(introduction to google cloud platform)
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(Section 1)

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About this Course

Within this course, you can expect to learn the foundations of Google Cloud such as Identity and Access Management, Compute Engine instances, storage, and networking. We get hands on with some services as well such as Cloud Pub/Sub, Cloud SQL, and more

Google Cloud Fundations

Identity and Access Management

Google Products Overview

The Objectives

Data Fellowship

Google Cloud Fundations

Google Cloud Overview

- Launched by google in 2008 that runs on the same infrastructure that google use internally for its ends users

- Google cloud offers PaaS (Platform as a Service) and IaaS (infrastructure as a service) that offers variety of networking solutions that anyone can use.

- Alongside of a management tools, it improve service to modular cloud services, including computing, data storage, data analytics and machine learning

Google Cloud Overview

Over the years since launch, google launched services within GCP like:

- Google App Engine
- Cloud Storage
- Cloud SQL
- Kubernetes

App Engine

Google Cloud Storage

Cloud SQL

Kubernetes Engine

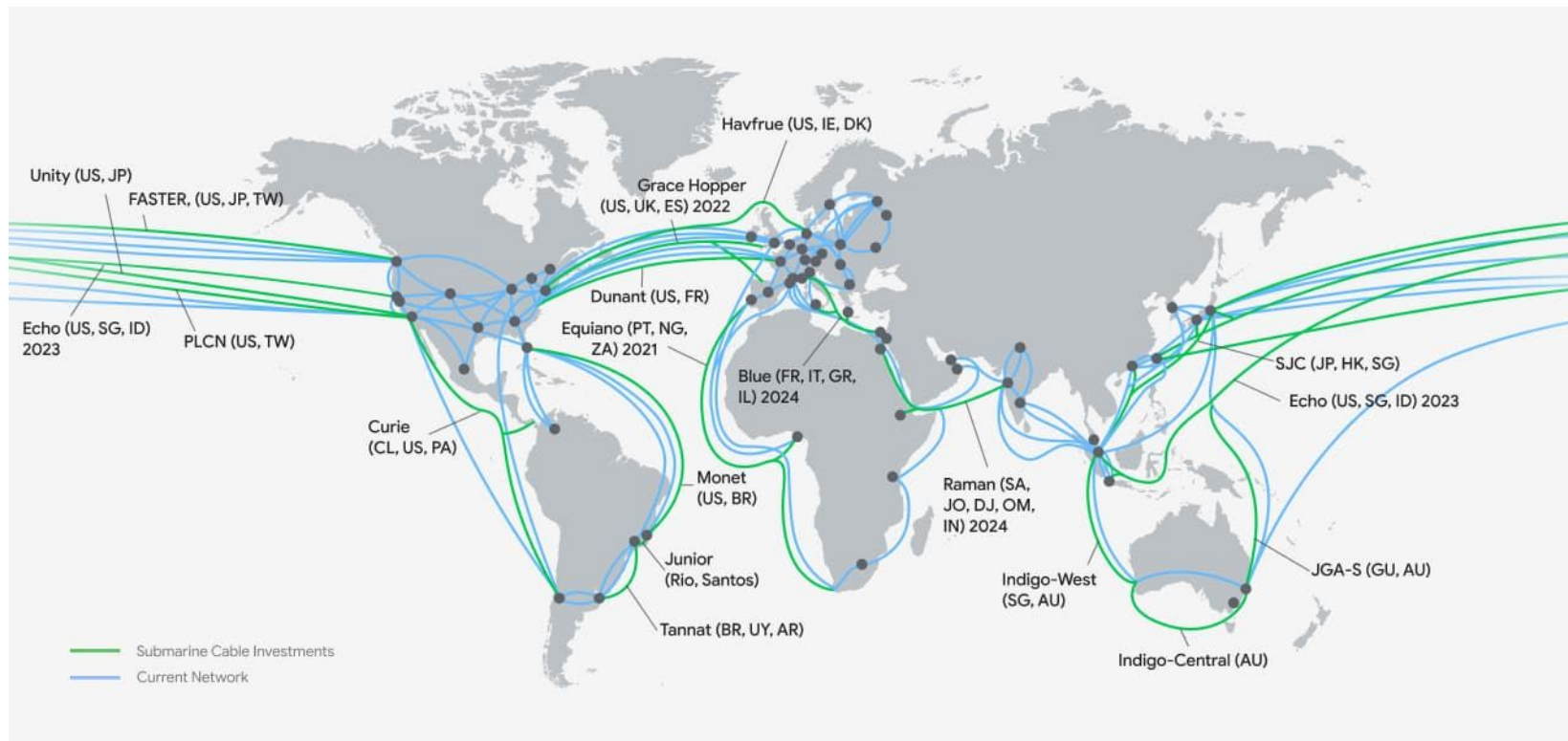# Understanding the Structure and Design

Global Network

- Google cloud is global fiber network that spans 24 regions, 73 zones, 142 edges locations

