



# Cognizant

Case Study: Life Sciences

## Healthy Data? That Means Reliable, Defensible, Accessible.

A global life sciences company migrated to a cloud-based Data Modernization Method to increase informational flexibility and lower costs.

Imagine being in business for over 100 years and having accumulated a vast repository of global human health data that you rely on to address questions and concerns, respond to legal inquiries, and incorporate in ongoing research. It's a potentially enormous competitive advantage — and a regulatory and compliance necessity.

Now imagine not having the flexibility to use that data the way you want to, faced with a legacy mainframe environment that inhibits free and fast access to your own data. In a world of data-mining and rapid innovation, that's not only a time-consuming and expensive operational challenge, but it's also damaging to a company's viability in the new digital marketplace.

### At a glance

A global life sciences company sought to lower IT running costs while providing faster, more flexible access to its repository of global health data.

### Outcomes

Cognizant designed and implemented a solution using its Data Modernization Method based on Amazon Web Services (AWS) that:

- Reduced external mainframe data-hosting costs by more than 95%.
- Saved \$3.6 million annually with cloud migration.
- Improved data access and retrieval speeds by 50%.

## Legacy equals rigidity

That is exactly what this global life sciences company was facing after a four-year internal effort to migrate its systems and data away from legacy mainframe computers to promote digital initiatives across the enterprise. Having over the years acquired multiple complementary businesses — including major pharmaceutical research companies — our client had critical information on all their substantial range of drugs and compounds.

Data creates business opportunity by providing insight, and our client needed full access to its treasure trove of data. But while paying \$3.6 million annually for pre-packaged legacy mainframe hosting, the company had become increasingly frustrated with its limited ability to develop customized queries and data management solutions to answer questions quickly and accurately. They needed smart, open access to their data. Moreover, as its four-year migration project had aged, important internal subject-matter experts had left for other opportunities.

At the speed of business today, in an environment where digital ambitions must be matched with digital capabilities, leadership recognized that its legacy systems were failing to inform decision-making quickly enough to keep pace. Their need to accelerate digital transformation was pressing.

## Digital depends on data

They turned to us for a solution. We examined the current state of the company's IT architecture, developed use cases to support the blueprint for the desired future state, and designed and managed the successful migration of more than 150 terabytes of historical data to a new, globally accessible cloud-based platform.

Our solution, based on Amazon Web Services AWS, offered them a global repository that runs on the Cognizant AI Data Modernization Method reference model. This cloud-enabled architecture

Our solution  
improved their data  
access times by **50%**  
and sharply lowered  
costs by **\$10 million**  
over the next 3 years.

is a modernized, highly responsive data ecosystem that helps its owner source, transform and consume data through the cloud, leveraging artificial intelligence advanced analytical techniques. The model provided the flexible data structure, tools and accelerators to generate maximum business value for our client.

Our AI Data Modernization Method preserves their existing data access and data security protocols, and it uses the same portal as their previously outsourced mainframe hosting provider. But, by giving our client ownership of their own database, we allowed them to manage data the way they needed to, across their business lifecycle and with a unified security model that ensures active data governance.

This improved their data access times by 50% and sharply lowered costs by \$10 million over three years. They also lessened their IT department's reliance on an internal team and exhaustive process to design and deliver custom reports. Their validated new platform helps to assure compliance with global regulations for storing and using health data under the industry-standard rubric of GxP.

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## Modern, intelligent solution

This situation is part of a greater challenge we see at enterprises that rely on legacy systems. Across industries, the competitive landscape is populated with smaller, nimble startups that face ever lower barriers to entry. Such “digital-native” companies can attack the core offerings of larger, less agile companies, capitalizing on data systems that inform executive decision-making and, using machine learning and the growing power

of artificial intelligence, even making decisions automatically.

The key to fighting back against this existential threat is to evolve: leveraging experience and proven business practices alongside digital data and state-of-the-art information exchange. The Cognizant AI Data Reference Method reference model modernizes data management to support such a transformation — enabling a sustainable competitive advantage.

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### About Cognizant Life Sciences

Cognizant’s Life Sciences practice is committed to helping change millions of lives for the better by partnering with clients to build solutions to health-care challenges, continually improve the way they do business, set the pace in clinical development, strengthen their regulatory infrastructure, and increase competitiveness. Cognizant serves 30 of the top 30 global pharmaceutical companies, 9 of the top 10 biotech companies, and 12 of the top 15 medical device companies. With a large team of dedicated professionals including doctors, pharmacologists, physicians, biomedical engineers, pharmacists, biostatisticians, medical writers, and GxP consultants, the practice provides domain-aligned consulting, IT, business process, software and as-a-service solutions globally. Visit us at [www.cognizant.com/life-sciences](http://www.cognizant.com/life-sciences).

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### About Cognizant Artificial Intelligence Practice

As part of Cognizant Digital Business, Cognizant’s Artificial Intelligence Practice provides advanced data collection and management expertise, as well as artificial intelligence and analytics capabilities that help clients create highly-personalized digital experiences, products and services at every touchpoint of the customer journey. Our AI solutions glean insights from data to inform decision-making, improve operations efficiencies and reduce costs. We apply Evolutionary AI, Conversational AI and decision support solutions built on machine learning, deep learning and advanced analytics techniques to help our clients optimize their business/IT strategy, identify new growth areas and outperform the competition. To learn more, visit us at [cognizant.com/ai](http://cognizant.com/ai).

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### About Cognizant

Cognizant (Nasdaq-100: CTSI) is one of the world’s leading professional services companies, transforming clients’ business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at [www.cognizant.com](http://www.cognizant.com) or follow us [@Cognizant](https://twitter.com/Cognizant).

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