

The Future of Integration 2025

Introduction to Confluent and Data Streaming



Presented by Confluent



Italo Nesi
Sr. Solutions Engineer

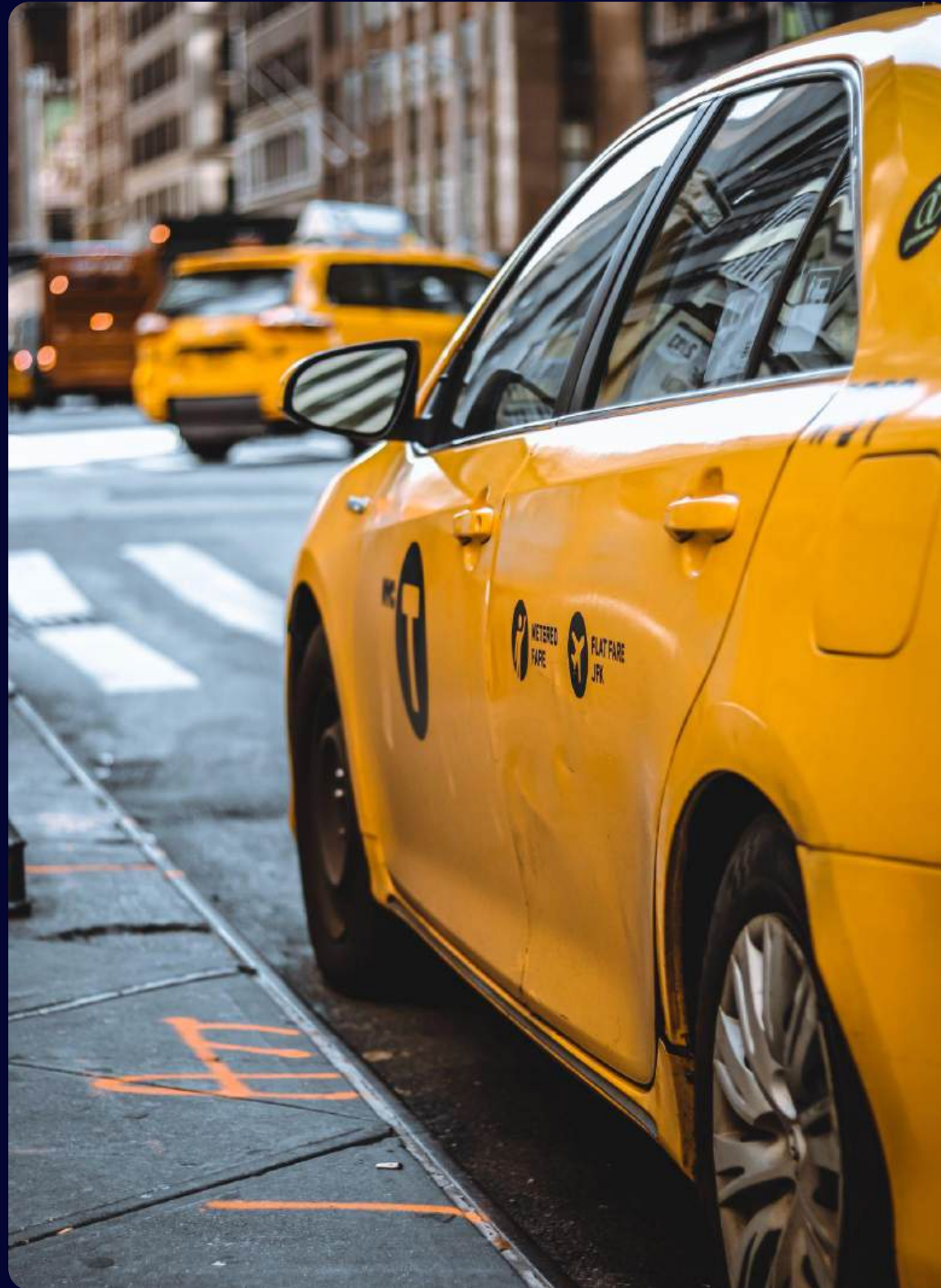


CONFLUENT

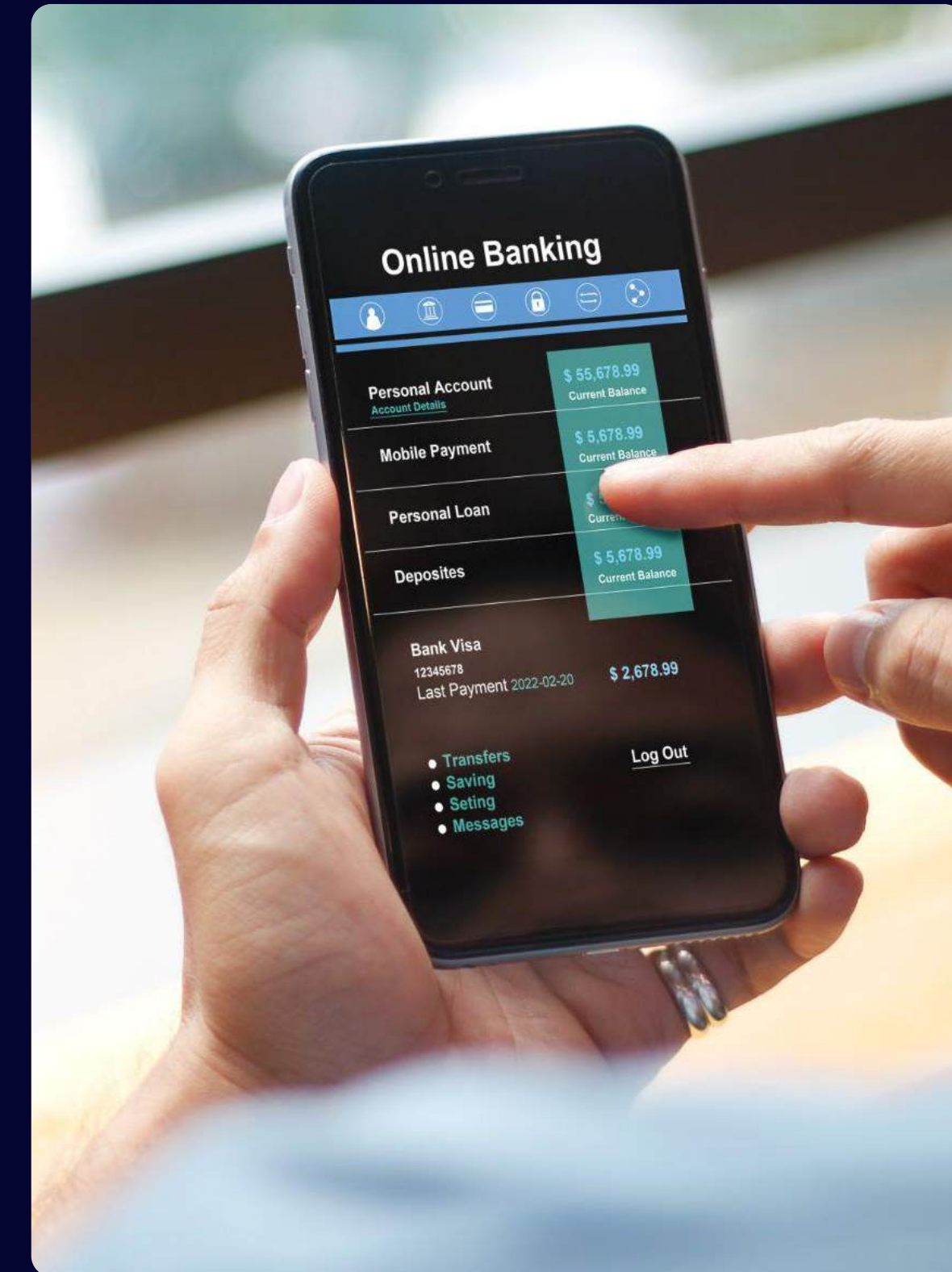
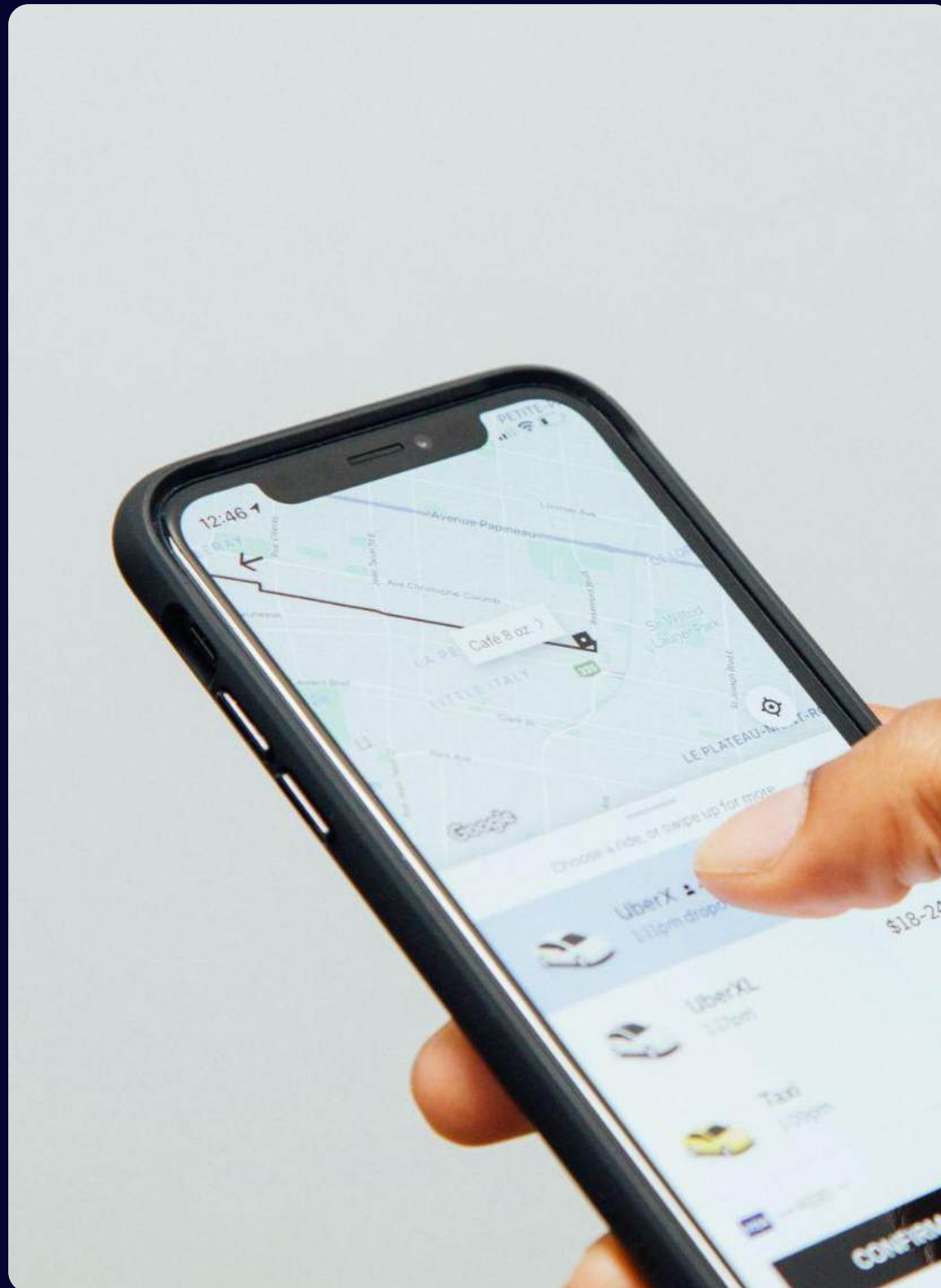
SIEMENS

Igniting business
greatness in
every integration

Software is changing every aspect of life



Software is changing every aspect of life



“ **10% increase** in **data accessibility** will result in more than **\$65 million** additional net income for a Fortune 1000 company ”
— Forrester





Italo Nesi

Sr. Solutions Engineer @ confluent.io

Agenda

1. Event-Driven (data) Architecture (EDA)
2. Confluent Cloud's Data Streaming Platform
3. Integration with SAP
4. The future of Data Streaming



