

The background features a vibrant blue gradient with subtle, wavy horizontal lines. In the bottom right corner, there is a colorful abstract shape with shades of purple, pink, orange, and red. The AWS logo is positioned on the left, followed by the word 'SUMMIT' in a large, bold, sans-serif font.

# aws SUMMIT

MUMBAI | MAY 25, 2023

B M A R C 0 0 5

# How KFinTech modernized their data platform to power innovation

Vonkayala Venkata Giri

Chief Technology Officer  
KFin Technologies Limited

Shailesh Mishra

Senior Solutions Architect  
AWS India



# Agenda

- AWS modern data strategy
- KFinTech on AWS modern data strategy
- About KFinTech and CTO, Venkata Giri
- How KFinTech's challenges, business problems solved on AWS
- Key takeaways and learnings

# AWS modern data strategy



# Customer voice

Can we implement a **scalable, configurable, and extensible** data platform on AWS?

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In the past, decision-making revolved around the **enterprise data warehouse**

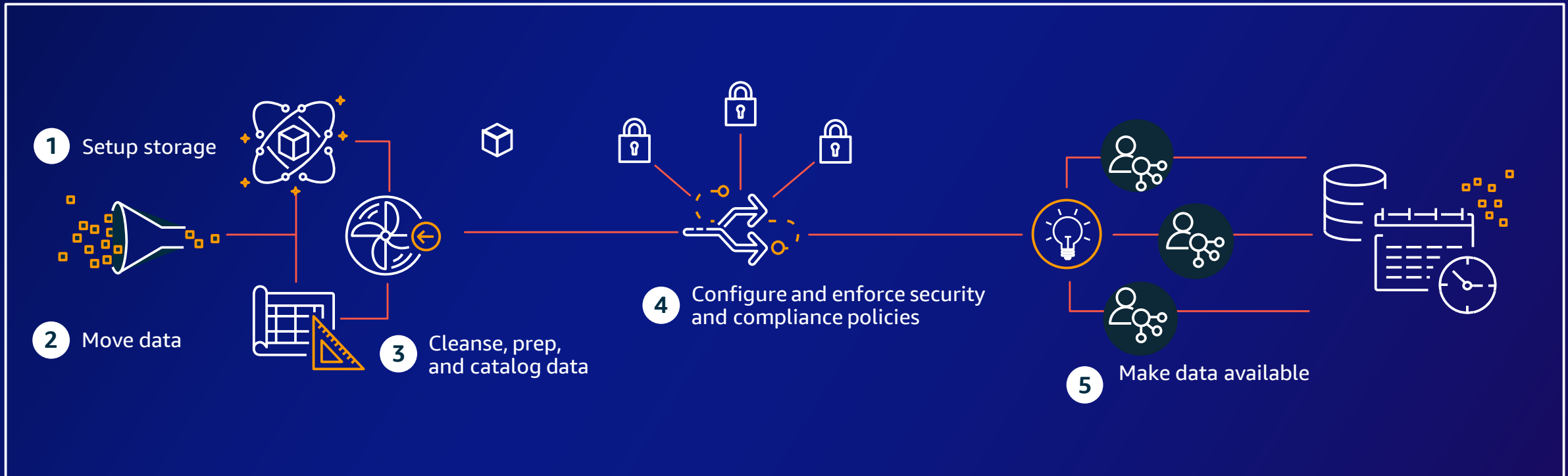
**Data no longer fits** - more data and more diversity of data than people think

