

EBOOK



# THE RE-INVENTED HEALTHCARE ORGANIZATION

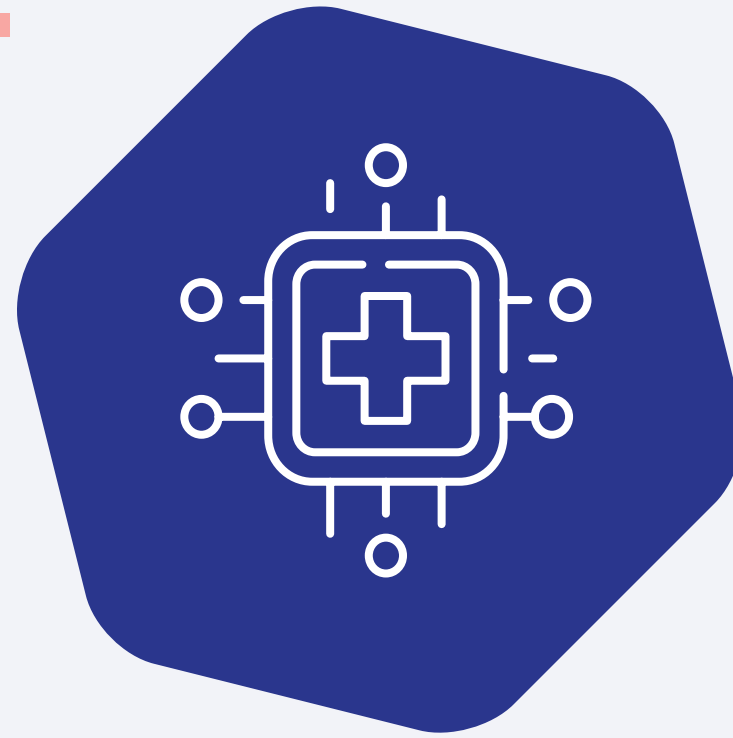
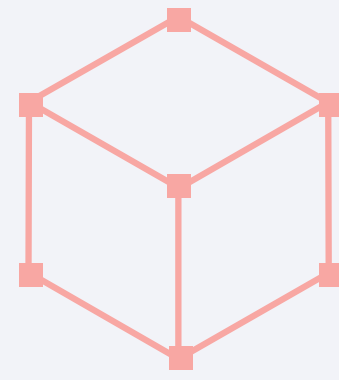
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Transforming the Patient  
Experience and the Healthcare  
Landscape