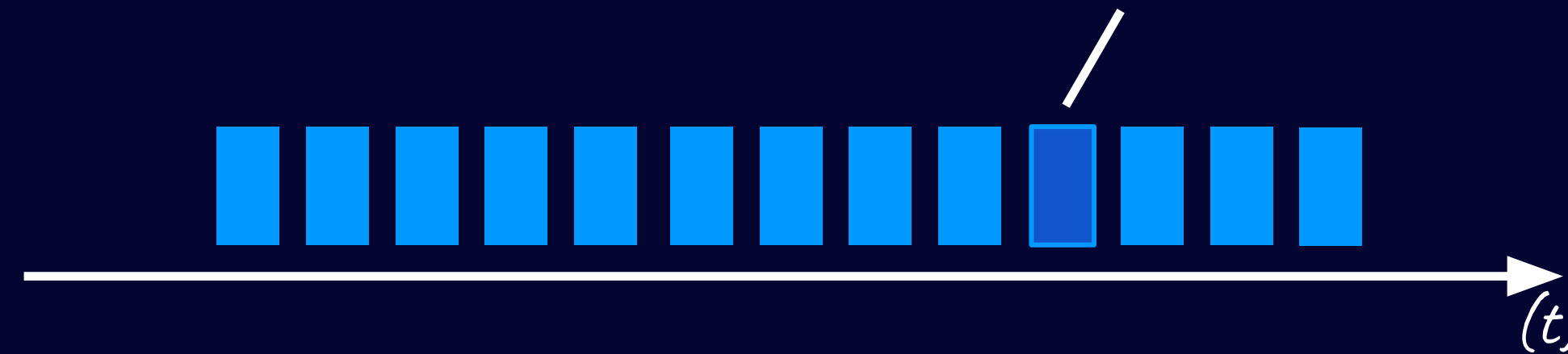
Event-Driven (data) Architecture (EDA)

Event-Driven Applications



Transportation

Sensor in Carol's vehicle detected low tire-pressure at **5:11am**

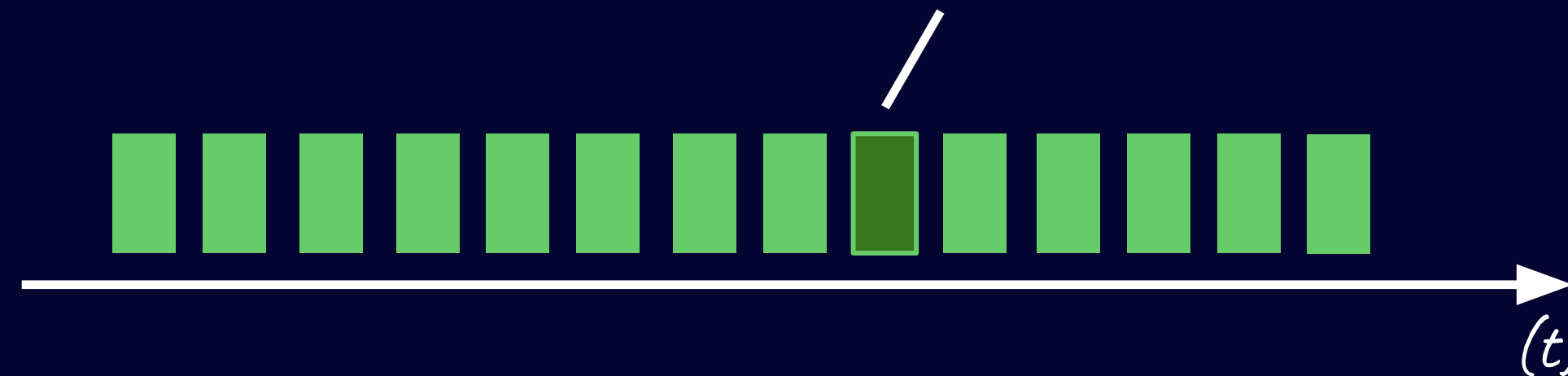


→ Events are **past occurrences**, containing a payload and a timestamp and are **immutable** by nature



Banking

Alice sent \$250 to Bob on Friday at **7:34pm**

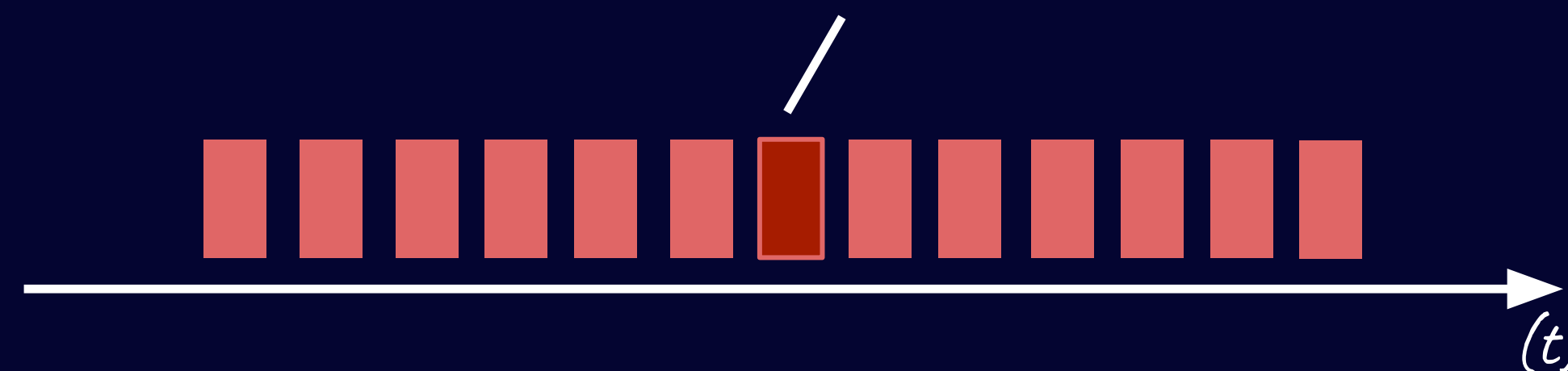


→ The **publisher** of the event has **no expectation** about how the event is handled



Retail

Sabine's order of a Sony camera was shipped at **9:10am**



→ The **consumer(s)** of the event **decide** what to do with it

→ **Data** as a **First Class Citizen**

Quiz time!



How old is the concept of **Event-Driven** data **Architecture (EDA)**?

