Navigating a Changing Healthcare Landscape:

Optimizing Healthcare Administration Using a Data Lake

"Adopting an integrated Informatica solution for data governance, integration, and cataloging has resulted in happier clients."

Executive Director, Data Governance
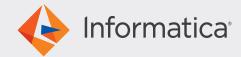Cloud-Computing Health Tech Company

Goals	Solution	Results
Enhance administrative services to healthcare organizations by sharing analytics insights and performance metrics with them	Use Informatica Intelligent Cloud Services to bring timely and trusted data into a Snowflake data lake on Amazon Web Services (AWS)	Facilitates a new level of dashboard-based healthcare data insights that can be easily shared via a current and accurate data lake
Provide a simplified way for their analytics teams to consistently govern medical record and revenue cycle data from healthcare organizations	Automate a five-step data governance process and establish a business glossary using Informatica Axon Data Governance	Helps improve data governance and collaboration with consistent analyses and results across business units, while saving time and lowering costs
Make better use of healthcare and financial data from healthcare organizations by understanding exactly where it came from, how it moves, and its relationship to other data	Scan data assets and track their lineage using Informatica Enterprise Data Catalog	Makes governed data and lineage easily accessible to internal analysts, helping to increase their confidence in decision-making

Informatica Success Story: Cloud-Computing Health Tech Company

Their motto is "let doctors be doctors," reflecting a belief that medical practitioners should spend as much time as possible with their patients and minimize time spent on administrative operations. Through a unique software as a service (SaaS) offering, a suite of integrated services that combines software with administrative tasks, this Cloud-Computing Health Tech Company delivers measurable financial and clinical results to more than 160,000 healthcare organizations across the United States.

The software integrates electronic health records (EHR) with intelligent workflows to help healthcare organizations exchange key patient data with other care sites. Medical billing is also part of the suite and not only includes revenue cycle management, but also a rules engine that monitors claims payment accuracy. A robust portal facilitates engagement between healthcare providers and patients, while population health data is translated into usable information for healthcare organizations.

Such an ambitious undertaking requires the organization to be extremely data-centric, taking into consideration insurance claims, healthcare revenue cycles, and EHR. Over the years, they've created hundreds of department-level metrics to measure the efficiency of their service delivery to clients. Although this approach improved service delivery for some departments, it became increasingly difficult to reconcile and translate the metrics into a holistic story that could be presented to healthcare organizations—helping them utilize the service to its fullest potential. The approach also resulted in operational silos, with different analytics teams spending too much time translating metrics.

To help improve analytics capabilities, they wanted to implement a centralized, cloud-based data lake to serve as a single source of truth for all analytics teams across its primary business units. At the same time, it wanted to create a new performance framework to allow customer success teams to create their own metrics, curate the data, and share insights with healthcare organizations using dashboards. However, to get the analysts and customer success managers on board, the new metrics had to be based on governed datasets that were cataloged in a single location and easily re-usable, with clear data lineage.

"To help improve service delivery, we started building a massive data lake containing data on our clients for the past 22 years," says the Executive Director, Data Governance. "But we needed a way of governing all that data, cataloging it, and integrating it with the cloud platforms and technologies we're increasingly adopting."
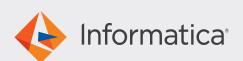
Improving Data Warehousing Performance

To move clients' healthcare and financial data from source systems such as Salesforce into Snowflake running on Amazon Web Services (AWS), the Cloud-Computing Health Tech Company chose Informatica

Cloud Data Integration. The Informatica Intelligent Cloud Services provides codeless integration that supports full ODBC push-down optimization, resulting in faster data processing and limiting the volume of data moving out of the Snowflake cluster. Informatica Data Quality helps keep clients' administrative information timely, accurate, and consistent.

The Executive Director of Data Governance further explains, "We support patient engagement with healthcare organizations—starting with an appointment made on the phone or online, through the medical claims process by processing the payments for medical offices through their banks. The way Informatica Intelligent Cloud Services works seamlessly with Snowflake and enables push-down optimization into Snowflake to improve performance was important for us. Given the vast amounts of data we have and generate, the ability to quickly push large volumes of data into Snowflake was critical to keep our data lake current."

Strengthening Healthcare Data Governance

At the same time, the organization established a data governance council and defined an initial set of governed data assets to be used by its operations, customer success, product analytics, and finance teams. Analysts now follow a five-step data governance process, beginning by entering the initial specifications into Axon Data Governance. A working group iterates on the specifications and business glossary until it's finalized. The initial implementation and assets are then scanned into Informatica Enterprise Data Catalog for fast, easy discovery. Cataloged assets can then be brought back at any time into Axon Data Governance, where analysts can curate the data to share with clients—helping them to optimize their administrative operations.

"When our analysts and data stewards use Informatica Axon Data Governance and Informatica Enterprise Data Catalog to discover and understand data in the cloud data lake, they know exactly where the data came from, and have improved confidence about the data set and its quality," says the Executive Director, Data Governance.
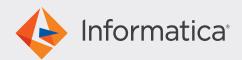
Keeping Key Clients and Analysts Happy

With easy access to data that's timely, accurate, and trusted, the internal analysts are now better able to connect the dots across different assets and stakeholders. This has resulted in more efficient collaboration across business units and faster development of new analyses that can be visualized in Tableau and Microsoft Power BI. Customer success managers use the new performance metrics and dashboards to present clients with a big-picture view of their administrative operations, and then drill down into recommendations on how healthcare organizations can improve certain key metrics, such as minimizing errors for claims processing.

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Executive Director, Data Governance
Cloud-Computing Health Tech Company

Inside The Solution:

- Informatica Axon Data Governance
- Informatica Cloud Application Integration
- Informatica Cloud Data Integration
- Informatica Enterprise Data Catalog
- Informatica Data Quality
- Informatica PowerCenter
- Amazon Web Services
- Snowflake

"Adopting an integrated Informatica solution for data integration, cataloging, and governance has resulted in happier clients," says the Executive Director, Data Governance. "They're getting more accurate data, more actionable outcomes, and greater consistency in the results they're seeing."

Unified datasets and definitions allow key internal stakeholders to speak the same language across working groups and business units. With a reliable source of data for analytics, they no longer need to perform redundant, high-cost queries on complex datasets. Instead, they can communicate and make changes to the single source of truth, as opposed to creating their own versions of datasets or making changes to schemas on their own.

"We're seeing strong ROI from our Informatica solutions from both a compute and time savings perspective," says the Executive Director, Data Governance. "Before, our analysts were burning a lot of cycles on their own."

Responding Faster to Healthcare Trends

As the COVID-19 pandemic transforms the delivery of patient care for their clients, Informatica solutions help the company provide faster and better administrative insights that empower healthcare organizations to navigate the "new normal." For example, in the first few months of the pandemic, their health network saw a 3,400% overall increase in daily telehealth visits. Applying its technology and cloud-based architecture, the Cloud-Computing Health Tech Company quickly developed a telehealth resource to allow its clients to meaningfully engage patients and deliver needed care with telemedicine visits.

"We can see the number of COVID-19 tests that are being conducted across the country, break it down by state, county, and city, and integrate that information into customer-facing dashboards," says the Executive Director, Data Governance. "As our business expands and demand for our technology increases, Informatica solutions help make analytics and product development a lot easier."

Digital transformation is changing our world. As the leader in enterprise cloud data management, we're prepared to help you intelligently lead the way. To provide you with the foresight to become more agile, realize new growth opportunities or even invent new things. We invite you to explore all that Informatica has to offer—and unleash the power of data to drive your next intelligent disruption. Not just once, but again and again.

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