



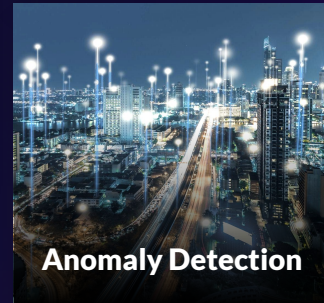
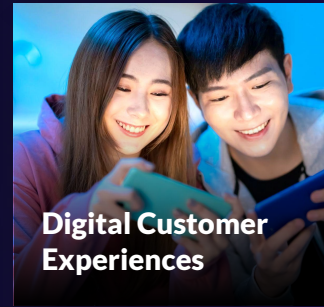
# Real-Time, Real Results **Powering Modern Applications of the Future**



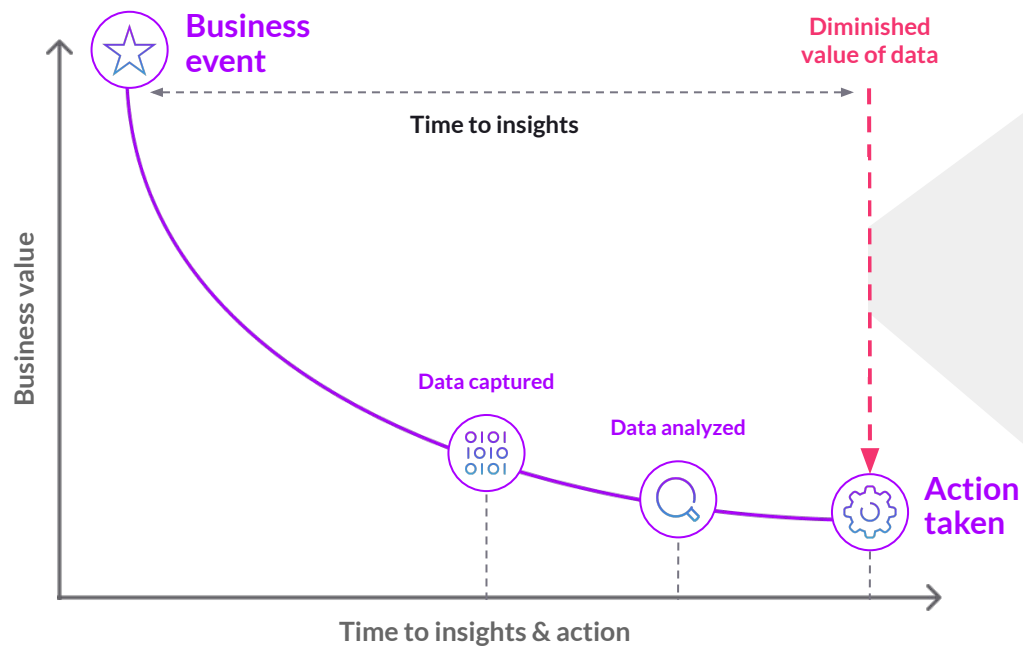
George Kuruvilla  
Director, Business Development

# Modern Applications are data intensive

- Access to real-time data
- Deliver fast and highly interactive customer experiences
- Scale effortlessly
- Run anywhere
- Data Intensive



# Diminishing Value of Data - Why Real-Time?



## Minimize Time-to-insights & action

### Use Case Examples

- Algorithmic Trading: 0.2-1 millisecond
- Fraud Analytics: Under 1 second
- Predictive Maintenance: 2 -20 seconds
- eCommerce offer: 5 -30 seconds
- Real-Time Geolocation offers: 1 - 5 minutes



SingleStore is the real-time distributed SQL database to power data intensive applications





# What are Data-Intensive Applications?

Applications that need a combination of some or all of these six attributes

## Data Size

Hundreds of Terabytes or Petabytes of data

## Ultra Fast Ingest

Thousands to Millions of rows/second

## Low Latency

Sub-second to millisecond latencies

## High Concurrency

Tens to hundreds of users accessing the application simultaneously

## Query Complexity

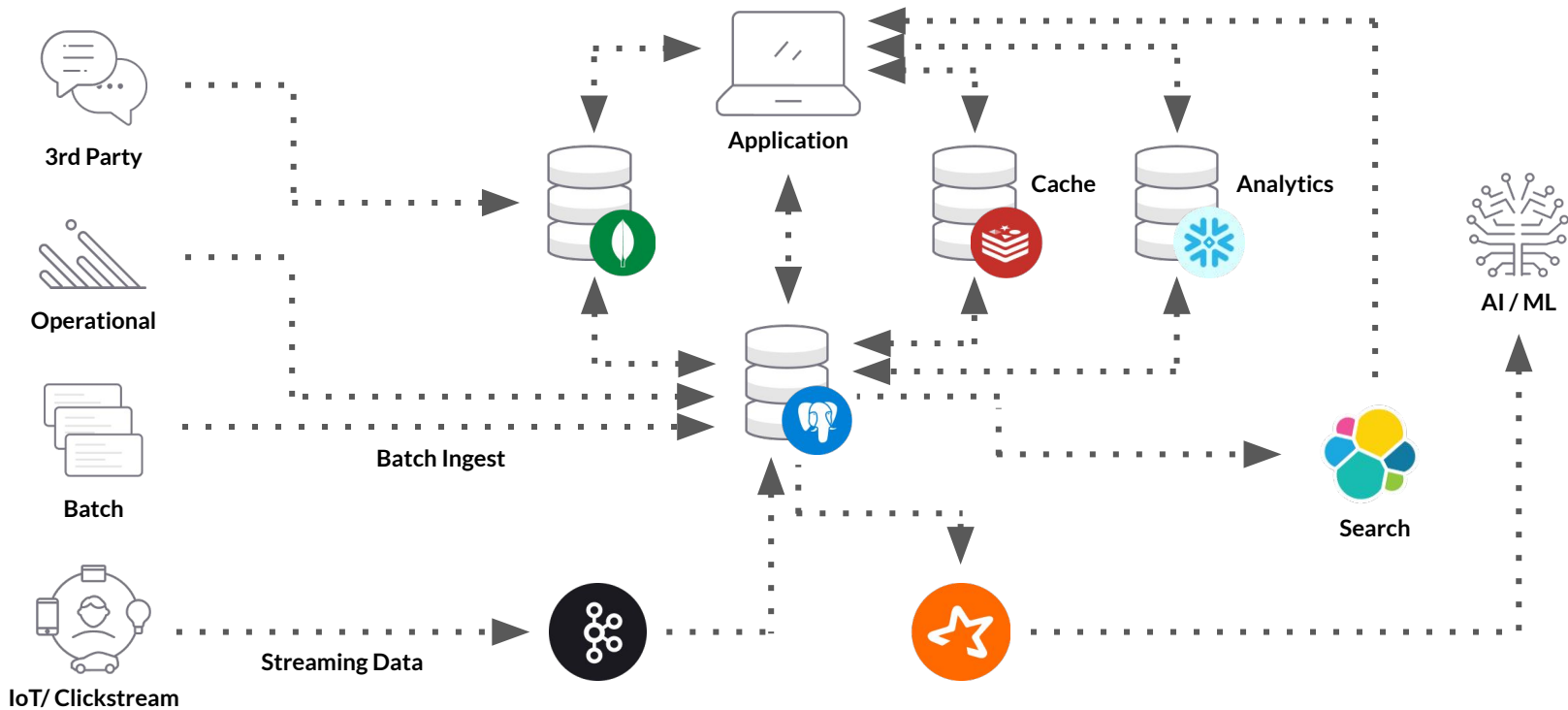
High number of joins and rich data types in the queries