A. 5 years

B. 55 years

C. 550 years

D. 5,500 years

Timeline



3400
BC

2000
BC

1200
BC

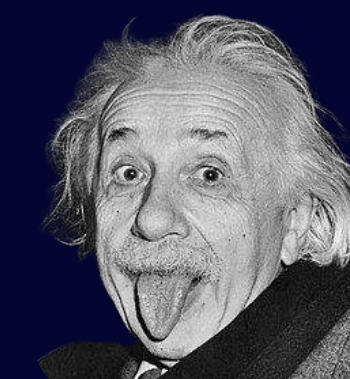
100
BC

1066
AD

1500
AD

1915
AD

Present
Day





✉ 29,086 measures of barley,
received over 37 months.
Signed, Kushim.

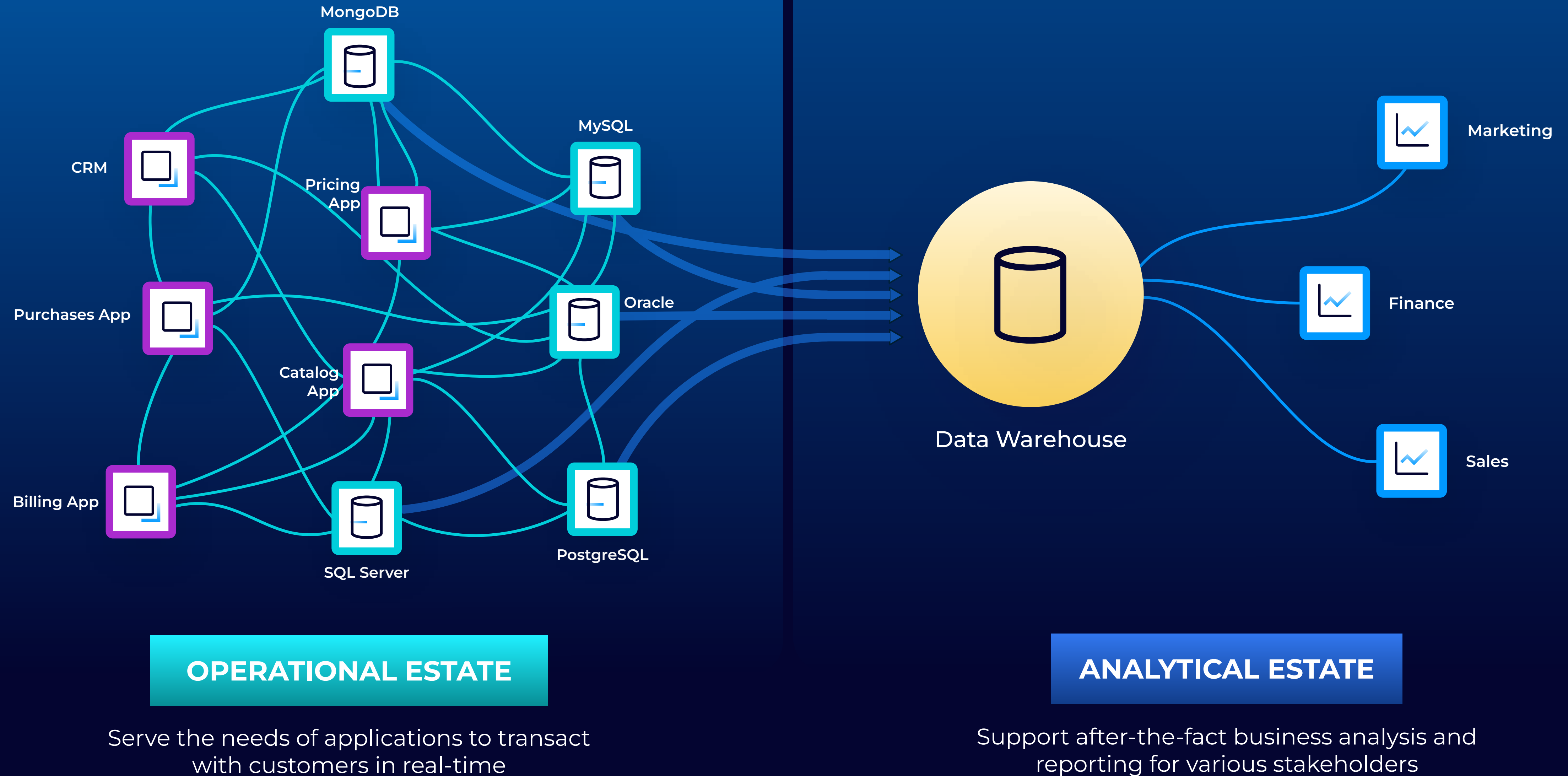
✉ Urazagnuuna received from
Nirnbati 21 sheep, 2 lambs, 36
kids, which have passed
inspection.

