

How Databricks Helped a Medication Management Leader Achieve 83% Faster Orders, 3x Storage, and Zero Dispensing Errors on the Path to an Autonomous



Background

The customer provides automation and business analytics software for patient-centric medication & supply management across the healthcare continuum. More than 6,000 facilities rely on them to increase operational efficiency and improve patient outcomes.

Business Challenge

Customer needed a better way to manage the rising complexity of medication dispensing across hospitals. Some major hurdles included:

- **40% of hospital readmissions** are linked to medication-related problems.
- **Over 75% of pharmacy staff time** is spent on non-clinical, manual tasks.
- Disconnected workflows slowing down medication availability.
- Increasing medication shortages, putting patient safety at risk.

It was clear that customer needed a faster, smarter, and more connected data backbone to move toward its vision of an autonomous pharmacy.

WinWire Solution

Customer partnered with WinWire to modernize their platform — putting Azure Databricks at the heart of the transformation.

Here's how Databricks turned things around:

- **Real-time Data Processing:** Using Scala-based data pipelines on Databricks, customer built a powerful metadata-driven engine that processed transaction streams coming in via Kafka. Medication transactions were captured, enriched, and serialized into PostgreSQL databases in near real-time.
- **Smart Data Enrichment:** Databricks notebooks pulled in additional insights — like pricing, facility, and department mapping — connecting fragmented data points into a complete, actionable view for each transaction.
- **Inventory Intelligence and Optimization:** Real-time dashboards, powered by Databricks, offered predictive insights on stock-outs, benchmarked cabinet usage, and flagged safety standards — giving pharmacy teams critical visibility before issues arose.
- **Seamless Integration:** Downstream, .Net Core-based microservices and Angular applications made this enriched data instantly accessible across desktops, tablets, and mobile devices — enabling clinicians and pharmacists to act faster and smarter.

Business Value

- Reduced **dispensing errors to 0%**.
- Medication ordering **speed improved by 83%**.
- **Pharmacy storage capacity** increased by up to **300%**.
- Advanced the journey toward an autonomous, zero-error pharmacy system.