Google Cloud Platform Fundamentals

INTRODUCING GOOGLE CLOUD PLATFORM

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This Course

High-level overview

Intended for architects and technology decision makers

Solution archetypes over implementations

This Module

The Cloud and Google Cloud Platform (GCP)

How is GCP different?

Getting started

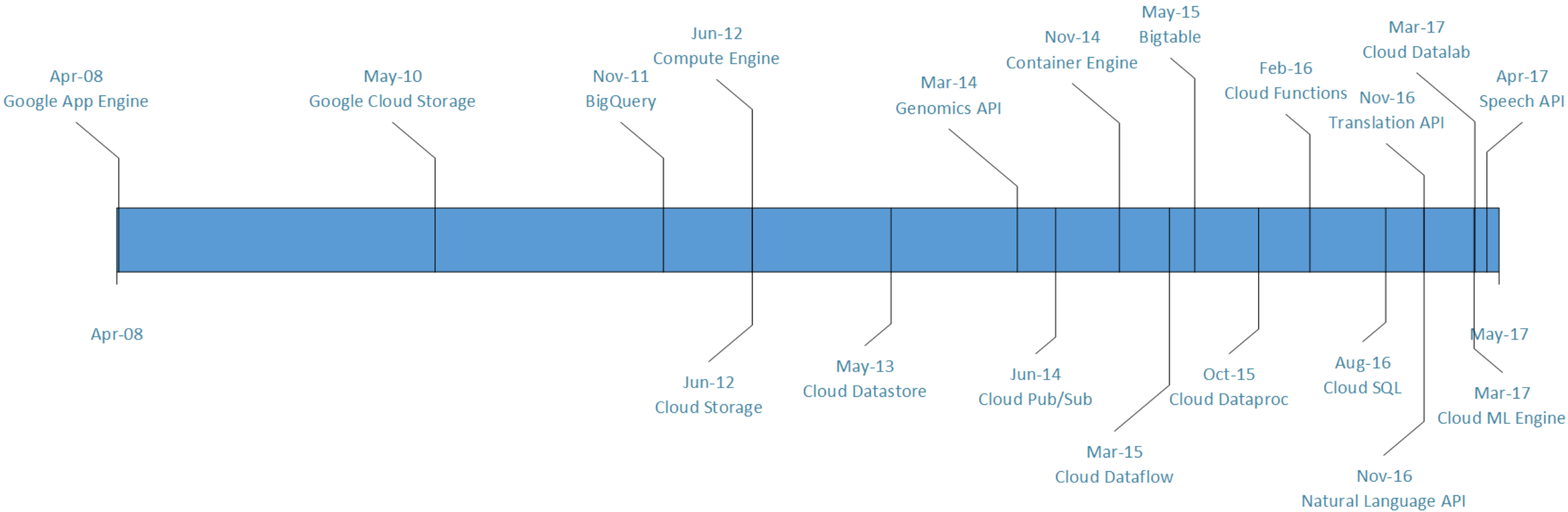
Google Cloud Platform

Public cloud service provider

Started in 2008

Leverages Google global infrastructure

A Brief History



“Cloud computing is a type of Internet-based computing that provides shared computer processing **resources** and **data** to computers and other devices on demand.”

Wikipedia

“Cloud computing breaks apart key functions of a computer and then offers them as services”