Beyond Storage: Event Retrieval in EDA

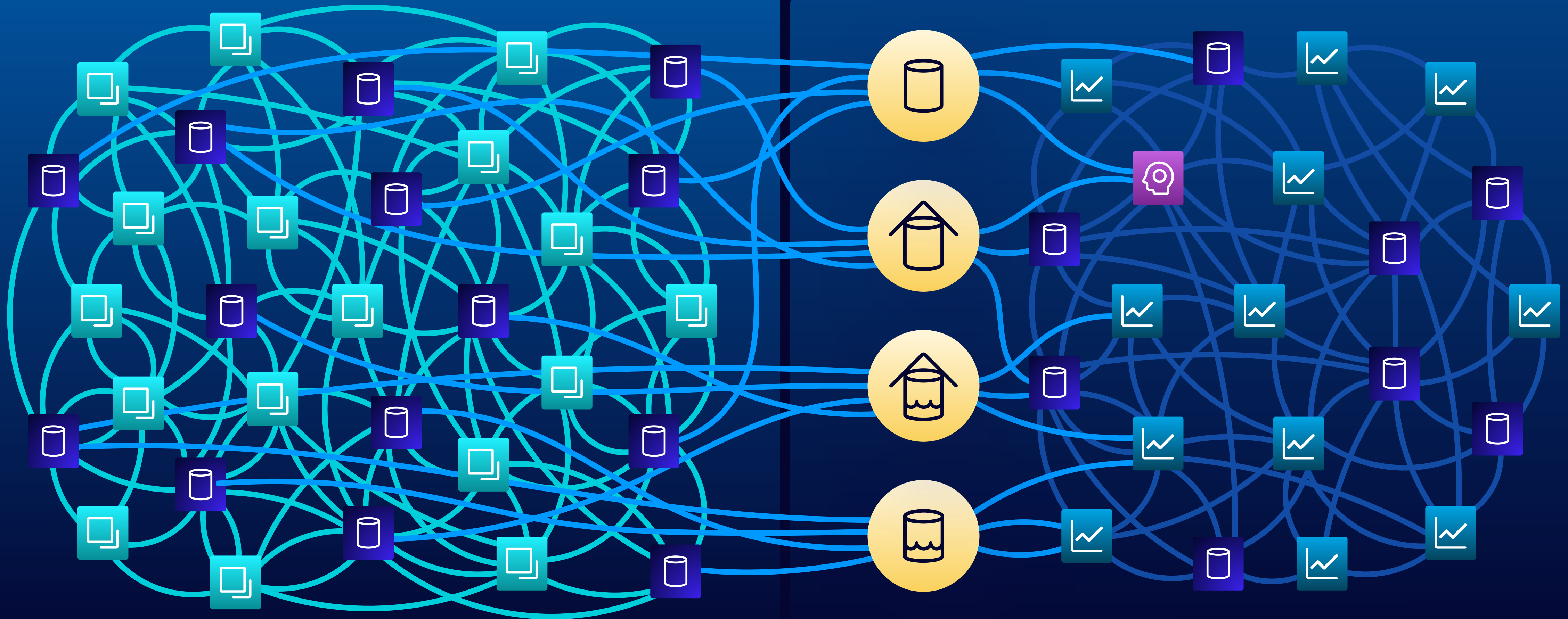


The foundational assumption of every database
Data is at-rest

Database Sprawl: A Legacy of Technical Debt



The Spaghetti Mess of Database Proliferation



OPERATIONAL ESTATE

Serve the needs of applications to transact
with customers in real-time

ANALYTICAL ESTATE

Support after-the-fact business analysis and
reporting for various stakeholders



Confluent Cloud's Data Streaming Platform

A New Dawn: Data Streaming's Origin at LinkedIn



created at LinkedIn by the
now Confluent founders



80%

Fortune 100
Companies



2025



NETFLIX



Goldman
Sachs

PayPal

LinkedIn

salesforce

Dropbox

WIKIPEDIA
The Free Encyclopedia

Pinterest



UBER

slack

airbnb

GoPro

stripe

intuit

Square

2010

2014

BILZARD
ENTERTAINMENT

YAHOO!