Security

- This fiber network provide a private secure global network that mostly does not have to touch the internet

Edge Locations

- Google responds to the user's request from an Edge network locations that will provide the lowest latency
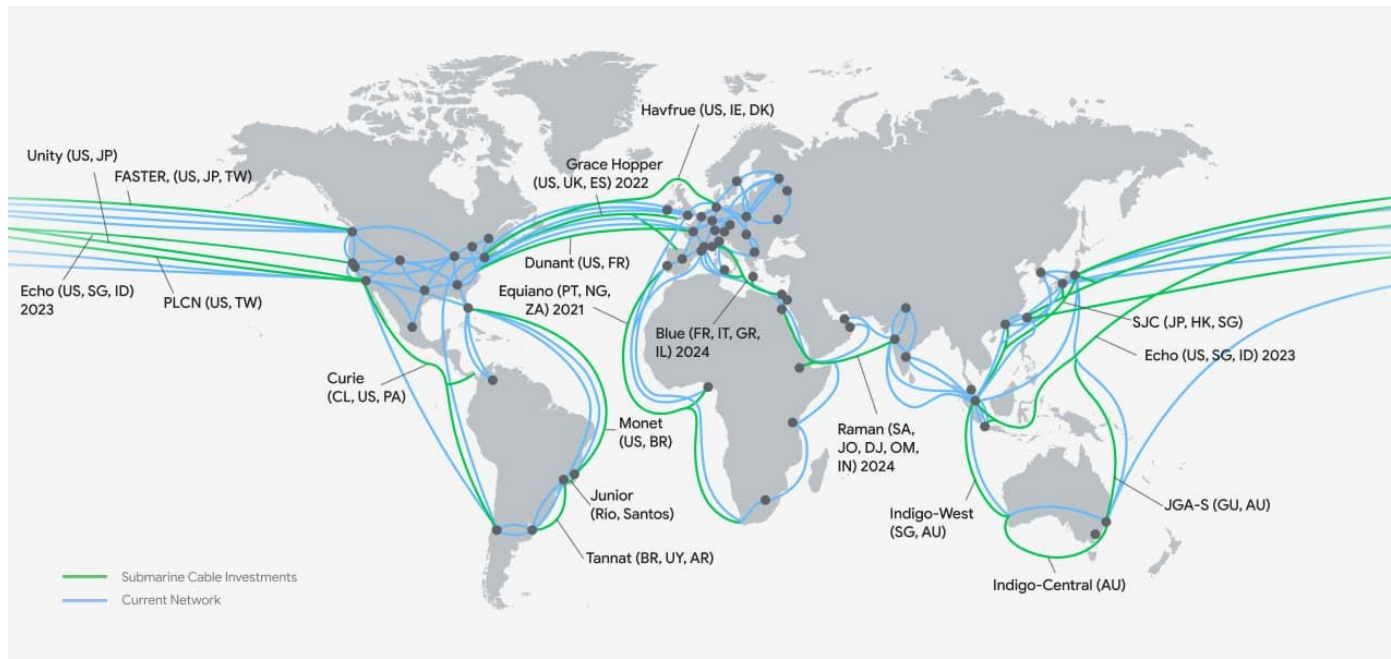
Understanding the Structure and Design
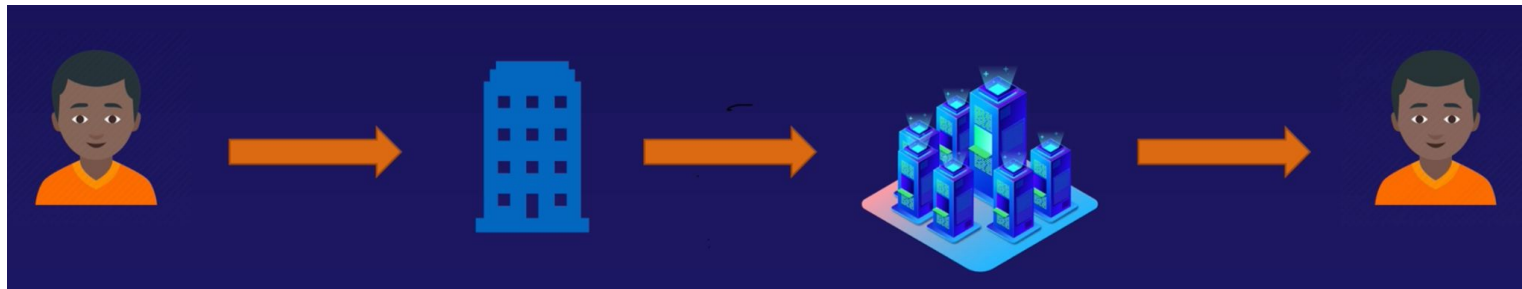
As example at US locations :