Me

Computer Processing Resources and Data

Processing

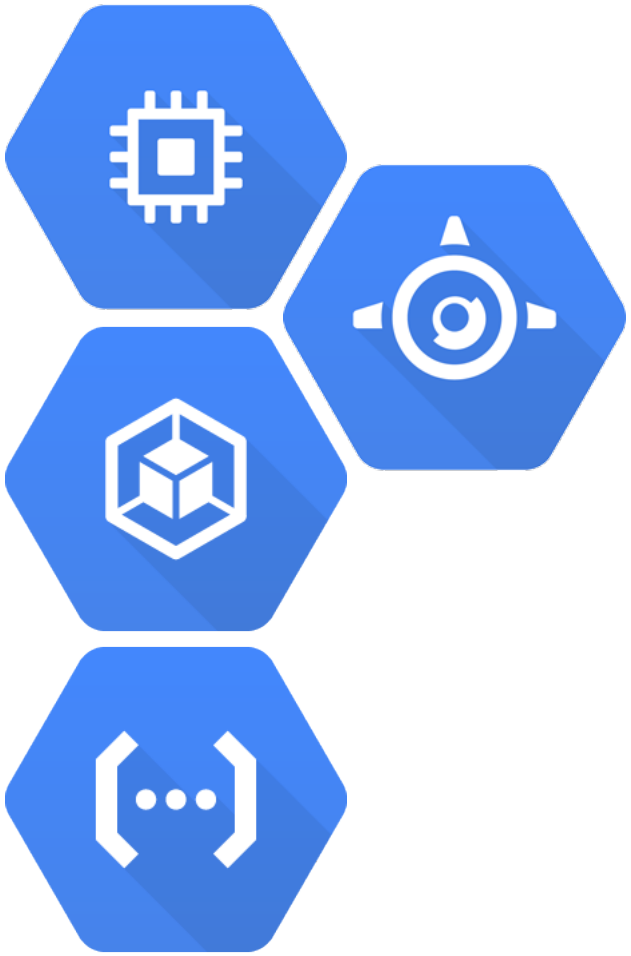
Storage

Networking

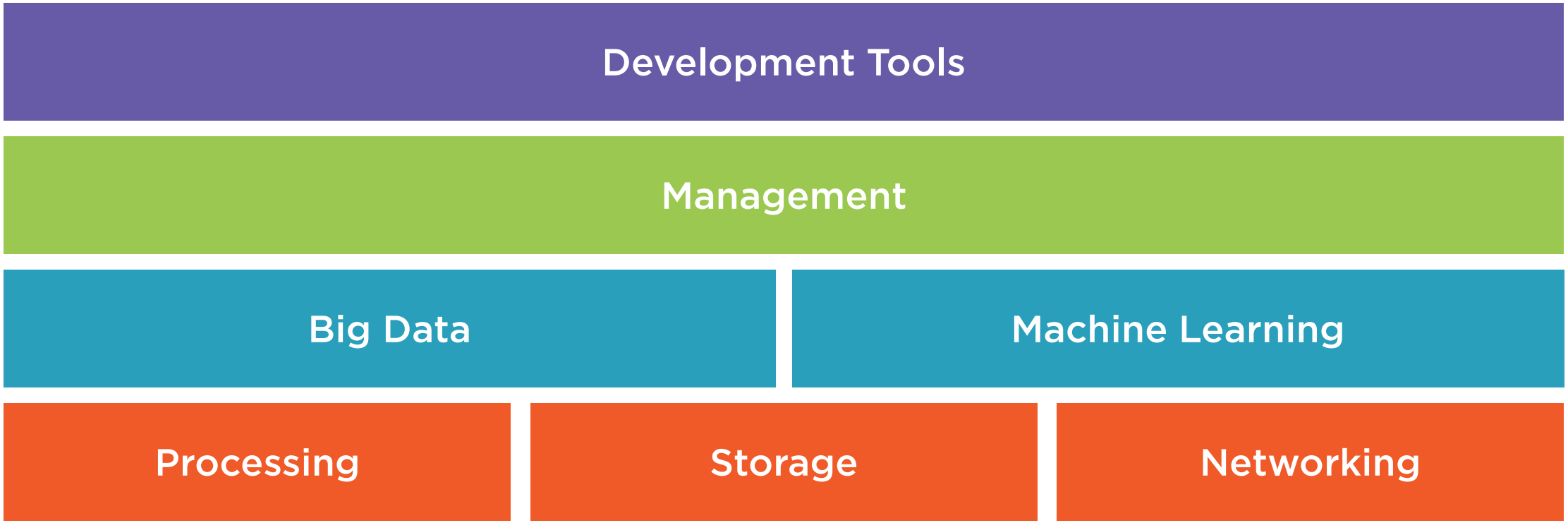
Processing

Storage

Networking