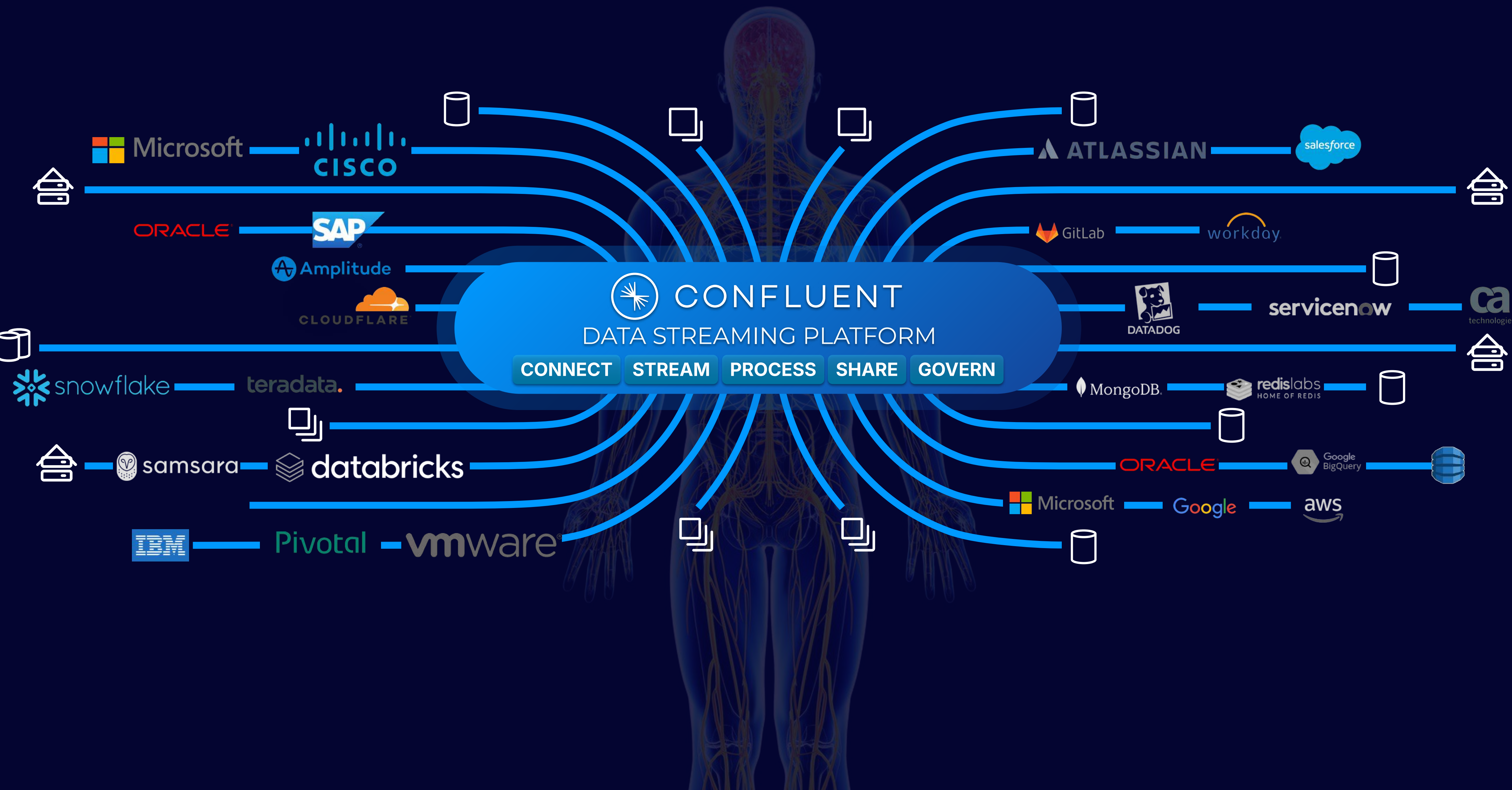


Tencent 腾讯

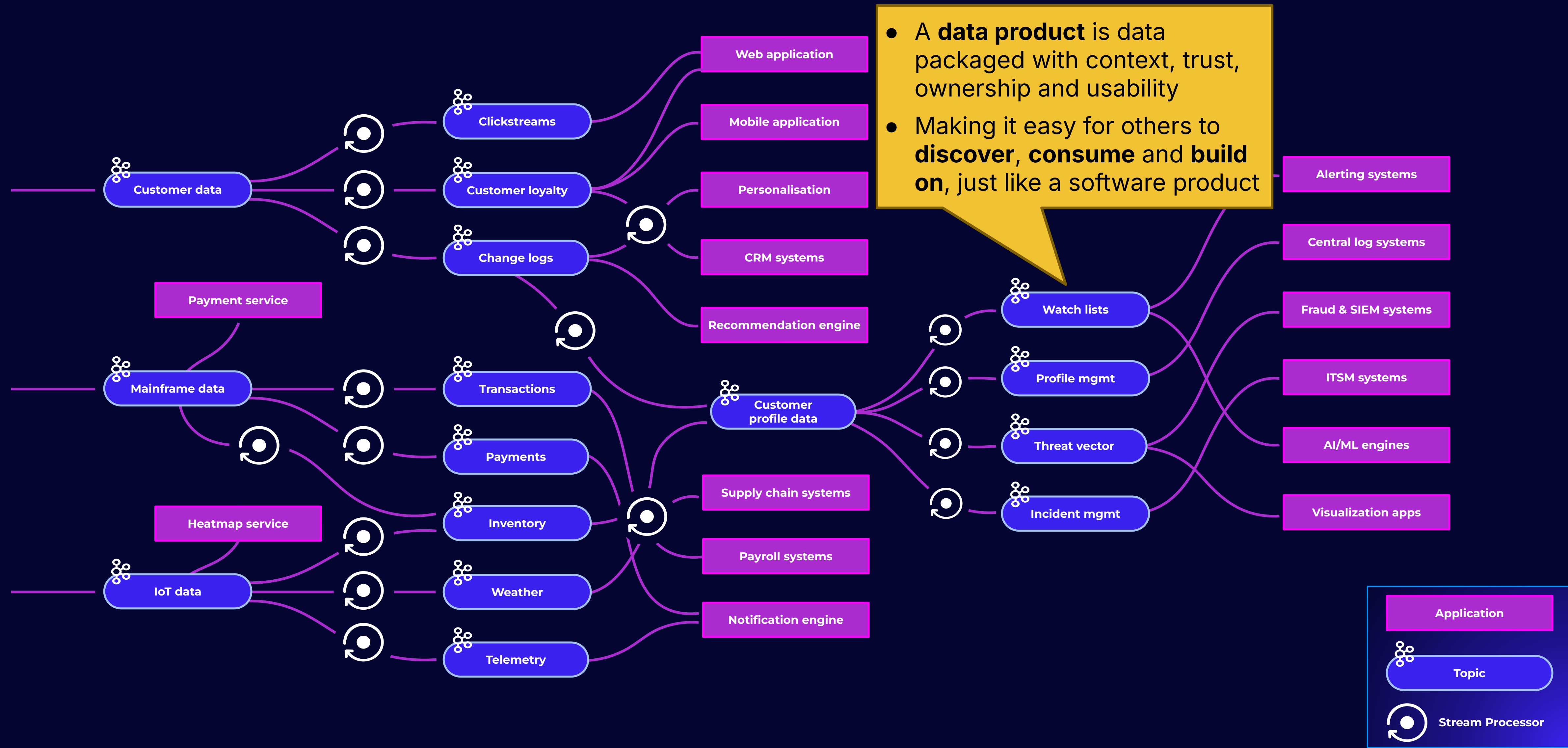
From Spaghetti Mess to Central Nervous System



From Spaghetti Mess to Central Nervous System



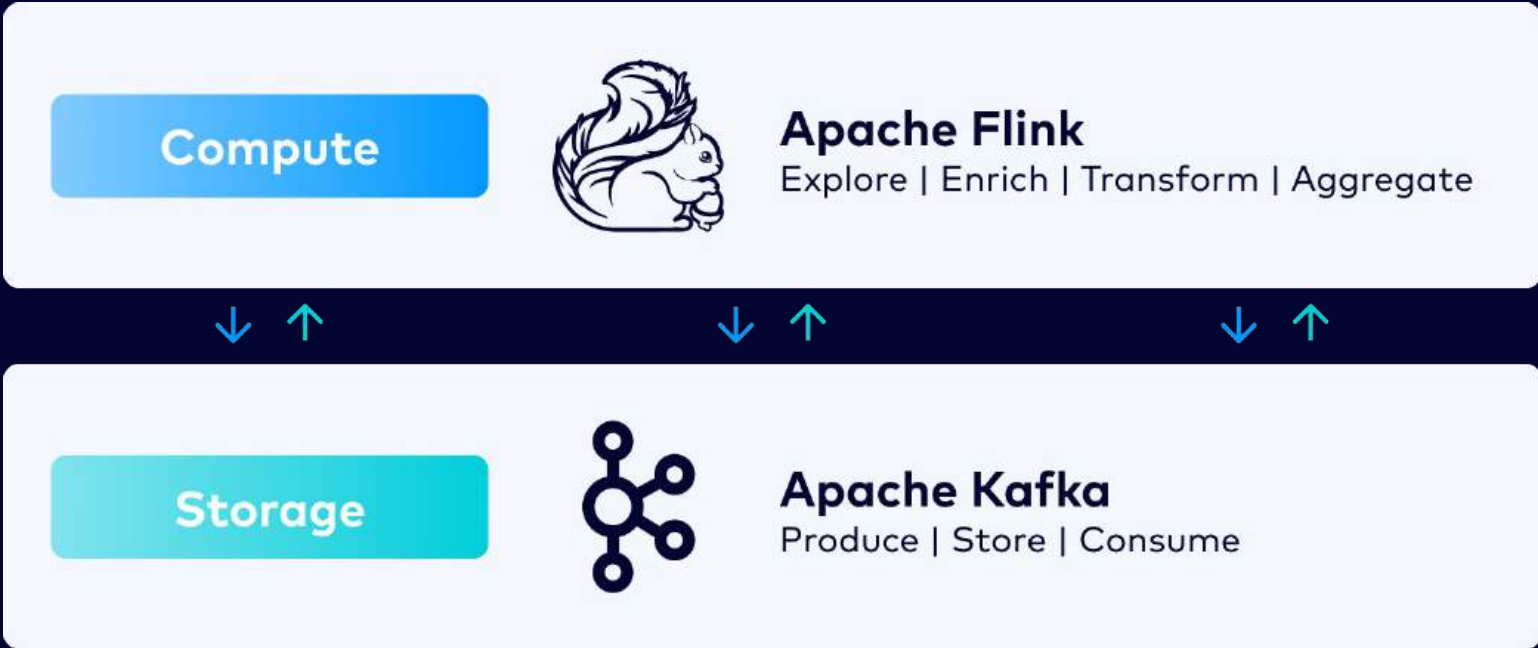
Stream Processing: Powering Real-Time Applications and Data Products



