



# Living Life to the Fullest:

## Shire Pharmaceuticals Uses Next Generation iPaaS and Data Analytics in the Fight Against Rare Diseases

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Shyam Dadala  
Enterprise Analytics Architecture Engineer  
Shire Pharmaceuticals



Goals	Solution	Results
Use research data to fight rare diseases and specialized conditions, and to deliver breakthrough therapies faster	Use Informatica Cloud Data Integration, Informatica Big Data Management and Microsoft Azure to consolidate disparate data sources and create a single version of the truth	Speeds product research and development time
Create an integrated, central repository for enterprise data	Bring together data ingestion, integration, and visualization tools to support analytics	Allows more value to be extracted from enterprise data
Enable quick, easy access to analytics tools to speed research and development	Leverage Informatica synergies with Microsoft Azure for faster deployment	Reduces data acquisition, data integration, and IT support costs

## Business Requirements:

- Accelerate product time to market to limit the impact of rare diseases and specialized conditions
- Unite company data following multiple mergers and acquisitions
- Become a data-led organization

### About Shire Pharmaceuticals

Shire is a leading global biotechnology company focused on serving people affected by rare diseases and highly specialized conditions. These diseases are often misunderstood, under-diagnosed, and potentially life-threatening.

Headquartered in Dublin, Ireland, Shire maintains operations in 65 countries and makes its therapies available in over 100 countries.

Shire Pharmaceuticals' 24,000 global employees arrive at work every day with a common purpose: to develop and deliver breakthrough therapies that enable people with life-altering conditions to live their lives to the fullest.

The company's aim is to create understanding and awareness of rare and specialized conditions. This is vital because a lack of understanding can lead to misdiagnosis, social stigma, long delays to treatment, misuse and abuse of therapies, and unnecessary stress.

As a result, millions of people around the world, including patients, their families and caregivers, and the wider medical community, rely on Shire expertise and therapies for everything from oncology and neuroscience to immunology and rare diseases.

## Accelerating growth through data analytics

In recent years, Shire has grown through mergers and acquisitions, allowing it to expand into new disease areas and geographic markets. One by-product of the company's growth strategy is that its data was spread throughout the world, stored in different data warehouses. These silos made enterprise data challenging to retrieve, acquire, and use. To perform data analytics, for example, analysts had to manually download tools to extract data, then use applications such as Microsoft Excel to organize and analyze it which limited Shire's ability to perform deep analysis of the data.

Shire viewed data analytics as essential to advancing the fight against rare diseases and specialized conditions, and instrumental to the company's business success. It devised an initiative to bring its enterprise data together onto a single platform, and deploy standard tools to allow data analytics to be performed more quickly and easily across the organization.

"It can often take between three to five years to diagnose a rare disease," says Sung Nam, Director, Enterprise Analytics Solutions, Shire Pharmaceuticals. "The question we asked ourselves was, how do we accelerate those timelines using data? The answer was to create a platform for company-wide data analytics."

## Finding a data integration partner

To meet its strategic objectives and help develop the new platform, Shire selected Informatica as its data management partner.

"Informatica is best of breed in data integration and master data management, and offers seamless integration with Microsoft Azure, which is the cloud platform we use," explains Nam. "Plus, we'd used Informatica PowerCenter successfully for many years, so could re-deploy our skills and know-how in the creation of our data analytics capability."





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As a first step, Shire deployed Informatica Intelligent Cloud Services and Informatica Big Data Management to integrate and consolidate data from the company's legacy systems onto a new, cloud data platform, called the Analytics Marketplace. This created a central data repository serving the whole company.

The Informatica solutions were then used to migrate different tools and technologies, such as Microsoft Azure HD Insights, and Click and Data Mirror self-service tools, onto the Analytics Marketplace. These tools provided data ingestion, integration, and visualization capabilities, and supported a wide range of analytics—from standardized dashboards to complex, data scientist models. Shire found that Informatica Cloud Data Integration is easy to use, supports advanced data integration patterns such as pattern-matching, and processes data in real time to generate critical patient insights.

With the tools in place, growth and adoption has been tremendous for Shire. Informatica Big Data Management brought to the table another level of automation where the organization can build jobs out through point and click without having to write code. By utilizing Informatica Big Data Management, Shire has moved 400 TB of data and created thousands of Informatica BDM jobs processing data on Azure.

"Informatica brought disparate data and technologies together to create stability" says Nam. "The result is a flexible platform that allows data analytics to be performed collaboratively, and as a self-service function."

## **Becoming a data-driven organization**

Today, enterprise data is shared with stakeholders across the organization, eliminating longstanding silos and creating more efficient collaboration between internal groups. These benefits have helped Shire to reduce data acquisition, data integration, and support costs.

At the same time, the new self-service capability allows Shire analysts to use the Analytics Marketplace to prepare data, build data visualizations, and perform advanced analytics whenever or wherever they want. This has helped accelerate vital data analysis projects across the company while reducing the involvement of IT during implementations.

"Thanks to Informatica, we're able to dive deeper into data, and extract more value from it than ever before," notes Nam.

Furthermore, the creation of the Analytics Marketplace has helped reduce the company's software, training, and support costs, and increase productivity. Strategically, it has transformed Shire into a data-driven organization, allowing it to develop products faster and strengthening its competitiveness.



### Inside The Solution:

- Informatica Intelligent Cloud Services
- Informatica Cloud Data Integration
- Informatica Big Data Management



"Informatica carefully listened to our feedback during our journey, and built solutions and new capabilities into the software in response," says Nam. "That's allowed us to focus less on the infrastructure and more on the big picture, instilling confidence in the project from all levels of the organization."

### Identifying patterns in data

Shire plans to build additional analytics capabilities into the Analytics Marketplace, such as more comprehensive views of data, artificial intelligence, and machine learning, which will allow information to be interpreted faster, and in new ways.

"In the future, we'll be looking to speed up research time and identify patterns in the data that might help patients, or the business," says Shyam Dadala, Enterprise Analytics Architecture Engineer, Shire Pharmaceuticals.

"Speed is everything in our sector," Dadala concludes. "Through Informatica, we're accelerating product development and reducing time to market for our therapies, which helps to enrich the lives of people around the world."