## High Reliability

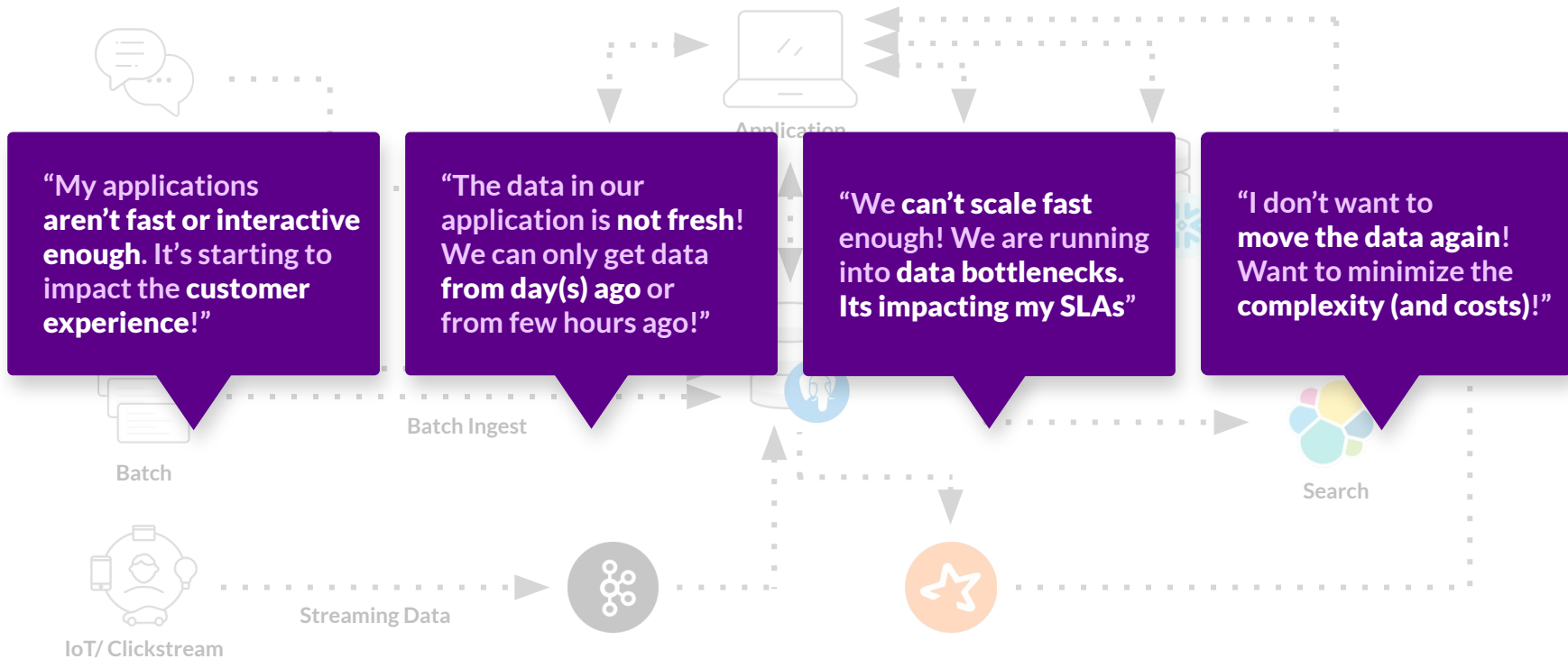
Meet strict Availability SLAs



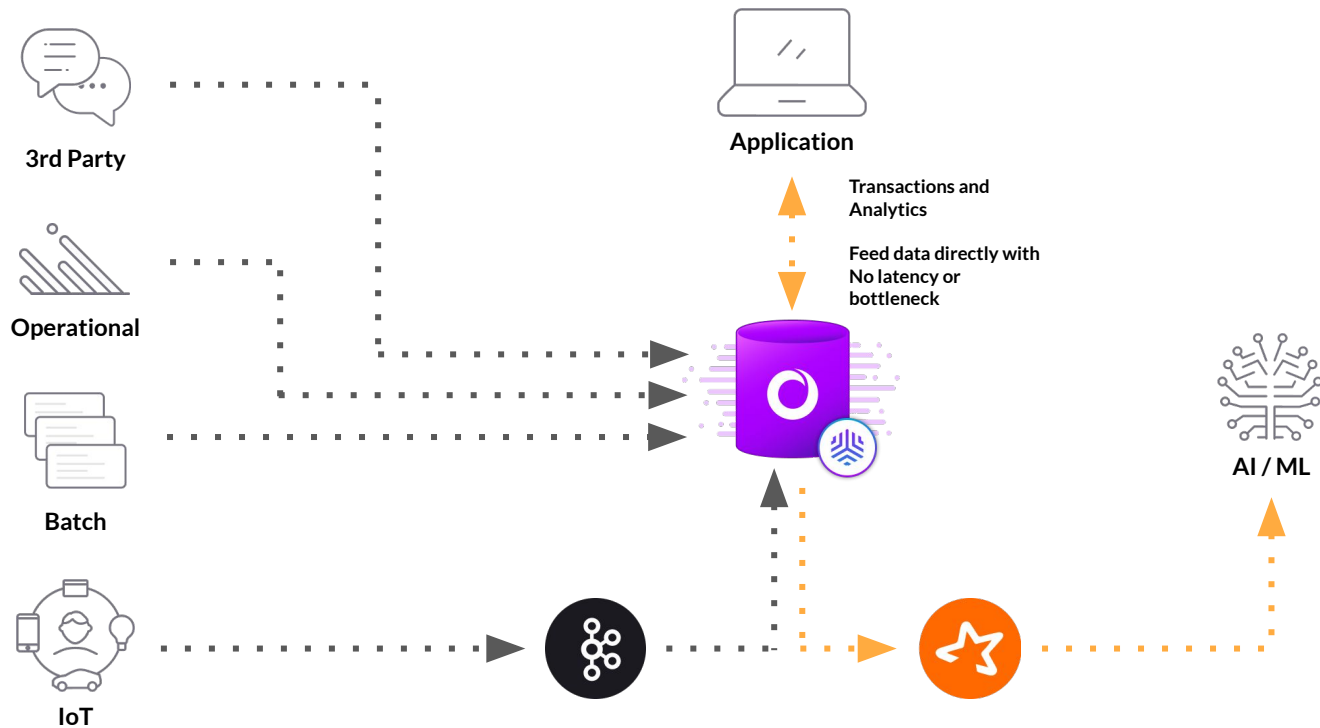
# The Old Way



# The Old Way – Outcomes

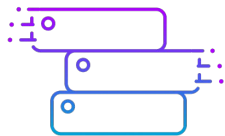


# The Modern Way



# SingleStoreDB Unifies & Simplifies Your Data Stack

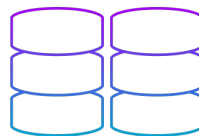
## Transactional (OLTP)



