y de procesamiento para una gran variedad de funciones. Es un recurso no compartido.



## Nube Híbrida

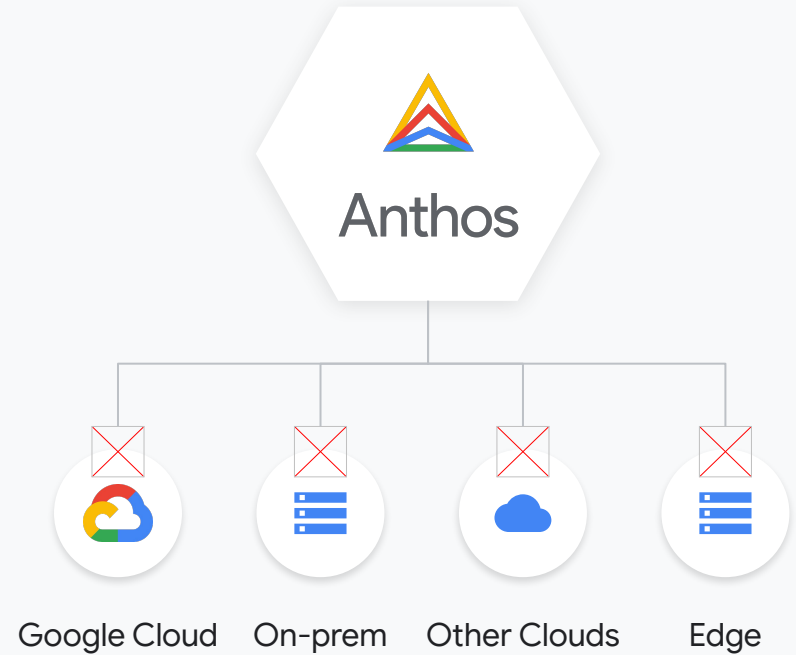


# Multi Cloud






# Estrategia Multi Cloud



# Google

Google Search

I'm Feeling Lucky

# 9 productos cloud cloud products

## Cada uno con un billon de usuarios



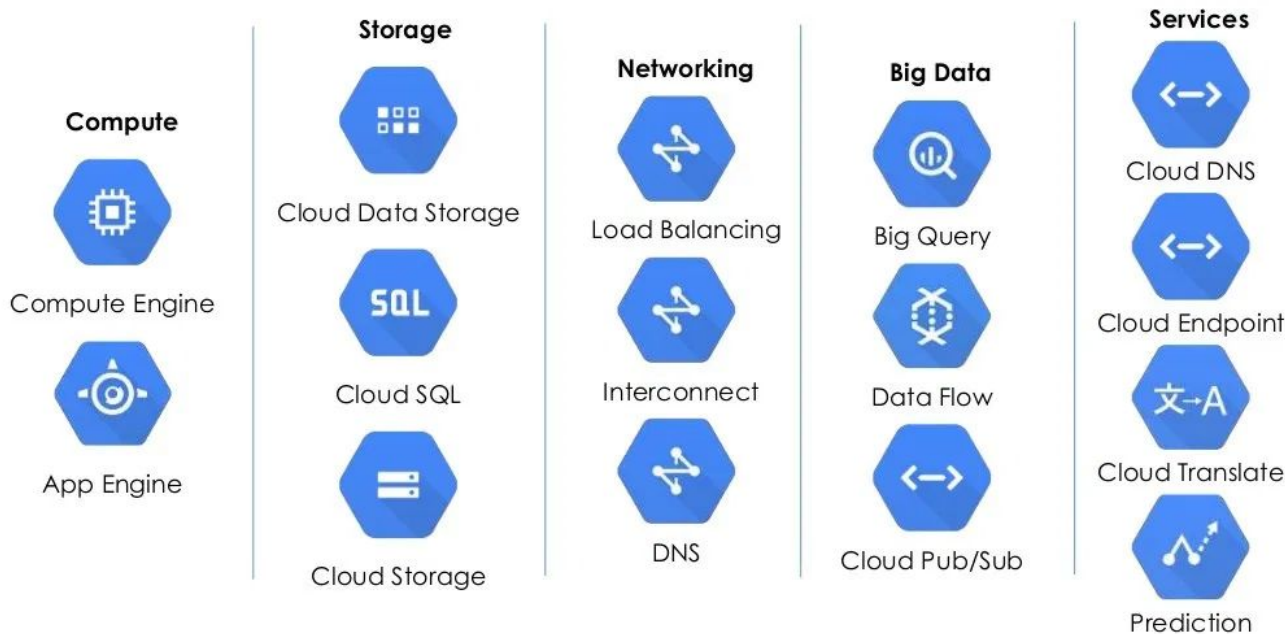


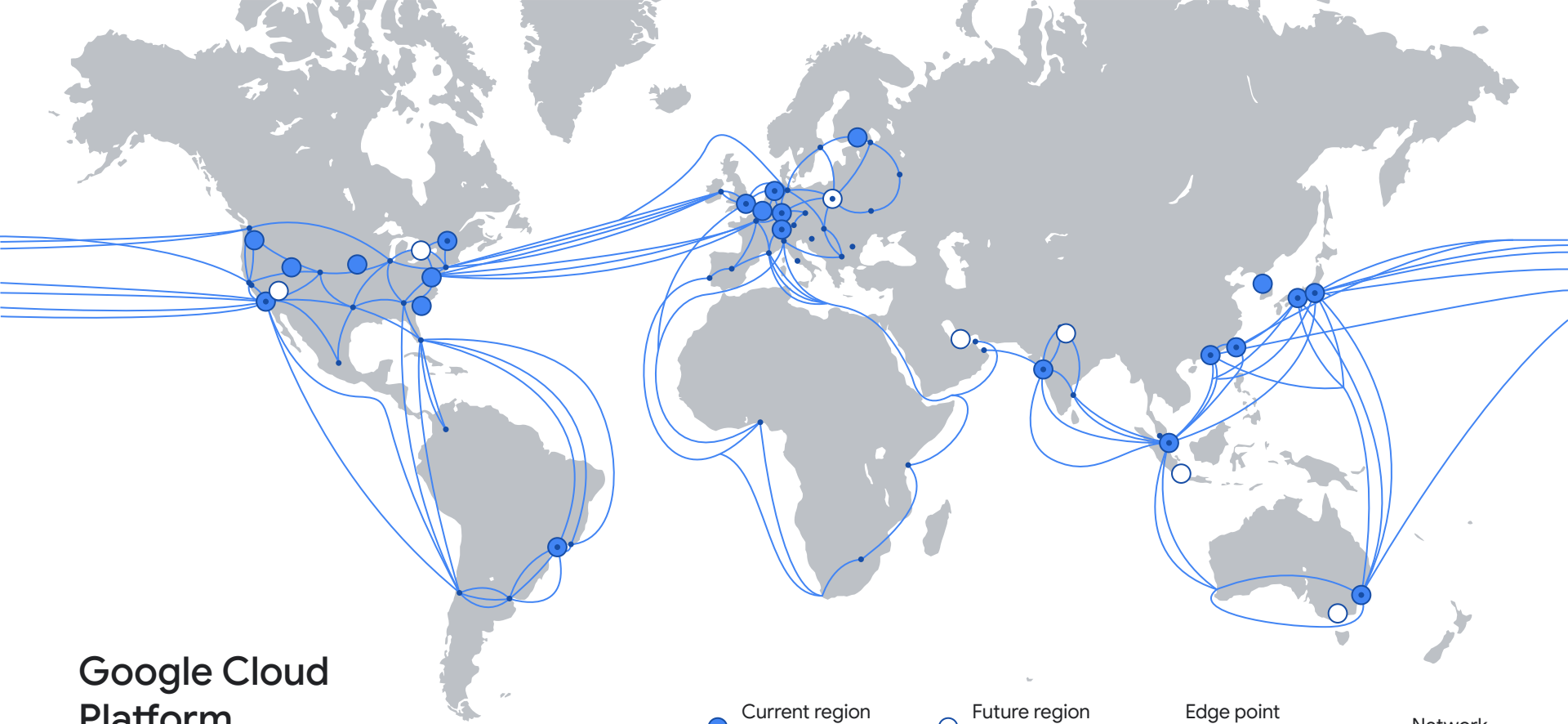
Google Cloud Platform

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



# Google Cloud Platform





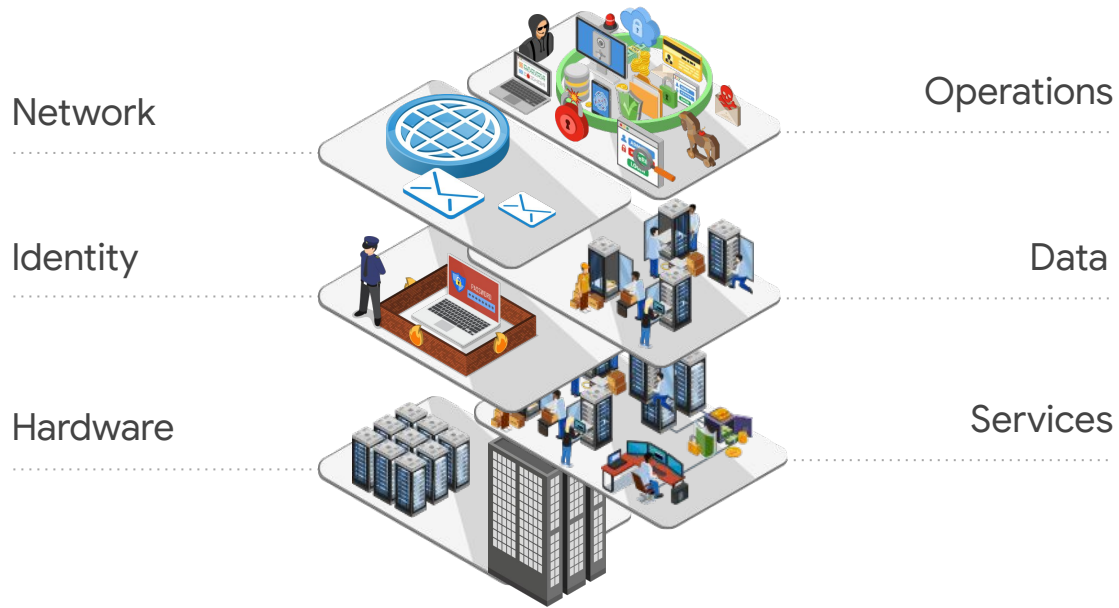
# Google Cloud Platform

- Current region with 3 zones
- Future region with 3 zones
