



# Google Cloud

## DEVELOPER'S CHEAT SHEET

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

Feedback? [@pvergadia](#) [@GoogleCloudTech](#)

Google Transfer Appliance  
Storage Transfer Service  
Migrate for Anthos  
Migrate for Compute Engine  
Migrate from Amazon Redshift  
Migrate from Teradata  
Cloud Foundation Toolkit  
KF

Rentable data transport box  
Online/on-premises data transfer  
Migrate VMs to GKE containers  
Compute Engine migration tools  
Migrate from Redshift to BigQuery  
Migrate from Teradata to BigQuery  
Infrastructure as Code templates  
Cloud Foundry to Kubernetes

### GOOGLE MAPS PLATFORM

Directions API	Get directions between locations
Distance Matrix API	Multi-origin/destination travel times
Geocoding API	Convert address to/from coordinates
Geolocation API	Derive location without GPS
Maps Embed API	Display iframe embedded maps
Maps JavaScript API	Dynamic web maps
Maps SDK for Android	Maps for Android apps
Maps SDK for iOS	Maps for iOS apps
Maps Static API	Display static map images
Maps SDK for Unity	Unity SDK for games
Maps URLs	URL scheme for maps
Places API	Rest-based Places features
Places Library, Maps JS API	Places features for web
Places SDK for Android	Places features for Android
Places SDK for iOS	Places feature for iOS
Roads API	Convert coordinates to roads
Street View Static API	Static street view images
Street View Service	Street view for JavaScript
Time Zone API	Convert coordinates to timezone

### WORKSPACE PLATFORM

Admin SDK	Manage Google Workspace resources
AMP for Email	Dynamic interactive email
Apps Script	Extend and automate everything
Calendar API	Create and manage calendars
Classroom API	Provision and manage classrooms
Cloud Search	Unified search for enterprise
Docs API	Create and edit documents
Drive Activity API	Retrieve Google Drive activity
Drive API	Read and write files
Drive Picker	Drive file selection widget
Email Markup	Interactive email using schema.org
Google Workspace Add-ons	Extend Google Workspace apps
Google Workspace Marketplace	Storefront for integrated applications
Gmail API	Enhance Gmail
Google Chats API	Conversational bots in chat
People API	Manage user's Contacts
Sheets API	Read and write spreadsheets
Slides API	Create and edit presentations
Task API	Search, read & update Tasks
Vault API	Manage your organization's eDiscovery

### MOBILE (FIREBASE)

Cloud Firestore	Document store and sync
Cloud Functions for Firebase	Event-driven serverless applications
Cloud Storage for Firebase	Object storage and serving
Crashlytics	Crash reporting and analytics
Firebase A/B Testing	Create A/B test experiments
Firebase App Distribution	Trusted tester early access
Firebase Authentication	Drop-in authentication

Firebase Cloud Messaging	Send device notifications
Firebase Dynamic Links	Link to app content
Firebase Extensions	Pre-packaged development solutions
Firebase Hosting	Web hosting with CDN/SSL
Firebase In-App Messaging	Send in-app contextual messages
Firebase Performance Monitoring	App/web performance monitoring
Firebase Predictions	Predict user targeting
Firebase Realtime Database	Real-time data synchronization
Firebase Remote Config	Remotely configure installed apps
Firebase Test Lab	Mobile testing device farm
Google Analytics for Firebase	Mobile app analytics
ML Kit for Firebase	ML APIs for mobile