### Operational Workloads

Fast Lookup | High Concurrency

## Analytical (OLAP)



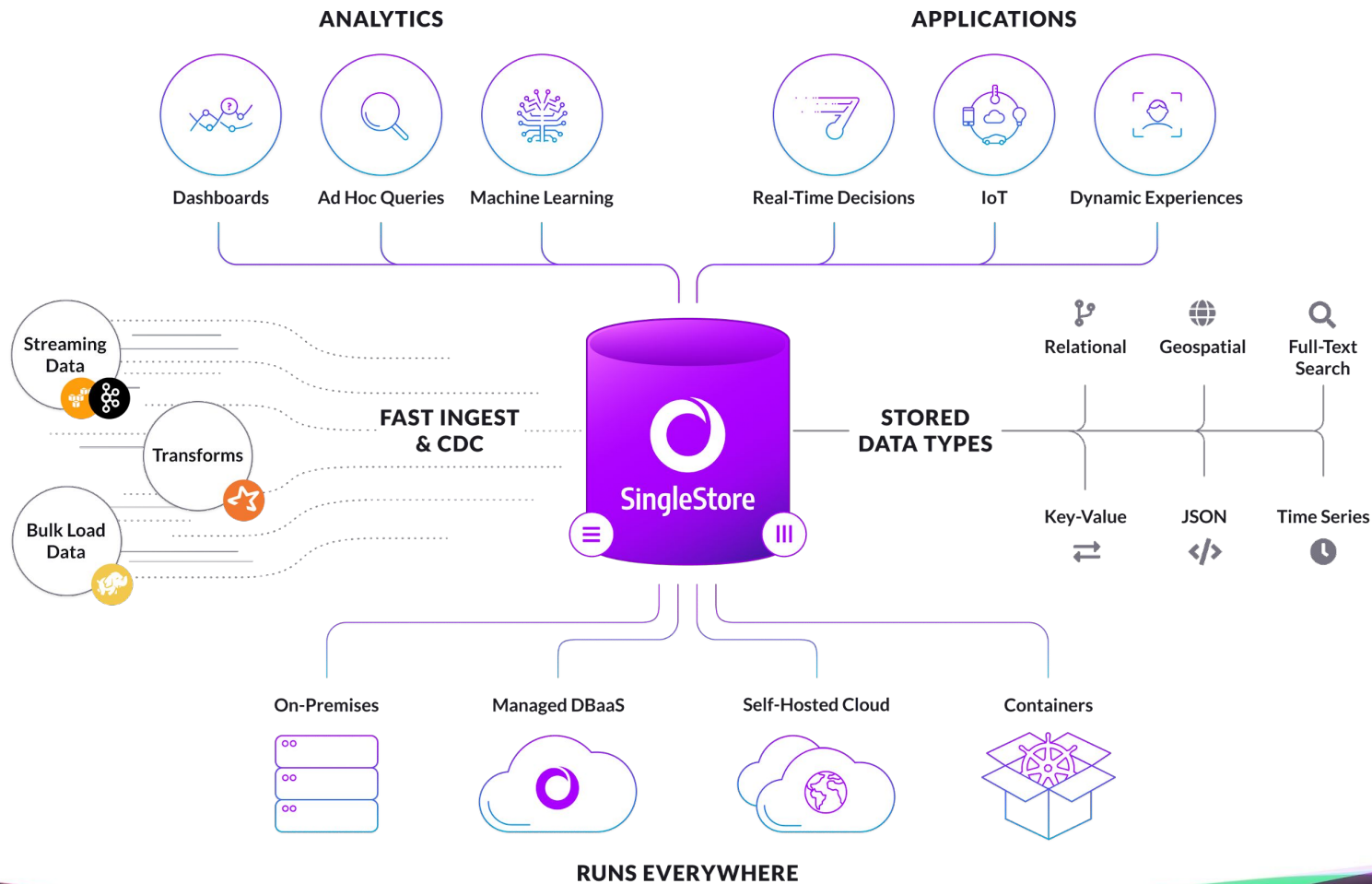
### Analytical Workloads

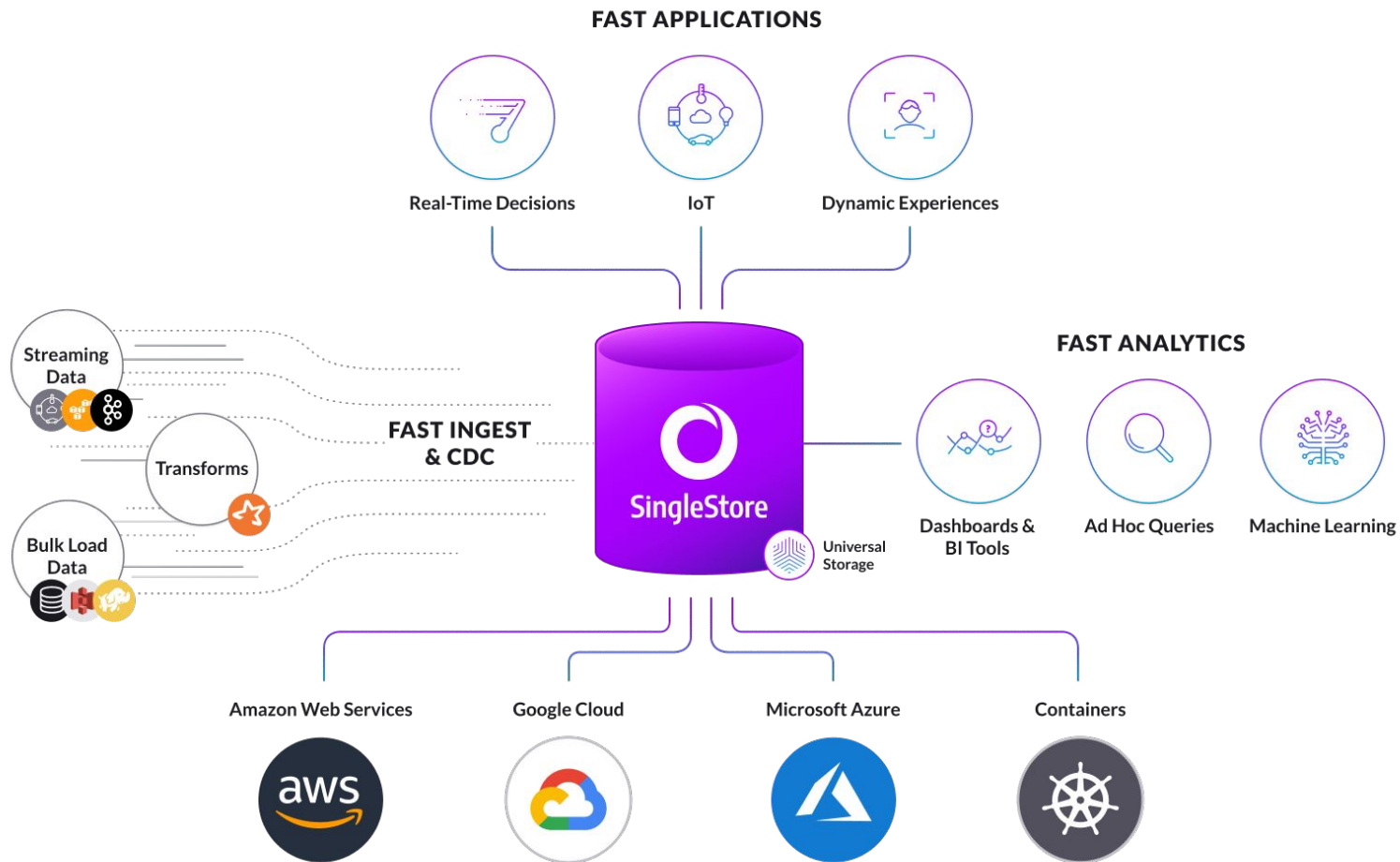
Fast Queries | Large Data Size  
Aggregation

Fast analytical queries across large, dynamic  
datasets with high concurrency



Universal Storage  
(USPTO Patent #11,068,454)







# A Single Database For Your Data Complexity

APACHE  spark +  cassandra +  elastic +  druid +  mongoDB



 SingleStore



 MySQL +  redis +  amazon  
DynamoDB



 SingleStore

fathom/

 redis +  elastic +  APACHE  
spark +  Flink



 SingleStore



 Fanatics

 APACHE  
STORM +  druid



 SingleStore

hulu

 PostgreSQL +  elastic



 SingleStore

 ARMIS

# World's Fastest Real-Time Distributed SQL Database

DISTRIBUTED



MASSIVELY PARALLEL

Transactions + Analytics



## Unified: Transactions + Analytics

The only database with a single, unified table type for both Transactions & Analytics



## Streaming Ingestion & Analytics

Ultra-fast ingestion with non-blocking low-latency analytics on data as it lands



## Unlimited Storage

World's only fast operational database with separation of storage and compute



## Performance

World's only database that delivers best-in-class performance on TPC-C, TPC-H and TPC-DS

# Universal Storage

## Old: Two Table Types (Most RDBMS do this)



### Rowstore

- Great transactional workloads
- Not great for analytics



### Columnstore

- Great for analytics
- Can't do many transactional workloads

## New: Universal Storage (Single Table Type for Transactions & Analytics)



### Capabilities

- Support fast inserts/ updates/ deletes/ upserts (OLTP)
- Complex real-time analytics (OLAP)
- Support integrity constraints

### Benefits

- Extreme performance (better CX)
- Simplifies data architecture
- Reduced data movement, data duplication and costs

# Extremely Versatile with Multi-model capabilities

---



## Relational

Standard SQL plus ability to join across the multi-model schema



## Time-Series

Native date, time, and timestamp types with built-in functions, e.g. time\_bucket



## Unstructured, Full-Text Search

Built-in, native inverted indexing



## Key-Value

Scan >30B tuple space and return trillions of key-value results in < 1 second



## GeoSpatial

Polygons, points, lines and built-in spatial functions



## JSON/ Document

JSON as native type for schema-on-write and schema-on-read

# SingleStoreDB // Best-in-Class Price-Performance

## 100-1000x Performance Boost

### Faster Insights Now!

Drive up to 20-100x\* performance improvements compared to Gen-1 single node databases



## Up to 60% Lower Costs & Complexity

### Eliminate the need for Multiple Data Engines

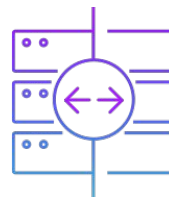
Multi-model database with scale out HTAP so that you can get rid of speciality data engines



## Real-Time Operational Analytics

### Bring Real-Time Data Experience to your Apps

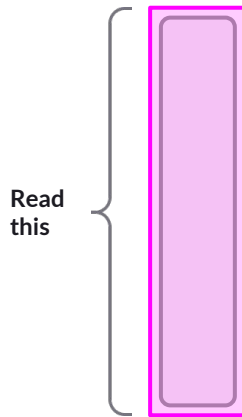
Distributed SQL database with transactions and analytics in the same engine with no data movement



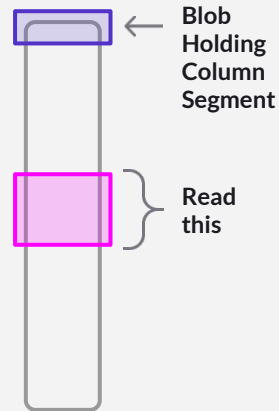
# Up to **400x** faster seeks for JSON columns

Real-time analytics for structured and semi-structured data

**Previous**  
Seeking not supported  
for all transactions  
(JSON or encoded data)



**Now**  
Seeks directly access  
needed data within segment  
(in Universal Storage)



# Is this real?

---



CASE STUDY

# Global Telco Enabler

---

Driving revenue with customer logistics data and leveraging in-memory for faster access to data



**50%**

**Reduction**

SingleStore reduced TCO by replacing Teradata architecture by 4x

# Global Telecommunications Enabler

## Challenges

**Legacy Data warehouse:** Existing legacy data warehouse was rigid, slow and very expensive to scale for new use cases. Workflows were running in 1.5 hours

**Slow Dashboards:** Existing dashboards were slow and taking hours to process data.

**Visualization:** BI tool for visualization was slow due to the underlying database

## Technical Requirements

**Fast Database:** Reduce overall time for processing data from hours to seconds.

**Modern Use Cases:** Support Real Time use cases

**Existing Workflows:** Database should be able to continue to use the existing workflows.

**Scalable:** The solution must support a moving time window of undetermined duration while also handling historical data for further analysis.

**Cost:** Reduce the overall TCO

## SingleStore Results

SingleStore was able to replace Teradata and support TCL for below:

-4X faster than Teradata in data Ingestion and Query performance

+50% improvement in TCO

-Real time Data Refresh for Analytics Application

-Reduce Database Sprawl

-New Real Time Use cases to be built

CASE STUDY

# Ant Money

---

A central graphic featuring a dark, semi-transparent rectangle overlaid on a background image of hands using a smartphone. The text "60x" is prominently displayed in large, bright pink font. Below it, the text "Improvement in Data Freshness and Performance" is written in white. The background image shows a person's hands holding a smartphone, with a finger touching the screen. The phone screen displays some data or charts, though they are not clearly legible. The overall aesthetic is modern and tech-oriented, with soft blue and white circular shapes in the background.

**60x**

**Improvement in Data Freshness  
and Performance**

“It is really good to have a data platform that can model relational Postgres data with big data, right off the bat. It’s hard to put a price on ‘It just works.’ With SingleStore, we can set it and forget it for all of our common workloads.”

**Emmanuel Kala**

Director of Engineering, Ant Money

# Boost performance and reduce TCO



## Challenges

**Use Case:** Power their real-time Fintech (embedded finance) platform

**Challenges:** The platform previously powered by **Amazon RDS & Quicksight** was painfully slow, with queries taking **seconds to minutes** to process.

No streaming data ingest or **real-time analytical capabilities**

No coverage for emergent data sources

## Technical Requirements

**Low Latency Analytics:** **Near real-time analytics** with fast reads and quick ingestion even with large datasets

**Data Types:** Needed support for **unstructured data types** including clickstream data within apps that were embedded in the Ant Money SDK.

