

 Google Cloud Platform

Introducing Google Cloud Platform

Google Cloud Platform Fundamentals
V2.0

Agenda

1

Introduction to Google Cloud Platform

2

Quiz & Lab

Why Choose Google Cloud Platform?

Google Cloud Platform enables developers to **build, test** and **deploy** applications on Google's *highly-scalable, secure, and reliable* infrastructure.

Choose from **computing, storage, big data/machine learning,** and **application** services for your *web, mobile, analytics,* and *backend* solutions.

Google's Infrastructure (1 of 2)

A light blue world map with white landmasses. Red location pins are placed in several regions: a cluster in North America (USA/Canada), a few in Europe, one in South America (Brazil), one in Southeast Asia (Indonesia), and one in East Asia (China).

For the past **15 years**, Google has been building the most powerful infrastructure **on the planet**: datacenters and high-speed fiber optic networks.

Google's Infrastructure (2 of 2)

Data Centers

Google operates an extensive deployment of high-efficiency backend **data centers** used for **computation** and backend **storage**.

Backbone

Google has built a **global, meshed backbone network** to interconnect their data centers and to deliver traffic to their Edge points of presence (POPs).

Points of Presence

70+ edge **points of presence** in **33** countries interconnected via Google's backbone network.

Edge Caching

Google runs an **edge caching platform** on top of their network infrastructure with edge locations in virtually every country. The caching platform also has elements within ISP and access networks.

Cloud Regions and Zones

- **Regions**

- Regions are specific geographical locations where you can run your resources
- Are **collections** of zones
- Regional resources are available to resources in any zone in the region

- **Zones**

- **Isolated** locations within a region
- Zonal resources are only available in that zone

Commitment to Environmental Responsibility

Developing our infrastructure while respecting our ecosystem

- Pioneering data center efficiency
- Largest private investor in renewables (wind, solar)
- First data centers to receive ISO 14001 certification
- 100% carbon neutral since 2007

<http://www.google.com/about/datacenters/>

Image by Connie Zhou

Innovative, Customer-Friendly Pricing

- Sub-hour billing
- Sustained-use discounts
 - **Automatically** reward users who run virtual machines for over **25%** of any calendar month
- Compute Engine custom machine types
 - Pay only for the resources you need for your application

