

2026 Confluent Data & AI Predictions

Beyond the Hype: Building an AI-Ready Data Architecture for the Year Ahead

2026



Confluent
Predictions

Speaker

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VP Customer Solutions APAC





Topics

1. What 2025 Taught Us
2. Impacts of AI in 2026
3. Implications for Existing Infrastructures
4. Anticipating 2026's Pressures

AI holds tremendous value potential



33%

Enterprise

software applications
will include agentic AI
by 2028

15%

Automation

of day-to-day
tasks with agentic
AI by 2028

80%

Resolution

of customer service
issues without
human intervention
by 2029

30%

Savings

in operational
costs with agentic
AI by 2029

Capitalise on the AI Agent Opportunity • Gartner, Feb. 2025



"Confluent's data streaming platform provides context and orchestration for our AI agents to
automate workflows and accelerate our smart city transformation."



Yet most AI projects fail to deliver ROI

95%

Failure rate

for enterprise AI solutions,
with a pilot-to-production
chasm

The GenAI Divide: State of AI in Business 2025, MIT

63%

Organisations

do not have or unsure if they
have the right data for AI

Lack of AI-Ready Data Puts AI Projects at Risk, Gartner



In 2025, the promise of AI services with the agency to reason, make decisions, and take actions **has taken over data discussions.**

“Many of organisations are seeing the impact of data challenges on AI readiness—and this is validated by the broader market. In fact, 68%¹ of IT leaders recently cited data silos as a major roadblock for AI success.”

“One lesson continues to remain true with every new AI generation: All AI problems are data problems.”

“CIOs and CFOs are looking for strong returns on AI investments, but this won’t come to fruition until the agentic AI ecosystem matures.”



In 2025, the promise of AI services with the agency to reason, make decisions, and take actions **has taken over data discussions.**

If 2025 was focused on racing to bring agentic AI to production, 2026 will be about addressing many of the barriers that made it hard to do so.

Key Prediction Themes



Machine Customers

The Rise of Agentic Commerce

New sectors will need to learn how to support and sell to AI agents acting as customers.

AI agents will handle routine purchases optimising across price, quality, and consumer convenience. These **autonomous transactions** will shift from consumers to the enterprise across supply-chain and B2B relationships.

MCP Everywhere

The Rise of Context Engineering

Leading platforms will offer Model Context Protocol and Context Engineering is the next AI unlock.

Autonomous AI systems will need to have **access to the right data at the right time** and the ability to **take timely appropriate actions** for them to successfully deliver value.

AI's Pressure on Databases

AI has an Insatiable Data Appetite

Agentic AI is going to multiply data query volumes, intensifying existing pressures.

Agents will be far more demanding. Much like BI & Analytics required their serving layers, AI requires a **real-time contextual serving layer**.

AI-Driven Cyber Crime & Real-Time Defensive AI

The Evolving Cyber Crime Landscape

AI will drive cyber crime to unprecedented levels where criminal organisations adopt generative AI for phishing, deep-fake fraud, and automated malware creation.

The volume, variety, and sophistication of attacks will rise rapidly, and 2026 will mark a major turning point with nearly 2x the daily attack volume against normal growth trends. Companies will be forced to adopt defensive AI and real-time threat detection; and Security Architects will need to **pivot from static detection to defensive AI capabilities powered by real-time stream processing**.

The Simplification of the Data Stack

AI Needs an Independent Data Plane

AI will need a governed, independent data plane to avoid over-committing.

Smart companies will deliberately build their AI strategy on an independent data plane and agentic framework to **future-proof AI investments**; and standards for **cost effective cold data management** will emerge. Architects must prioritise implementing cross-system data lineage to provide an undeniable, **auditable record of data used in AI decision-making**.

Companies will need to treat governance as an AI enabler, not a compliance checkbox; and data streaming platforms (DSPs) will be the base to **shift-left** and build **re-usable data products**.