**Scale:** Scalability to support Ant Money's accelerated growth trajectory

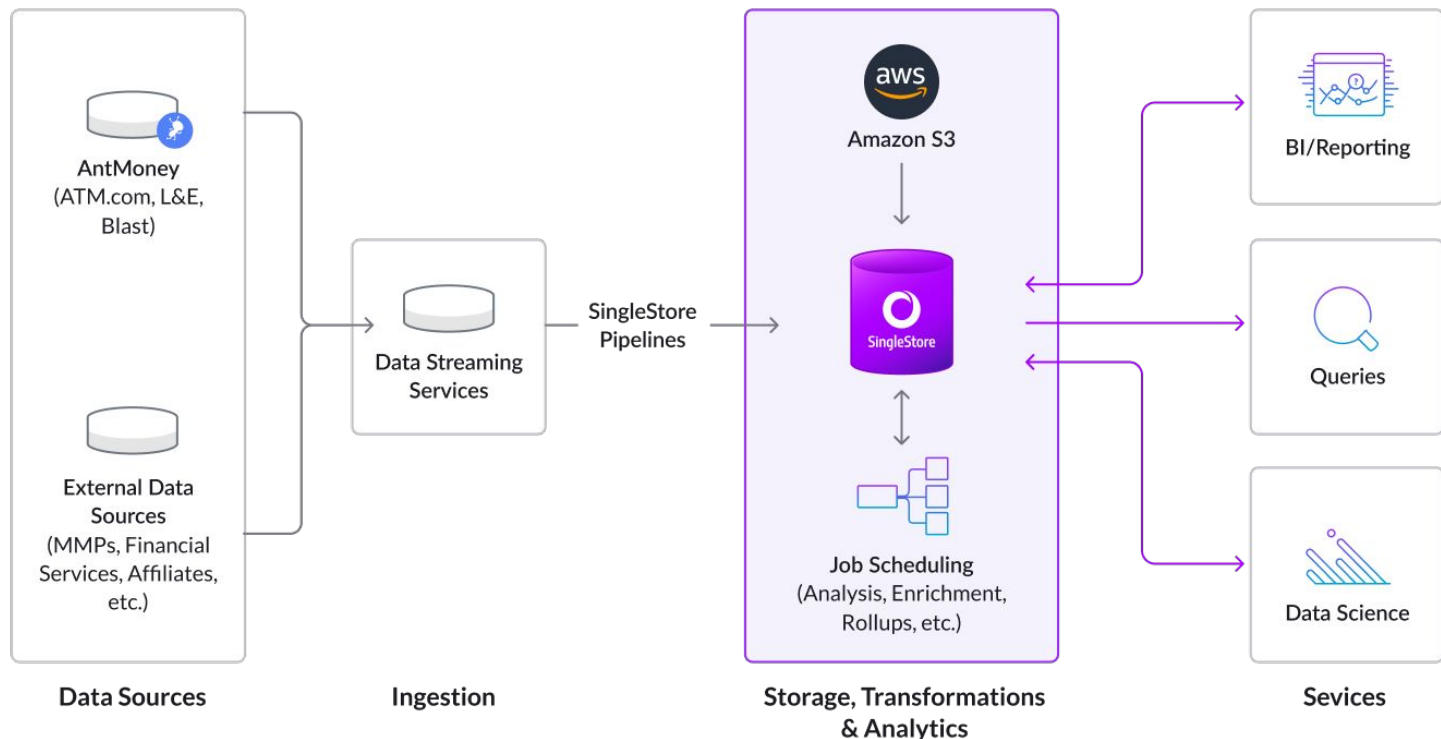
## SingleStore Results

SingleStoreDB powers the Ant Money platform providing near real-time analytics on large data sets.

With SingleStore, Ant money is able to:

- Improve data freshness by 60x by getting data in minutes vs hours
- Utilize 50X more data for insights
- 10X reduction in TCO

# Architecture with SingleStoreDB



# Impacts and Results

**60x**

Improvement in data  
freshness & performance

**Truly Data-Driven**

Fresh for all

**50x**

Increase in usable data  
that is driving insights

**Simplified Architecture**

Priceless

**10x**

Lower TCO

**Infinite Scalability**

Workload & Tooling

CASE STUDY

# IEX Cloud

Financial data infrastructure  
platform that connects developers  
and financial data creators

# 2.5 Billion

API requests processed daily

“We’ve been able to consolidate multiple databases, run our platform faster, and speed the onboarding process for new data sets”



**Josh Blackburn**

Head of Technology, IEX Cloud



# Powering the API backend with SingleStore

## Challenges

**Use Case:** Create a vibrant data ecosystem with best-in-class data for developers and the investor community.

IEX Cloud needed one database that could handle low latency reads and writes, real-time analytics, historical and real-time queries, and scale for a large user base.

**Challenges:** Clickhouse wasn't able to support millions of small reads for its 150K user base; it outgrew MySQL for performance and functionality.

## Technical Requirements

**Streaming ingestion:** Fast data ingest with massive read and write speeds

**Effortless Scaling:** Support for fast ETL operations for hundreds of data sets per day, scaling up to thousands long-term

**Low Latency Analytics:** Near real-time analytics and evaluate thousands of data points per second.

**Storing** and serving real-time and historical data at the same time.

## SingleStore Results

SingleStoreDB provided IEX Cloud many business benefits including:

- Scale to 800K events per second processing over 2.5 billion API requests daily
- 10-15X Speed Improvement for ETL processes
- Meet sub-second SLAs for their 150K customers
- Best-in-class financial data with 200+ financial data sets and plans

CASE STUDY

# Major SG Bank

---

Financial Analytics Dashboard that needed to run complex queries in real-time

**<5 sec**

Fast data ingest with massive read and write speeds for their Financial Dashboards



# Major Singapore Bank

## Challenges

**Use Case:** Finance Dashboard

### Challenges:

- Slow Tableau Dashboards > 60sec
- Extract mechanism takes too much time for processing
- Have to create several aggregated layers to optimize query processing
- Latency required <5 secs
- Ability to process complex joins

## Technical Requirements

**Large Dataset:** Fast data ingest with massive read and write speeds supports;

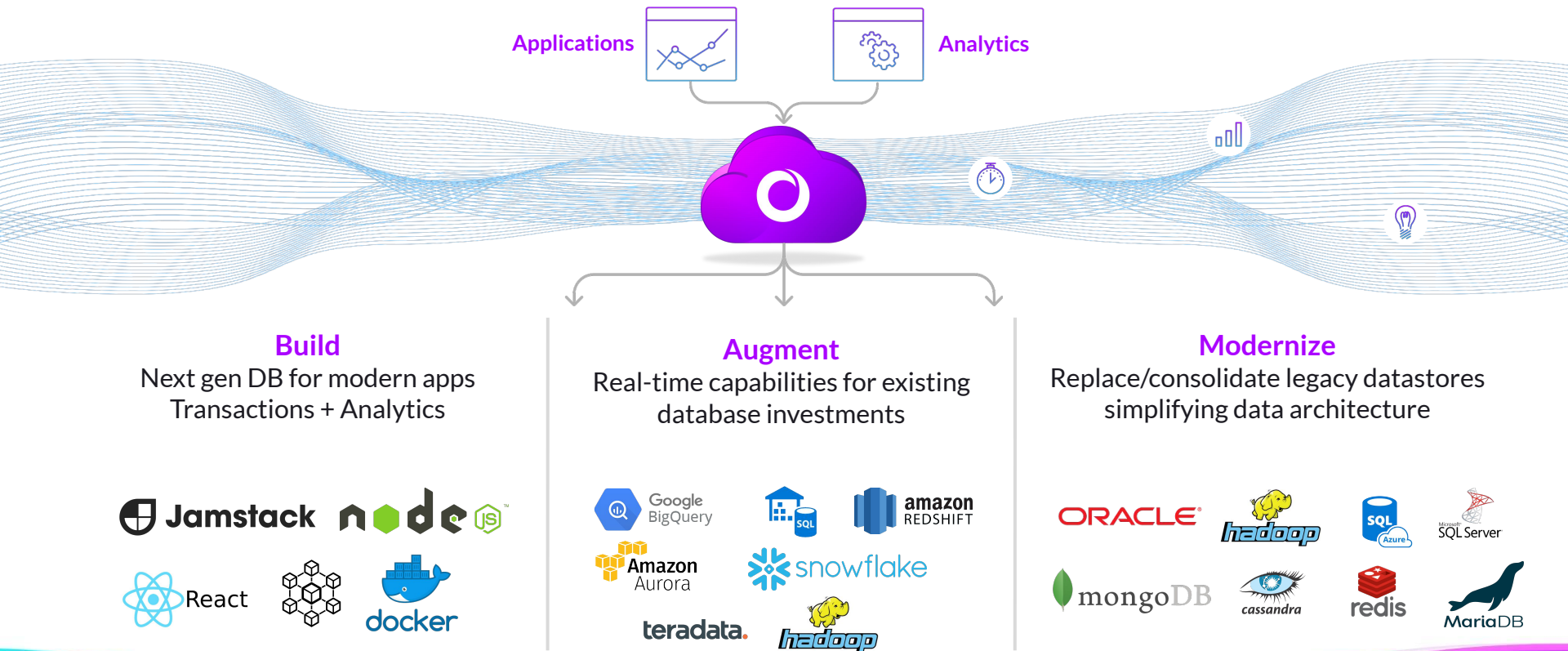
- Large Datasets
- Complex join
- High Concurrency
- Speed of Ingestion and processing
- Run Ad-Hoc queries
- Minimal aggregations
- Speed up Tableau dashboards

## SingleStore Results

SingleStoreDB provided the bank with the ability to;

- Managed **6TB of data**
- **Live Connect Tableau** Dashboard
- **Low Latency Queries:**
  - Earlier - 60 ces
  - Now - <5 secs

# Adopting SingleStore



# Adopting SingleStore



## Build

### Build new modern applications

Net new apps or operational analytics workloads



## Augment

### Augment DBs or Analytical DWs

Augment legacy and speciality OLTP/ OLAP engines, or Hadoop



## Modernize

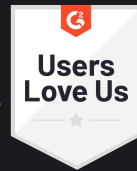
### Consolidate and Replace

Modernize by consolidating/ replacing legacy datastores, speciality databases, or Hadoop





IN 4 CATEGORIES



10 out of 10

"I've never in my life worked on such a fast database"



5.0

"10X faster than MySQL-Postgres-Oracle at 1/4 the cost"



5.0

"I don't think you can beat SingleStore. It's a 'Ferrari' of a DB"

LeadRoll



5.0

"Best in its category"

Saudi Telecom stc



5.0

"Best SQL distributed database available in 2022"



5.0

"Best decision you will ever make"



10 out of 10

"SingleStore is the fastest database ever tested by us"

SIEMENS



5.0

"Outstanding data platform"

# Customers Love SingleStore

# SingleStore recognized as a ‘Strong Performer’ by Forrester

**Translytical:** Next-generation data platforms built on a single database engine to support multiple data types and data models

SingleStore a ‘Strong Performer’ among “15 providers that matter most”

**The Forrester report notes:** “SingleStore’s strengths lie in transaction processing and the breadth of use cases.”

*“Overall extremely satisfied – we finally feel like we have a vendor who deeply cares about the problems we face, is willing and able to solve these problems quickly.”*

– SingleStore reference customer, Forrester report

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# Call to Action/Pick One

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# Book a speed test Trial Run today

SingleStore's benchmark field test kit gauges application speed using your data, in your environment. Sign up to meet with a solutions architect via the QR code and we will send you our SingleStore Starter kit to get you started!



