

CASE STUDY

HIGH-PERFORMANCE HEALTHCARE DATA
PROCESSING SYSTEM IMPLEMENTATION

As digital healthcare data proliferates, effective management of public and private healthcare records requires ever-increasing processing capacity, stressing the performance of older platforms. Kurtek was chartered by a major health records management platform provider to optimize performance in their existing, on-premises implementation and deliver a cloud-capable solution for managing data ingest. The platform, which manages tens of millions of discrete client records, receives daily batch data sets from multiple healthcare payer organizations; these data sets must be aggregated, reconciled, and integrated into the platform's centralized database.

DEVELOPMENT & SUSTAINMENT

SOFTWARE ENGINEERING

AGILE DEVELOPMENT

SYSTEM INTEGRATION

Having conducted a comprehensive assessment of the existing data model and of numerous historical data sets, the Kurtek team identified a strategy to optimize the data pipeline by implementing a scalable, high-performance data pre-processing engine that would detect and eliminate redundant data, perform record deconfliction, provide pre-database caching, and generate minimized, ingest-optimized change sets for database ingest. The implementation of this engine significantly reduced the overall processing time for daily batch data sets, enabled database-independent parallel processing of discrete payer organization data pipelines, and mitigated the incidence of data conflicts and processing errors.

KEY RESULTS

- Implemented a high-performance data processing engine for an aggregate input of 20+ million discrete patient and provider records per day.
- Reduced total daily record ingest and processing times by more than 50%.

In addition to optimizing the performance of the data ingest pipeline, the Kurtek solution delivered a number of additional capability enhancements, including automatic format translation and data mapping, provenance

traceability across data sets, and real-time progress monitoring and reporting.

To learn more about our capabilities, email us at info@kurtek.io or call our team at 703-943-7236.