- Edge point of presence
- Network

Regions, PoPs, and network



# Layered Defense in Depth





# Machine learning is already improving many of our products



## Search

Search ranking  
Speech recognition



## Android

Keyboard & speech input



## Play

App recommendations  
Game developer experience



## Gmail

Smart reply  
Spam classification



## Chrome

Search by image



## Drive

Intelligence in Apps



## YouTube

Video recommendations  
Better thumbnails



## Assistant

Smart connections  
across products



## Maps

Parsing local search



## Cardboard

Smart stitching



## Translate

Text, graphic and speech translation



## Photos

Photos search



# Google Cloud

DEVELOPER'S CHEAT SHEET

Every Google Cloud Service in 4 words or less



# Google Cloud

## DEVELOPER'S CHEAT SHEET

Created by the Google Developer Relations Team  
 Maintained at <https://github.com/googledevelopers/google-cloud-4-words>  
 Feedback? [#gogoramblings](#)

### COMPUTE

- App Engine: Managed app platform
- Cloud Functions: Event-driven serverless functions
- Cloud Run: Serverless for containerized applications
- Container Engine: VMs, GPUs, TPUs, Data
- Kubernetes Engine (GKE): Managed Kubernetes/containers
- Anthos: Enterprise hybrid/multi-cloud platform