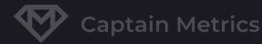
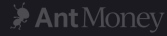
# Try SingleStoreDB Cloud for free today

Get SingleStoreDB's best-in-class speed, scale, and agility without the headaches of installing, configuring, and maintaining software.



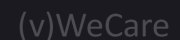
Get Started with  
**\$500 in Free Credits**

Go to [www.singlestore.com/cloud-trial](https://www.singlestore.com/cloud-trial)



## How Data Intensive are Your Applications?

Take Free 3-Minute Assessment





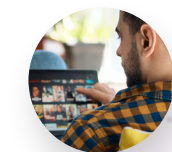
# Thank You

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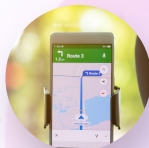
# Demo

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# ...And They Are Powering Digital Experiences



Real-Time APIs



Mobile Apps



Can't-Wait Analytics



FastApps



Fastboards

## Digital Experiences

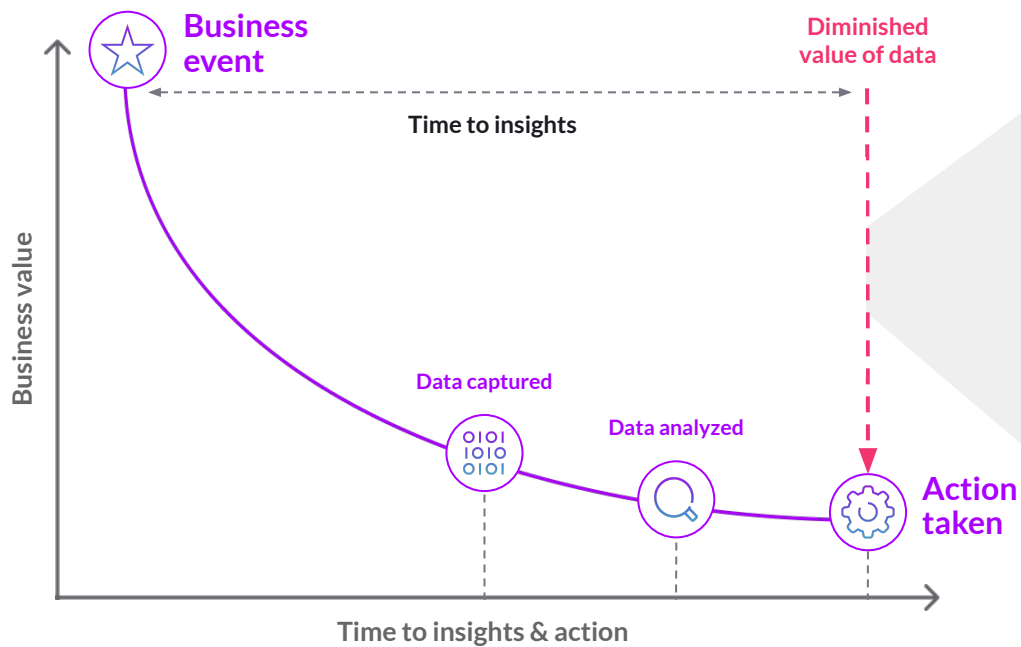
Drive real-time customer experiences

Eliminate digital customer experience degradation



Won't-Wait Customer Experiences

# Why Real-Time? - Diminishing value of Data



## Minimize Time-to-insights & action

### Examples

- Algorithmic Trading: 0.2-1 millisecond
- Fraud Analytics: Under 1 second
- Predictive Maintenance: 2 -20 seconds
- eCommerce offer: 5 -30 seconds
- Real-Time Geolocation offers: 1 - 5 minutes



# What Is Needed For Real-Time Applications to power these experiences?

---

# Modern Applications Need a Combination of Operational and Analytical Capabilities

## TransactionalDB (OLTP)

- Fast Record Lookups
- Streaming Ingest
- Fast Writes
- High Concurrency
- High Availability
- High Resiliency
- Extensibility



## AnalyticDB (OLAP)

- Blazing Fast Queries
- Fast Reads
- Aggregations
- Large Data Size
- Large Data Load
- Resource Governance

# SingleStore - Growth & Momentum

## FINANCIAL STRENGTH

**\$ 308M**

Raised in the last 20 months alone

## CUSTOMER & REVENUE

**209%**

YoY Cloud Customer growth

## COMMUNITY

**1M+**

Downloads of free production SingleStoreDB

## EMPLOYEES

**400+**

Employees in 9 countries  
Growing at 24% YoY

*Fiscal '22 ending February 2022*



IN 4 CATEGORIES



**Gartner**

Recognized in Gartner MQ  
for Cloud DBMS -2021



★★★★★ 5.0

"Best SQL distributed database  
available in 2022"

April 5, 2022

★★★★★ 5.0

"I don't think you can beat  
SingleStore. It's a 'Ferrari' of a DB"

June 13, 2022

★★★★★ 5.0

"SingleStore - the only database  
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June 23, 2021

★★★★★ 10 out of 10

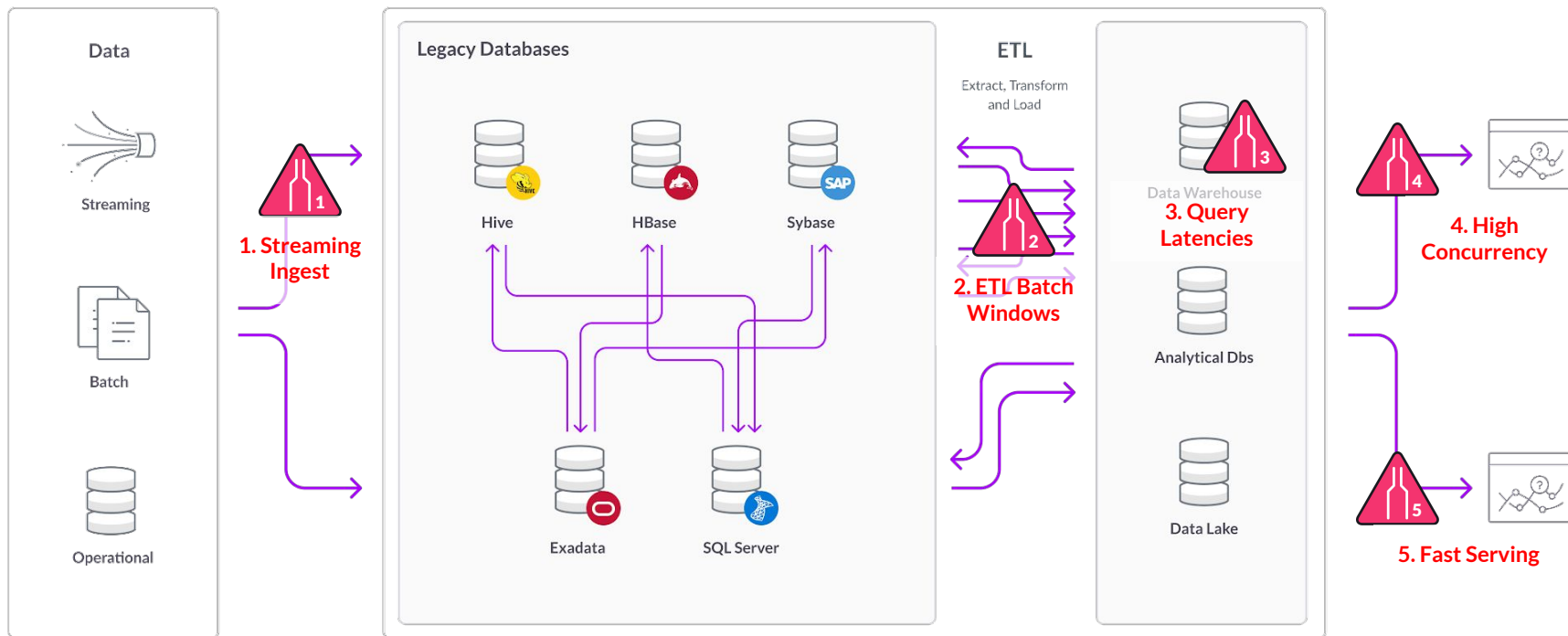
"SingleStore is the fastest  
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**SIEMENS**

August 18, 2021

# Key Challenges With Legacy Architectures

## Conventional Batch Analytics



# World's Fastest Real-Time Distributed SQL Database

DISTRIBUTED



MASSIVELY PARALLEL

Transactions + Analytics



## Unified: Transactions + Analytics

The only database with a single, unified table type for both Transactions & Analytics



## Streaming Ingestion & Analytics

Ultra-fast ingestion with non-blocking low-latency analytics on data as it lands



## Unlimited Storage

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## Performance

World's only database that delivers best-in-class performance on TPC-C, TPC-H and TPC-DS

# Universal Storage

## Old: Two Table Types (Most RDBMS do this)



### Rowstore

- Great transactional workloads
- Not great for analytics



### Columnstore

- Great for analytics
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## New: Universal Storage (Single Table Type for Transactions & Analytics)