Understanding the Structure and Design

Edge locations:

Understanding the Structure and Design

Edge locations:

What makes google cloud different from?

Here are some highlights that makes Google
Cloud stand out from the rest:

- Google security model

- Private fiber global networks

- Dedicated to machine learning and big
  data

- Live migration

Google cloud competitors?

Amazon Web Services

AWS is a managed cloud service from Amazon. They are the #1 competitors of google cloud

Microsoft Azure

Microsoft azure is a cloud computing services created by Microsoft for building, testing and deploying and managing applications

Alibaba Cloud

Alibaba Cloud provide cloud computing services for online business, and Alibaba own an ecommerce ecosystem

Google Cloud Fundations: Summary

- Edge locations

- Google Cloud competitor

- Benefits of google cloud or cloud computing platform

Identity and Access Management

Hands on

Identity and Access Management

Granular Access Control

Hand ons session

Let's talk about Organisations

The organization resource represent an organization (for example, a company) and its root node on google cloud hierarchy

This serves as the hierarchical ancestor resource for folder and projects. With that being said, you are not required to have an organization

Organization: Root node of the hierarchy.

Folder: Can serve as different depts or teams within the company

Project: Serves as the hub and basis for all of your cloud resources

What are google cloud projects?

What are google cloud projects?

How do google cloud projects works?

How can I create one?

Organization: Root node of the hierarchy.

Folder: Can serve as different depts or teams within the company

Project: Serves as the hub and basis for all of your cloud resources

A project consists of set of users; a set of APIs; and billing, authentication, and monitoring settings for those APIs

Handson session

Identity and Access Management: Summary

What have we learned?

- Google cloud project overview

- Working mechanism of google cloud project

- Creating a google cloud project

Cloud Storage

Hands on

What is cloud storage?

- Introduction

- How is google cloud storage important?

- How can I use google cloud storage?

Globally unified, scalable, and highly durable object storage for developers and enterprises

Provides a storage class for any Workloads

Hands on session

Implementing storage on various classes in GCP

Standard   Nearline   Coldline   Archieve

Hands on session

Hands on objectives

Descriptions:

● Learning about the database offerings in GCP is a required skill for an architect, developer, and so on. In this hands-on lab, we will take a look at GCP's relational database offering, Cloud SQL.

Hands on objective:

● Create Cloud SQL instances

Cloud storage: Summary

What have we learned?

- What is the significance of Google Cloud Storage?

- In what ways can Google Cloud Storage be utilized?

Introduction to BigQuery

Data Fellowship

Hands on

What is BigQuery?

Serverless, highly scalable, and cost-effective multi-cloud data warehouse designed for business agility

What is BigQuery?

BigQuery can query data in realtime

Hands on session
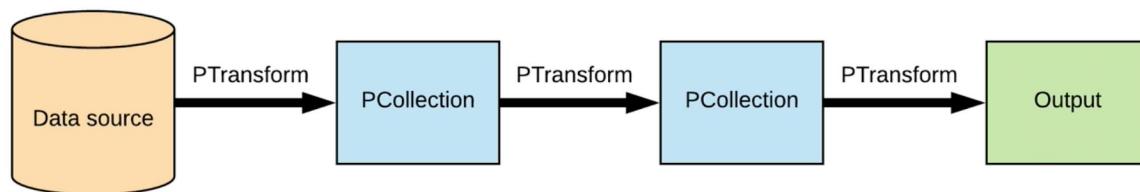
Google Dataflow

Hands on

What is Google Dataflow?

Is fully managed service for executing Apache
Beam Pipelines within the google cloud platform
ecosystem

DATAFLOW

Simple data pipeline

Send data to compute engine for parallel processing

Hands on session

Cloud storage: Summary

What have we learned?

- What is the significance of Google Cloud Storage?

- In what ways can Google Cloud Storage be utilized?

References

Get started with google cloud