

Extrair valor dos dados

Parceria Google Cloud / Sparkle

19 Outubro 2021



Introducing Sparkle and OCRE Framework

 **SPARKLE** | IP&DATA
PLATFORM

 **SPARKLE** | CLOUD & DATA CENTER
PLATFORM

 **SPARKLE** | CORPORATE
PLATFORM

 **SPARKLE** | MOBILE
PLATFORM

 **SPARKLE** | VOICE
PLATFORM

 **SPARKLE**

Telecom Italia: TI Group at a glance



The company is the **leading TLC and ICT group in Italy**

Italy



TIM

Best in class F-M convergent services on a high speed, high quality network

32 mln mobile lines, o/w 13 mln BB users
10 mln fixed Retail lines, o/w 7.5 mln BB
8 mln fixed Wholesale accesses

Open Access *Fixed network access services, both to TIM and OLOs, through National WHS.*

INWIT *Our towerco for telecommunications and TV/radio signals broadcasting.*

Olivetti *Turnkey IT products and advanced digital solutions for SMEs and Large companies.*

TIM Open Labs *Shaping the future through ongoing research and development on emerging technologies.*

57,901 employees, including 48k in Italy
6.4 bln € industrial investments, incl. 5G licenses
17,9 bln € Group revenues - 7,56 bln € EBITDA
14,1 bln € from Domestic BU, o/w:

- € 7.0 bln by the consumer market
- € 4.1 bln by the business market
- € 2,07 bln by national wholesale
- € 947 mln by international wholesale (Sparkle)

THE INFRASTRUCTURE

16 mln of km fiber deployed in Italy
~99% of population cover with LTE
~87% of households covered with FTTx
8 Data Centers and 6 Service Centers
41k km- fiber in the Europe
47k km-fiber in America
10,8k km of undersea cables in the Med'an Sea
413k km di undersea cables across the world

Abroad it is one of the **most important players on the Brazilian market**

Brazil



Tim Participações

Leadership in 4G, quality and coverage

3,272 cities with 4G, reaching 93% of population
55.9 mln mobile customers, o/w 34.5 mln 4G
24.4% market share

