



Global Biotechnology
Organization

Powering Genetic Research:

Accelerating Data Discovery for Advanced Business Analytics

"Informatica provides the visibility we need to comply with legal and privacy requirements while fueling our analytics community with data to move the business forward."

Senior Director
Enterprise Architecture & Platform Services
Global Biotechnology Organization



Goals	Solution	Results
Leverage business data and advanced analytics to deliver services	Integrate data from disparate cloud and on-premises sources using Informatica Intelligent Cloud Services	Brings raw data together from diverse business systems, allowing this Global Biotechnology Organization to enhance sequencing instruments and services to customers
Increase service reliability and improve operational efficiency for customers' genomic experiments by cataloging and understanding data	Use Informatica Enterprise Data Catalog and Informatica Data Quality to organize and deliver data	Improves customer experience by enabling the organization to proactively alert customers about sequencing system issues that might impact their research
Build an enterprise data governance program to support federal compliance and analytics-driven business decision-making	Develop an enterprise-level data governance management framework using Informatica Axon Data Governance	Strengthens data governance to enhance compliance with FDA, GDPR, and Sarbanes-Oxley regulations

Business Requirements:

- Discover end-to-end data lineage
- Enhance semantic views as part of the analytics platform
- Integrate with Tableau for reporting

About this Global Biotechnology Organization

Based in San Diego, this Global Biotechnology Organization is the leader in genomic sequencing instrumentation services, providing genomics solutions for a wide range of applications from cancer research to agriculture.

This Global Biotechnology Organization works to unlock the power of the human genome by developing, manufacturing, and marketing integrated systems for the analysis of genetic variation and biological functions. By providing next-generation sequencing (NGS) instruments and services for both research and diagnostic use cases, the organization helps to advance fields ranging from cancer and prenatal research to agriculture. In some cases, research efforts powered by the organization have led to clinical uses of genomics for patient treatments.

One of this organization's primary business objectives is leveraging data and advanced analytics to help customers achieve their research goals. Its data management journey started several years ago, beginning with a focus on data quality and then moving toward using analytics to help drive NGS instruments and service delivery. Ultimately, the company wanted to build an enterprise data governance program to support and enhance its analytics-driven business decision-making.

"It became imperative for us to understand where data lives in our environment, including the source systems and products that it is being pulled from," says the Senior Staff IT Architect. "Cataloging and understanding our data landscape became very important for our analysts writing reports, as well as for our knowledge workers serving customers."

This Global Biotechnology Organization is focused on customer enablement. To provide a better customer experience, the organization displays information about customer operations such as instrument run data and quality scores in the company's customer-facing environment for analyzing sequencing data (the hub), which it uses in conjunction with an ordering system. To enrich that customer experience, the organization must discover information, understand metadata, and ascertain what is important about that information that justifies displaying it back out to the customer.

Whether a user is operating a large sequencing center or a small research lab, reliable instrument operation and management are critical for optimal usage with maximum throughput. By understanding customers' operational data and displaying it in the hub, this Global Biotechnology Organization saw an opportunity to increase service reliability and improve operational efficiency for customers' resource-intensive genomic experiments.

"We see digital transformation on two fronts: providing an outstanding customer experience and enabling our employees to easily find and act on trusted data," says the Senior Director, Enterprise Architecture & Platform Services. "Of course, they go together. From a customer experience standpoint, much of the information we deliver is based on the products customers buy and the orders they place, as well as informatics about the instruments they leverage."



“Using Enterprise Data Catalog, we can take steps based on the information we get from our instruments to proactively monitor and alert customers of potential problems that could impact their genomic sequencing processes.”

Senior Staff IT Architect
Global Biotechnology Organization

Strengthening data integration, discovery, and governance

A long-time user of Informatica solutions, this Global Biotechnology Organization began using Informatica Intelligent Cloud Services to integrate data from more diverse sources, including cloud applications such as Salesforce. But the company also needed a reliable way to discover and inventory its rapidly expanding data assets, including those in SAP HANA, which brings forward a semantic (virtual) layer of data views that traverse through multiple levels.

“We wanted a data catalog that offered a search-based user interface for data discovery to provide a familiar user experience,” says the Senior Staff IT Architect. “We also needed deep integration with the other products, platforms, and technologies that we use in order to properly display the lineage of how data moves through our organization and systems.”