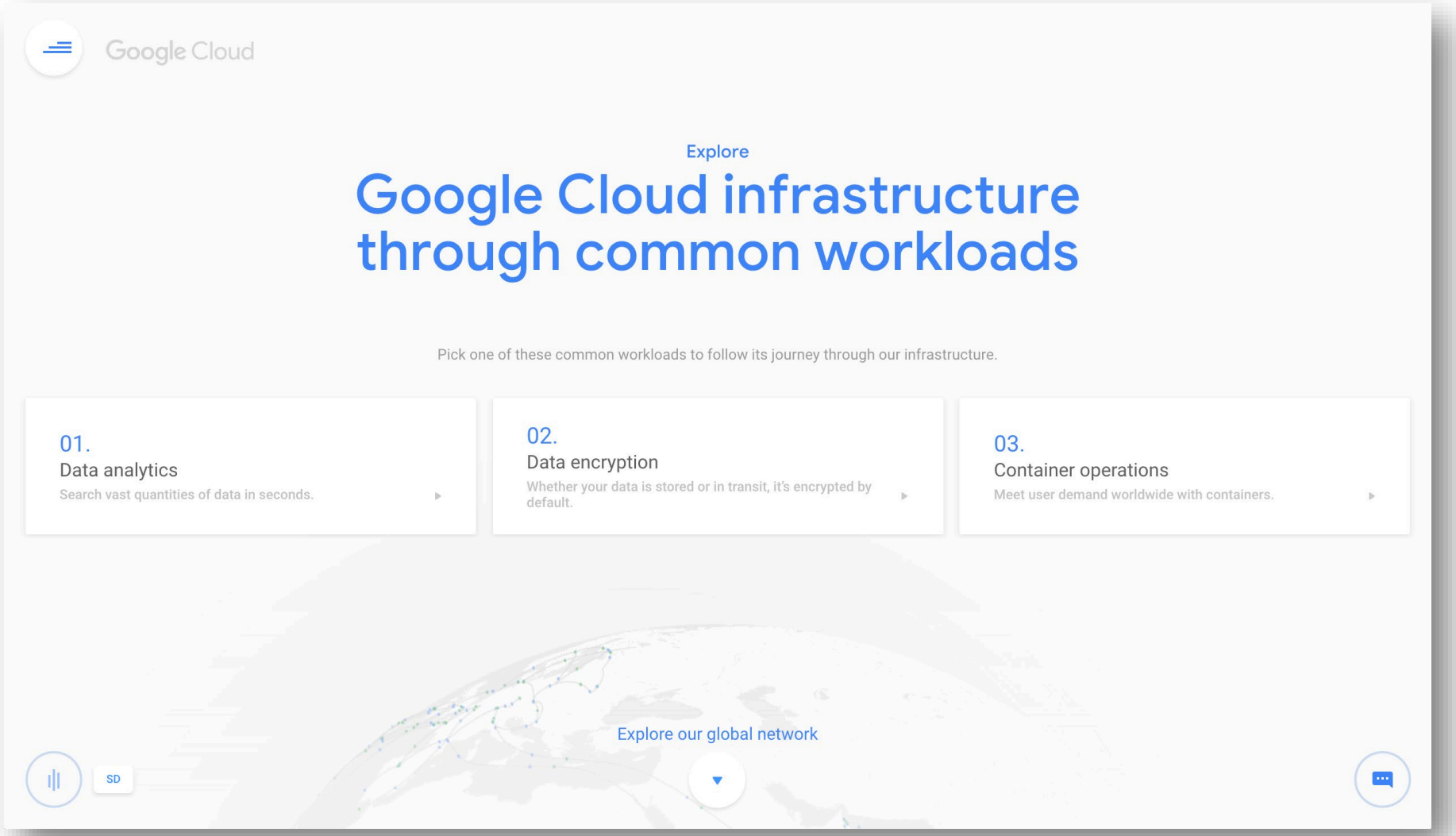


Building Out the Stack



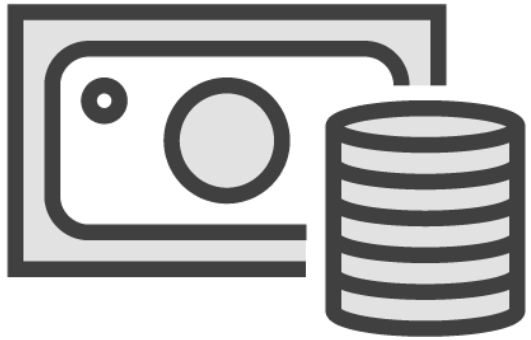
Global Presence

https://cloud.withgoogle.com/infrastructure

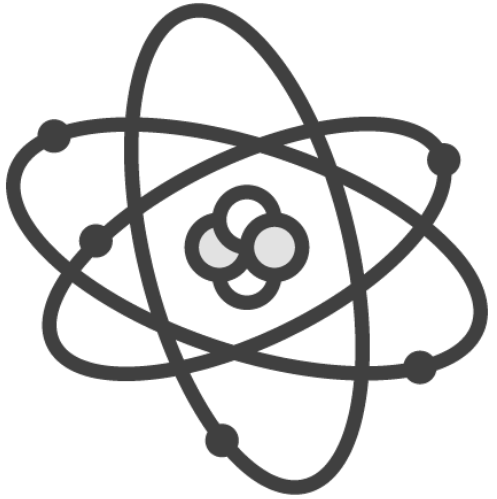