Ongoing expansion of UBB network

1.1 mln HH in 11 cities with FTTH
3.5 mln HH in 4 cities with FTTC

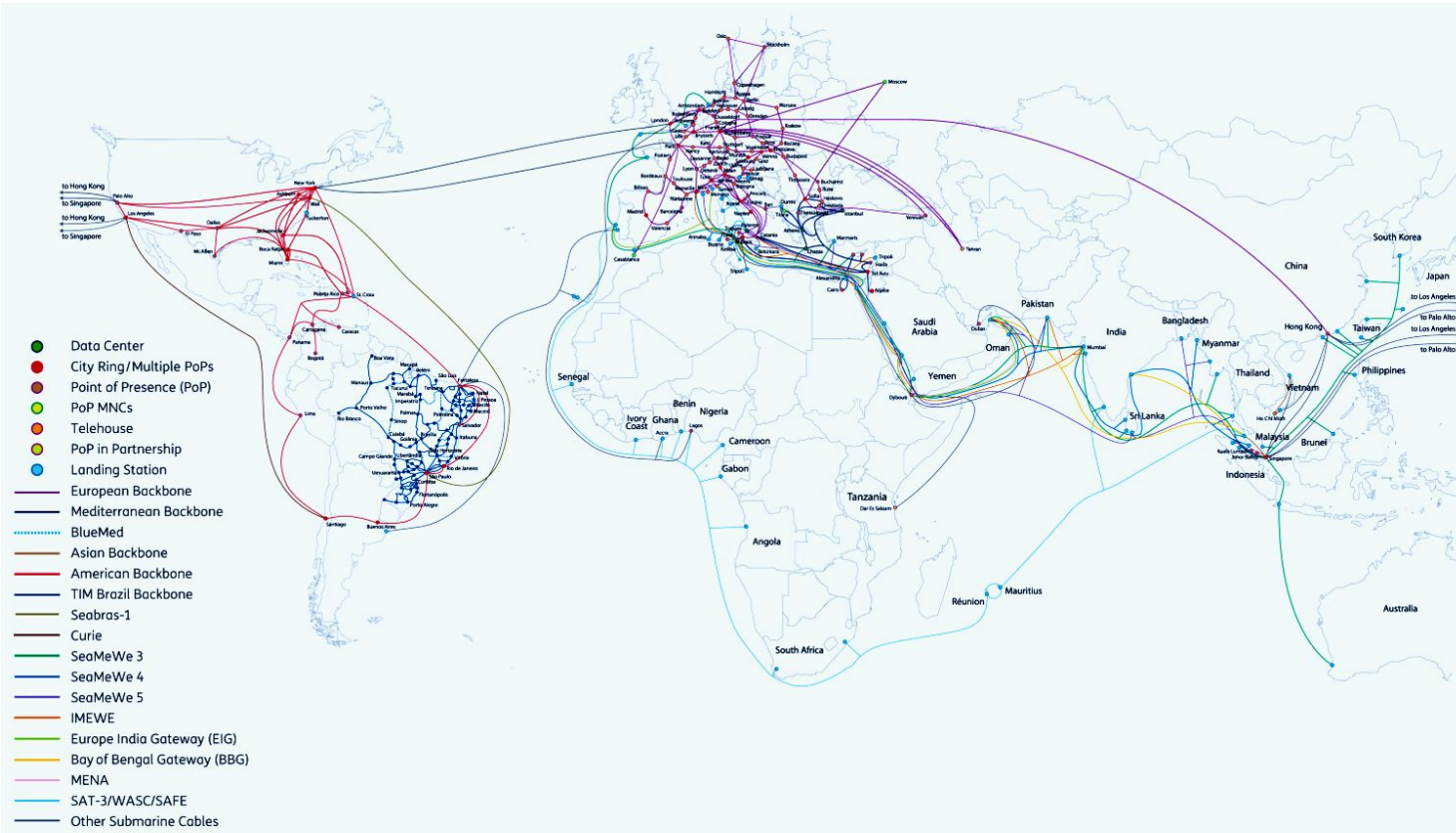
The Group is also active in Europe, Americas, Africa and Asia through **Sparkle**



* Source: FY'19



Sparkle's Global Network



GLOBAL CAPABILITIES

- 86 cities in 44 countries
- 159 PoPs
- >1,000 PoPs through partners
- 41,000 km/fibre PEB
- 58,500 km Americas Backbone
- 11,000 km Mediterranean Backbone
- 18,000 km/fibre Italian network
- more than 433,000 km submarine cables*
- ca. 53,000 km other fibre network*

Data as of April 2020
 (*) Includes Lease

Open Cloud for Research Environment (OCRE) Project

Sparkle has been selected as unique
reseller of Google Solutions in 27

Countries

| | | |
|----------|------------|-----------------|
| Albania | Germany | Netherlands |
| Armenia | Hungary | Poland |
| Austria | Ireland | Portugal |
| Belgium | Israel | Slovakia |
| Bulgaria | Italy | Slovenia |
| Croatia | Lithuania | Switzerland |
| Cyprus | Luxembourg | Turkey |
| France | Malta | Ukraine |
| Georgia | Montenegro | United Kingdom |



Why using the OCRE Framework and Sparkle?



No Procurement Headache: the Framework is a pre-approved purchasing tool, compliant with all EU and National regulations, allowing eligible Institutions to choose from a wide catalogue of Services at the best value for money possible: **with no commitment!**



Full Data Egress Waiver: Sparkle applies no charge to traffic generated from Google resources, **with no limit on the contract value!**



Access for NRENs and NRENs' end Customers to Sparkle Cloud Automation Platform to place orders, activate subscriptions and accounts, manage the relevant users, monitor the associated consumptions and cost through advanced tools.



Direct connectivity with GÉANT network. Service authentication through eduGain: thanks to the connection to eduGAIN community, Sparkle can grant Customers access to Google console in SSO modality from the Automation Platform.