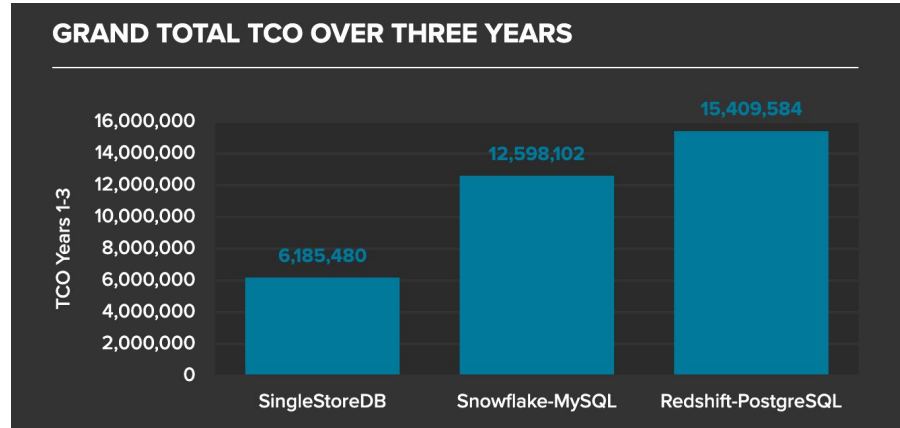
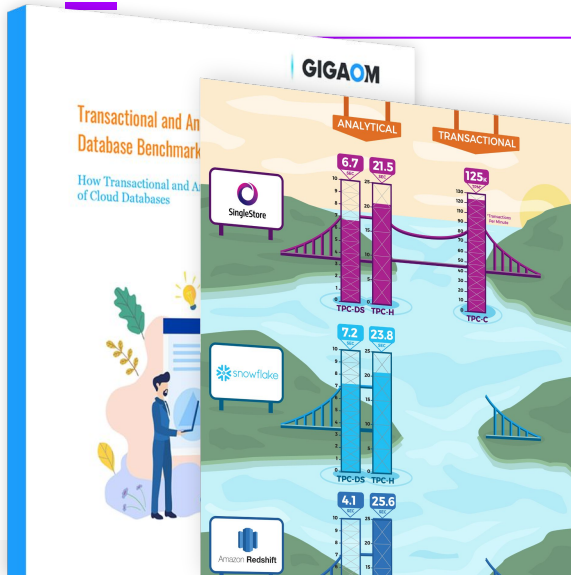
### Capabilities

- Support fast inserts/ updates/ deletes/ upserts (OLTP)
- Complex real-time analytics (OLAP)
- Support integrity constraints

### Benefits

- Extreme performance (better CX)
- Simplifies data architecture
- Reduced data movement, data duplication and costs

# Best in Class Price-Performance



Source  
GigaOm Report on  
Transactional and  
Analytical Workloads,  
June 2022

## GigaOm Benchmark Study

**50% Savings**  
over three years compared  
to **Snowflake-MySQL** stack

**60% Savings**  
over three years compared  
to **Redshift-PostgreSQL** stack

**Up to 100% Faster**  
in TPC-H workloads compared  
to **Redshift** (with Refresh)

# Three-Tiered Architecture

## In-Memory Rowstore (OLTP)

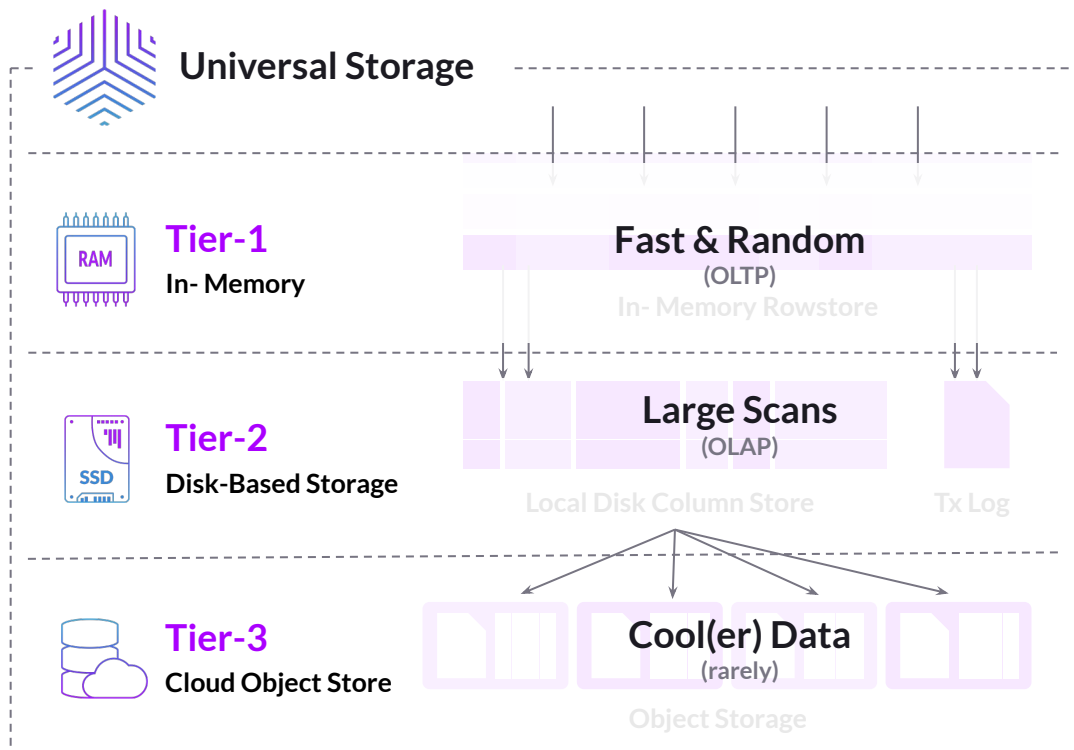
- Extremely fast random reads & writes
- Row lookups in sub-milliseconds

## On Disk Columnstore (OLAP)

- Scalable storage with high compression
- Not impacted by slow data entry vs other Columnstore DBs
- Data is available immediately for fast complex analytical queries

## Object Storage (Durability)

- Unlimited Storage capacity for bulk data storage
- Up to 90% compression in Object Storage
- All data is asynchronously written to object storage





# Extremely Versatile with Multi-model capabilities

---



## Relational

Standard SQL plus ability to join across the multi-model schema



## Time-Series

Native date, time, and timestamp types with built-in functions, e.g. time\_bucket



## Unstructured, Full-Text Search

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## 100-1000x Performance Boost

### Faster Insights Now!

Drive up to 20-100x\* performance improvements compared to Gen-1 single node databases



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### Eliminate the need for Multiple Data Engines

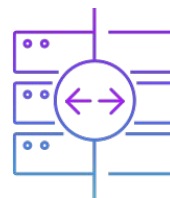
Multi-model database with scale out HTAP so that you can get rid of speciality data engines



## Real-Time Operational Analytics

### Bring Real-Time Data Experience to your Apps

Distributed SQL database with transactions and analytics in the same engine with no data movement



# Multi-model Support // Customers



Relational



Unstructured,  
Full-Text Search



GeoSpatial



Time-Series



Key-Value



Semi-Structured,  
JSON

Uber

High performance **geospatial queries** and **time series** aggregates with standard SQL



“Queries that would time out completely under **ElasticSearch** are now processing in less than 10 seconds with SingleStore”

iex  
cloud

Consolidated three data engines (MySQL, Redis, & Clickhouse) into SingleStoreDB

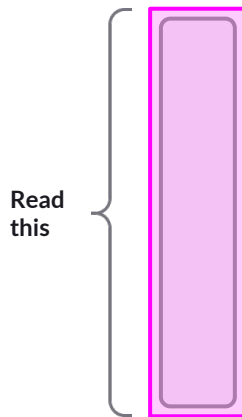
fathom/

“We are now all-in on SingleStoreDB Cloud, which has allowed us to **drop Redis, DynamoDB and MySQL**”

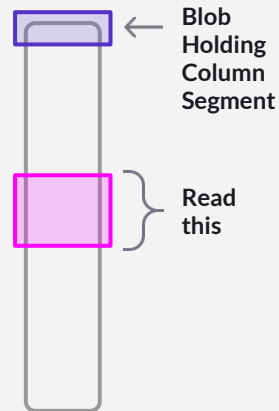
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Seeking not supported  
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**Now**  
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(in Universal Storage)



# Powering Modern Applications + Analytics



## Financial Services

- Portfolio Management
- Wealth Management
- Fraud Analytics
- Risk Management
- Algorithmic Trading
- Crypto Exchanges



## Telecom

- 5G/ IoT Analytics
- Real-time Customer Experience
- Network Telemetry
- Geolocation Analytics
- Field Support Optimization



## Technology

- Leading SaaS applications
- Improved CX for Internet Services
- Supply Chain Analytics
- Machine Learning Pipelines & Platforms
- Dashboards & APIs



## Media and Streaming

- Ad Optimization & Ad Serving
- Streaming Media Quality Analytics
- Real-time recommendations
- Video Game
- Telemetry Processing



## Energy and Utilities

- IoT & Smart Meter Analytics
- Predictive Maintenance
- Geospatial Tracking
- & Calculations
- Dashboards & APIs



**3500+**

Users Supported



**10ms**

Average response time



**300K**

Events per second



**1.2M**

Smart meters analyzed



**10M**

Upserts per second

**Uber**

Real-time insights with massive concurrency for marketing and analytics



**TIER 1  
WEALTH MGMT**

Real-time wealth management application for high net-worth investors



**COMCAST**

Streaming analytics to drive proactive care and real-time recommendations



**TOP ENERGY  
COMPANY**

IoT Analytics ingesting and analyzing data from over 1.2 Million smart meters



**Akamai**

13x data growth moving from batch to near-real time visibility and analytics

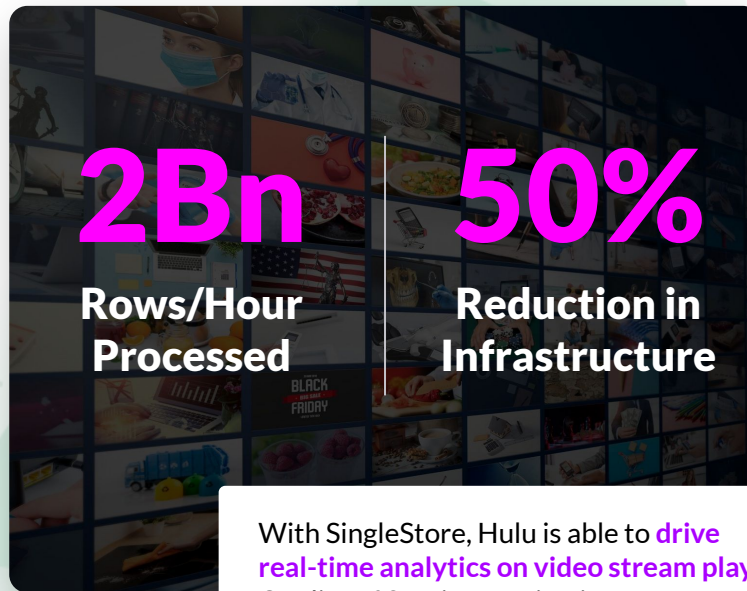
# Customer Stories



## CASE STUDY

# Hulu

Real-time ingest of telemetry data and timely access for analytics



With SingleStore, Hulu is able to **drive real-time analytics on video stream playback** Quality of Service monitoring every second while providing deeper analytics capabilities