### ADDITIONAL RESOURCES

Google Cloud Home Page	<a href="https://cloud.google.com">cloud.google.com</a>
Google Cloud Blog	<a href="https://cloud.google.com/blog">cloud.google.com/blog</a>
Google Cloud Platform Podcast	<a href="https://gcppodcast.com">gcppodcast.com</a>
Kubernetes Podcast from Google	<a href="https://kubernetespodcast.com">kubernetespodcast.com</a>
Google Cloud Reader	<a href="https://podcasts.google.com">podcasts.google.com</a>
Google Cloud Open Source	<a href="https://opensource.google/projects/list/cloud">opensource.google/projects/list/cloud</a>
GCP Medium Publication	<a href="https://medium.com/google-cloud">medium.com/google-cloud</a>
Apigee Blog	<a href="https://apigee.com/about/blog">apigee.com/about/blog</a>
Firebase Blog	<a href="https://firebase.googleblog.com">firebase.googleblog.com</a>
Google Workspace Developers Blog	<a href="https://gsuite-developers.googleblog.com">gsuite-developers.googleblog.com</a>
Google Workspace GitHub	<a href="https://github.com/gsuitedevs">github.com/gsuitedevs</a>
Google Workspace Twitter	<a href="https://twitter.com/gsuitedevs">twitter.com/gsuitedevs</a>
Google Cloud Certifications	<a href="https://cloud.google.com/certification">cloud.google.com/certification</a>
Google Cloud System Status	<a href="https://status.cloud.google.com">status.cloud.google.com</a>
Google Cloud Training	<a href="https://cloud.google.com/training">cloud.google.com/training</a>
Google Developers Blog	<a href="https://developers.googleblog.com">developers.googleblog.com</a>
Google Maps Platform Blog	<a href="https://mapsplatform.googleblog.com">mapsplatform.googleblog.com</a>
Google Open Source Blog	<a href="https://opensource.googleblog.com">opensource.googleblog.com</a>
Google Security Blog	<a href="https://security.googleblog.com">security.googleblog.com</a>
Kaggle Home Page	<a href="https://www.kaggle.com">www.kaggle.com</a>
Kubernetes Blog	<a href="https://kubernetes.io/blog">kubernetes.io/blog</a>
Regions and Network Map	<a href="https://cloud.google.com/about/locations">cloud.google.com/about/locations</a>
DORA - Software & Delivery Research	<a href="https://cloud.google.com/devops">cloud.google.com/devops</a>
Cloud Security Podcast	<a href="https://cloud.withgoogle.com/cloudsecurity/podcast">cloud.withgoogle.com/cloudsecurity/podcast</a>
GCP Sketchnote	<a href="https://goo.gle/gcpsketchnote">goo.gle/gcpsketchnote</a>
Google Cloud Solutions Library	<a href="https://cloud.google.com/solutions">cloud.google.com/solutions</a>
Google Workspace Solutions Gallery	<a href="https://developers.google.com/gsuite/solutions">developers.google.com/gsuite/solutions</a>
Google Cloud Support Hub	<a href="https://cloud.google.com/support-hub">cloud.google.com/support-hub</a>
GCP Pricing	<a href="https://cloud.google.com/pricing">cloud.google.com/pricing</a>
GCP Pricing Calculator	<a href="https://cloud.google.com/products/calculator">cloud.google.com/products/calculator</a>
Qwiklabs Home Page	<a href="https://www.qwiklabs.com">www.qwiklabs.com</a>
Codelabs Home Page	<a href="https://codelabs.developers.google.com">codelabs.developers.google.com</a>
<b>Reddit - <a href="https://www.reddit.com/">www.reddit.com/</a></b>	
Googlecloud	<a href="https://r/googlecloud">/r/googlecloud</a>
AppEngine	<a href="https://r/AppEngine">/r/AppEngine</a>
BigQuery	<a href="https://r/bigquery">/r/bigquery</a>
Dataflow	<a href="https://r/dataflow">/r/dataflow</a>
Firebase	<a href="https://r/firebase">/r/firebase</a>
Google Apps Script	<a href="https://r/GoogleAppsScript">/r/GoogleAppsScript</a>
Big Data/Data Analytics Comparisons	<a href="https://cloud.google.com/products/big-data">cloud.google.com/products/big-data</a>
Compute Product Comparisons	<a href="https://cloud.google.com/products/databases">cloud.google.com/products/databases</a>
Database Product Comparisons	<a href="https://cloud.google.com/products/compute">cloud.google.com/products/compute</a>
Networking Product Comparisons	<a href="https://cloud.google.com/products/networking">cloud.google.com/products/networking</a>
Storage Product Comparisons	<a href="https://cloud.google.com/products/storage">cloud.google.com/products/storage</a>

### COMPUTE

Cloud Functions	Event-driven serverless functions
App Engine	Managed app platform
Cloud Run	Serverless for containerized applications
Kubernetes Engine (GKE)	Managed Kubernetes/containers
Compute Engine	VMs, GPUs, TPUs, Disks
Bare Metal Solution	Hardware for specialized workloads
Preemptible VMs	Short-lived compute instances
Shielded VMs	Hardened VMs
Sole-tenant Nodes	Dedicated physical servers
VMware Engine	VMware on Compute Engine