Free induction Workshop to coach and guide Customers in the framework and cloud solutions adoption.

Sparkle contact points

- **Sales Account Manager**
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- **Website**
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- **Sparkle Technical Team**
tis.cloud@tisparkle.com
- **Sparkle Competence Center**
contactcenter.tis@tisparkle.com



Esperamos vê-lo no nosso stand.
...Obrigado!

| | |
|--|-----------|
| Google & Google Cloud | 01 |
| Data @ Google Cloud | 02 |
| Machine Learning @ Google Cloud | 03 |
| Key take aways | 04 |

01

Google & Google Cloud

Google

A large, rounded rectangular search bar with a thin grey border. On the left side, there is a small magnifying glass icon. On the right side, there is a small microphone icon with a blue top and a red bottom.

Google Search

I'm Feeling Lucky

Do these look familiar to you?

Nine products with **over one billion users each**, all **powered by the cloud**.



Data.

At the core of our mission statements.

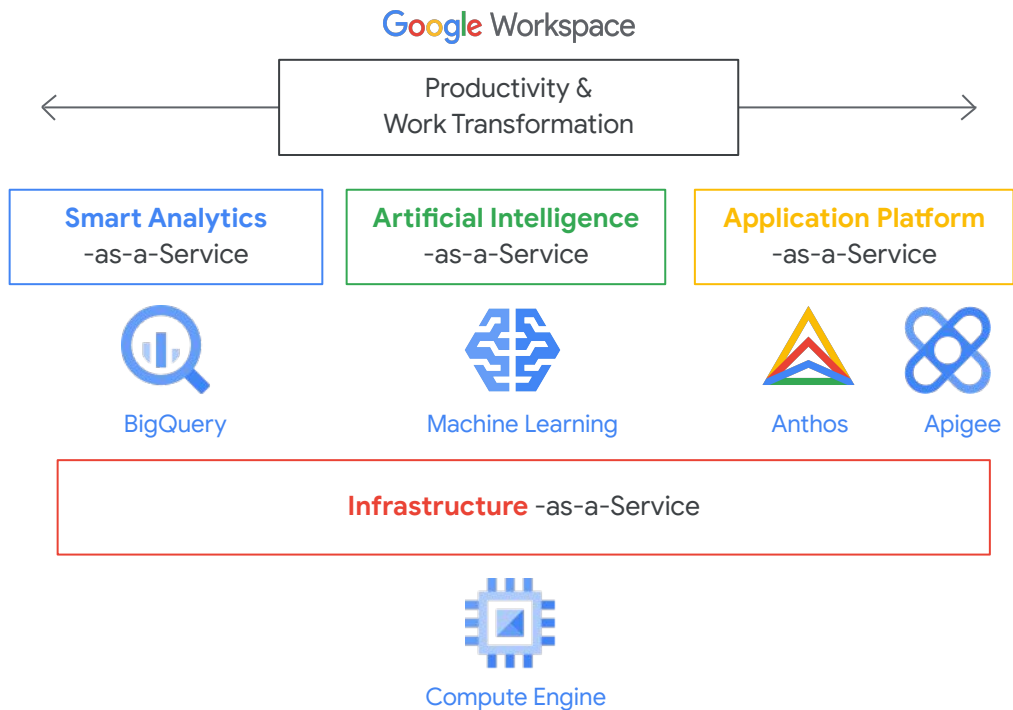


Our mission is to **organize** the world's **information** and make it **universally accessible** and **useful**.



Accelerate your organization's ability to **digitally transform** and reimagine your business through **data-powered innovation**.

