EVENT STORE.

Wiser

Wiser scales retail pricing intelligence by using EventStoreDB to eliminate redundant data and build a unified high-availability event-sourcing platform

About Wiser

- Global leader in SaaS products for retail intelligence and commerce execution

- Empowering data-driven decision-making for the retail and ecommerce sectors

- Founded in 2013 in San Mateo, California

Background

Wiser Solutions Inc. was founded in 2013 on the belief that better data should lead to better decisions. The company provides a range of cloud-hosted solutions for the retail sector to help both ecommerce and traditional retailers optimize their operations and expand their reach. For online retailers, they provide market awareness, brand intelligence, and consumer experience intelligence to help clients build highly effective business strategies. Their in-store solutions provide access to real-time shopper insights, physical shelves, and store operations to help high-street retail venues enjoy the benefits of digitization too.

The Challenge

Wiser provides SaaS solutions that give retail businesses insight into their critical operations both online and in-store. Their services aim to advance brand protection, brand intelligence, retail intelligence, and pricing optimization.

Chief Technology Officer Evan Walsh is responsible for ensuring that Wiser's engineering execution aligns with the needs of the business and their clients. The company's architectural vision is to create a next-generation platform by building a unified software suite that allows clients to scale and adapt their operations in the face of constantly evolving markets. Making the right technology choices is naturally a fundamental part of realizing that vision.

Clients come to Wiser to garner greater visibility into everything that is happening across their websites and in their high-street stores. It is a process that involves scraping huge amounts of data from the Web and transforming that data into actionable competitive intelligence.

Building a unified, data-driven platform proved the main challenge in bringing this vision to life. This required becoming a cloud-native company, which itself proved challenging given that Wiser has, over the years, acquired several businesses and solutions that were not cloud-native.

Wiser

EVENT STORE®

The Challenge

Chief Architect Leo O'Donnell determined that the best way to approach the challenge was to adopt domain-driven design, as opposed to rigidly structural designs that lack the flexibility Wiser and their clients needed to advance. In the era of microservices, this meant he needed to implement a way to better understand the behavior across many interconnected systems. Simply polishing existing systems would not be enough, and building a new system internally from scratch would be extremely demanding on resources. Instead, he sought a proven state-transition database technology that would allow them to scale while ensuring high availability and preserving data quality.

Since Wiser provides a critical service to their clients, it was imperative that the quality of the system was where it needed to be. Clients need to be able to trust the data coming out of the system, which meant overcoming issues like data loss and data inconsistency. At the same time, they faced the challenge of scaling their architectural solutions in a way that would not hinder performance and availability. This also required reducing the data footprint by reducing the amount of redundant data involved. As Leo claimed; "We needed to minimize the amount of work the engine had to do as a way to scale, rather than just trying to make the engine go faster."

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> Leo O'Donnell, Chief Architect

The Solution

Leo started looking into event sourcing as a solution to these challenges. Rather than treating data as a static resource, event sourcing ensures that every change to an application state is recorded as a fully auditable sequence of events. This adds vital context to data being fed into and out of the system, thereby making it more valuable and actionable. By contrast, the state-orientated approach only keeps the latest version of the entity, thus requiring deeper manual analysis.

The use case that brought Leo to Event Store was pricing optimization. This particular use case is driven by a relatively complex set of rules that vary significantly between clients, and there are many different data sources as well. Thus, they needed a degree of flexibility and visibility that few other solutions could provide.

"Now, as we're building our next generation architecture, we are looking at event sourcing as a key component in being able to provide the sort of governance, flexibility, and visibility into everything that is happening in our extraction platform." – Leo O'Donnell.

By contrast, earlier solutions relied on a black-box approach, in which data was siloed and lacking in vital context. By implementing Event Store's open-source database technology, Leo was able to architect a solution spanning multiple data types, such as purchase feeds, real-time pricing information, sales history, and customer data, along with multiple data sources, including those online and in-store. Most importantly, Event Store could be applied throughout the enterprise in any use cases where there was value to be had in understanding the temporal state of a particular entity. This would ultimately help Wiser develop a solution that would

The Solution

give clients robust guidance on pricing optimization while providing visibility into and accountability for the consequences of any changes.

"Using event sourcing is where the real win comes into play, because it provided us the design patterns we needed. Individually, and across separate domains, event sourcing helps us answer questions like what happed, when it happened, and in which order it happened." – Leo O'Donnell.

Wiser implemented their first node cluster in April 2021, and launched their pricing optimization product in May. Since then, Event Store has provided them with the stability and level of quality that they needed to deliver informed product pricing recommendations based on real-time competitive analysis. Moreover, thanks to adopting event-based reporting as the architectural foundation of their solution, their customers now have the traceability they need to determine why a pricing recommendation was made and which rules triggered those recommendations.

"I'm a 100% happy with Event Store Cloud. Availability has been super high, and many of the more difficult things that we would normally have to do to implement the solution were done for us. I'm happy to say it just works." – Leo O'Donnell.

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> **Leo O'Donnell, Chief Architect**

The Future

Implementing event sourcing has had a transformative effect on Wiser's engineering culture, as the team becomes more comfortable with the pattern. Their next step is to establish a more formal training program to ensure that everyone on the team has a baseline understanding of the new architecture and the tools used to implement those patterns.

Wiser is now looking at implementing event sourcing across their broader product portfolio, including workflows, user management, and job management.

Contact Info

To learn more about how Event Store can help your business succeed, visit us at **eventstore.com**. We offer support, training, and consultancy services for implementing event sourcing architecture with our core product, Event Store.