

Case study

# Bath ASU

Leading Pharmaceutical Company,  
Bath ASU, Uses Event Sourcing to  
Create Iron-Clad Audit Trails



*From a data integrity point of view, what makes event sourcing so attractive is how it supports the strictest audit trail requirements.*



Bath ASU is a pharmaceutical manufacturer based out of Corsham Town in Wiltshire, England. Initially founded in the University of Bath's education sector as an education, training, and R&D resource in 2000, they are now one of Britain's leading private mid-market growth companies.

Today, Bath ASU provides a complete range of aseptic manufacturing services and produces life-changing medicines administered to patients in hospitals or at home throughout the UK.

## The Challenge

Like all pharmaceutical companies, Bath ASU relies heavily on big data. From research and development to ensuring safety and data requirements are met, even a small error, such as missing or duplicated datasets associated with a patient's record, can have grave consequences.

For Bath ASU and its development team, data quality is everything, and this includes having immutable audit trails. When you're responsible for a patient's health and meeting strict regulatory requirements, there's no such thing as *"good enough."* *"We were operating on a Microsoft SQL Server environment,"* said Rich Knight, Lead Developer at Bath ASU. *"When information in the database was updated, the previous data would be overwritten. It was evident we needed a better solution: a historical record that was impossible to change."*

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Rich Knight, Lead Developer

## The Solution

In 2012, at a conference in London, the development team learned about a pioneering architecture for storing data. Known as Event Sourcing (ES), data is stored as a stream of events rather than just in its current state, such as in a standard table-driven system.

The benefits were clear. ES not only ensured perfect audit trails but also promised greater flexibility, scalability, and the ability to adapt quickly to changing regulations.

The event sourcing technology, provided by Event Store, the leading stream database company in the world, was eagerly adopted. Bath ASU rolled out ES into a hospital dispensing system, its internal manufacturing tracking systems, online ordering systems, as well as other applications.

## Q 100% Provable Audit Trails

*“Before using Event Store’s ES technology, when a change was made to a patient table, a row would also be written in the audit table. This resulted in two sets of data, which opened the door to bugs within our system. With ES, an error like this is impossible as there is a single event that describes what happens,”* explains Rich.

*“From a data integrity point of view, what makes event sourcing so attractive is how it supports the strictest audit trail requirements,”* he continued. *“Our audit trails are immutable and the one source of truth in our system.”*

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## Speed and Ease of Implementation

*“Prior to ES, it was massively time-consuming because you were doing two different sets of writes, and looking back at previous versions to note what changed,”* said Rich. *“Event sourcing lets you capture intent, so rather than just knowing ‘what’ changed, the language and commands tell you ‘why’ data was changed.”*

*“Converting to event sourcing was easy. The products are solid, and we’ve never had any issues,”* stated Rich. *“Our new hires get up to speed quickly.”*

*I can’t see why anyone would look elsewhere.*

Rich Knight, Lead Developer

## Ensuring Data Quality for Regulatory Compliance

Pristine data is critically important for pharmaceutical companies. Errors can impact patient’s lives and also result in regulatory fines and damages to a company’s reputation.

With ES, all events can be tied back to their origin. Every change is visible from start to finish; this is central to quality, product safety, and continuous improvement. With audit trails that are 100% provable, Bath ASU can satisfy regulatory requirements by providing accurate historical logs and complete transparency.

ES provides a flexible and scalable solution that guarantees the success of data-driven efforts. *“I can’t see why anyone would look elsewhere,”* said Rich.

## About Bath ASU

- Founded in 2000, Bath ASU is a pharmaceutical specials manufacturer based in Corsham, Wiltshire
- Provides a complete range of aseptic manufacturing services
- Produces life-changing medicines administered to patients in hospitals or at home throughout the UK.
- Implemented Event Store's event sourcing architecture in 2012

## Contact Info

To learn more about how EventStoreDB can help your business succeed, visit us at [eventstore.com](https://eventstore.com). We offer support, training, and consultancy services for implementing event sourcing architecture with our core product, EventStoreDB.



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