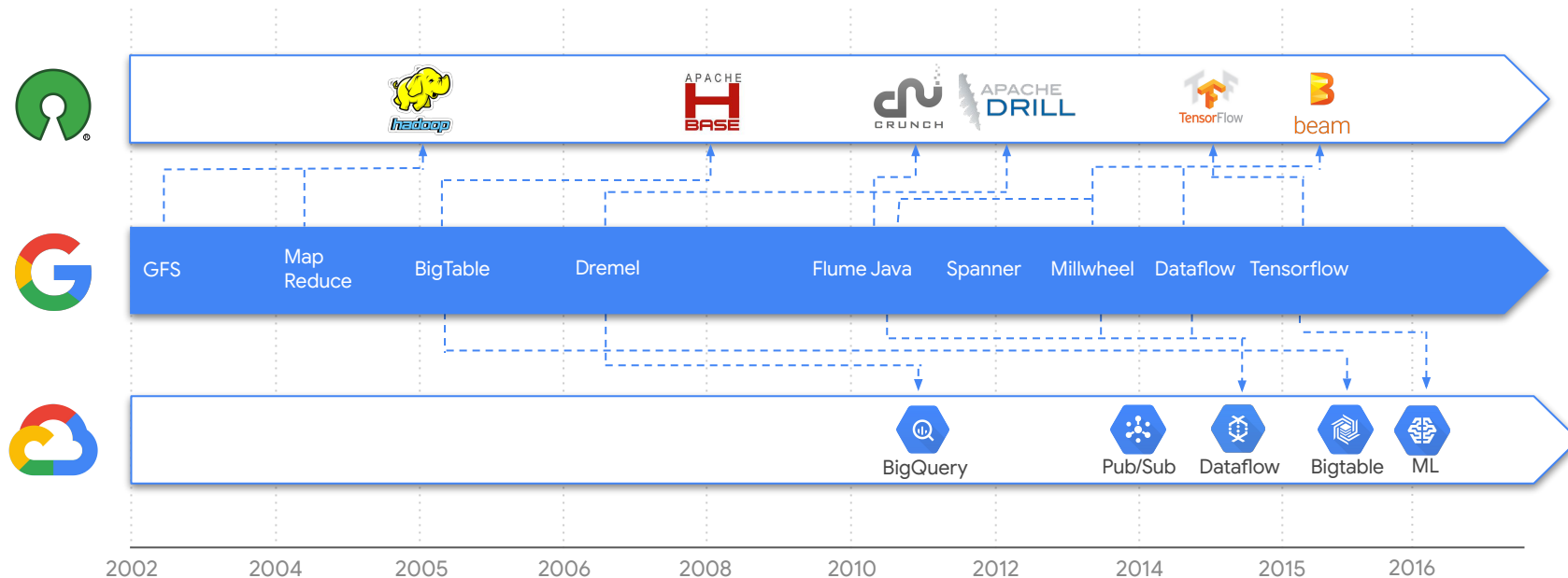
What is Google Cloud?