Fraud Detection (real use case)

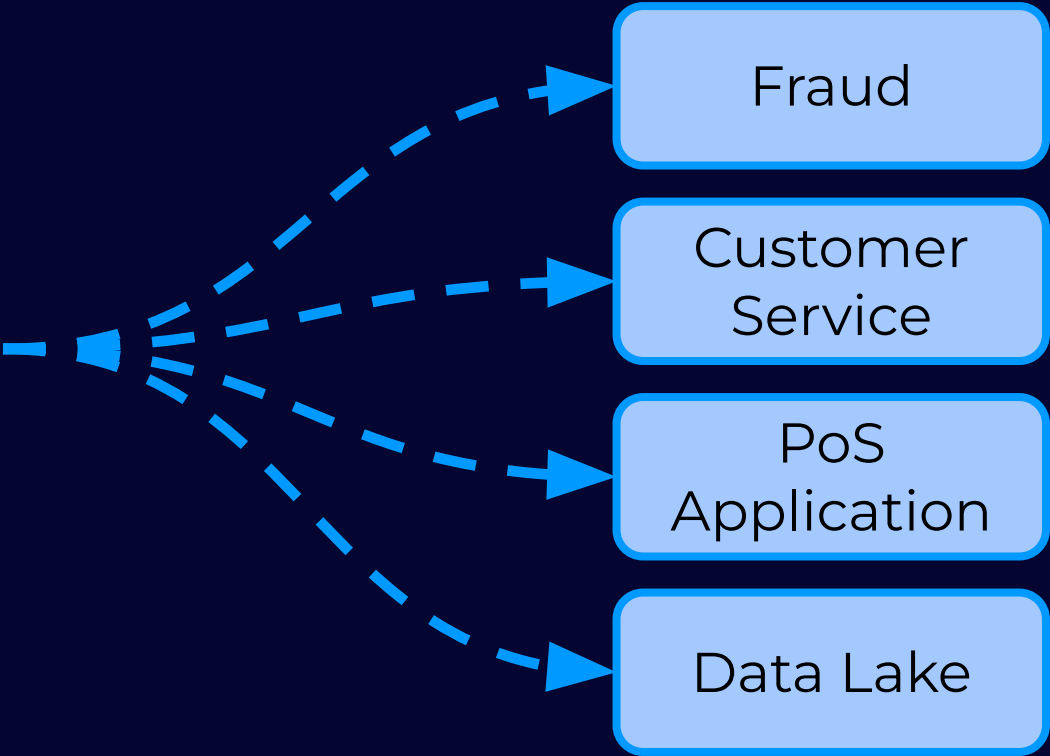


- Δs (event #2 - event #1): 212.90 miles
- Δt (event #2 - event #1): 40 seconds
- Estimated speed ($\Delta s / \Delta t$): 19,153.89 mph



derived event #1

```
{
  user_id: eb13
  mph: 19153.89
  current_event: {...}
  previous_event: {...}
  ...
}
```



primary event #1

```
{
  user_id: eb13
  transaction_id: fc99
  timestamp: 2024-03-11 12:27:32
  lat: 51.5074
  long: -0.1278
  amount: 350.00
  ...
}
```

primary event #2

```
{
  user_id: eb13
  transaction_id: 51aa
  timestamp: 2024-03-11 12:28:12
  lat: 48.864716
  long: 2.349014
  amount: 4.75
  ...
}
```



The Confluent advantage

Create a digital central nervous system for your enterprise



Cloud Native

Apache Kafka® fully managed, and re-architected to harness the power of the cloud

