

INSYS GROUP CASE STUDY: **Data Lake Implementation**



INSYS Specialized Skillsets

Data Analytics

Data Warehousing and
Business Intelligence

Data Transformation

Introduction

Amid revolutionary changes in the healthcare economy, innovative data applications are driving strategies to deliver high impact healthcare outcomes at lower costs. Health plans, entrepreneurs and healthcare providers are leveraging data and information technology to improve service, enhance patient experiences and model population health outcomes. The opportunities to transform healthcare are profound, but significant practical challenges make it difficult to turn the wealth of healthcare data into usable information.

Business Challenges

Our client is a global healthcare company that uses a health intelligence platform to gather knowledge from millions of patient encounters so it can deliver actionable data directly to healthcare organizations and service providers. To address the challenges associated with data storage, integration and accessibility, the company needed to centralize its data assets in a cost-effective and highly scalable processing system. That would provide their customers with more timely information to improve decision-making, as well as facilitate data exploration at every point along the healthcare continuum.

Maintaining privacy and confidentiality were key, because the company's healthcare intelligence solutions process large volumes of sensitive data.

Solution

The solution presented itself in the form of a data lake. In simple terms, a data lake is an enterprise-wide management platform for analyzing disparate sources in their native data formats.

Instead of loading data in a purpose-built data store, it is moved into a data lake in its original format. This eliminates the upfront costs of data ingestion. Once data is in the lake, it's available for analysis by everyone in the organization. INSYS Group was engaged to provide the requisite expertise in data warehousing, analytics, acquisition, transformation and reporting. This comprehensive, innovative, intelligent data platform enabled the monitoring and loading of streaming feeds from hundreds of data sources.

Based on a Hadoop architecture, the data lake allows the company's disparate records to be stored in their native formats for later parsing, rather than forcing all-or-nothing integration up front, as would be required in a data warehousing scenario. Preserving the native format also helps maintain data provenance and fidelity, so different analyses can be performed using different contexts.

Benefits

Benefits realized include the ability to keep data ingestion controlled, managed and well organized. The company reduced IT costs by using pre-built and tested management solutions and was able to let its internal developers focus on adding unique value to the new healthcare data solution.

Why INSYS Group

At INSYS Group, data and analytics is at the core of everything we do.

We understand how the healthcare industry works and help forward-thinking providers capture big data opportunities with tools like Hadoop.

Companies can then work with both structured and unstructured data, so caregivers and researchers alike can analyze the combined dataset in myriad ways simultaneously. That means they can improve operational efficiency and enhance patient outcomes while staying ahead of rapidly evolving compliance, regulatory and industry changes.

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