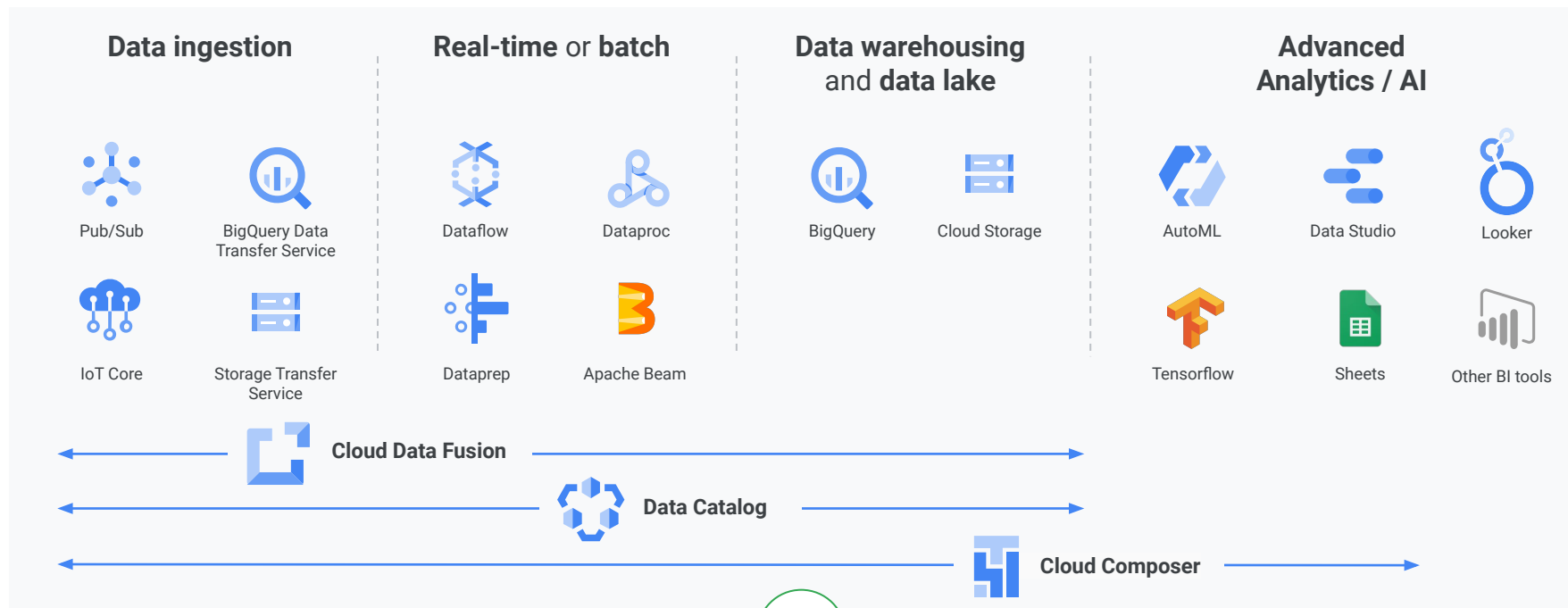
02

Data @ Google Cloud

Fifteen years tackling big data problems



A comprehensive Data Analytics platform



Governance & Security

BigQuery: Data analysis at the planet scale



350PB of data

Stored by one customer



100,000,000,000,000
(one hundred trillion rows)

Queried by multiple customers



10,000 concurrent
queries

Run by another customer

“Archiving” Tweets



Migrated **hundreds** of **petabytes** of data, separating storage and compute for resource efficiency



Access a range of **data processing** and **ML** tools to better **understand** and **improve** how Twitter’s features are used



Faster access to insights and **focus** on **analysis** instead of infrastructure management

“Building on this relationship and Google’s technologies will allow us to **learn more from our data, move faster**, and serve more relevant content to the people who use our service every day.”

Parag Agrwal,
CTO, Twitter

03

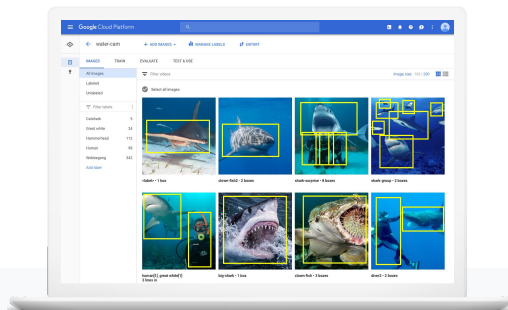
Machine Learning @ Google Cloud

Google Cloud **Artificial Intelligence** for every level of expertise



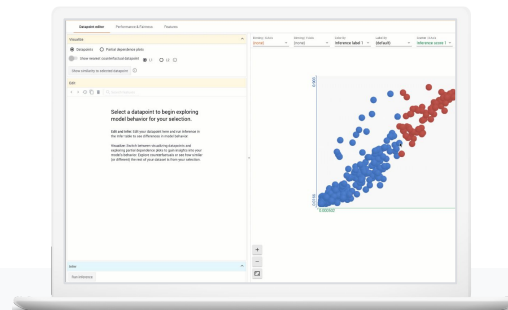
Pre-trained APIs & AI Solutions

No training data needed, get started right away



Custom AI with AutoML and BQML

Easily create custom models
(A no-code approach)