Elastic

Infinite

Resilient



Complete

Go way beyond Kafka to build real-time apps quickly, reliably, and securely

120+ Connectors

Stream Processing

Stream Governance



Everywhere

Flexible deployment options across clouds and on-premises that sync in real-time

Run Anywhere

Run Unified

Run Consistently

Built and supported by the founders of Apache Kafka®



Fully Managed Cloud Service



Freedom of Choice



Self-managed Software



Enterprise Support



Professional Services

Committer-driven Expertise



Training

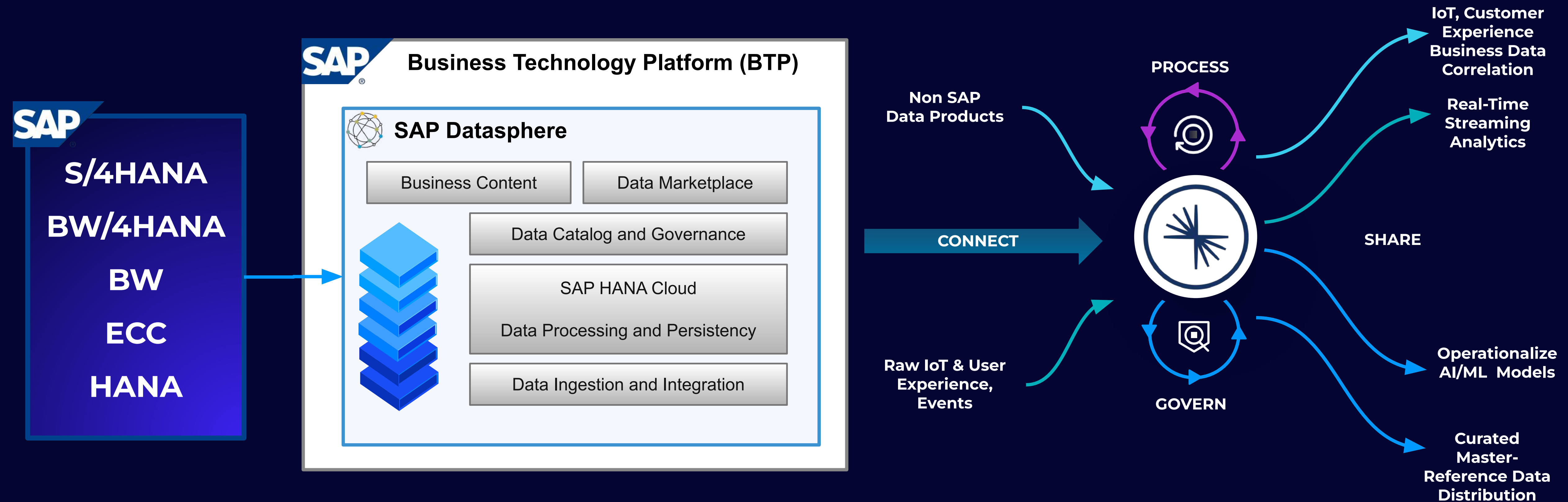


Partners



Integration with SAP

SAP Datasphere with Confluent Cloud



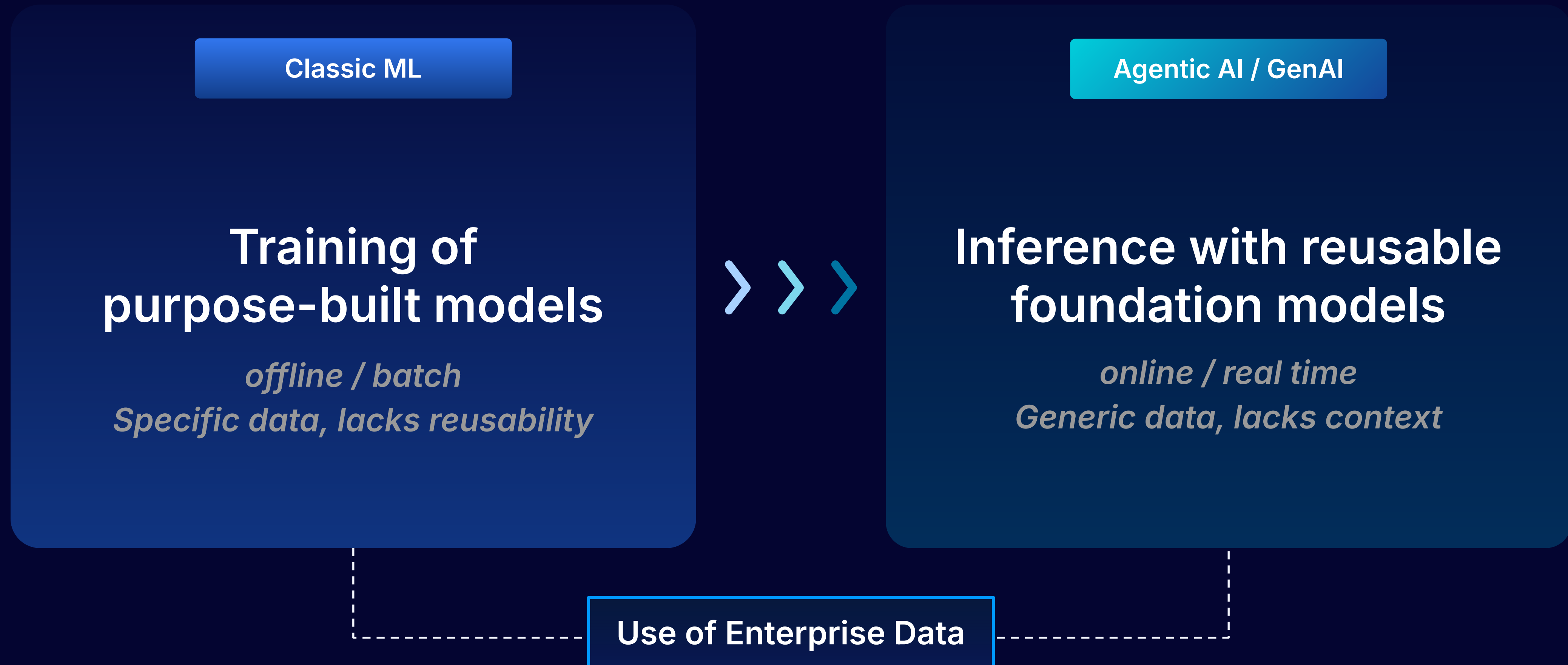
Easily fuel intelligent, real-time applications and analytics with enterprise-wide data accessed through the SAP business data fabric

The future of Data Streaming



The key to agentic AI isn't building better LLMs...

... It's data readiness





Confluent Cloud's DSP

Data Sources

 Databases

 Data Warehouses

IBM Z Mainframes

 Log Data & Msg. Systems

 SaaS Apps

 Custom Apps & Microservices

 Browser, Mobile

 IoT/Machine Data

100s of other systems

Build

Interfaces

*Agent Definition

*Agent Management UI

Real-Time Context Serving

External Tables and Vector Search

Embeddings Creation

*Real-Time Context Engine

Deploy

Runtime

Model Inference (Remote + Native)

Tool Calling with MCP

Connections

Protocol Support

MCP

*A2A

Replayability

Debugging, testing, evaluating, auditing

Stream Governance

Schema Registry, Stream Catalog, Stream Lineage

Access Controls

RBAC, IP filtering, access control lists (ACLs)

Security & Compliance

BYOK, CSFLE, private networking, SOC-2, PCI DSS, ISO, GDPR, etc.

Streaming Agents on Confluent Cloud

Frameworks

LangChain, CrewAI, AutoGen, Mosaic AI, ...

Agentic SaaS

Agentforce, UiPath, ...

Orchestrate



Flink

+



on Confluent Data Streaming Platform



Igniting business
greatness in
every integration

What does the Future of Integration mean for Confluent?