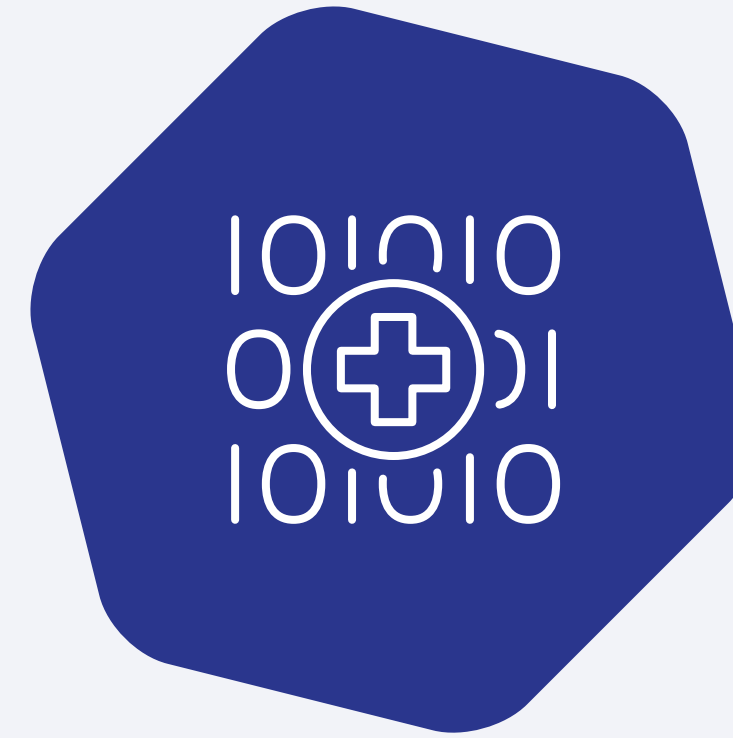


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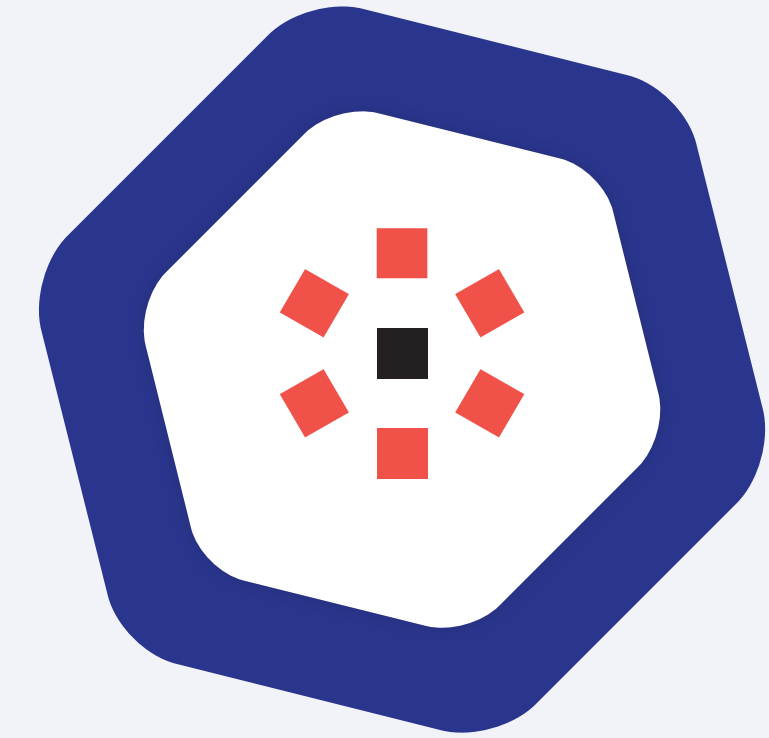
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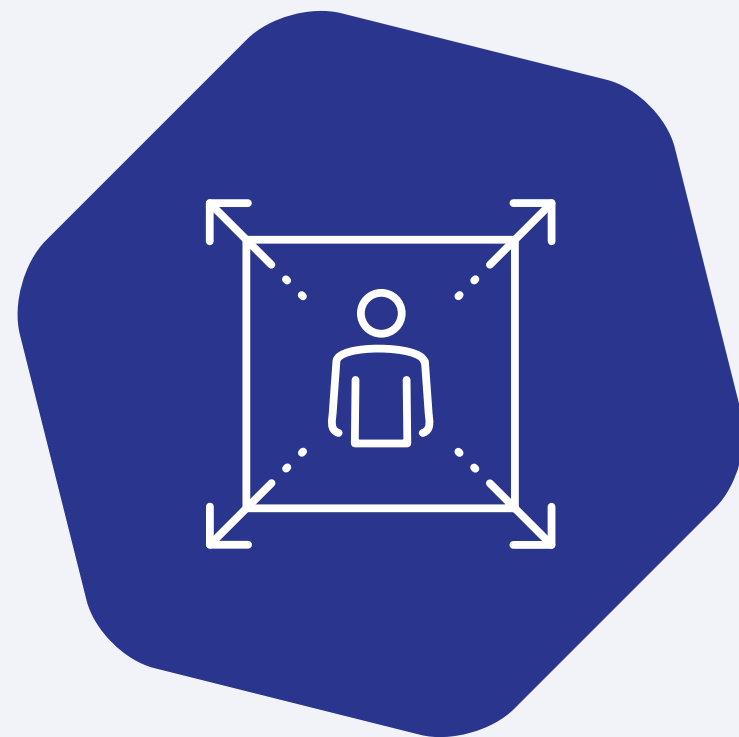
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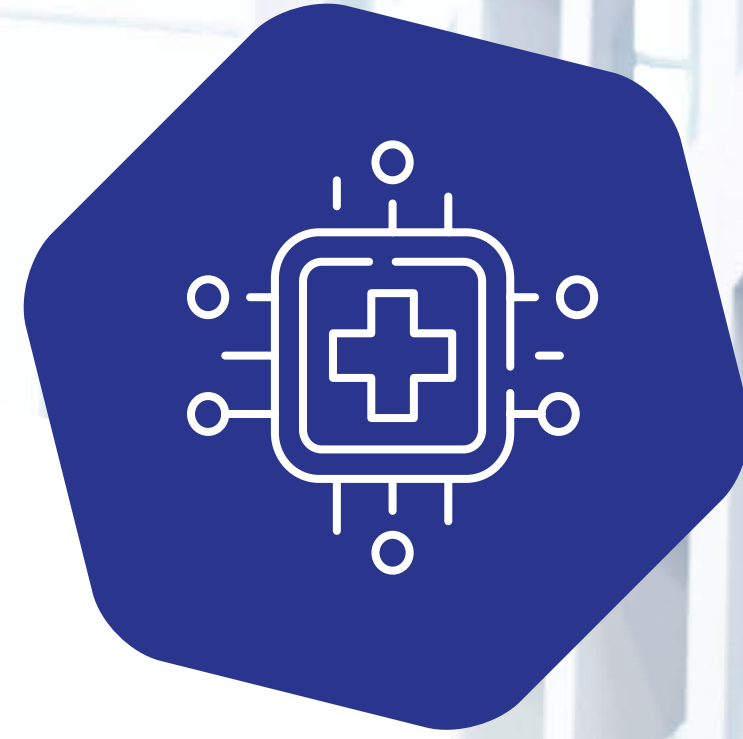