End-to-end AI with core tools

Help data scientists and ML engineers build and deploy AI

Pre-trained APIs and Solutions



Sight



Vision



AutoML Vision



Video Intelligence



AutoML
Video Intelligence



Language



Translation



AutoML Translation



Natural Language



AutoML
Natural Language



Conversation



Dialogflow



Speech-to-Text



Text-to-Speech



Structured Data



AutoML Tables



Recommendation AI

Making archive history talk

The New York Times



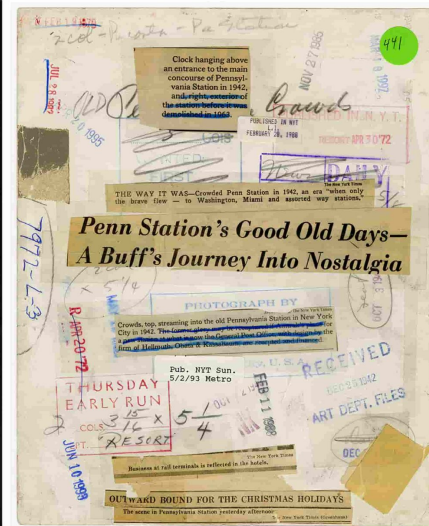
Understanding photo context by **OCR** information from the back of the photos



Leveraging **Sentiment Analysis** API to extract **semantic** information



Photo classified as **“travel”** and sub-category as **“bus & rail”**, for later **search**

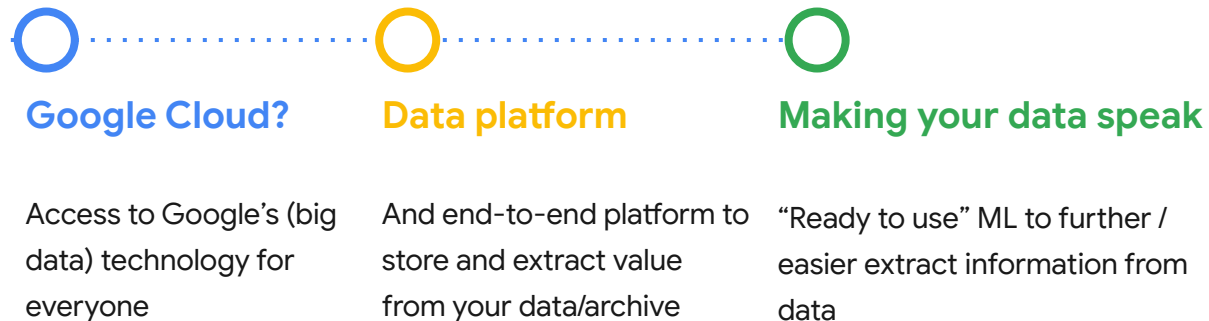


“The New York Time *THE WAY IT WAS* - Crowded **Penn Station** in 1942, an era when only the brave flew - to **Washington, Miami** and assorted way stations.”