**Accessibility of data** - more people accessing data, in different ways

**More regulatory pressure**

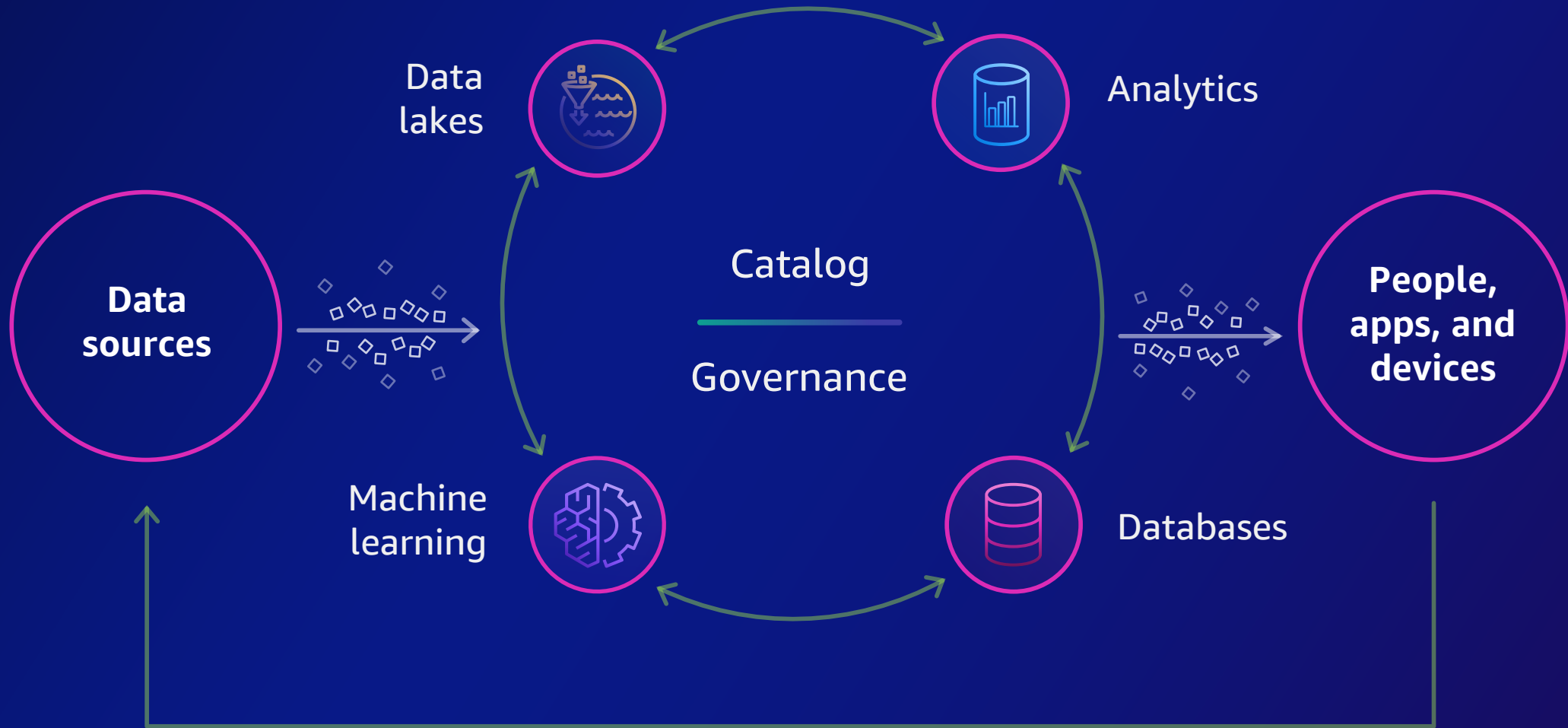
# Challenges of implementing a secure data platform

## Typical steps to build a data platform



*How can we accelerate this?*

# AWS modern data strategy



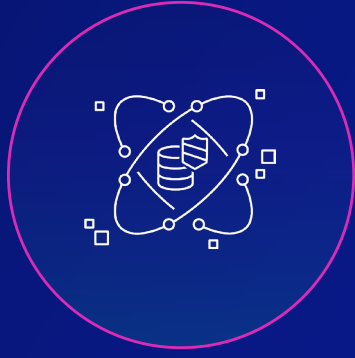
# KFintech on AWS modern data strategy



# KFintech on AWS modern data strategy components



Scalable  
data lakes



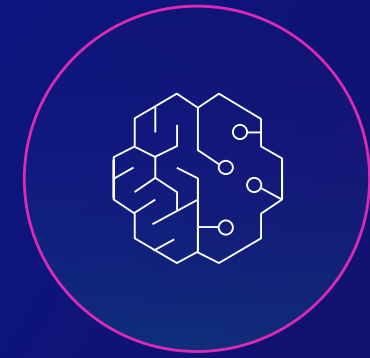
Unified data  
access, security,  
and governance



Purpose-built  
for performance  
and cost



Serverless  
and easy to  
use



Built-in  
machine  
learning

# About KFinTech and its journey on AWS



# About Me



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Over 25 years of experience in data technologies, I have in-depth knowledge of big data ecosystems, complex data ingestion pipelines, data engineering, data processing, and operations. Currently as Chief Technology Officer at Kfintech, I am revamping mutual fund arena with new age data engineering tools and technologies powered with analytics and AI/ML solutions.