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CHAPTER 1

# THE HEALTHCARE INDUSTRY

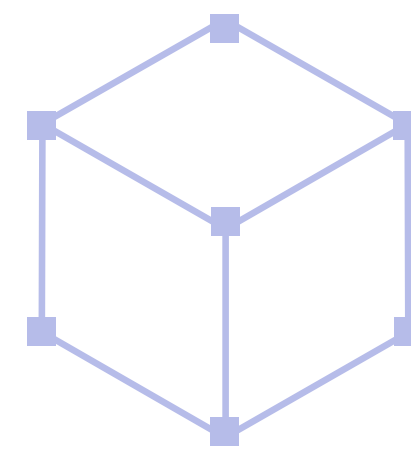
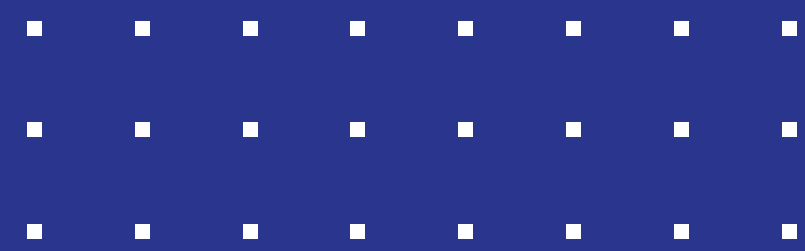
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Healthcare organizations need to continue to collaborate with other providers in the industry to deliver innovative, modern, and effective services, but they must do so while also bringing costs under control, complying with increasingly stringent regulations, and mitigating risk.



# Key Healthcare Industry Initiatives

Healthcare organizations launch myriad initiatives to remain competitive in this environment, including:



## **Total Experience Transformation**

To streamline the experience of a patient through the healthcare system, including such innovations as personalized medicine, population health management, telehealth, and remote monitoring