04

Key take-aways

Summary

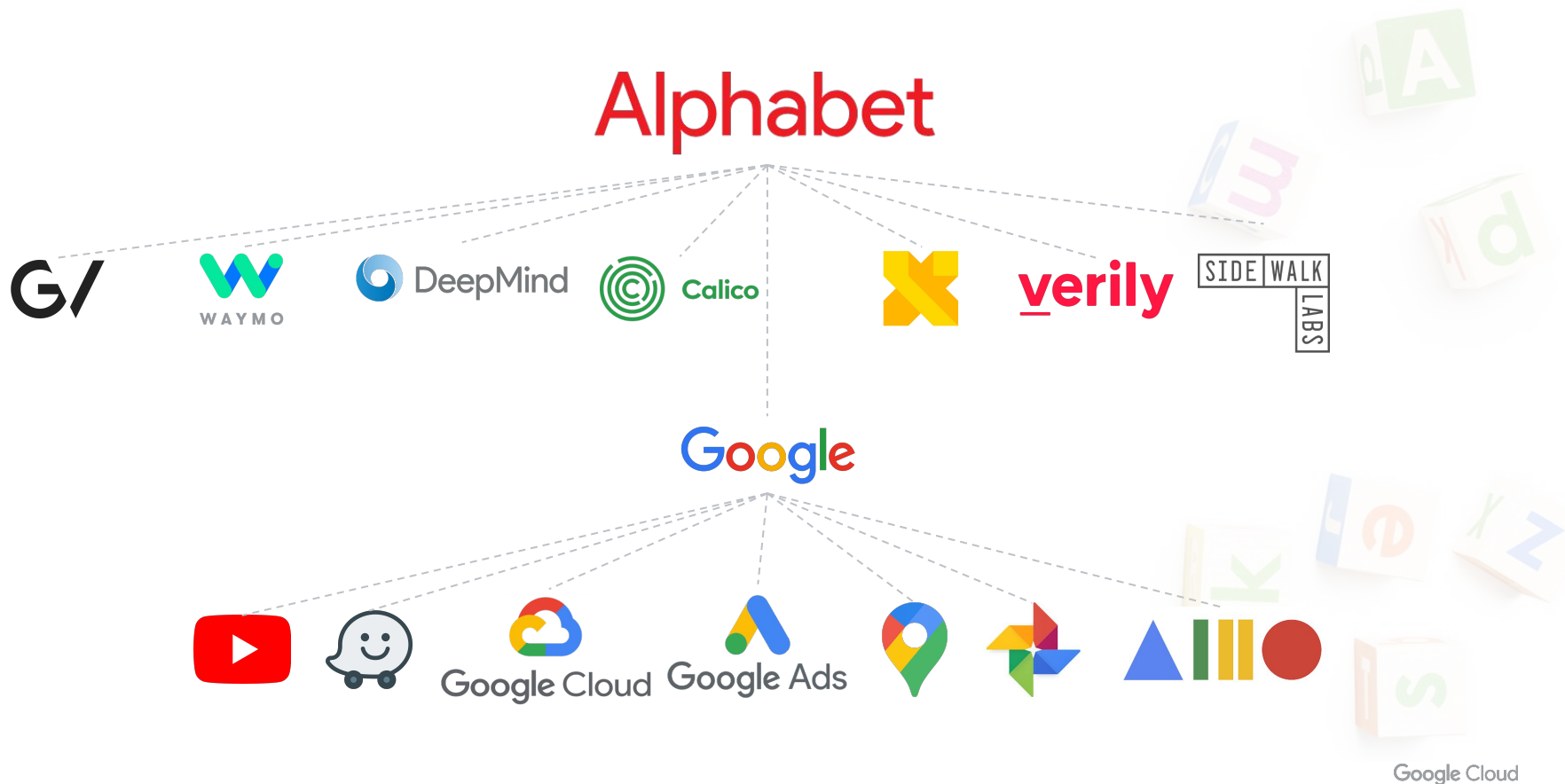




And... it's a wrap..
Muito Obrigado!



Where is Google Cloud?



What is BigQuery?

Google Cloud Platform's **enterprise data warehouse** for analytics

Gigabyte- to **petabyte-scale** storage and SQL queries

Encrypted, durable,
And highly available



Fully managed and **serverless** for maximum agility and scale

Unique

Real-time insights from streaming data

Unique

Built-in **ML** for out-of-the-box predictive insights

Unique

High-speed, in-memory **BI Engine** for faster reporting and analysis

Unique

Vision / Image recognition

Classify content with predefined labels



Detect objects and retrieve coordinates



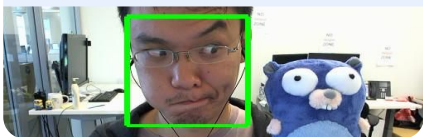
OCR support for 200+ languages



Detect brands and product logos



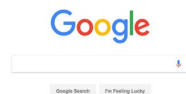
Detect faces and emotions



Detect popular places and landmarks



Find similar images on the web



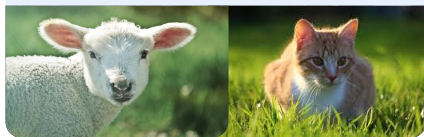
Moderate explicit content



Identify image properties (colors, etc.)