### STORAGE

- Cloud Storage: Object storage and serving
- Nearline: Archival occasional access storage
- Coldline: Archival rare access storage
- Persistent Disk: VM-attached disks
- Cloud Filestore: Managed NFS server

### DATABASES

- Cloud Bigtable: Polytable scale, low latency, non-relational
- Cloud Spanner: Horizontally scalable document DB
- Cloud Firestore: Strongly consistent serverless document DB
- Cloud Memorystore: Managed Redis
- Cloud Spanner: Horizontally scalable relational DB
- Cloud SQL: Managed MySQL and PostgreSQL

### DATA AND ANALYTICS

- BigQuery: Data warehouse/analytics
- BigQuery BI Engine: In-memory analytics engine
- BigQuery ML: BigQuery model training/serving
- Cloud Composer: Managed workflow orchestration service
- Cloud Data Fusion: Graphically manage data pipelines
- Cloud Dataflow: Stream/batch data processing
- Cloud Dataprep: Managed no-code data prep
- Cloud Datastore: Managed NoSQL and hybrid
- Cloud Pub/Sub: Global real-time messaging
- Data Catalog: Metadata management service
- Data Studio: Collaborative data exploration/dashboarding
- Genomics: Managed genomics platform

### AI/ML

- AI Hub: Hosted AI component sharing
- AI Platform: Managed platform for ML
- AI Platform Data Labeling: Data labeling by humans
- AI Platform Data Labeling V2: Predefined ML for deep learning
- AI Platform Notebooks: Managed JupyterLab notebook instances
- AI Platform Training: Parallel and distributed training

- AI Platform Predictions: Autoscaled model serving
- AutoML: Natural Language
- AutoML Tables: Autoscale, Train
- AutoML Translation: Custom domain-specific translation
- AutoML Video Intelligence: Custom video annotation models
- AutoML Vision: Custom image models
- Cloud AI Building Blocks: Hosted AI component repository
- Cloud Natural Language: Text parsing and analysis
- Cloud Speech-To-Text API: Convert audio to text
- Cloud Talent Solution API: Job search with ML
- Cloud Text-To-Speech API: Convert text to audio
- Cloud Translation API: Language-detection and translation
- Cloud Video Intelligence API: Scene-level video annotation
- Cloud Vision API: Image recognition and classification
- Cloud Vision AI: Hardware acceleration for ML
- Cloud TPU: Create conversational interfaces
- Dataflow Enterprise Edition: Analyze, classify, search documents
- Document Understanding AI: Create custom recommendations
- Video Product Search: Visual search for products

### NETWORKING

- Carrier Peering: Peer through a carrier
- Direct Peering: Peer with GCP
- Dedicated Interconnect: Dedicated private network connection
- Partner Interconnect: Connect on pean network to VPC
- Cloud Armor: DDoS protection and WAF
- Cloud CDN: Content delivery network
- Cloud DNS: Programmable DNS serving
- Cloud Load Balancing: Multi-region load distribution
- Cloud NAT: Network address translation service
- Cloud VPC: Virtual private network connection
- Network Service Tiers: Multi-region load distribution
- Network Termination: Service mesh traffic management
- Traffic Director: Service-aware network management
- Google Cloud Service Mesh: Software defined networking

### INTERNET OF THINGS (IoT)

- Cloud IoT Core: Device management and ingest data

### IDENTITY AND SECURITY

- Access Transparency: Audit cloud provider access
- Energy Authorization: Audit trails for GCP
- Cloud Audit Logs: Audit trail for GCP
- Cloud Data Loss Prevention API: Classify and redact sensitive data
- Cloud IAM: Hardware security module service
- Cloud IAM: Resource access control
- Cloud Identity: Manage users, devices & apps
- Cloud Identity-Aware Proxy: Identity-based app sign-in
- Cloud Key Management Service: Hosted key management service
- Cloud Keyring: Metadata management
- Cloud Security Scanner: App engine security scanner
- Cloud Security Command Center: Asset inventory, discovery, search, management
- Container Security: Container attack-based access control
- Event Threat Detection: Scan for suspicious activity
- Security Key Enforcement: Two-factor key verification
- Shielded VMs: Hardened VMs
- Trust Security Key: Two-factor authentication (2FA) device
- VPN Service: Connect VPC

