

Case study

Linedata

How Event Sourcing is Spurring
Linedata's Digital Transformation



*Performance tests with ES on our new products are
70–80% quicker than our existing solution.*



Leading provider of integrated technology, data and services that empower and support the diverse needs of global asset managers and help them capably adapt to market dynamics.

Founded in 1998, 1300 employees in 20 global offices with over 450 asset management clients

Implemented Event Store's event sourcing architecture for its flagship trading application beginning in 2018

The Challenge

"Our goal was to utilise the best technologies available to give customers increased flexibility, greater transparency, reduced costs, and quicker response times to changes in the market," says Adrian Tovey, who leads Linedata's global program management, about the company's digital transformation. *"The vision was to utilise microservices to modularise software development, deploy applications into the cloud, have the best UX and design practices, and underpin our strategy with a new, open, flexible database technology. We knew this would be a radically different approach from the monolithic enterprise applications, which are slower time-to-market and ill-equipped to deal with the changes in our industry."*

According to Adrian, continuing to develop on a single core application utilising a traditional relational database has significant disadvantages in today's quickly evolving market. When new product features are deployed, the entire application has to be updated, slowing time to market for new enhancements. This process eats up valuable resources and decreases efficiency. *"We needed to see better performance, scalability, and quality."*

The Solution

During Linedata's research phase, they homed in on Event Sourcing (ES), a procedure for storing data allowing for perfect audit trails, real-time artificial intelligence, and root cause analysis. ES achieves this by ensuring every change to the state of an application is captured; so when an application gets updated, no past information is lost. Event objects are stored in the sequence they were applied, are never modified, and can be accessed as such.

After researching multiple options, Linedata recognised the potential of the ES approach. The benefits were two-fold: satisfy customer desires for greater flexibility and quicker time to market for new capabilities and meet increasing demands for change in the asset management industry.

The technology group at Linedata was on board with event sourcing but didn't have the right toolset to implement it. Adrian and his team decided to enlist Event Store, the leading stream database company and world-renowned technologists in this

arena. *"We went to the people that started this and got them on board,"* said Adrian. *"It was a natural choice."*

In 2018, Linedata began development of their flagship trading application, with event sourcing as the underlying technology. *"Throughout the past year, we gained confidence as each component of the technology architecture has been secured."* Linedata's Algo Trading Solution was the first commercial application. Delivered to clients earlier this year, it provides a cloud-based delivery mechanism that automates how traders gain quick access to broker algorithms. *"Event Store's high levels of service, support and training have been consistent throughout."*

"We now have detailed information about every grain of sand that's moved in our system. It's just awesome to see

Adrian Tovey, Global Director of Program Management

④ Increased Performance, Volume, and Scalability with event-driven architecture

“Trading needs to be high performance and low latency—the scalability is critical. By using event sourcing, we were able to handle significant volumes, and scale faster,” said Adrian. *“Performance tests with ES on our new products are 70–80% quicker than our existing solution.”*

But more than this, Event Store’s commitment to continue helping Linedata improve their system is just as important. *“These guys are responsive and support Linedata to make changes to address any issues that occur,”* Adrian noted. *“As thought leaders and experts in event-sourced architecture, we are proud to be one of their foundational customers in the financial services industry.”*

④ Greater Confidence and Less Risk

Linedata did its due diligence before signing on with Event Store’s new technology. *“With change, there can be an inherent risk; but by working with a partner who is forward-thinking, innovative, and expert in event sourcing, we were confident that Event Store was the best database solution for*

our requirements,” noted Adrian. *“They provide an efficient, effective, safe, and performant way to store data; other solutions had technical trade-offs, which made them less suited for our needs.”*

④ Leading the Way

Event sourcing is relatively new to the financial services industry. By implementing ES’s approach to support its digital transformation strategy, Linedata can be more responsive to the changing needs of its customers and gain a competitive edge in the market. *“The core benefits of event-driven architecture allowed us to improve quality, performance and respond quickly to our customers,”* said Adrian. *“ES has helped us meet the demand for change in the industry, a change in the way applications are used to deliver services to our customers; Linedata is at the forefront of those changes.”*

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.



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