## Career

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KFin Technologies Pvt. Ltd – Chief Technology Officer

Michelin- Chief Data Architect

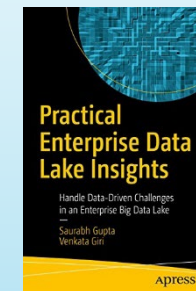
GE Digital- Sr. Director (data & Analytics)

Linkedin – Manager Data Engineering

Yahoo – Principal Tech Lead

## Books Authored

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# About Kfintech



## Our Story in Numbers

We are the **#1 Corporate Registrar in India** serving nearly 600 listed and 3000+ unlisted corporates

We currently serve over **300 AIF schemes** launched by over 100 fund managers

We help process over **10 lakh transactions** per day

We are the **#1 RTA in the SEA region**. We emerged as the transaction processing platform of choice in South East Asia, serving 23 mutual funds & pension manager clients in Malaysia


**13 crore folios** serviced whilst being the backbone to the investor

We have been leaders in the **Issuer and Intermediary ecosystem** in India for nearly 30 years.

We service **27** of the **46** Indian Mutual Fund AMCs

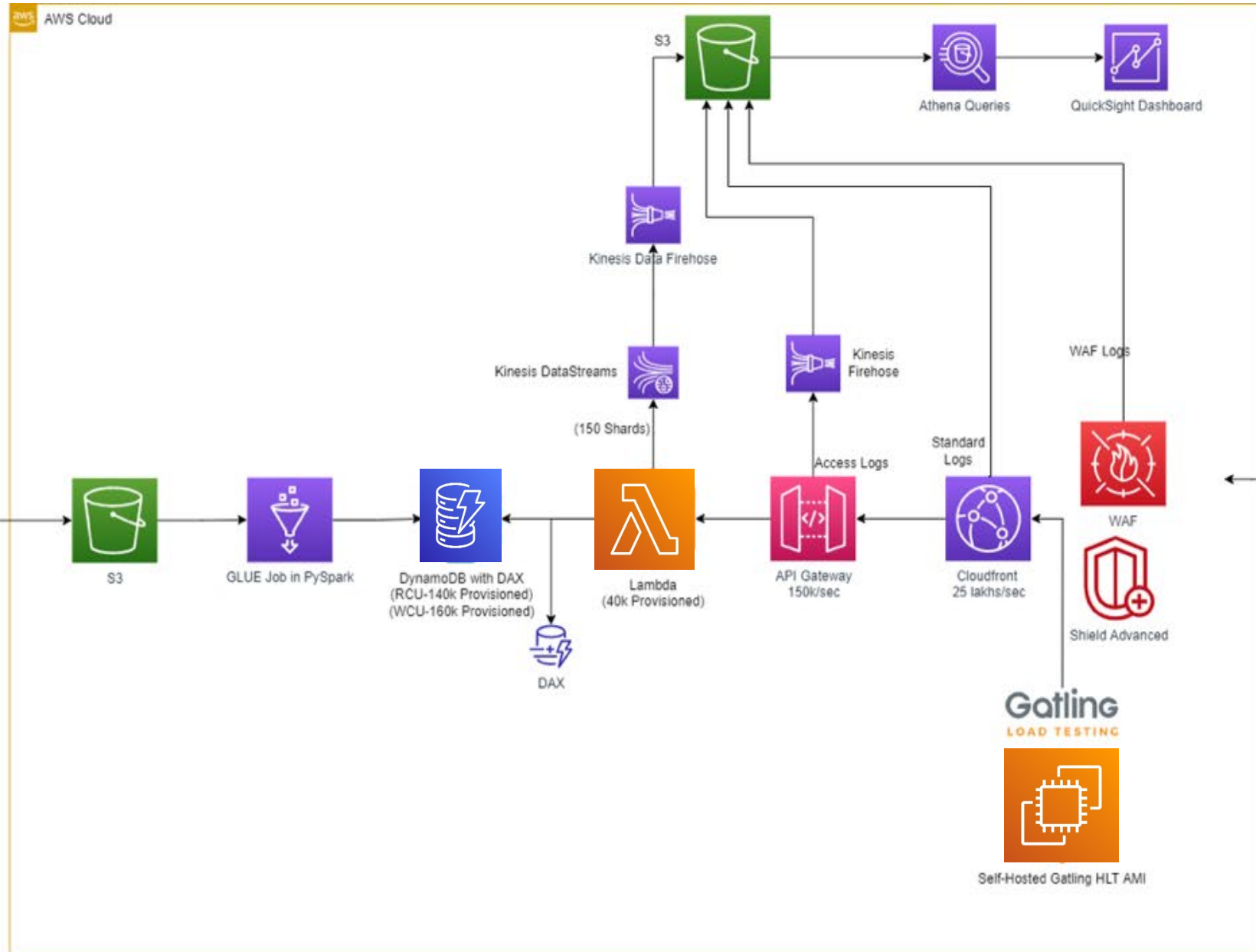
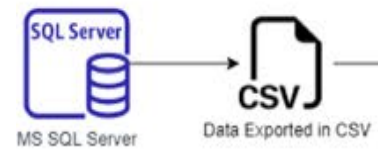
We are **one of only two players** providing central recordkeeping services for the National Pension System in India

We help manage Assets over **13 lakh crores** across all our clients and partners



Thousands of clients rely on us. Tell us what you need, and we will fulfill.

