

A leading provider of medication and supply management solutions uses **Azure Databricks** to improve medication availability, workflow efficiency and patient care.



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

Manual processes for medication management are inefficient and prone to human error. Hospital pharmacies are increasingly facing medicine shortages, impacting patient care. The customer's existing processes, used by facilities worldwide, are disconnected and time-consuming. Key challenges faced by Hospitals include

- Medication-related problems account for **40% of hospital re-admissions**, and
- More than **75% of pharmacy time** is spent on non-clinical activities.

Need is to modernize the existing data process to adopt a solution that enabled them to transform the way hospital pharmacies dispense and track medication. **Delivering improved workflow, expanding automation, enhancing medication management intelligence**, and eventually progress towards the autonomous pharmacy, a roadmap to **develop a zero error, fully automated medication management infrastructure**.

WinWire Solution

WinWire supported the customer with Microsoft's Azure Data platform and enabled a seamless integration and high availability of the Medication Management Automation System.

- Using **.Net Core technology**, WinWire ensured the solution integrates seamlessly with tools from other vendors on different platforms to deliver the functionality that the customer needs.

- Metadata driven data processing Scala data-pipelines on **Databricks** processes the transactions arriving via Kafka (electronic transactions from external entities), and the serialize into PostgreSQL data stores
- **.Net Core-based microservices** consume the data and allow user to interact with it through an Angular application, which ensures that the data is available on multiple channels, including mobile devices, tablets, and desktops
- Expanded capabilities and functionality within real-time data process on the **Databricks services** to simplify workflows, improve inventory visibility, provide data insights, and improve staff satisfaction and patient safety.
- Expanded inventory optimization through new enhancements such as intra-system stock-out dashboards and cabinet benchmarking that includes safety standards

Business Value

- Contributed towards an increase in revenue margins and **reduced dispensing errors to 0%**
- Enabled hospital pharmacies to store up to **300% more doses** and increased **the speed of medication ordering by 83%**
- Supported in customer's progression towards autonomous pharmacy
- Enhanced Medication Inventory Management and patient care
- Enabled to acquire new customers/hospitals and achieve competitive advantage
- Supported more cost-effective workflows