### STORAGE

Cloud Filestore	Managed NFS server
Cloud Storage	Multi-class multi-region object storage
Persistent Disk	Block storage for VMs
Local SSD	VM locally attached SSDs

### DATABASE

Cloud Bigtable	Petabyte-scale, low-latency, non-relational
Cloud Firestore	Serverless NoSQL document DB
Cloud Memorystore	Managed Redis and Memcached
Cloud Spanner	Horizontally scalable relational DB
Cloud SQL	Managed MySQL, PostgreSQL, SQL Server
Database Migration Service	Migrate to Cloud SQL
DB Insights	SQL Inspector

### DATA ANALYTICS

BigQuery	Data warehouse/analytics
BigQuery BI Engine	In-memory analytics engine
BigQuery ML	BigQuery model training/serving
BigQuery GIS	BigQuery geospatial functions/support
BigQuery DTS	Automated data ingestion service
Connected Sheets	Spreadsheet interface for (big)data
Cloud Composer	Managed workflow orchestration service
Data Fusion	Graphically manage data pipelines
Dataflow	Stream/batch data processing
Dataprep by Trifacta	Visual data wrangling
Dataproc	Managed Spark and Hadoop

Datastream	Change data capture/replication service
Pub/Sub	Global real-time messaging
Data Catalog	Metadata management service
Data Studio	Collaborative data exploration/dashboarding
Looker	Enterprise BI and Analytics
Public Datasets	Hosted data in BigQuery/GCS

## HYBRID AND MULTI-CLOUD

Anthos	Enterprise hybrid/multi-cloud platform
Anthos Clusters	Hybrid/on-prem Kubernetes Engine
Anthos Config Management	Policy and security automation
Anthos Service Mesh	Managed service mesh (Istio)
Cloud Run for Anthos	Serverless development for Anthos
GCP Marketplace for Anthos	Pre-configured containerized apps
Migrate for Anthos	Migrate VMs to Kubernetes Engine
Operations	Monitoring, logging, troubleshooting
Traffic Director	Service mesh traffic management
Apigee API Management	API management, development, security

## AI/ML

Vertex AI	Managed platform for ML
AutoML	Custom low-code models AI Platform
Vertex AI Data Labeling	Data labeling by humans
Deep Learning VM Images (DLVM)	Preconfigured VMs for deep learning
Vertex AI Workbench	Jupyter-based environment for Data Science
Vertex AI Deep Learning Containers	Preconfigured containers for deep learning
Vertex AI Matching Engine	Vector similarity searches
Vertex AI Pipelines	Hosted ML workflows
Vertex AI Predictions	Autoscaled model serving
Vertex AI Training	Distributed AI training
Vertex AI Edge Manager	Deploy monitor edge inferences
Vertex Explainable AI	Understand ML model predictions
Vertex AI Feature Store	Managed ML feature repository
Vertex ML Metadata	Artifact, lineage, and execution tracking
Vertex AI Model Monitoring	Monitor models for skew/drift
Vertex AI Tensorboard	Managed TensorBoard for ML-experiment Visualization
Vertex AI Vizier	Black-box hyperparameter tuning
Cloud Speech-To-Text API	Convert audio to text
Cloud Talent Solutions API	Job search with ML
Cloud Text-To-Speech API	Convert text to audio
Cloud TPU	Hardware acceleration for ML
Cloud Translation API	Language detection and translation
Cloud Video Intelligence API	Scene-level video annotation
Cloud Vision API	Image recognition and classification
Contact Center AI	AI in your contact center
Dialogflow	Create conversational interfaces
Document AI	Analyze, classify, search documents
Recommendations AI	Create custom recommendations
Vision 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-prem 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/balancing
Cloud NAT	Network address translation service

Cloud Router	VPC/on-prem network route exchange (BGP)
Cloud VPN (HA)	VPN (Virtual private network connection)
Network Service Tiers	Price vs performance tiering
Network Telemetry	Network telemetry service
Traffic Director	Service mesh traffic management
Google Cloud Service Mesh	Service-aware network management
Virtual Private Cloud	Software defined networking
VPC Service Controls	Security perimeters for API-based services
Network Intelligence Center	Network monitoring and topology