What's different about building **Agentic AI & AI Systems?**



YESTERDAY — SOFTWARE USED BY PEOPLE

Business Intelligence

Reporting | Insights | Analysis | Decision Management

INPUT



LOGIC



OUTPUT



Data moves in **batch**
Action happens **periodically**

TODAY — SOFTWARE USED BY SOFTWARE

Artificial Intelligence

Fraud Detection | Personalisation | Supply Chain | Customer Service

INPUT



LOGIC



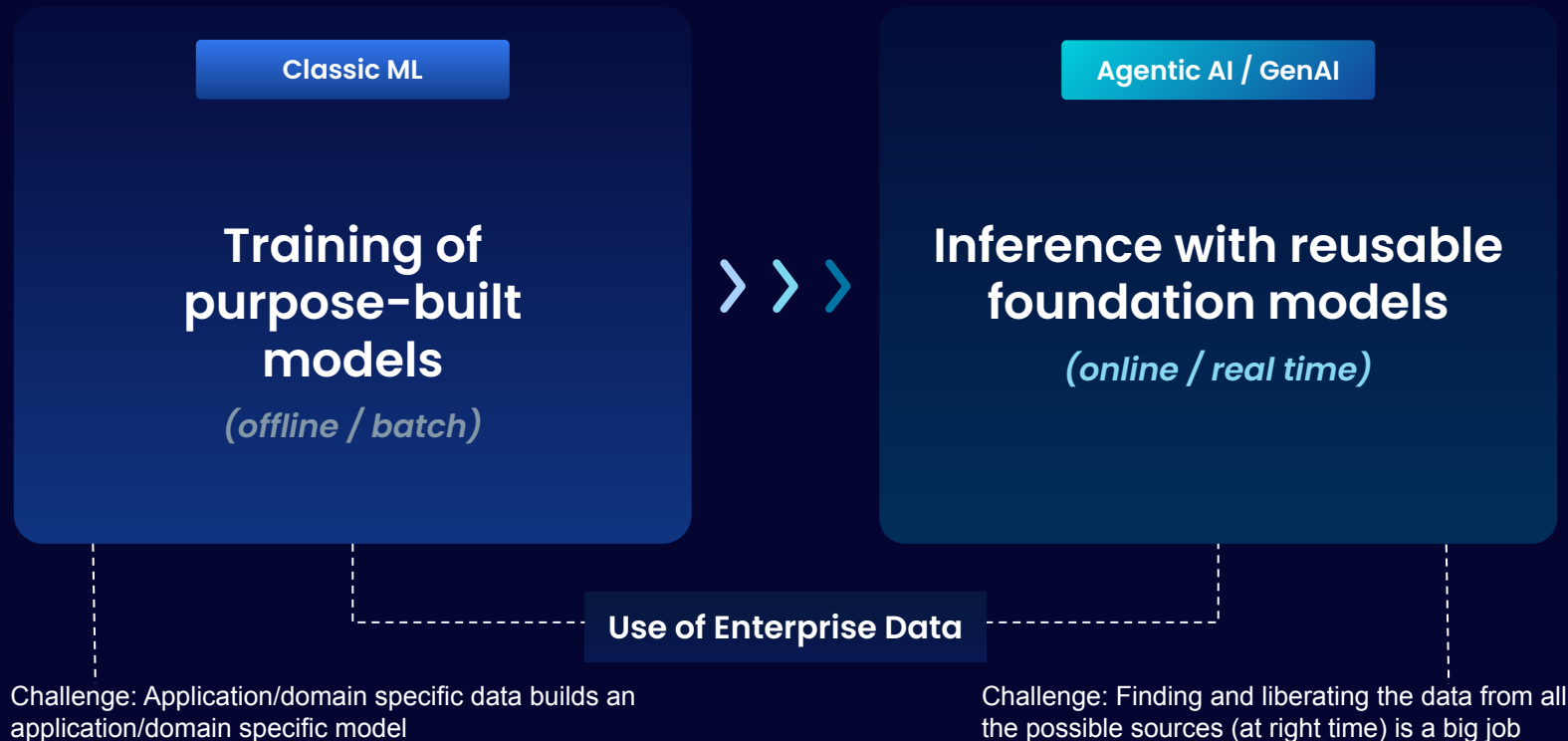
OUTPUT



Data **MUST** move in **real-time**
Action happens **continuously**

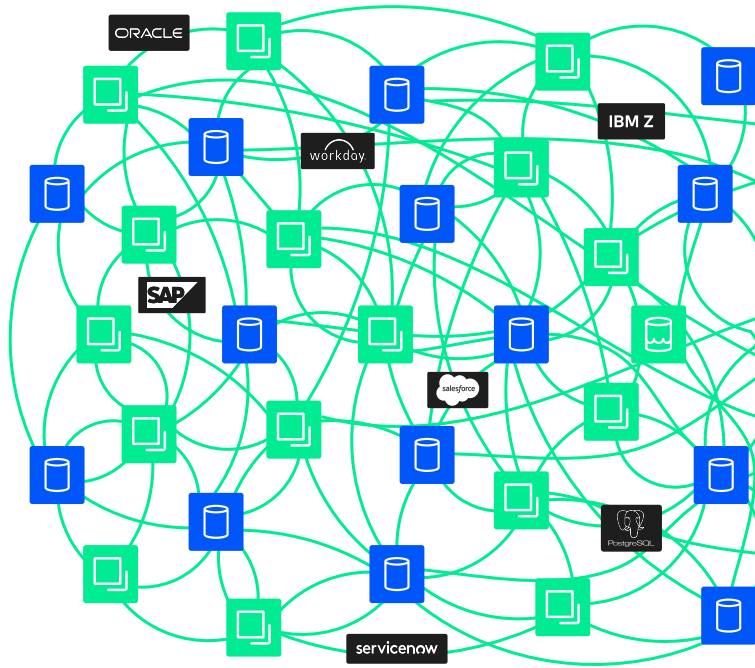


The key to agentic AI isn't building better LLMs – it's about data readiness

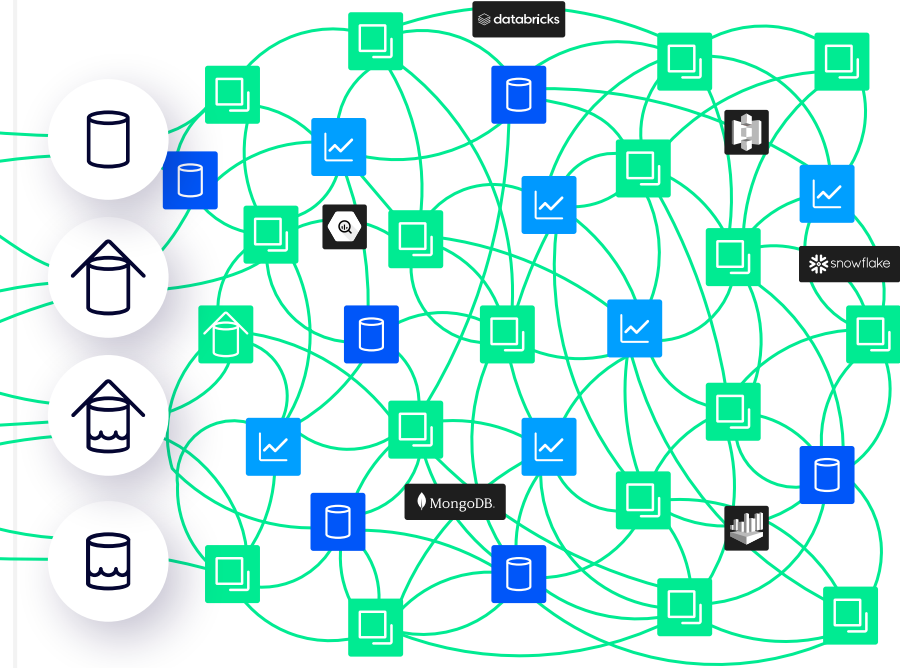




OPERATIONAL ESTATE



ANALYTICAL ESTATE



A New Approach: **Shift Left To Manage Data like a Product**

Real-Time Data Products:

Kafka Topic + Schema + Governance



Real-time Data



Discoverable



Contextualized



Trustworthy & Reliable



Reusable

AI Will Accelerate This Trend

Because **AI Systems** Are Different



TRADITIONAL SOFTWARE

Building with **Precise
Logic and Rules**

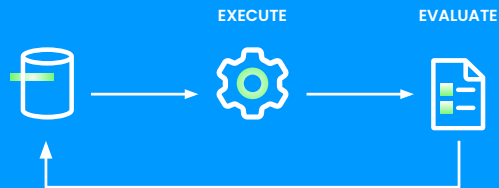
AI SYSTEMS

Building with **Data and
Probabilistic Models**



What AI Systems Need

Evaluation on Real Data



Fresh, Real-time Context



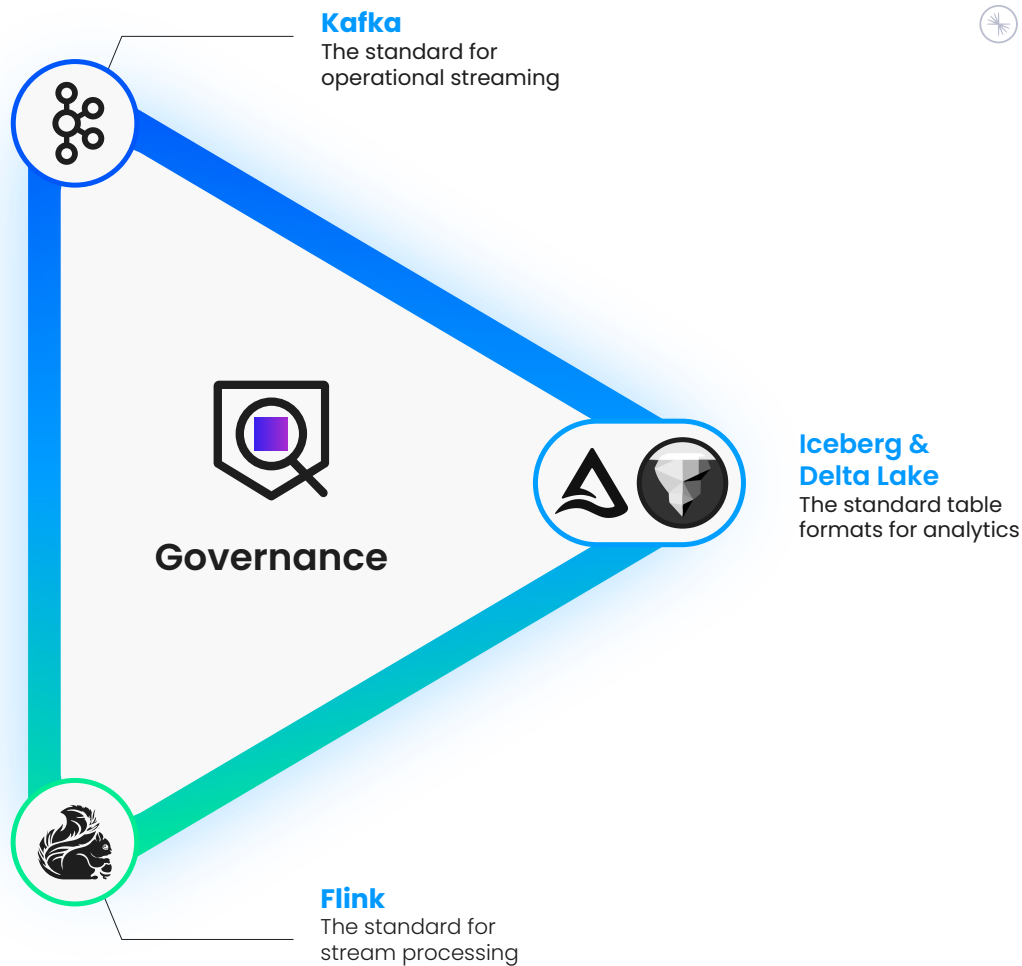
Always-on Governance



We unify industry-leading open source software

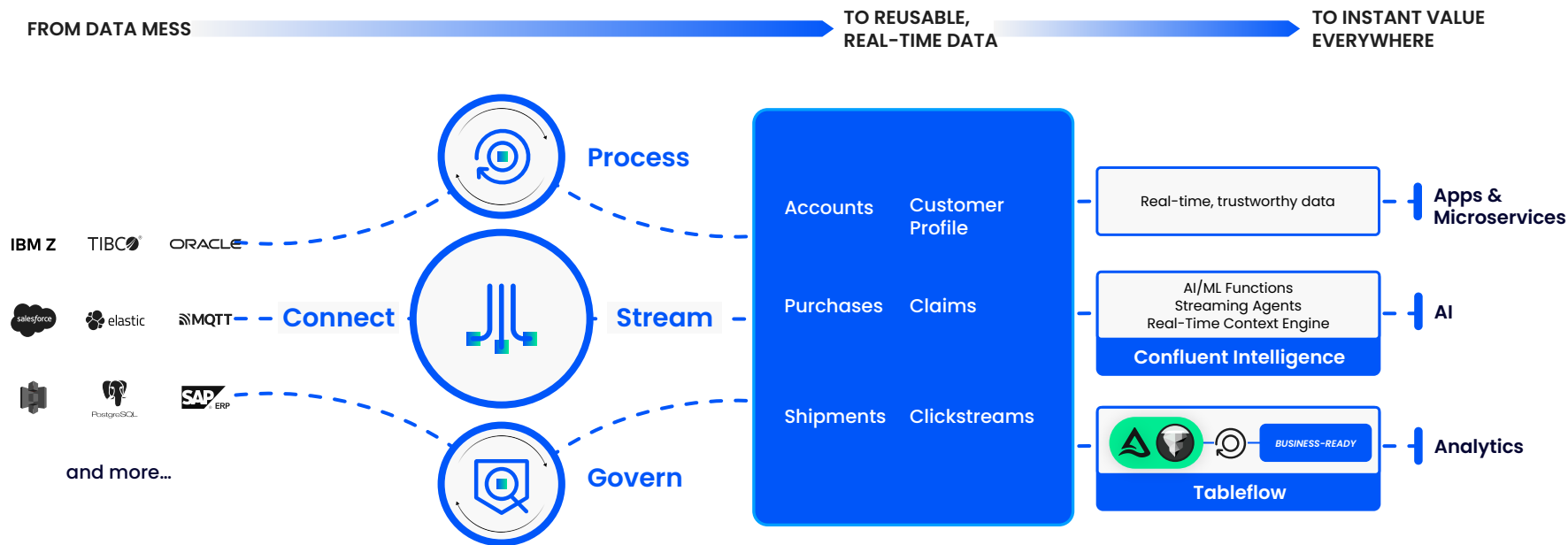
Our Foundation

Securely deploy anywhere —
SaaS, On-Prem, BYOC —