Image by Connie Zhou

Commitment to Open APIs and Open Source



**Customers should use us because they love us,
not because they are unable to migrate**

The Future of Cloud Computing

**1st wave:
Colocation**

**2nd wave:
Virtualized
datacenters**

**3rd wave:
A global,
elastic cloud**

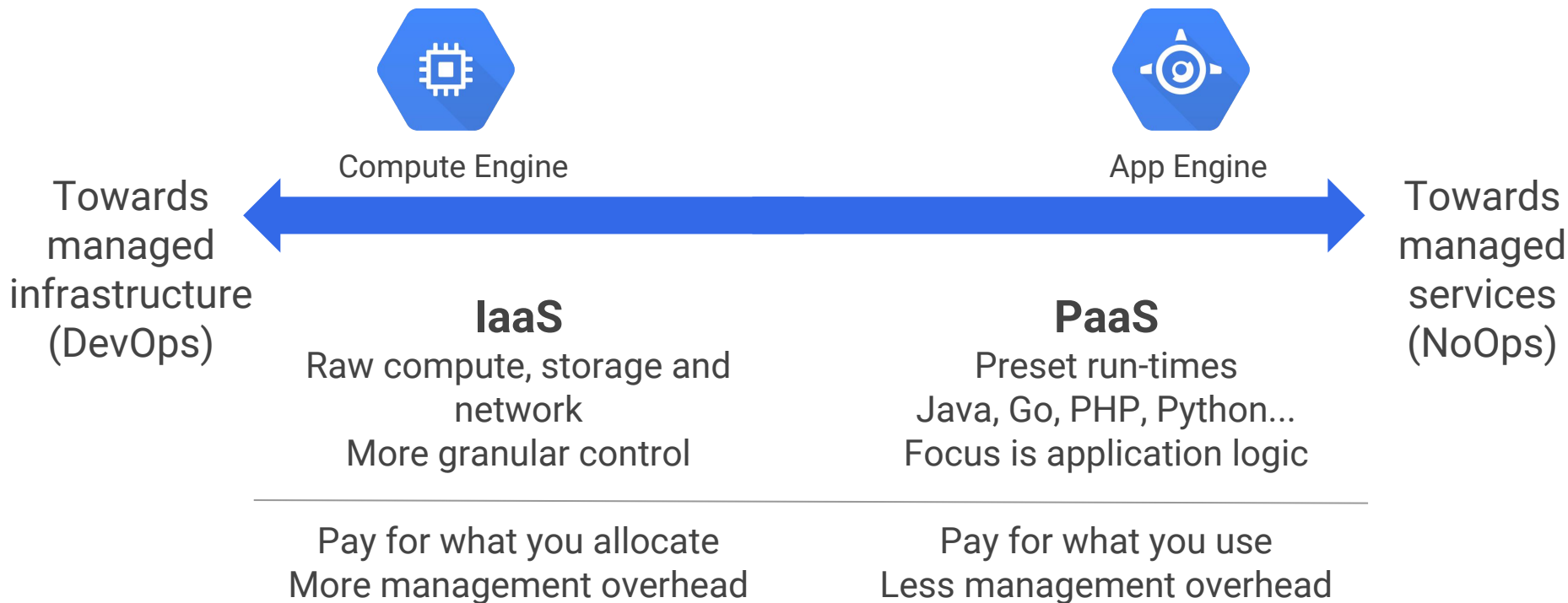
Now

User managed, user
configured, user maintained

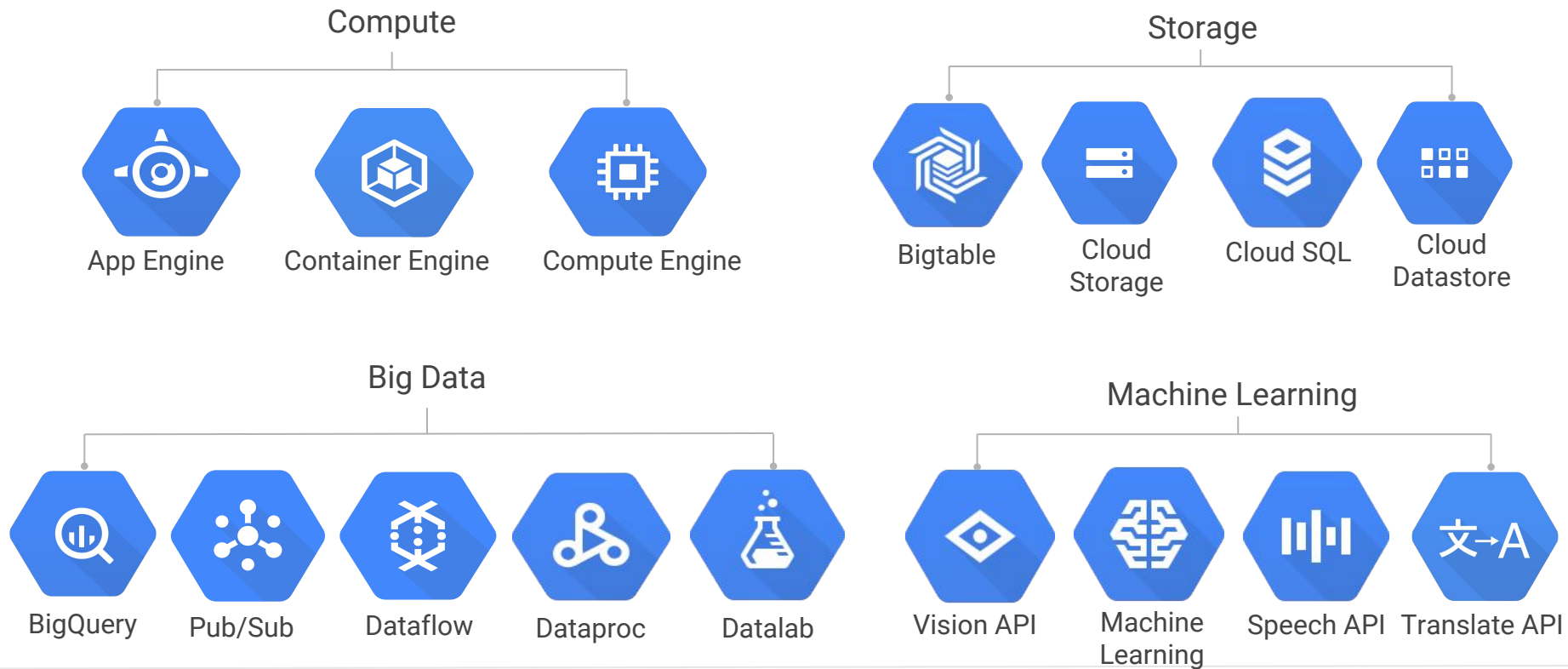
Next

Fully automated

IaaS and PaaS



Google Cloud Platform



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Quiz & Lab

Quiz

1. Name 3 pricing innovations that make Google Cloud Platform the most cost effective public cloud.
2. In addition to innovative pricing, name 3 benefits of using Google Cloud Platform for your cloud applications.

Quiz Answers

1. Name 3 pricing innovations that make Google Cloud Platform the most cost effective public cloud.

