FLEET MANAGEMENT

Discover the Real-Time Value of Streaming Data Applications for Fleet Management

Fleet operation disruptions can lead to significant and adverse outcomes for your bottom line and customer satisfaction. Streaming data applications provide real real-time data for more precise fleet management that helps you avoid reputational damage, money loss, and dissatisfied customers.

Is your business realizing the full value of its streaming data?

More than 80% of Fortune 100 companies use Apache Kafka for streaming data to modernize operations and customer experiences.

But moving data — even at scale — is not the same as deriving its total value.

More often than not, companies rely on traditional streaming data application architectures – which are database-driven and do not work well with streaming data by default – to process their streaming data. The result?

- Increased overhead from managing multiple systems.
- Compounding latency, which defeats the utility of "real-time" use cases.
- Even-increasing operational expenses.

Sound familiar? If so, it's time to think differently about how your business builds streaming data applications.

Build streaming data applications in minutes, not months, with Nstream

Nstream is the first full-stack, open-source streaming data application development platform that allows enterprises to design, build, test, and deploy applications faster and more efficiently than ever before.

In fact, Nstream delivers a 10x faster time-to-value and a 70% lower total cost of ownership (TCO) compared to alternate approaches.

Nstream's fully-integrated solution enables real-time visibility and action while eliminating the need to integrate multiple data systems, hire new SMEs for each data system, or pay multiple vendors.

The result? Streaming data applications that enable full visibility, context, and automation to accelerate streaming data time-to-value.

Streaming data applications optimize fleet management

While streaming data, analytics tools, and database applications dominate the market, they provide only fragmented insights for modern logistics and supply chain challenges.

Nstream's streaming data applications bridge this gap in visibility by providing enhanced, real-time visibility that allows you to monitor your entire fleet or focus on individual objects (such as a single truck) with unparalleled precision.

As a result, logistics companies can revolutionize and optimize their fleet management. Imagine a scenario where a fleet manager can instantly:

- Monitor fleet maintenance.
- Track vehicle health.
- Analyze driver behavior.

- Track fuel consumption.
- Proactively optimize routes.
- Automate scheduling locations.

- Keep tabs on route progress.

And all in real time! With Nstream, you can significantly boost operational efficiency and elevate customer satisfaction by harnessing these capabilities. Minimize operational blind spots, mitigate opportunity costs, and reduce the likelihood of human errors, all while achieving optimal fleet management outcomes.

How Nstream advances fleet management across verticals

RETAIL: Reduce friction and increase customer loyalty
Isolate events or streams at the entity level to monitor fleet and inventory flow down to the individual truck, t-shirt or baseball cap. With Nstream, you have complete visibility into delivery estimates, real-time sales trends, and product availability. This visibility minimizes customer friction, facilitating customer loyalty and increasing the chances of repeat purchases.

LOGISTICS/TRANSPORTATION: Reduce overhead costs and positively impact revenue
Asset management for transportation or supply chain means knowing precisely what items each truck will transport, and tracking each specific piece of product, in addition to the trucks themselves. With Nstream, you have a view of every step in the supply chain journey. You can even identify early indicators of supply chain bottlenecks and automate remediation actions for proactive disruption resolution.

With a better understanding of your entire supply chain, you can find efficiencies to reduce costs associated with transportation and labor—all of which positively impact revenue and your bottom line.

How your business benefits with the Nstream Platform

BENEFIT	HOW?	WHY DOES IT MATTER?
Total business visibility	A real-time user interface provides a live model of the ever-evolving state of the business. You can see an aggregate view showcasing functional operations or zoom in on real-world objects – such as assets, transactions, customers, etc. – to get a granular view.	Real-time visibility is vital to understanding complex business operations and spotting potential issues well in advance. *Proof point:* An enterprise customer uses Nstream to deploy a real-time interactive map view of 20M+ IoT devices.
Sophisticated automation	Context-enriched streaming data is used to automate nuanced, time-sensitive decisions.	Acting on insights at the same speed as data processing makes the business more agile and competitive.
Faster time to value and lower total cost of ownership (TCO)	The full-stack streaming data application development platform removes the need for multiple data systems to be set up and maintained.	Managing multiple distributed data systems is time-consuming and expensive. *Proof point:* Nstream offers a 10x faster time-to-value with a 70% lower TCO.
Fully integrated software	Streaming data applications unify state, compute, persistence, and messaging into a single, vertically integrated data processing architecture.	Teams can focus on implementing business logic for specific use cases. *Proof point:* Nstream applications require 4x fewer engineering hours to design, build, test, and maintain.
Stream-to-stream joins	Stateful processing and entity-parallel services ensure that all necessary context remains with relevant business objects rather than scattered across database tables.	Implement a full-context real-time decision-making system while preventing a prohibitive cost increase and high latency.