The organization selected Informatica Enterprise Data Catalog to build a data catalog from many different source systems, harvesting metadata from CRM, case management, instrument logs, manufacturing, and others. To establish and develop an enterprise-level data governance management framework that would help it comply with FDA, Sarbanes-Oxley, and GDPR regulations, the organization also deployed Informatica Axon Data Governance.

“This organization has a great foundational partnership with Informatica, and new products such as Enterprise Data Catalog and Axon have addressed emerging business requirements in data discovery and compliance that are critical for us,” says the Senior Director.

Adds the Senior Staff IT Architect: “When we looked at the capabilities that Informatica provides around metadata collection with the ability to catalog and enforce governance as well, we saw these features as very important to us. Informatica’s competitors couldn’t offer them all.”

Tracking end-to-end data lineage

This global organization can now track data movement down to the column and metric level with detailed impact analysis, providing the analytics needed to help internal teams make better decisions about what tools, technologies, and processes might help them achieve their business goals. In certain cases, the organization has delivered data to external customers through SAP HANA, displaying a semantic view of aggregated data about their purchase history.



“Informatica provides the visibility we need to comply with legal and privacy requirements while fueling our analytics community with data to move the business forward. Our privacy team is excited to have it.”

Senior Staff IT Architect
Global Biotechnology Organization

“Using Informatica Enterprise Data Catalog, we can see end-to-end data lineage in SAP HANA, from a top-level view all the way back to source objects,” says the Senior Staff IT Architect. “Within each single semantic view, we can see its impact all the way forward, and how it might be used in other views. Using Enterprise Data Catalog to tie catalog functionality to our SAP HANA semantic layer helped us deliver a lot of business value to our internal and external customers almost immediately.”

The ability to analyze where data lives and how it relates to other data and business processes is an important part of any digital transformation. This Global Biotechnology Organization uses Enterprise Data Catalog to enable its digital commercial transformation, discovering how data assets are currently defined and how those definitions can be changed to improve business processes.

“Users are coming forward from our service, marketing, and sales organizations wanting to use Enterprise Data Catalog to better understand their data and what the impact of changes might be,” notes the Senior Staff IT Architect. “Enabling data to become information empowers decision-making and predictive analytics while advancing our ability to incorporate AI as part of our enterprise strategy.”

Simplifying FDA and SOX compliance

With the ability to link semantic views of data to business descriptions, the organization is enhancing data governance and compliance. Using custom tags in Enterprise Data Catalog, it can associate semantic views with specific FDA and Sarbanes-Oxley regulations, using descriptions that are searchable by users. When a user wants to find and understand reports that may already exist in the enterprise, they can simply subscribe to those reports instead of having to re-invent the wheel yet again.

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Improving stability for genomic experiments

Enterprise Data Catalog also helps the organization to better understand information about its customers' operating environments. It recently launched a new monitoring service in which instrument performance datasets from each experiment run are sent back to the organization to enable proactive maintenance. With the ability to easily discover that data and display metrics to users through its hub, the organization helps its customers facilitate troubleshooting with more accurate diagnosis of failures and detection of failure risks.

“Using Enterprise Data Catalog, we can take steps based on the information we get from our instruments to proactively monitor and alert customers of potential problems that could impact their genomic sequencing processes,” says the Senior Staff IT Architect. “That helps our customers increase instrument uptime, improve operational efficiency, and reduce the risk of lost resources.”



Inside The Solution:

- Informatica Axon Data Governance
- Informatica Enterprise Data Catalog
- Informatica Data Quality
- Informatica Intelligent Cloud Services

Creating a healthier future with data

This Global Biotechnology Organization is now moving into profiling and classification, leveraging Enterprise Data Catalog to validate data and domains with users. By allowing users to verify whether data is in the proper domain, the organization is constantly improving data quality, building on the value of its catalog. Improving understanding of information enterprise-wide will help the organization keep customer experiences outstanding, positioning the company as a trusted partner to improve research and ultimately clinical outcomes.

"Informatica Enterprise Data Catalog helps us keep our eye on what's important while continually enriching the data with the right information and the right level of granularity," says the Senior Staff IT Architect. "We're looking forward to new features that are coming to enable an even richer experience with our metadata and further reduce reliance on IT, opening up data to the entire company."

