



aws SUMMIT

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AIML004

Using Amazon SageMaker to power Trouve - India's 1st visual discovery platform for the jewelry industry

Sanket R.Dhurandhar
Principal, AI & ML Specialist
AWS India

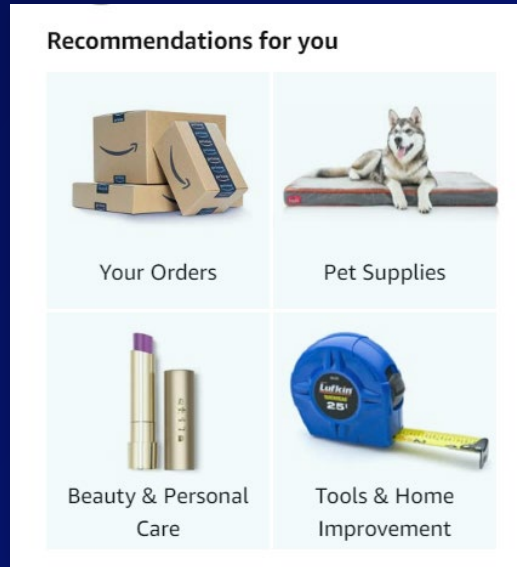
Vivek Das
Founder
Unlearn Innovation Pvt Ltd



Agenda

- ML @ Amazon
- Overview of Amazon SageMaker
- AI usecase explorer
- Introduction to “Trouve”

Amazon - Machine learning innovation at scale



4,000 products
per minute sold
on Amazon.com



1.6M packages
every day



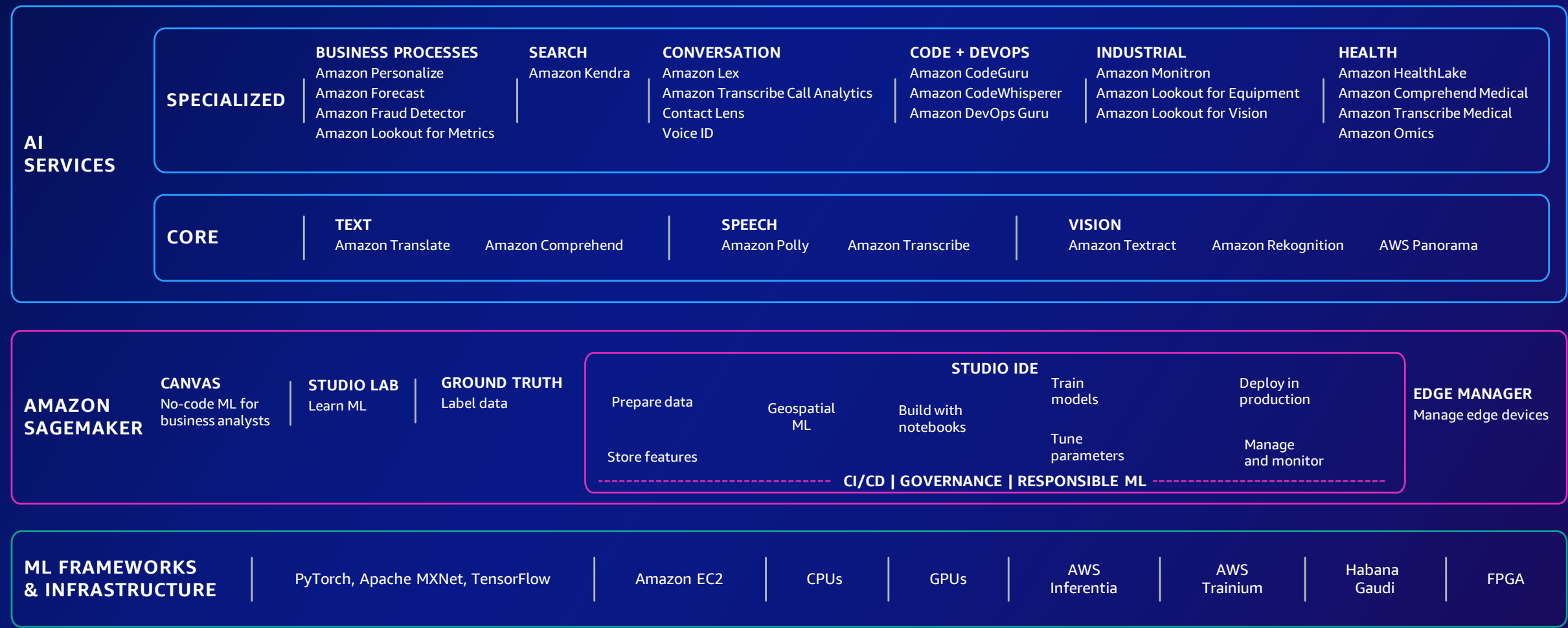
Billions of Alexa
interactions
each week