How Nstream's innovation work

Nstream helps you create powerful streaming data applications in minutes, not months. It is possible because of the following technology innovations.

- **Stateful services:** With stateful services, applications do not forget their state and have the functionality of an application server on real-time / streaming data.

- **Streaming APIs:** Streaming APIs facilitate pushing data through the entire application stack. Think of streaming APIs as having the functionality of REST APIs but for real-time / streaming data.

- **Real-time user interfaces (UIs) and enterprise integrations:** Real-time UIs allow users to see the real-time state of their business down to the real-world object (such as a customer, truck, asset, or connected device) scale. Our real-time UIs easily integrate with business intelligence (e.g., Tableau), enterprise applications (e.g., Twilio), microservices, and custom UIs (e.g., Angular, React).

Case Study: Streaming data applications for complete situational and stateful awareness

Streaming applications bridge the gap between streaming data and full-fledged, entity-relational web applications. Various enterprise customers have used the Nstream Platform to build streaming data applications running in production because of the scale at which these streaming data applications can operate:

- 10 GB/second of streaming data from 10+ data sources.
- 200M+ events/second, with millisecond latency.
- Real-time scoring of 100M+ users.
- Real-time interactive map view of 20M+ IoT devices.
- 10x faster time to value — 200M+ events/second in just six weeks.Over 70% lower total cost of ownership (TCO).

Streaming data applications execute sophisticated use cases that improve customer satisfaction, drive efficiencies, save on costs, and even create a competitive edge. Nstream's technology optimizes fleet management by delivering real-time insights for a holistic view of entities. With Nstream's technology, you can closely monitor individual entities to uncover root causes of issues like:

- delivery delays,
- operational inefficiencies,
- fuel consumption spikes,
- and maintenance management.

Harnessing the power of Nstream for fleet management positions an organization's operations for enhanced performance and empowers informed decision-making.

Nstream receives industry recognition

Gartner.

Nstream has been recognized by Gartner as an example vendor of Unified Real-Time Platforms in the Market Guide for Event Stream Processing for its streaming application platform as a service (PaaS).

Intellyx

The analyst firm Intellyx honored Nestream with the Digital Innovator Award for driving enterprise digital transformation, and recognizes Nstream as a vendor worth watching.

Getting started FAQ

Q: Do I need to replace my tech stack to use Nstream?
A: No. Nstream helps you build SDAs and sends data back to your existing systems without being disruptive to your current stack.

Q: Does Nstream integrate with my existing streaming data technologies?
A: Yes, Nstream will easily integrate with your existing stack. Here are just some examples of our integrations: Tableau, Thoughtspot, Looker, ServiceNow, Twilio, Angular, React.

Q: Do I need streaming data developer experience to build a streaming app?
A: No! Nstream is a low-to-no-code solution; we provide templates to help you get started and on your way to building streaming applications in minutes (not months!).

Ready to build your own streaming data application?

Streaming data applications present an exciting opportunity to take your streaming data to the next level. Nstream is the first open-source, full-stack streaming data application platform. To learn more about Nstream or to get started with Nstream and your existing tech stack, discover more here.

About Nstream

Nstream's application development platform, built on SwimOS - has been open-source since 2019.

Nstream is an innovator in open-source, full-stack streaming data application development platforms, revolutionizing real-time operations for enterprises. With Nstream's cutting-edge innovations, organizations can effortlessly harness the power of streaming data, reduce operational costs, and improve scalability and agility. Nstream's technology enables businesses to unlock the full potential of their data, turning insights into action — immediately.