# Quality of Service Analytics



## Challenges

**High Management Costs:** Massive hardware footprint that is costly to manage & maintain.

**Poor User Experience:** Frequent outages impacted development and degraded user experience.

**Unable to Sustain Performance:**  
Reached a point of diminishing returns.

## Technical Requirements

**Operations:** Simplify architecture and ease maintenance burden. Increase stability of platform.

**Analytics:** Increase analytics capability to provide greater value to business.

**Scale:** Maintain performance at scale.

# 100TB

**Of data processed everyday to power real-time Video QoS**

## SingleStore Results

**50%(+) overall reduction in infrastructure**

**Streamlined data processing pipeline using SingleStore Pipelines.**

**Migrated one of the largest instances of Druid in the world**

**Hulu is now able to ingest and process over 2Bn rows/ hour or 100 TB of data every day to drive ultra-fast insights**



Tier 1 Wealth  
Mgmt Firm

## CASE STUDY

# Tier 1 Wealth Mgmt Firm

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Leading global investment  
banking, securities and  
investment management firm

**40k+ users**

Concurrent users with low-latency  
performance (10-20 milliseconds)  
for wealth mgmt. application

# Real-Time Wealth Management



Tier 1 Wealth  
Mgmt Firm

## Challenges

**Use Case:** Provide fast and interactive experiences on **portfolio dashboards** to high net-worth investors.

**Pain Points:** **No real-time insights.**

Legacy data architecture based on Hadoop was constrained by batch ETL processes which had latencies built in

**Lagging performance** with 40,000 users accessing the application/dashboards simultaneously

## Solution

Replaced/augmented legacy infrastructure with SingleStoreDB to power its wealth management platform

SingleStore as the fast layer with Hadoop/HDFS as a data lake for long-term data storage.

**20ms**  
Response Time

**40K**  
Concurrent users

## SingleStore Results

### Fast Responsiveness

Streaming ingest with instant query responses in under 10-20 milliseconds, with no latencies

### Performance

40,000+ users supported with no contention, even when market events cause spikes in usage

Five years' history instead of one 5x the data for deeper analysis

## CASE STUDY

# Kellogg's

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Driving revenue with customer logistics data and leveraging in-memory for faster access to data



# 20x

## Reduction

SingleStore reduced 24-hour ETL process  
down to 43 minutes

“We wanted to see how we could transform processes to make ourselves more efficient and start looking at things more intraday rather than weekly to make faster decisions.”

**JR Cahill**

Principal Architect for Global Analytics, Kellogg

# Delivering Profitability Analytics for Supply Chain



## Challenges

**Slow Event-to-Insight:** Batch ingest prevented daily profitability analysis

**Slow Dashboards:** Slow interactive queries prohibited insights and deeper discovery

## Technical Requirements

**Real-Time Ingest:** Move from batch ETL to real-time ingest from supply chain apps

**Fast SQL:** Database must accelerate and work natively with Tableau platform

## SingleStore Results

Profitability analysis of customer logistic data transformed from weekly to daily

**30x faster ingest** dropped data loading from 22 hours to 43 minutes

**80x faster Tableau dashboards** over prior solution

CASE STUDY

# Ant Money

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A central graphic featuring a dark, semi-transparent rectangular box. Inside the box, the text "60x" is written in large, bold, magenta font. Below it, the text "Improvement in Data Freshness and Performance" is written in a smaller, white, sans-serif font. The background of the box shows a blurred image of a person's hands using a pen to point at a tablet displaying charts and graphs.

# 60x

## Improvement in Data Freshness and Performance

“It is really good to have a data platform that can model relational Postgres data with big data, right off the bat. It’s hard to put a price on ‘It just works.’ With SingleStore, we can set it and forget it for all of our common workloads.”

**Emmanuel Kala**

Director of Engineering, Ant Money

# Boost performance and reduce TCO



## Challenges

**Use Case:** Power their real-time Fintech (embedded finance) platform

**Challenges:** The platform previously powered by **Amazon RDS & Quicksight** was painfully slow, with queries taking **seconds to minutes** to process.

No streaming data ingest or **real-time analytical capabilities**

No coverage for emergent data sources

## Technical Requirements

**Low Latency Analytics:** **Near real-time analytics** with fast reads and quick ingestion even with large datasets

**Data Types:** Needed support for **unstructured data types** including clickstream data within apps that were embedded in the Ant Money SDK.

**Scale:** Scalability to support Ant Money's accelerated growth trajectory

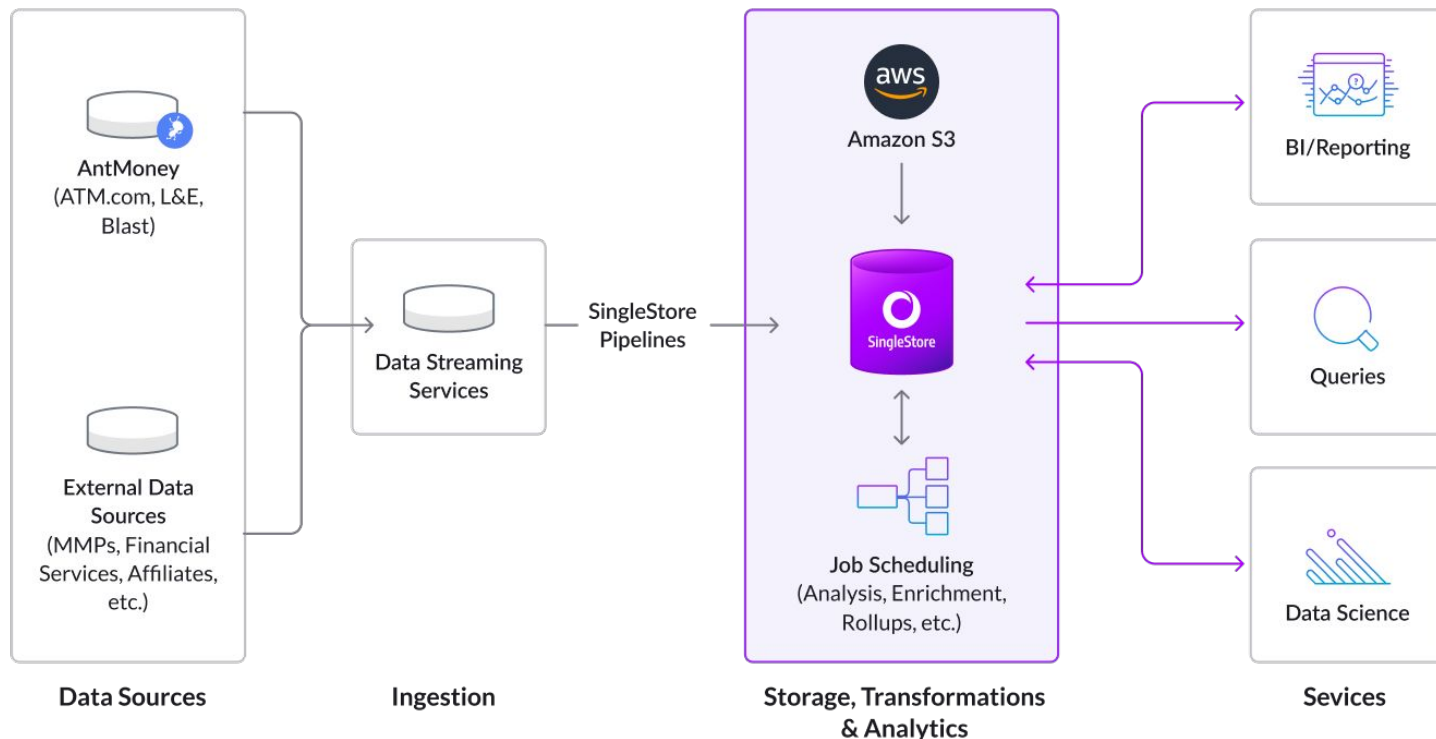
## SingleStore Results

SingleStoreDB powers the Ant Money platform providing near real-time analytics on large data sets.

With SingleStore, Ant money is able to:

- Improve data freshness by 60x by getting data in minutes vs hours
- Utilize 50X more data for insights
- 10X reduction in TCO

# Architecture with SingleStoreDB





# Impacts and Results

**60x**

Improvement in data  
freshness & performance

**Truly Data-Driven**

Fresh for all

**50x**

Increase in usable data  
that is driving insights

**Simplified Architecture**

Priceless

**10x**

Lower TCO

**Infinite Scalability**

Workload & Tooling

CASE STUDY

# IEX Cloud

Financial data infrastructure  
platform that connects developers  
and financial data creators

**2.5 Billion**

API requests processed daily

“We’ve been able to consolidate multiple databases, run our platform faster, and speed the onboarding process for new data sets”



**Josh Blackburn**

Head of Technology, IEX Cloud

# Powering the API backend with SingleStore

## Challenges

**Use Case:** Create a vibrant data ecosystem with best-in-class data for developers and the investor community.

IEX Cloud needed one database that could handle low latency reads and writes, real-time analytics, historical and real-time queries, and scale for a large user base.

**Challenges:** Clickhouse wasn't able to support millions of small reads for its 150K user base; it outgrew MySQL for performance and functionality.