with private networking





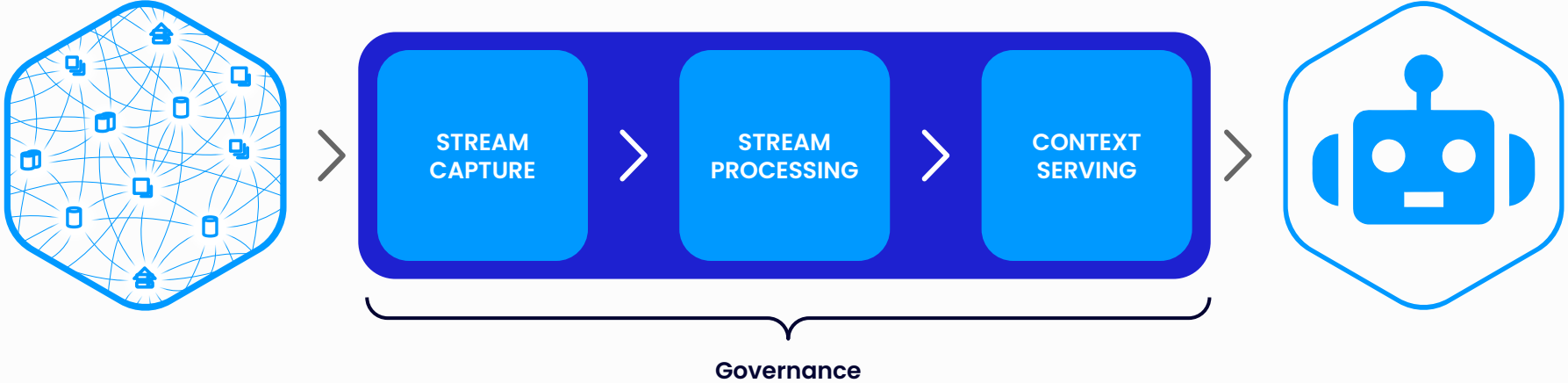
Confluent's Data Streaming Platform Powers Apps, Analytics & AI





DATA STREAMING PLATFORM

KAFKA / FLINK / ICEBERG / DELTA



**Evaluation On
Real Data**



**Fresh, Real-time
Context**



**Always-on
Governance**



“Successful organisations in 2026 won't be the ones with the biggest models; they will be the ones with the best-connected data.”

2026



Confluent Predictions

Getting a clear view of what's coming next in the data & AI space, how real-time data helps stay ahead of the curve as AI becomes more autonomous, more contextual, and more operationally demanding.