## IDENTITY AND SECURITY

Access Transparency	Audit cloud provider access
Assured Workloads	Workload compliance controls
Binary Authorization	Kubernetes deploy-time security
Certificate Authority Service	Managed private CAs
Cloud Asset Inventory	All assets, one place
Cloud Audit Logs	Audit trails for GCP
Cloud DLP	Classify and redact sensitive data
Cloud HSM	Hardware security module service
Cloud EKM	External keys you control
Cloud IAM	Resource access control
Cloud Identity	Manage users, devices & apps
Cloud Identity-Aware Proxy	Identity-based app access
Cloud KMS	Hosted key management service
Cloud Resource Manager	Cloud project metadata management
Security Command Center	Security management & data risk platform
Cloud Security Scanner	App engine security scanner
Confidential Computing	Encrypt data in-use
Context-aware Access	End-user attribute-based access control
Event Threat Detection	Scans for suspicious activity
Managed Service for Microsoft Active Directory	Managed Microsoft Active Directory
Secret Manager	Store and manage secrets
Security Key Enforcement	Two-step key verification
Shielded VMs	Hardened VMs
Titan Security Key	Two-factor authentication (2FA) device
VPC Service Controls	VPC data constraints
Chronicle	Find threats from security telemetry
VirusTotal	Research/hunt for Malware
Risk Manager	Evaluate organization's security posture
reCAPTCHA Enterprise	Protection against bot/spam/abuse
BeyondCorp Enterprise	Zero trust secure access
Access Context Manager	Fine-grained, attribute based access-control
Web Security Scanner	Identifies web-app security vulnerabilities

## OPERATIONS & MONITORING

Cloud Debugger	Live production debugging
Error Reporting	App error reporting
Cloud Logging	Centralized logging
Cloud Monitoring	Infrastructure and application monitoring
Cloud Profiler	CPU and heap profiling
Cloud Trace	App latency insights

## DEVOPS CI/CD

Cloud Build	Continuous integration/delivery platform
Cloud Deploy	Deployment pipeline for GKE
Artifact Registry	Universal package manager
Cloud Source Repositories	Hosted private git repos
Container Registry	Private container registry/storage

## APPLICATION INTEGRATION

Eventarc	Event-driven Cloud Run services
Cloud Scheduler	Managed cron job service
Cloud Tasks	Asynchronous task execution
Cloud Workflows	HTTP services orchestration
Pub/Sub	Global real-time messaging

## API PLATFORM AND ECOSYSTEMS

API Analytics	API metrics
API Monetization	Monetize APIs
Apigee API Platform	Develop, secure, monitor APIs
API Gateway	Fully managed API Gateway
Apigee Hybrid	Manage hybrid/multi-cloud API environments
Apigee Sense	API protection from attacks
Cloud Endpoints	Cloud API gateway
Developer Portal	API management portal
Marketplace	Partner & open source marketplace
AppSheet	No-code App creation

## INTERNET OF THINGS (IOT)

Cloud IoT Core	Manage devices, ingest data
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## GAMING

Google Cloud Game Servers	Orchestrate Agones clusters
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## HEALTHCARE

Cloud Healthcare API	Healthcare system GCP interoperability
Apigee Healthcare APIx	Healthcare system GCP interoperability
Healthcare Natural Language AI	Real-time insights from media-text
Cloud Life Sciences	Manage, process, transform biomedical-data

## RETAIL

Vision Product Search	Visual search for products
Recommendations AI	Create custom recommendations
Visual Inspection AI	Train/deploy models to detect defects

## MANAGEMENT TOOLS

VM Manager	Manage OS VM Fleets
Cloud APIs	APIs for cloud services
Cloud Billing API	Programmatically manage GCP billing
Cloud Billing	Billing and cost management tools
Cloud Console	Web-based management console
Cloud Deployment Manager	Templated infrastructure deployment
Cloud Mobile App	iOS/Android GCP manager app
Private Catalog	Internal Solutions Catalog

## DEVELOPER TOOLS

Cloud Code for IntelliJ	IntelliJ GCP tools
Cloud Code for VS Code	VS Code GCP tools
Cloud Code	Cloud native IDE extensions
Cloud Tools for Eclipse	Eclipse GCP tools
Cloud Tools for Visual Studio	Visual Studio GCP tools
Gradle App Engine Plugin	Gradle App Engine plugin
Maven App Engine Plugin	Maven App Engine plugin
Cloud SDK	CLI for GCP
Cloud Shell	Browser-based terminal/CLI

## MIGRATION TO GOOGLE CLOUD

BigQuery Data Transfer Service	Bulk import analytics data
Cloud Data Transfer	Data migration tools/CLI