

# Why event-driven data is the missing link for agentic AI

Autonomous agents can't wait for batch jobs. They need every new event the moment it happens.



## AI that doesn't just predict, it acts

Agentic AI systems continuously read signals from their environment, reason over each event, and trigger downstream actions without human input. Think fraud defenses that adapt mid-transaction, robots that reroute on the fly, or websites that personalize while a user is still browsing.

Live fraud detection

Autonomous supply chain routing

Real-time adaptation to evolving data

Robotics and smart machinery

In-session user personalization

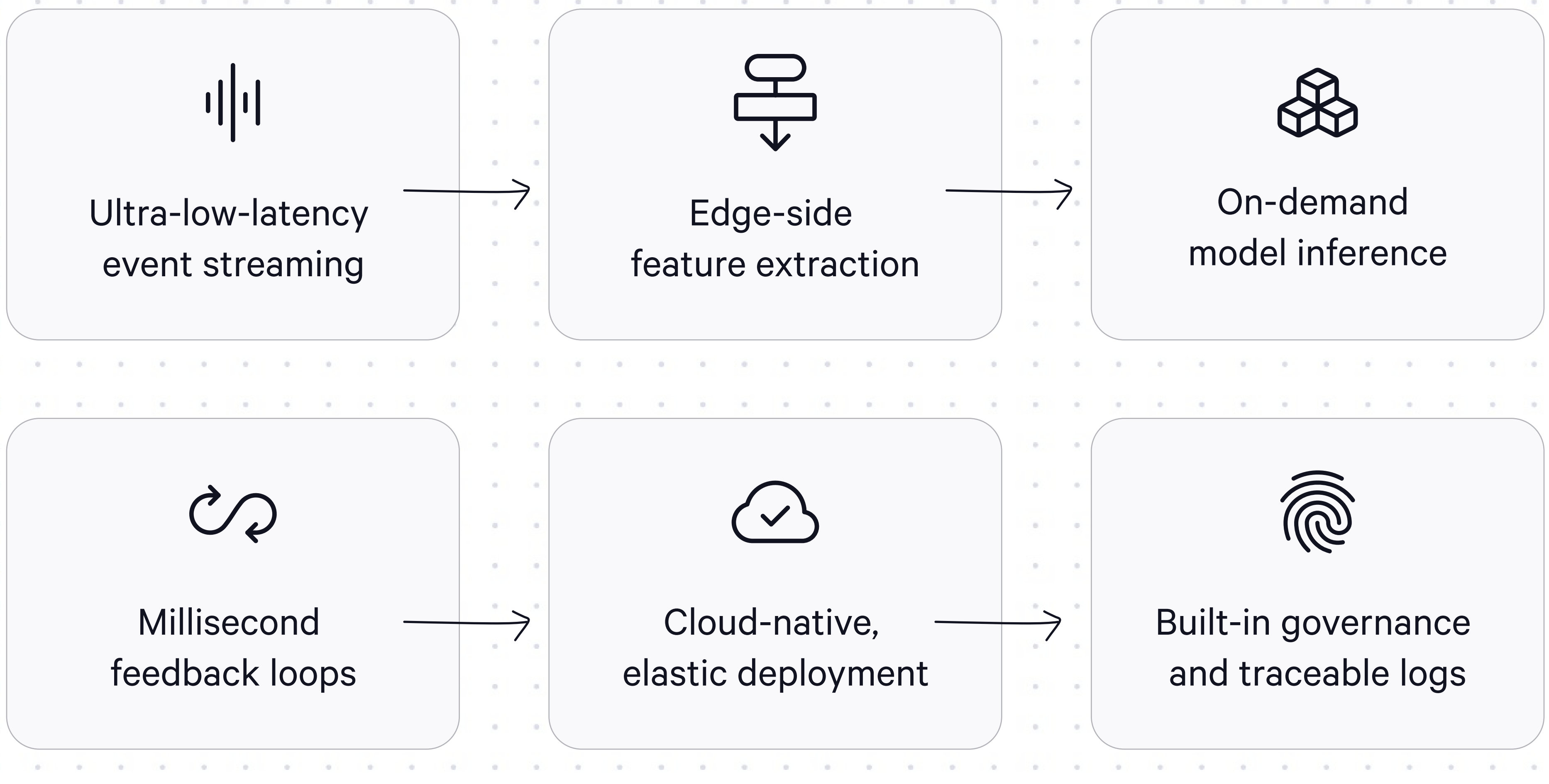
Simplified architecture for faster innovation

