



Built for Speed

The real-time data advantage in adtech



The adtech battleground: Where milliseconds make millions

Adtech has never moved faster — or been more unforgiving. Every click, view and impression triggers a flood of data. But acting on that data in real time? That's where the winners are pulling ahead.

From real-time bidding to personalized targeting, programmatic campaigns to attribution modelling, success in adtech today depends on the ability to ingest, analyze and activate data at millisecond speeds. Yet most platforms are stuck fighting their own infrastructure — battling slow pipelines, disconnected systems and sky-high cloud costs.

The result? Lost revenue. Sluggish innovation. And teams buried in workarounds.

But a new generation of adtech platforms is emerging: Unified, AI-ready and built to scale. And they're running on a fundamentally different kind of data infrastructure.

The hidden cost of latency and complexity

Why traditional architectures break down in adtech

Let's be blunt: legacy architectures weren't built for the demands of modern adtech.

Disparate systems for ingest, analytics and activation make things slow. Add batch processing on top, and insights arrive too late to matter. This leaves engineering teams to stitch data together across silos, manage multiple databases and deal with escalating cloud costs.

Even querying a campaign dashboard can take minutes — if not longer — just when a decision needs to be made. Multiply that across thousands of campaigns, channels and customers, and the cost of latency becomes enormous.



"We were running 20-second queries before. Now we're at sub-second — and delivering real-time refreshes for a global user base."

— Microsoft's Xandr, powered by SingleStore

Legacy tech also stifles innovation. Running AI models on stale data? Building real-time customer journeys with batch pipelines? Good luck.

The adtech opportunity

Build once, optimize always: Real-time, scalable infrastructure

Adtech innovators aren't just collecting data. They're making it work harder — in real time, across every channel, every campaign, every interaction.

With the right architecture, you can:

- Ingest once and power multiple workloads: real-time bidding, analytics, attribution and optimization.
- Unify operational and analytical workloads on a single platform — no more silos.
- Support thousands of concurrent users and millions of events per second, without compromise.

Customers bringing real time in the real world :

/LiveRamp

LiveRamp

Compressed 60PB of data into ~6PB, reduced batch processes from 15+ hours to <5 minutes and added \$5M to its bottom line.



Impact.com

Ingests 20 million events per hour and delivers **1,000% faster** performance with over 1,000 concurrent users.



Silicon Digital

(Roblox Metaverse)

Went from 30-minute dashboard loads to 1-second refreshes — supporting up to 300,000 users at peak.

How AI raises the stakes

AI in adtech needs fresh, fast, multimodal data

AI is rewriting the rules of adtech — from dynamic audience modelling to contextual targeting, ad fraud detection and real-time personalization. But there's a catch: AI is only as powerful as the data it feeds on.

Legacy pipelines can't deliver the freshness or flexibility modern AI needs. Delayed data leads to stale predictions, siloed storage limits model accuracy and high latency blocks the kind of instant decisions AI is built to drive.

To unlock the full potential of AI in adtech, platforms need:

- **Low-latency** access to live behavioural signals
- **Unified data** across devices, campaigns and touchpoints
- **Support for multiple data types** including structured, unstructured, vector, JSON, time-series
- **High-concurrency performance** to serve real-time responses at scale



"Each of our customers represents millions in revenue. SingleStore has helped us substantially reduce churn — and that goes straight to our bottom line."

— Kannan D.R., Chief Architect, LiveRamp

Why SingleStore

Built for Adtech: One Engine. Real-Time. Scalable. Cloud Smart.

SingleStore is the highly performant data platform that powers today's most ambitious adtech platforms, from omnichannel campaign analytics to AI-powered ad delivery.

What makes it different?



Sub-second latency
at scale



HTAP engine
Combines transactions (OLTP) + analytics (OLAP) on a single platform



High concurrency
Support 1,000s of users + 60K QPS with ease



Run anywhere
Cloud, multi-cloud, hybrid, or on-prem



Native streaming ingest
Power real-time insights with fresh data



Multi-model support
JSON, geospatial, vectors and time-series



Separation of storage + compute
Infinite scale, cost control



SQL-native protocol
Drop-in compatible with MySQL and ANSI SQL

It's why companies like Xandr, Silicon Digital and impact.com trust SingleStore to deliver instant experiences with enterprise-grade scale and simplicity.

Powering real-time use cases in adtech



Campaign + audience analytics

- Real-time customer experience tracking
- Omnichannel campaign performance
- Behavioral + geo-segmented reporting



Ad optimization + delivery

- Real-time bidding and placement
- Dynamic creative optimization
- Cross-device targeting + retargeting



Attribution + ROI analysis

- Click attribution + multi-touch models
- Mixed media modeling with fresh data
- Combine real-time + historical data



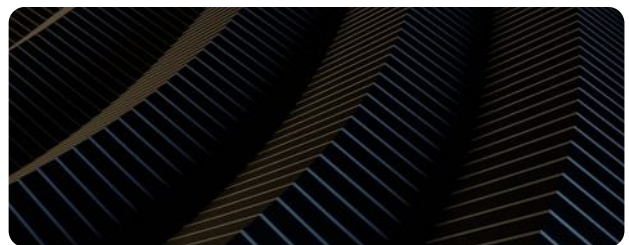
Customer 360 + identity

- Identity graph resolution in real time
- First-party data unification
- Real-time audience segmentation



AI-driven innovation

- Vector-based audience modeling
- Contextual AI targeting
- In-the-moment recommendations + scoring



Unified data infrastructure

- Ingest once, power multiple workloads
- Replace fragmented batch pipelines

Let's Talk Adtech

See What You Could Build with SingleStore

The best adtech platforms are no longer defined by features — they're defined by what they can do with data.

SingleStore helps some of the world's largest brands go from slow and siloed to real-time and intelligent — all while reducing costs and simplifying their data stack. Whether you're modernizing an existing platform or building something new, we can't wait to show you what's possible.

- Run fast, serve more, scale simply
- Power AI and analytics on fresh data
- Simplify your stack with one platform for all workloads

Let's talk



Book a 1:1 deep dive with an engineer

[Book >](#)



Explore customer stories and case studies

[Explore >](#)



See how SingleStore powers real-time adtech at scale

[Read >](#)