Get hints for best image cropping



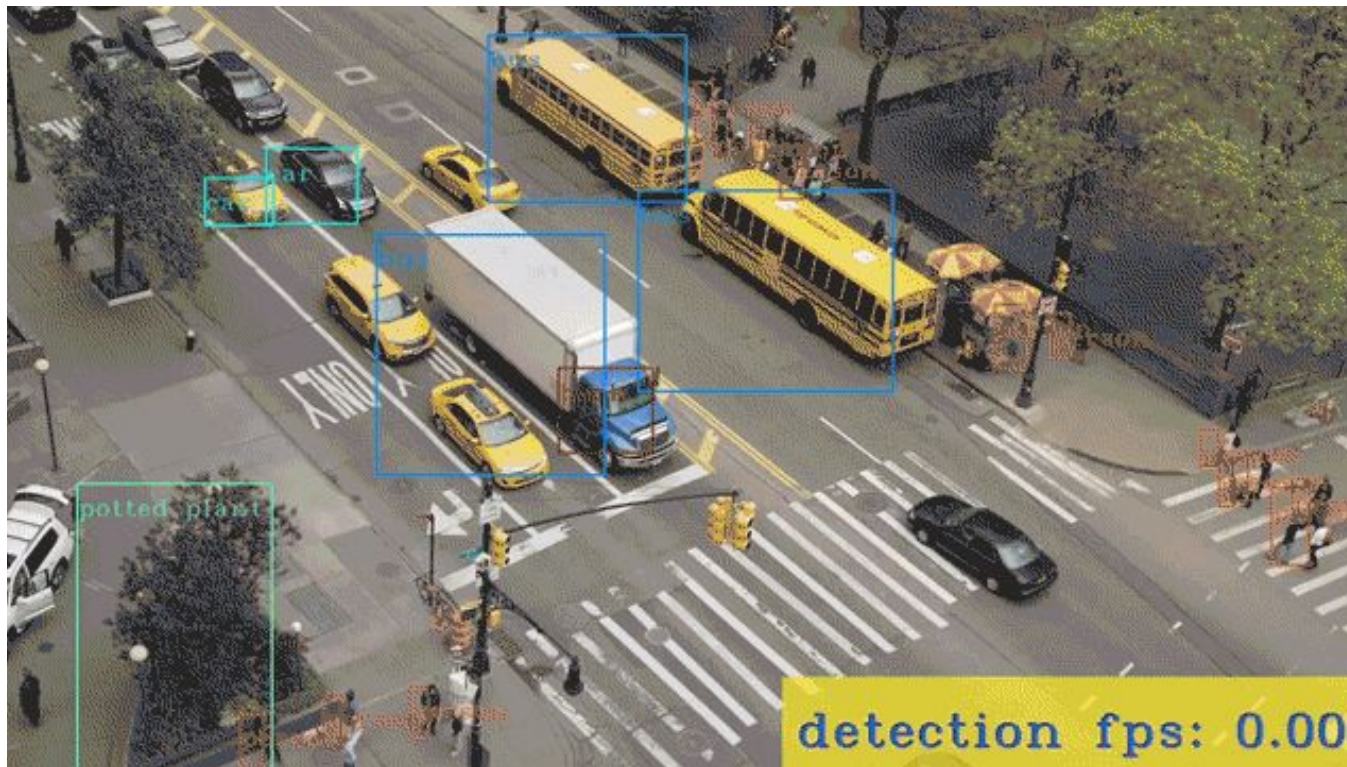
Extract printed and handwritten text



Identify items from your retail catalog



Video recognition



Document AI

DocAI turns unstructured content into structured data.



Document image

```
{Class: /us/gov/ID/Driverslicense  
State: Ohio  
Name: Jane Doe  
Issued: 7/2/2018  
Expires: 1/21/2021 }
```

Structured data

Making archive history talk

The New York Times



Processes **millions** of **historical images faster** and more cost-effectively on Google Cloud



Digitizes priceless physical assets to **increase accessibility for journalists** to leverage and tell new stories with



Accelerates research on archival stories to as little as **one week**, instead of **months**

“It’s an initiative that will unlock the past, connect it to the present, and reveal the world’s most important untold stories.”

Nick Rockwell,
CTO, The New York Times