How GCP is Different

Network

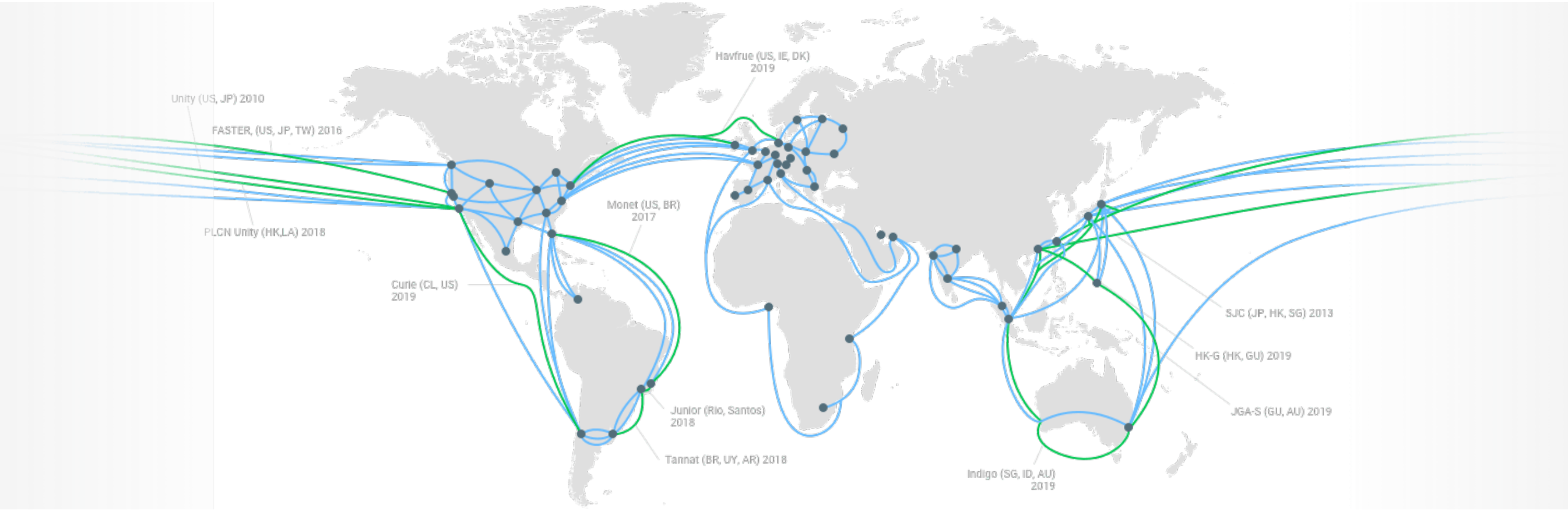


Pricing



Technology & Innovation

Global Network

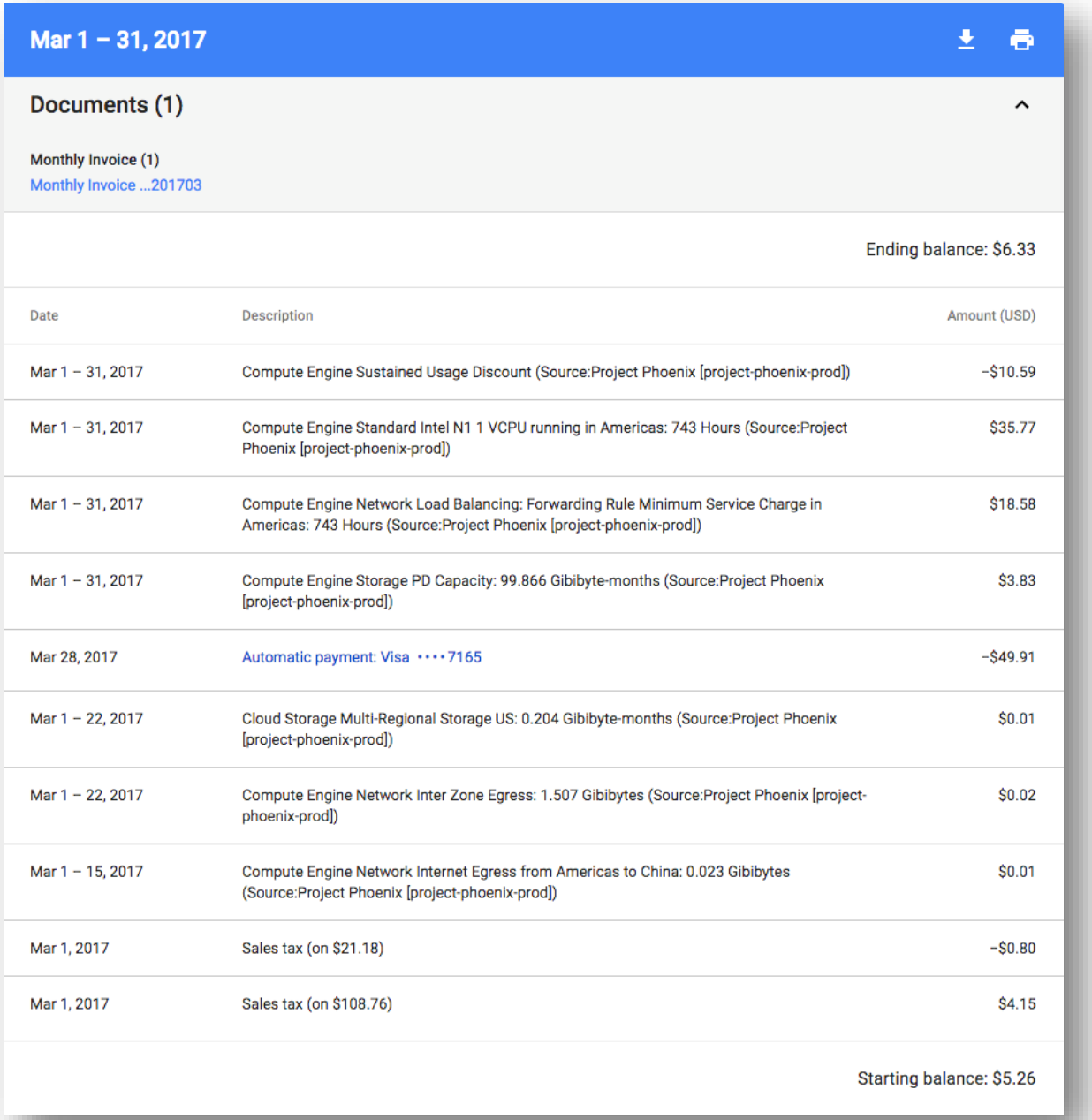


Sustained use discounts

Committed use discounts

Preemptible VMs

Flexible machine configurations



Mar 1 – 31, 2017

Documents (1)

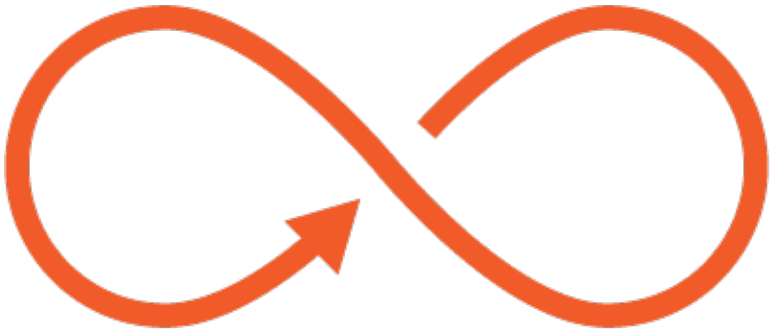
Monthly Invoice (1)
Monthly Invoice ...201703