1

**The Rise of Agentic Commerce:
Machines Are Your New Customers**

2

**Leading Platforms Will Offer
Model Context Protocol**

3

Context Engineering is the Next AI Unlock

4

**AI Will Apply Increased Pressure
to Existing Databases**

5

**AI Will Drive Cyber Crime
to Unprecedented Levels**

6

**AI Will Accelerate Enterprise Investment
in Data Governance**

7

**Apache Iceberg Will Become the Standard for
Cost-Effective Cold Data Management**

8

**Your AI Strategy Will Need an Independent
Data Plane to Avoid Overcommitting**

9

**Early Adopters of Durable Execution Engines
Will Gain a Competitive AI Edge**

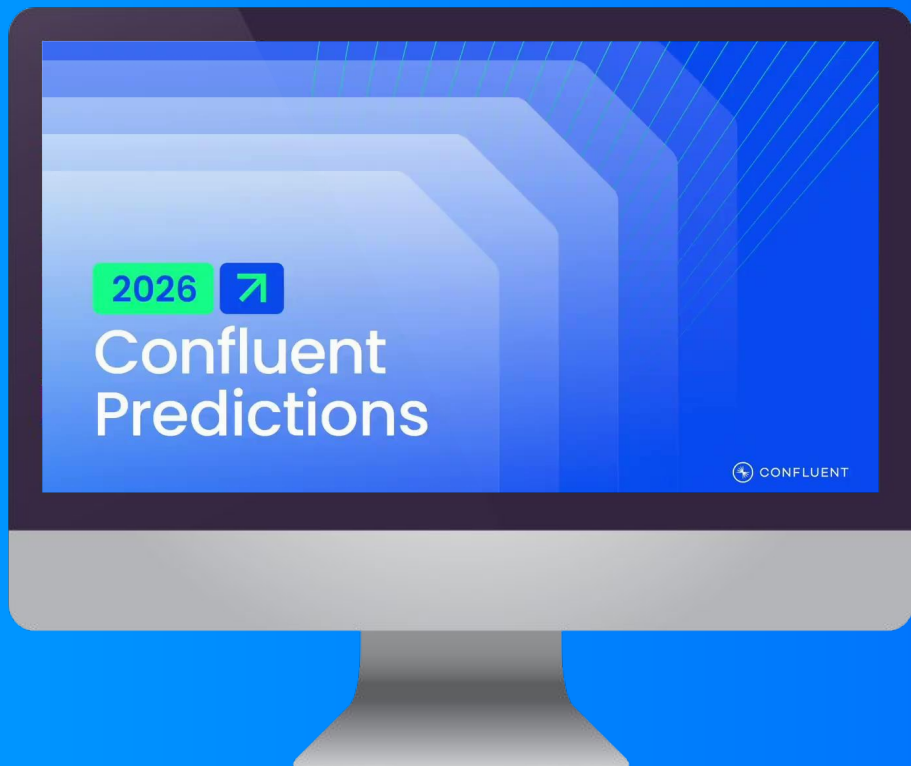
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**Improvements in Generative AI Will Help
Businesses Finally Address Legacy Tech Debt**



Confluent 2026 AI Predictions Report

Get Your Copy



bit.ly/2026-ai-predictions



MELBOURNE

DATA STREAMING WORLD TOUR



Data Streaming World Tour Melbourne – Live Stream

Thursday, March 5th, 2026

10am – 5pm AEDT

RSVP to learn why AI projects that succeed are built on streaming—and how to build yours the same way.





Operationalizing AI in 2026 – An APAC Perspective

March 11, 2026

10:30 AM IST | 1:00 PM SGT | 4:00 PM AEDT



Nick
Dearden,
Field CTO



Andrew Foo,
VP, CSG, APAC



Justin Lee,
Principal
Solutions
Engineer



Getting started with Confluent Intelligence

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Confluent Cloud
account



Receive \$400 free credits to
spend in the first 30 days!

confluent.io/get-started

Read the ebook:

cnfl.io/agents-ebook

A Guide to Event-Driven
Design for Agents and
Multi-Agent Systems

By Sean Falconer, AI Entrepreneur in Residence, Confluent

Try the Quickstart:

cnfl.io/quickstart-agents

uses an intelligent, real-time fleet management system that autonomously detects demand surges, identifies anomalies, reasons, and automatically dispatches vessels to meet increased demand. Built on Confluent Intelligence, it leverages vector search, anomaly detection, retrieval-augmented generation (RAG), and AI agent workflows to create a dynamic dispatch pipeline.

System Does

Continuously monitors ride requests across different zones using Flink's built-in ML functions.

Reasoning - Detects unusual spikes in ride requests across different zones using Flink's built-in ML functions. Understanding - Leverages vector search and RAG to uncover the reasons behind demand surges (e.g., events, festivals) by querying a knowledge base.

Action - Dispatches vessels to meet demand based on the reasoning and understanding. The system uses tool calling.

Runs in real time on Confluent Cloud for Apache Flink, with no external orchestration required.

