MIGRATION TO GCP (CONT.)

VM Migration VM migration tools

Cloud Foundation Toolkit Infrastructure as Code templates Cloud Foundry to Kubernetes

API PLATFORM AND ECOSYSTEMS

API metrics **API** Analytics **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

Healthcare system GCP interoperability Cloud Healthcare API

Developer Portal API management portal

GCP Marketplace Partner & open source marketplace

AppSheet No-code App creation

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

Admin SDK Manage Workspace resources AMP for Email Dynamic interactive email Extend and automate everything Apps Script 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

Workspace Add-ons Extend G Suite apps

Workspace Marketplace Storefront for integrated applications

Gmail API Enhance Gmail

Hangouts Chat Bots 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 cloud.google.com Google Cloud Blog cloud.google.com/blog Google Cloud Platform Podcast gcppodcast.com Kubernetes Podcast from Google kubernetespodcast.com

Google Cloud Open Source opensource.google/projects/list/cloud

GCP Medium Publication medium.com/google-cloud Apigee Blog apigee.com/about/blog Firebase Blog firebase.googleblog.com

Workspace Developers Blog gsuite-developers.googleblog.com Workspace GitHub github.com/gsuitedevs Workspace Twitter twitter.com/gsuitedevs Google Cloud Certifications cloud.google.com/certification Google Cloud System Status status.cloud.google.com Google Cloud Training cloud.google.com/training Google Developers Blog developers.googleblog.com Google Maps Platform Blog mapsplatform.googleblog.com Google Open Source Blog opensource.googleblog.com Google Security Blog security.googleblog.com Kaggle Home Page www.kaggle.com

cloud.google.com/about/locations

Kubernetes Blog kubernetes.io/blog

Regions and Network Map

DORA - Software & cloud.google.com/devops Delivery Research



Google Cloud

DEVELOPER'S CHEAT SHEET

v2021.3.3

Feedback? @gregsramblings @pvergadia

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

Cloud Filestore

Cloud Storage Multi-class multi-region object storage Persistent Disk Block storage for VMs

Managed NFS server

Local SSD VM locally attached SSDs

DATABASE

DB Insights

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

SQL Inspector

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

DATA AND ANALYTICS (CONT.)

Cloud Dataprep Visual data wrangling
Cloud Dataproc Managed Spark and Hadoop
Cloud Pub/Sub Global real-time messaging
Data Catalog Metadata management service

Data Studio Collaborative data exploration/dashboarding

Looker Enterprise BI and Analytics

HYBRID AND MULTI-CLOUD

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 Servlerless development for Anthos GCP Marketplace for Anthos Pre-configured containerized apps Migrate for Anthos Migrate VMs to Kubernetes Engine Operations Monitoring, logging, troubleshooting Cloud Build Continuous integration/delivery platform Traffic Director Service mesh traffic management Apigee API Management API management, development, security

AI/MI

Al Platform Data Labeling Data labeling by humans

Al Platform Deep Learning VMs Preconfigured VMs for deep learning

Al Platform Deep Learning

Containers

Al Platform Notebooks Managed JupyterLab notebook instances

Preconfigured containers for deep learning

Al Platform Pipelines Hosted ML workflows
Al Platform Predictions Autoscaled model serving
Al Platform Training Distributed Al training
Al Platform Managed platform for ML
AutoML Natural Language Custom text models

AutoML Tables Custom structured data models

AutoML Translation Custom domain-specific translation

AutoML Video Intelligence Custom video annotation models

AutoML Vision

Cloud Natural Language API

Cloud Speech-To-Text API

Cloud Talent Solutions API

Cloud Text-To-Speech API

Cloud TPU

Custom image models

Text parsing and analysis

Convert audio to text

Job search with ML

Convert text to audio

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 Al Al in your contact center

Dialogflow Create conversational interfaces

Document Al Analyze, classify, search documents

Explainable Al Understand ML model predictions

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

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
Virtual Private Cloud
Service mesh trainic management

VPC Service Controls Security perimeters for API-based services

Network Intelligence Center Network monitoring and topology

GAMING

Google Cloud Game Servers Orchestrate Agones clusters

INTERNET OF THINGS (IOT)

Cloud IoT Core Manage devices, ingest data

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

Managed Microsoft Active Directory

Active Directory

Secret Manager

Security Key Enforcement

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

MANAGEMENT TOOLS

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 Templated infrastructure deployment Cloud Deployment Manager Cloud Mobile App iOS/Android GCP manager app Internal Solutions Catalog Private Catalog 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 performance insights
Transparent SLIs Monitor GCP services

DEVELOPER TOOLS

Cloud Build Continuous integration/delivery platform

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
Artifact Registry Universal package manager
Cloud Source Repositories Hosted private git repos

Container Analysis Automated security scanning

Eventarc Event-driven Cloud Run services

Cloud Scheduler Managed cron job service

Cloud Tasks Asynchronous task execution

Cloud Workflows HTTP services orchestration

MIGRATION TO GCP

Container Registry

BigQuery Data Transfer Service Bulk import analytics data
Cloud Data Transfer Data migration tools/CLI
Google Transfer Appliance Rentable data transport bo

Storage Transfer Service
Migrate for Anthos
Migrate for Compute Engine

Migrate for Compute Engine
Migrate from Amazon Redshift
Migrate from Teradata

Data migration tools/CLI
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

Private container registry/storage

CONTINUED ON BACK ▶ ▶ ▶