# LIC IPO

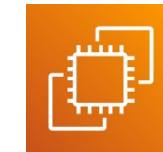


- 150K concurrency
- 95% of the load hitting in first 4 hours



- ~5 Cr DEMAT Holders checking status
- Less than 25 ms average response time

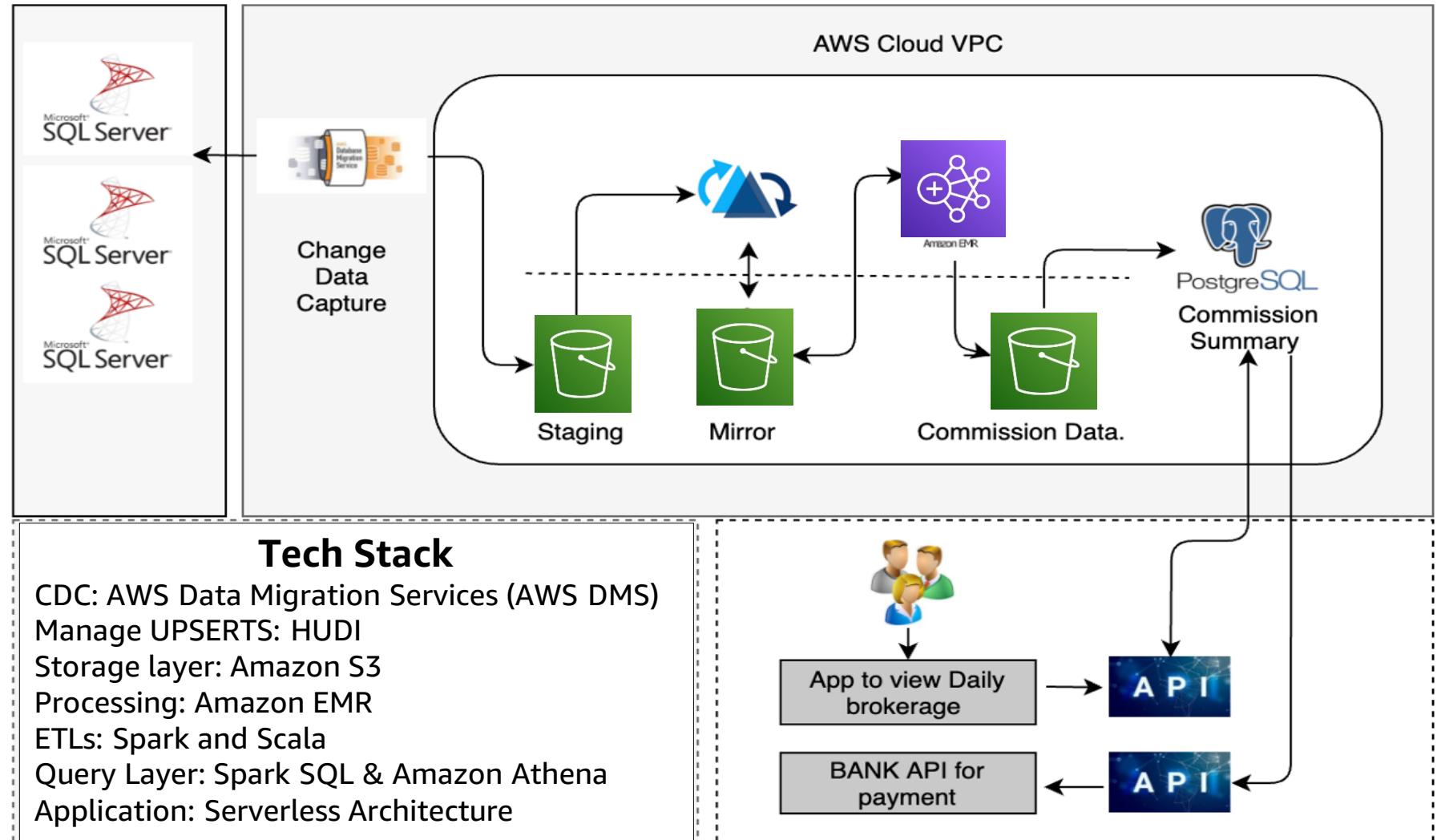
**Gatling**  
LOAD TESTING



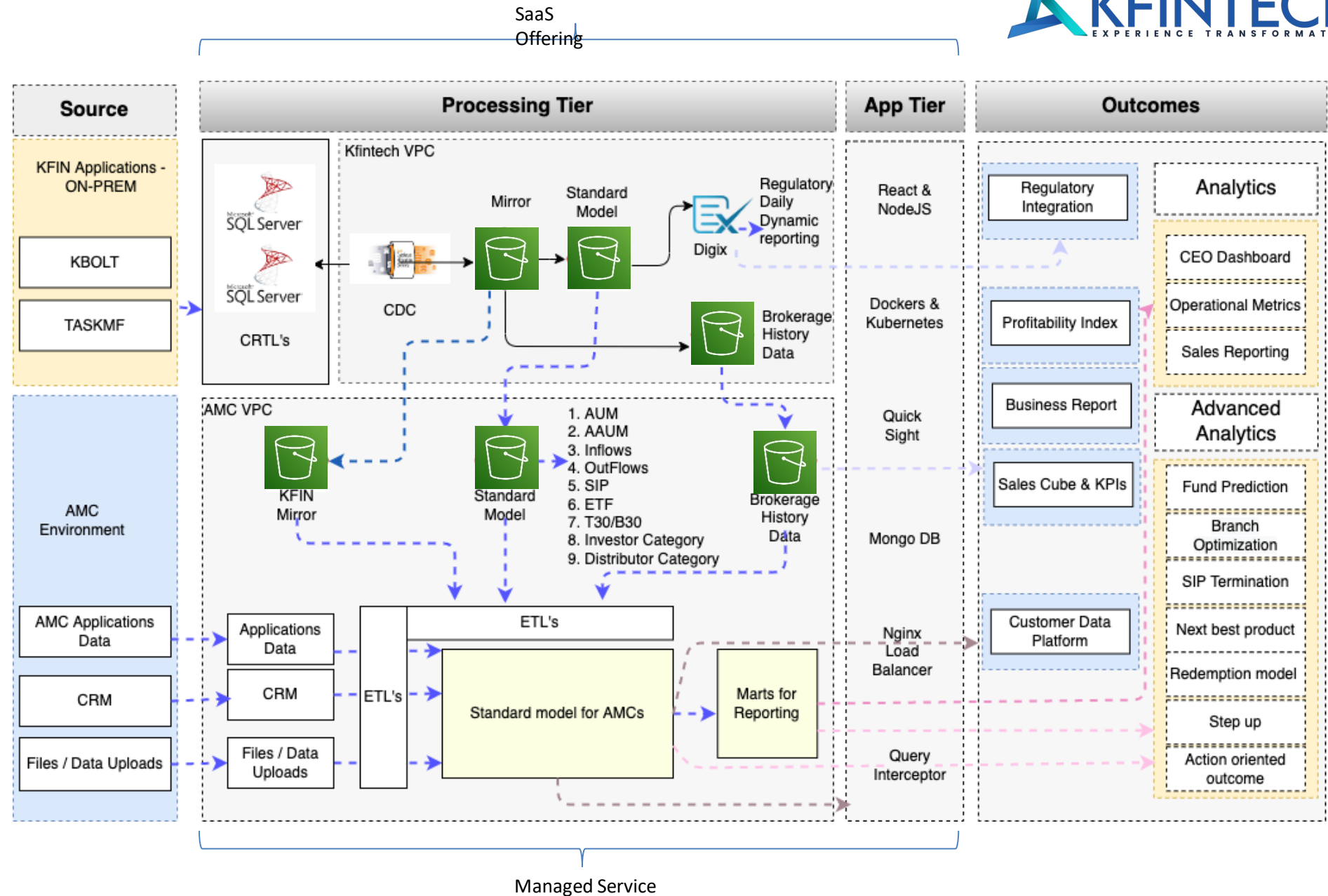
Self-Hosted Gatling HLT AMI



# Brokerage



# Warehouse Architecture



Implementation and handling of Change data capture was differentiator on AWS

- **No Primary Key defined on source** : identify the columns as PKs
- **Supplemental Logging full** : Log the complete row image updates.
- **Manage PK updates with Capture of row Pre-Image**
- **Compaction of records**: makes UPSERTS efficient on the target.
- **Bulk Updates on source, causing delay in CDC** : resume CDC post bulk handling at source and target.
- **Read from DR** : Reduce the load on primary RDBMS.
- **Primary Keys updates** : Avoided the duplicity and inconsistencies.
- **Avoided inconsistencies when Using Unique key in CDC**



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# Thank you!

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Please complete the  
session survey