## Technical Requirements

**Streaming ingestion:** Fast data ingest with massive read and write speeds

**Effortless Scaling:** Support for fast ETL operations for hundreds of data sets per day, scaling up to thousands long-term

**Low Latency Analytics:** Near real-time analytics and evaluate thousands of data points per second.

**Storing** and serving real-time and historical data at the same time.

## SingleStore Results

SingleStoreDB provided IEX Cloud many business benefits including:

- Scale to 800K events per second processing over 2.5 billion API requests daily
- 10-15X Speed Improvement for ETL processes
- Meet sub-second SLAs for their 150K customers
- Best-in-class financial data with 200+ financial data sets and plans

TIER -1 BANK

# Case Study



TIER -1 BANK

“On the swipe” credit card fraud detection

**50ms**  
**Fraud Detection**

**70+**

Sophisticated fraud detection queries evaluated on  
each transaction

# Case Study

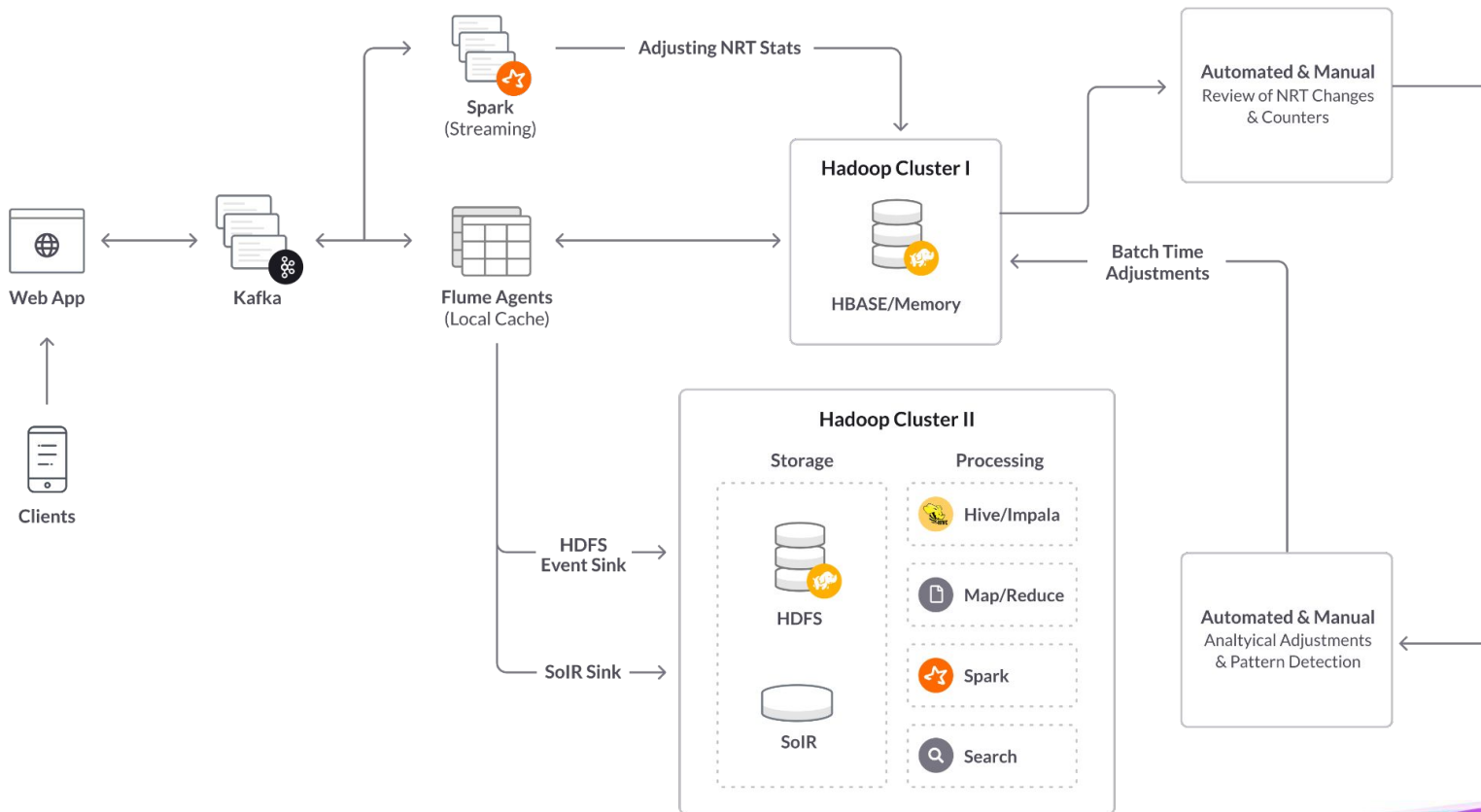
TIER 1 BANK

**40M**  
**in Cost Savings**

Through mainframe offload

Case Study

# AI/ML Driven Real-Time Fraud Analytics



# AI/ML Driven Real-Time Fraud Analytics



**Complex  
Performance**



**Limited  
SQL**



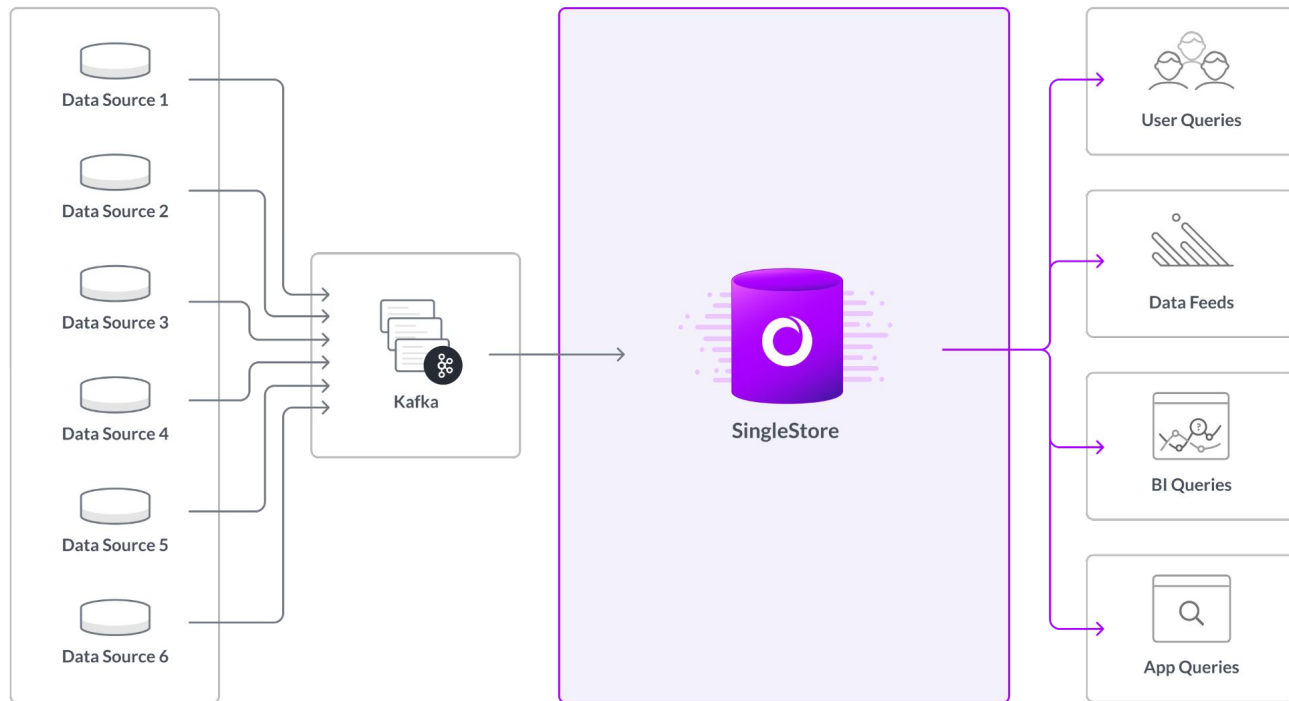
**Multiple  
points of  
failure**



**Multiple  
data silos**

# AI/ML Driven Real-Time Fraud Analytics

- Faster
- Easy to scale
- Familiar SQL
- Extensible Pipelines for ML
- Simplified





# SingleStore Demo



# Adopting SingleStore



## Build

### Build new modern applications

Net new apps or operational analytics workloads



## Augment

### Augment DBs or Analytical DWs

Augment legacy and speciality OLTP/ OLAP engines, or Hadoop



## Modernize

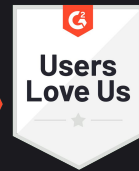
### Consolidate and Replace

Modernize by consolidating/ replacing legacy datastores, speciality databases, or Hadoop





IN 4 CATEGORIES



10 out of 10

"I've never in my life worked on such a fast database"



5.0

"10X faster than MySQL-Postgres-Oracle at 1/4 the cost"



5.0

"I don't think you can beat SingleStore. It's a 'Ferrari' of a DB"

LeadRoll



5.0

"Best in its category"

Saudi Telecom **stc**



5.0

"Best SQL distributed database available in 2022"



5.0

"Best decision you will ever make"



10 out of 10

"SingleStore is the fastest database ever tested by us"

**SIEMENS**



5.0

"Outstanding data platform"

# Customers Love SingleStore

# SingleStore recognized as a ‘Strong Performer’ by Forrester

**Translytical:** Next-generation data platforms built on a single database engine to support multiple data types and data models

SingleStore a ‘**Strong Performer**’ among “15 providers that matter most”

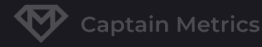
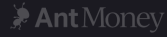
**The Forrester report notes:** “SingleStore’s strengths lie in transaction processing and the breadth of use cases.”

*“Overall extremely satisfied – we finally feel like we have a vendor who deeply cares about the problems we face, is willing and able to solve these problems quickly.”*

– SingleStore reference customer, Forrester report

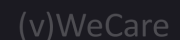
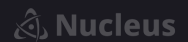
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## How Data Intensive are Your Applications?

Take Free 3-Minute Assessment



Future is Unified & Real-Time

# Try SingleStoreDB Cloud for free today

Get SingleStoreDB's best-in-class speed, scale, and agility without the headaches of installing, configuring, and maintaining software.



Get Started with  
**\$500 in Free Credits Today**





# Thank You

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