Answer: Sub-hour billing, sustained-use discounts, Compute Engine custom machine types

2. In addition to innovative pricing, name 3 benefits of using Google Cloud Platform.

Answer: Commitment to environmental responsibility, commitment to open source technologies, robust infrastructure

Lab

- Sign up for the free trial (\$300 over 60 days)
- Create a project

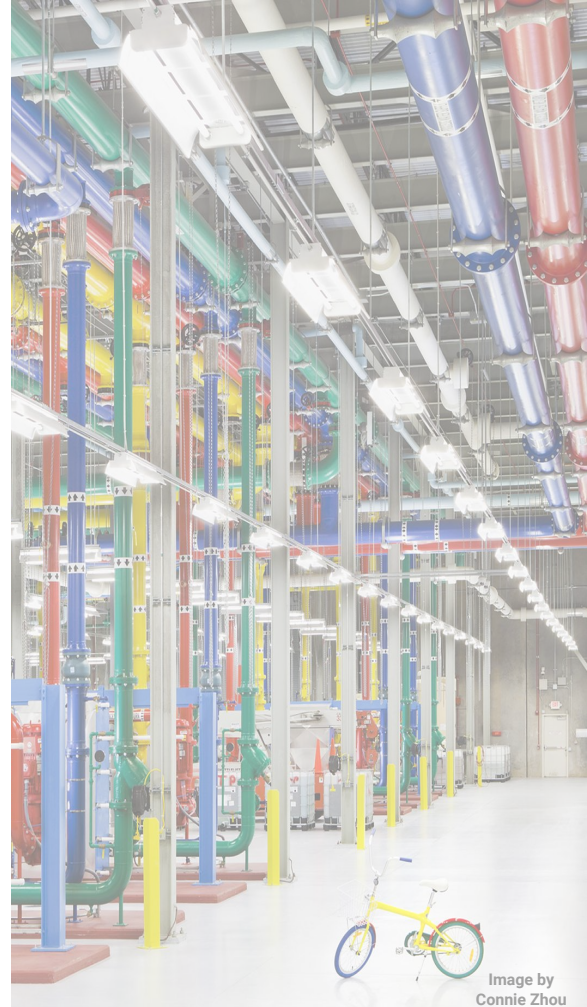


Image by
Connie Zhou

Resources

- Why Google Cloud Platform?
<https://cloud.google.com/why-google/>
- Pricing philosophy
<https://cloud.google.com/pricing/philosophy/>
- Data Centers
<https://www.google.com/about/datacenters/>
- Google Cloud Platform product overview
<http://cloud.google.com/products/>
- Google Cloud Platform solutions
<http://cloud.google.com/solutions/>



cloud.google.com