## When data is delayed, decisions are too

| Dimension      | Batch AI                 | Event-Driven AI         |
|----------------|--------------------------|-------------------------|
| Data arrival   | Arrives in timed batches | Flows event by event    |
| Model response | Minutes to hours later   | Milliseconds to seconds |
| Feedback loops | Static and retrospective | Live tuning, adaptive   |
| Best for       | Historical reports       | Autonomous decisions    |

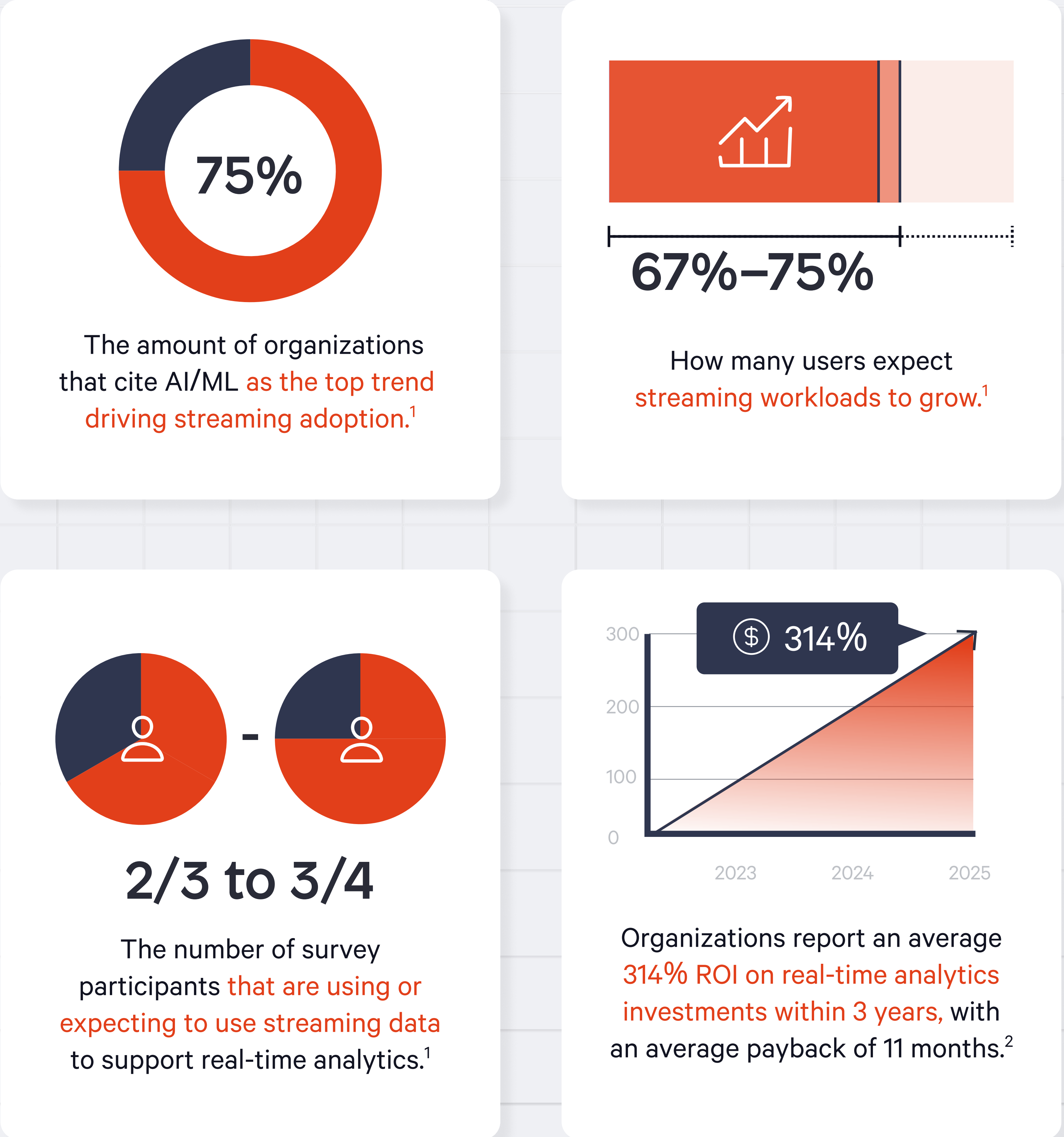
Agentic AI is event-driven by design. Batch breaks autonomy.

## What it takes to power real-time autonomy



The foundation is an event layer that captures, replays, and routes every fact as it happens.

## Teams are moving fast toward event-driven data



## Ready to build on event-driven data?

If you're designing agentic AI, event-driven architecture is not a nice-to-have. It's a must-have.

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Sources:  
<sup>1</sup> Redpanda, State of Streaming Data.  
<sup>2</sup> Number Analytics, 7 Statistics Revealing Real-Time Data Insights in Action, March 2025.