

Building a Scalable Architecture for the Dynamic Data Needs of a Care Solution Provider

BUSINESS GOALS

The client is a leading care solution provider in the U.S. They generate a huge amount of data in the process of delivering services, which is used to make informed decisions to improve healthcare outcomes and operational processes. However, the rapid growth of their business and a dramatic increase in data volume was quickly outgrowing their technology architecture's ability to keep up.



BUSINESS BENEFITS

In the end, the client was able to begin providing improved, differentiated services to their customers, based on the insights they gained from the new automated data acquisition and analysis capabilities. In addition, they realized the following side benefits:

Vastly improved data quality through enriched data sources

90% reduction in client onboarding time

50% faster processing time

CHALLENGES

- 2,900+ inbound data feeds
- 45+ different types of data, including prescriptions, lab test results, patient vitals, pharmacy benefits, claims, payment, and claims from healthcare providers
- Requirement to support numerous industry standard file formats including Lab FF, HL7, 837i, and 837P
- Their goal was to build a technology platform with the ability to:
 - Automate their data processing and analysis activities
 - Scale with the business over time
 - Enable the business to sustain rapid growth
 - Improve the quality of services they offer

SYNTEL'S SOLUTION

Syntel began working on the problem, advocating for a centralized data lake to serve as the client's main data repository. We provided the following services and support throughout the initiative:

- Formulated a flexible MapR based data architecture
- Implemented and integrated sequential data transformation
- Implemented Lambda architecture to provide efficient batch and stream data processing capabilities
- Performed robust data validations for each subject area, leveraging testing automation based on a Google Robot Framework

About Syntel

Syntel (Nasdaq:SYNT) is a leading global provider of integrated information technology and knowledge process services. Syntel helps global enterprises evolve the core by leveraging automation, scaled agile and cloud platforms to build efficient application development and management, testing and infrastructure solutions. Syntel's digital services enable companies to engage customers, discover new insights through analytics, and create a more connected enterprise through the internet of things. Syntel's "Customer for Life" philosophy builds collaborative partnerships and creates long-term client value by investing in IP, solutions and industry-focused delivery teams with deep domain knowledge.

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