First Prime Air
delivery on
December 7, 2016

The AWS AI/ML stack

BROADEST AND MOST COMPLETE SET OF MACHINE LEARNING CAPABILITIES



100,000+ customers use AWS for machine learning



Indian customers



Amazon SageMaker helps organizations harness ML



Overcoming the barriers to ML



Not enough ML builders



No-code ML tools

Make ML predictions regardless of ML experience



Access, process, and label massive volumes of data for ML



Purpose-built data preparation tools

Access, process, and label data for ML



Disparate data science tools



Integrated ML tools in a single interface

Build, train, and deploy models using IDEs



Tedious, manual ML operations



Built-in MLOps

Automate and standardize MLOps practices

No- Code ML tools



Amazon SageMaker Canvas

BUILD ML MODELS AND GENERATE
ACCURATE PREDICTIONS—
NO CODE REQUIRED



**Quickly access and prepare data
for Machine Learning**



**Built-in AutoML to build models and
generate accurate predictions**



**Share models and datasets with data
scientists so they can validate and further
refine ML models**



**Usage-based pricing to avoid licensing
fees and reduce TCO**

Purpose-built data preparation tools



Amazon SageMaker Data Wrangler

EXPLORE, PREPARE, AND PROCESS
DATA WITH LITTLE TO NO CODE



Import data from multiple sources



Get insights on data and data quality



Visually explore, analyze, and prepare data



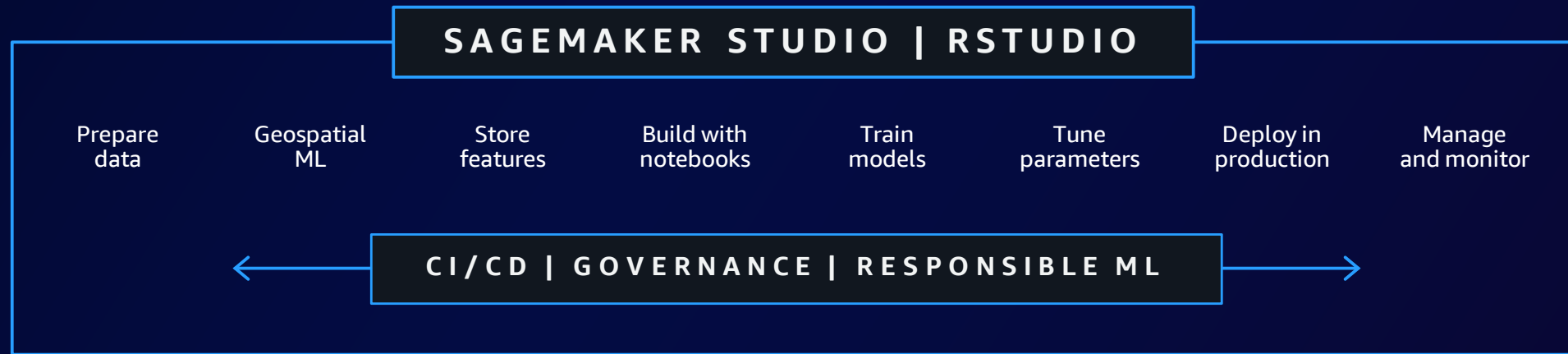
Quickly perform feature engineering



Automate ML data preparation workflows

Integrated ML tools in a single interface

Amazon SageMaker Studio brings tools for every step of the ML lifecycle under one unified visual user interface