### MANAGEMENT TOOLS

- Cloud APIs: APIs for cloud services
- Cloud Billing: Billing and cost management tools
- Cloud Billing API: Programmatically manage GCP billing
- Cloud Console: Web-based management console
- Cloud Deployment Manager: Templated infrastructure deployment
- Cloud Mobile App: iOS/Android GCP manager app

- Cloud Shell: Browser-based terminal/CLI
- Stackdriver Debugger: Live production debugging
- Stackdriver Error Reporting: App error reporting
- Stackdriver Logging: Centralized logging
- Stackdriver Monitoring: Infrastructure and application monitoring
- Stackdriver Profiler: CPU and heap profiling
- Stackdriver Trace: Monitor GCP services
- Stackdriver Tracing: App performance insights

### DEVELOPER TOOLS

- Cloud SDK: CLI for GCP
- Cloud Build: Continuous integration/delivery platform
- Cloud Code: Cloud native IDE extensions
- Cloud Source Repositories: Hosted private git repos
- Cloud Build: Managed CI/CD pipeline
- Cloud Tasks: Asynchronous task execution
- Cloud Tools for IntelliJ: IntelliJ GCP tool
- Cloud Tools for PowerShell: PowerShell GCP tools
- Cloud Tools for Visual Studio: Visual Studio GCP tools
- Cloud Tools for Eclipse: Eclipse GCP tools
- Container Registry: Private container registry/storage
- Gradle App Engine Plugin: Gradle App Engine plugin
- Maven App Engine Plugin: Maven App Engine plugin

### MIGRATION TO GCP

- Cloud Data Transfer: data migration tools/CLI
- Google Transfer Appliance: Terabyte data transport box
- Cloud Storage Transfer Service: Cloud to cloud transfers
- BigQuery Data Transfer Service: Bulk import analytics data
- Migrate from Redshift to BigQuery: Migrate from Amazon Redshift
- Migrate from Teradata to BigQuery: Migrate from Teradata to BigQuery
- Migrate to Anthos: Migrate from Redshift to BigQuery
- Migrate from SAP to Google Cloud: SAP migration tools
- VM Migration: VM migration tools

### API PLATFORM AND ECOSYSTEMS

- API Analytics: API metrics
- API Monetization: Monetize APIs
- Apigee API Platform: Develop, secure, monitor APIs
- Apigee Sense: API protection from attacks
- Apigee Hybrid: Manage hybrid/multi-cloud API environments
- Cloud Endpoints: Cloud API gateway
- Cloud Healthcare API: Healthcare system GCP interoperability
- Developer Portal: API management portal
- GCP Marketplace: Partner & open source marketplace

### GOOGLE MAPS PLATFORM

- Directions API: Get directions between locations
- Distance Matrix API: Calculate travel times
- Geocoding API: Convert address to/from coordinates
- Geolocation API: Device location without GPS
- Maps Embed API: Web embedded maps
- Maps JavaScript API: Dynamic web maps
- Maps SDK for Android: Maps SDK for Android
- Maps SDK for iOS: Maps SDK for iOS
- Maps Static API: Web static maps
- Maps Unity SDK: Unity SDK for games
- Maps SDK for Maps: SDK scheme for maps
- Places API: Metadata about places (REST)
- Places Library: Metadata about places (JavaScript)
- Places SDK for Android: Places SDK for Android
- Places SDK for iOS: Places SDK for iOS
- Routes API: Metadata about roads
- Street View Static API: Static street view images
- Street Viewpegman API: Interactive street view images
- Time Zone API: Convert coordinates to timezone