Ending balance: $6.33

Date	Description	Amount (USD)
Mar 1 – 31, 2017	Compute Engine Sustained Usage Discount (Source:Project Phoenix [project-phoenix-prod])	-$10.59
Mar 1 – 31, 2017	Compute Engine Standard Intel N1 1 VCPU running in Americas: 743 Hours (Source:Project Phoenix [project-phoenix-prod])	$35.77
Mar 1 – 31, 2017	Compute Engine Network Load Balancing: Forwarding Rule Minimum Service Charge in Americas: 743 Hours (Source:Project Phoenix [project-phoenix-prod])	$18.58
Mar 1 – 31, 2017	Compute Engine Storage PD Capacity: 99.866 Gibibyte-months (Source:Project Phoenix [project-phoenix-prod])	$3.83
Mar 28, 2017	Automatic payment: Visa ••••7165	-$49.91
Mar 1 – 22, 2017	Cloud Storage Multi-Regional Storage US: 0.204 Gibibyte-months (Source:Project Phoenix [project-phoenix-prod])	$0.01
Mar 1 – 22, 2017	Compute Engine Network Inter Zone Egress: 1.507 Gibibytes (Source:Project Phoenix [project-phoenix-prod])	$0.02
Mar 1 – 15, 2017	Compute Engine Network Internet Egress from Americas to China: 0.023 Gibibytes (Source:Project Phoenix [project-phoenix-prod])	$0.01
Mar 1, 2017	Sales tax (on $21.18)	-$0.80
Mar 1, 2017	Sales tax (on $108.76)	$4.15

Starting balance: $5.26

Sustained Use Discounts



For long-running compute workloads

Given automatically

Savings up to 30%

Committed Use Discounts

For well-understood workloads

Pre-purchased computing resources for a period of time

Savings up to 70%

Preemptible Virtual Machines

Useful for time-insensitive, batch workloads

Result of excess compute capacity

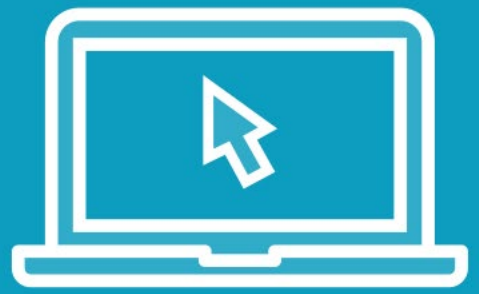
Can be terminated by the platform when resources are needed

Flexible Machine Configurations

Enables tailoring of machine to workload

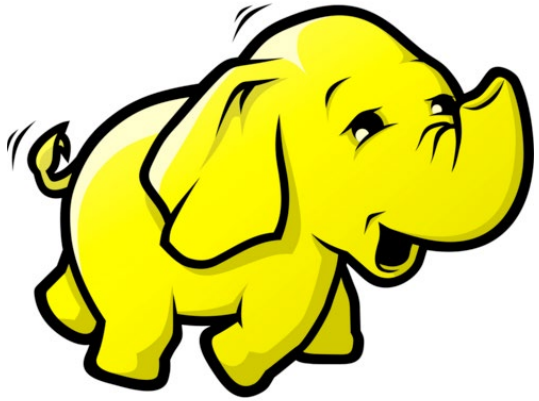
Includes number and type of CPUs, GPUs, and memory

Demo



Pricing Calculator

Open Source



Google Map Reduce

Google “Borg”

Kubernetes

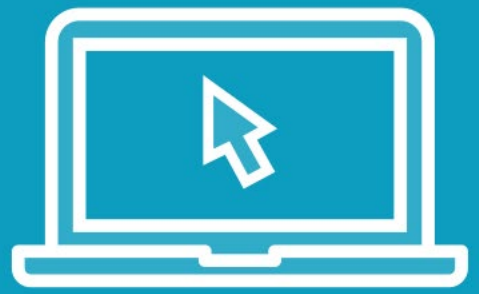
Tensorflow

Scenario-focused

Simplified service offerings

Everything is an API

Demo



Getting Started with GCP

Summary

GCP is a mature public cloud service offering built on Google's global infrastructure

Key areas of differentiation include network infrastructure, pricing and technology

Getting started with GCP is easy