Built-in MLOps capabilities

Amazon SageMaker MLOps

STREAMLINE THE ML LIFECYCLE



Automate ML workflows to scale model development



Build CI/CD pipelines for ML to accelerate model deployment



Catalog model versions, metadata, metrics, and approvals for traceability and reusability



Track lineage for troubleshooting and compliance



Maintain accuracy of predictions after models are deployed

Amazon SageMaker key benefits

MOST COMPLETE
END-TO-END ML SERVICE



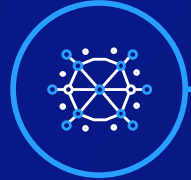
Democratize ML innovation

Empower more groups of people, including business analysts



Accelerate the ML lifecycle

Reduce training time from hours to minutes



Prepare data at scale

Access, process, and label structured and unstructured data



Streamline ML processes

Automate and standardize MLOps practices



Improve ML governance

Simplify access control and enhance transparency

Amazon SageMaker feature tour

PREPARE DATA AND BUILD, TRAIN, AND DEPLOY ML MODEL FOR ANY USE CASE



MLOps: Pipelines | Projects | Model Registry
Workflow automation, CI/CD for ML, central model catalog

Canvas
Generate accurate machine learning predictions—no code required

Studio | RStudio
Integrated development environment (IDE) for ML

Governance
Model Cards | Dashboard | Permissions



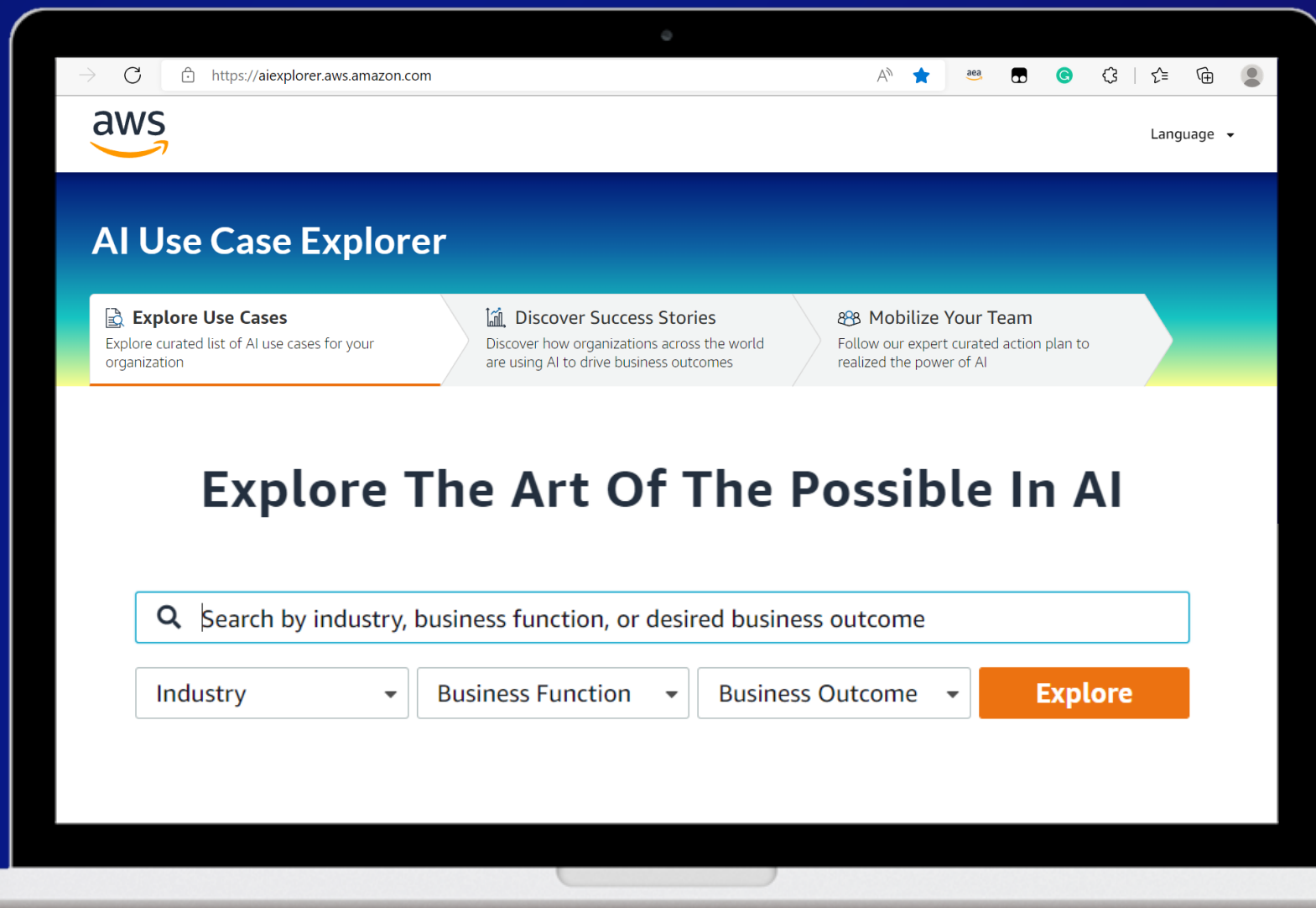
NEW!