### G SUITE PLATFORM

- App Maker: Assisted app building
- Apps Script: Extend and automate everything
- Editor Add-ons: Editors, Sheets, Slides
- Google Adwords: Contextual apps in Gmail
- Hangouts Chat Bots: Conversational bots in chat
- Calendar API: Create and manage calendars
- Classroom API: Provision and manage classrooms
- Docs API: Create and edit documents
- Drive API: Read and write files
- Enhance Gmail: Enhance Gmail
- Gmail API: Read and write spreadsheets
- Sheets API: Create and edit presentations
- Drive Picker: Drive file selection widget
- Cloud Search: Unified search for enterprise
- Admin SDK: Manage G Suite resources
- Email Markup: Interactive email using schemas.org
- G Suite Marketplace: Marketplace for integrated applications
- Other G Suite APIs/SDKs: Contacts, Google+, Tasks, Vault...

### MOBILE (FIREBASE)

- Cloud Firestore: Document store and sync
- Cloud Functions for Firebase: Event-driven serverless applications
- Cloud Storage for Firebase: Object storage and serving
- Analytics: Crash reporting and analytics
- Firestore A/B Testing: Create A/B test experiments
- Firestore Auth: Auth/Google search integration
- Firestore Authentication: OAuth authentication
- Firestore Cloud Messaging: Send device notifications
- Firestore Dynamic Links: Link to app content
- Firestore Hosting: Web hosting with CDN/SSL
- Firestore In-App Messaging: Send in-app contextual messages
- Firestore Performance Monitoring: App performance monitoring
- Firestore Predictions: Predict user targeting
- Firestore Realtime Database: Real-time data synchronization
- Firestore Remote Config: Remotely configure installable apps
- Firestore Test Lab: Mobile testing device farm
- ML Kit for Firebase: Mobile app analytics
- ML Kit for Firebase: ML Kit for Firebase

### GCP FOUNDATIONAL OPEN SOURCE PROJECTS

- Apache Beam: Batch/streaming data processing
- gRPC: RPC framework
- gvisor: Secure container runtime
- Istio: Service mesh
- Serverless Framework: Serverless framework for Kubernetes
- Knative: Kubernetes management of containerized applications
- OpenCensus: Cloud native observability framework
- ML Framework: ML framework

### ADDITIONAL RESOURCES

- Google Cloud Home Page: [cloud.google.com](https://cloud.google.com)
- Google Cloud Blog: [cloud.google.com/blog](https://cloud.google.com/blog)
- GCP Medium Publication: [medium.com/google-cloud](https://medium.com/google-cloud)
- Apigee Blog: [apigee.com/about/apigee](https://apigee.com/about/apigee)
- Firestore Blog: [firebase.google.com/blog](https://firebase.google.com/blog)
- G Suite Developers Blog: [gsuite-developers.googleblog.com](https://gsuite-developers.googleblog.com)
- Google Cloud Certifications: [cloud.google.com/certification](https://cloud.google.com/certification)
- Google Cloud System Status: [status.cloud.google.com](https://status.cloud.google.com)
- Google Cloud Training: [cloud.google.com/training](https://cloud.google.com/training)
- Google Developers Blog: [developers.googleblog.com](https://developers.googleblog.com)
- Google Maps Platform Blog: [mapsplatform.googleblog.com](https://mapsplatform.googleblog.com)
- Google Open Source Blog: [opensource.googleblog.com](https://opensource.googleblog.com)
- Google App Engine Blog: [security.googleblog.com](https://security.googleblog.com)
- Google Home Page: [www.google.com](https://www.google.com)
- Kubernetes Blog: [kubernetes.io/blog](https://kubernetes.io/blog)
- Regions and Network Map: [cloud.google.com/about/locations](https://cloud.google.com/about/locations)

# http://4words.dev



¡Gracias!

Google Cloud



Q&A

Google Cloud

“I’m trying to ~~find ways to make it~~ **find ways to make it** “exist.”s.”