AI Use Case Explorer

Easily find the most relevant AI use cases with related content and guidance to make them real

aiexplorer.aws.amazon.com





“ We've had three big ideas
at Amazon: Put the
Customer first.
Invent.
And be patient. ”

- Jeff Bezos,
Founder and Executive Chair, Amazon.com

AWS in synergies, leveraging a plethora of services to run ERP focused on automating clients in jewelry industry



Vivek K. Das

Founder
Unlearn Innovation Pvt Ltd

We cater to more than +20,000 users in +7 countries and almost all states in India

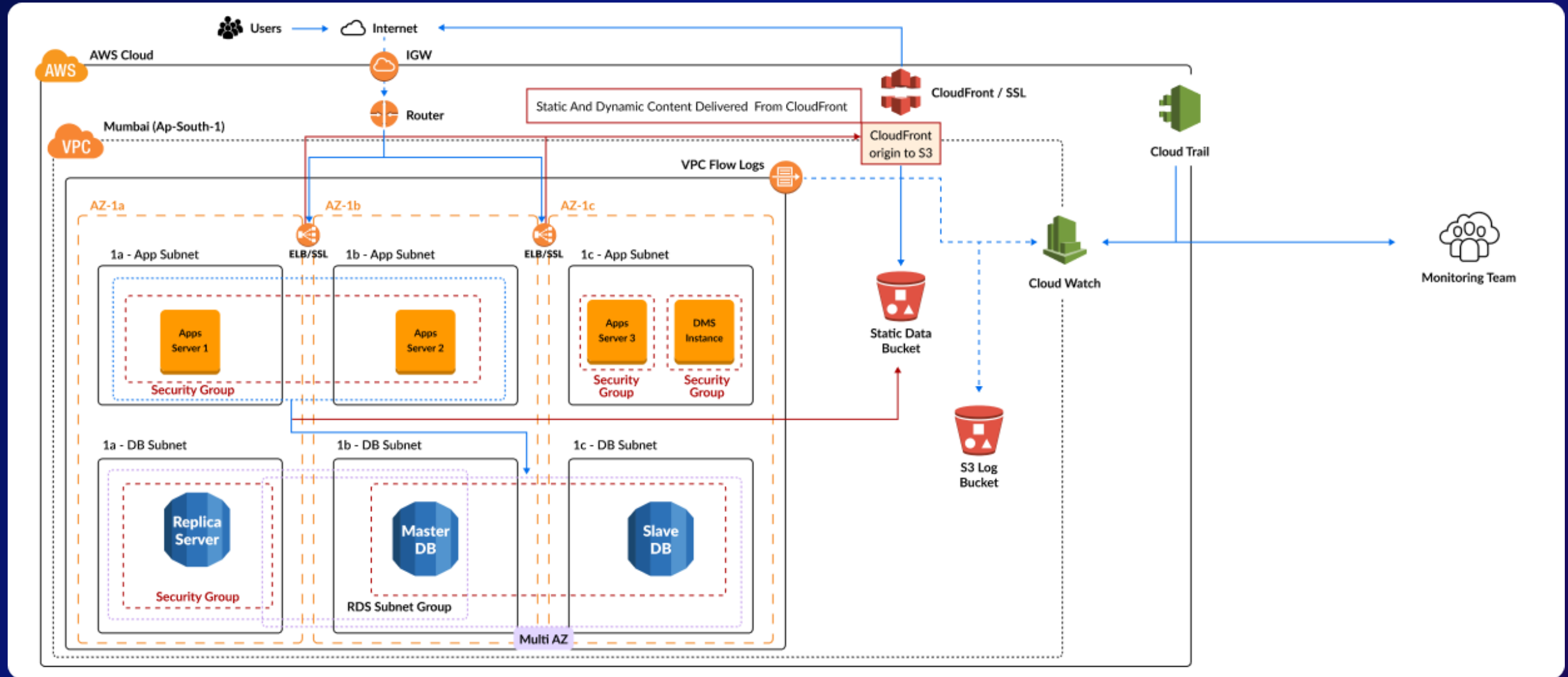


Our Global Reach



Our National Reach

Right from Oracle RDS for DBS to EC2 instance for our application, S3 and CDN for images and many more



Our fascinating eyes & brain: Nature's Best AI and ML





Trouve was born,
As a product of **Unlearn** to bring visual search
for jewelry to life in custom data sets

We love & retain image interpretation: Why?

90%

Information Transmitted
To Brain Is Visual

MIT

13 Milli Seconds

Taken By Human Brain
To Identify Images Seen

MIT

35%

Markers Plan To Optimise
For Visual Search

Search Engine Journal

45%

Retailers Now Use
Visual Search In UK

Tech HQ

55%

Consumers Say Visual Search Assists
In Developing Their Style And Taste.

Pinterest

36%

Consumers Conducted
A Visual Search

The Intent Lab

Early Adopter Brands That Redesign
Their Websites To Support Visual And
Voice Search Will Increase Digital
Commerce Revenue By 30%.

Gartner

Shopping Online For Jewellery, Clothing
Or Furniture, More Than 85% Of Respondents
Respectively Put More Importance
On Visual Info Than Text Info

The Intent Lab



Typing is past, Visual is future

Few facts to highlight

1. India has more jewelry outlets than medicine shops
2. The Global Image recognition market is expected to be worth over \$77 Billion by 2025*
3. Personalization is the key to customer experience

Few Cases: How visual search has impacted the jewelry industry

1. KAY in USA adopted **visual search** 6-8 months back
2. Signet in USA implemented a solution with visual search & has seen an increase in sales. **584% to be precise**
3. Chow sang sang in China with **800 stores** increased conversion by **8.2X** using visual discovery



There was a gap in solutions, And In India, None were easily adoptable and affordable.