## **Governed Healthcare Data Sharing**

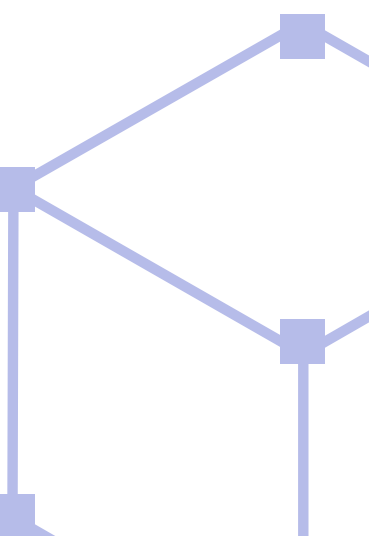
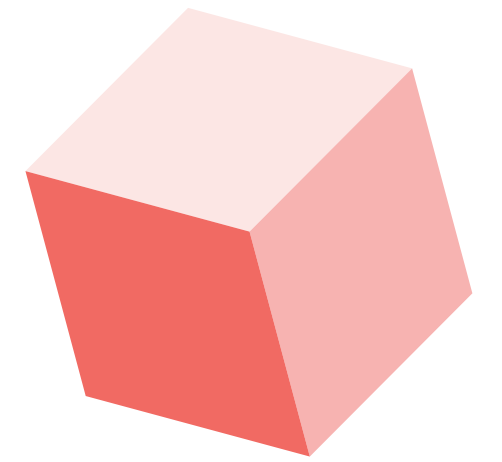
To enable the responsible sharing of healthcare related data between healthcare providers, life sciences companies, and healthcare insurance providers



## **Regulatory Compliance and Risk Mitigation**

To facilitate the combined effort of satisfying regulatory demands while avoiding the effects of damaging exposure

Each of these initiatives requires fast, easy access to trusted data. Unfortunately, despite modern advancements, this continues to be a challenge.



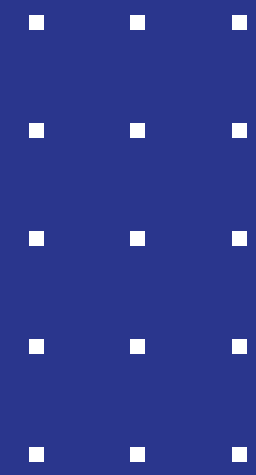


CHAPTER 2

# THE DATA CONSUMPTION CHALLENGE

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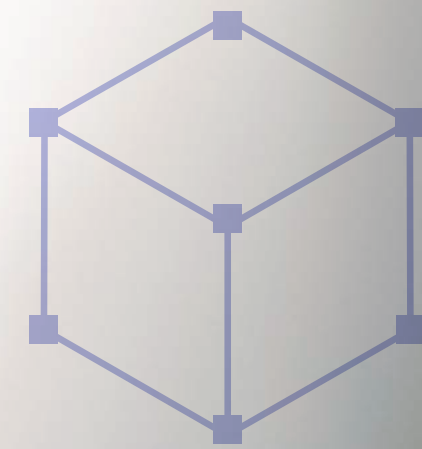
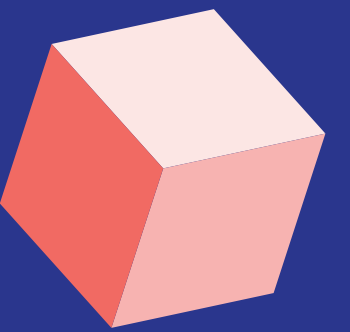
Many healthcare organizations are leveraging data lakes, cloud data warehouses, and other data platforms to store all of the necessary data from across the organization.



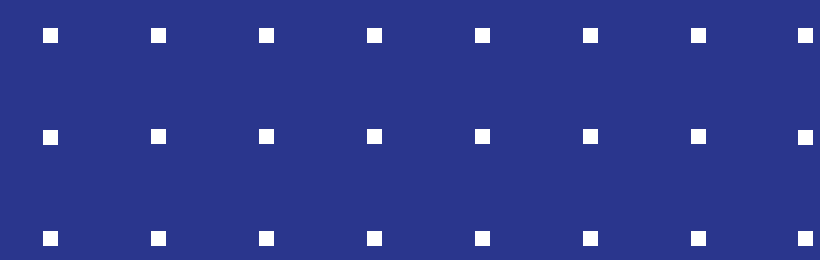
However, the challenge remains: getting the data out of these systems and ***into the hands*** of business users, when they need it, in a usable format, and in their own language.

Healthcare organizations need to either

- Provision the data for these different users, or
- Establish self-service data access



But implementing either or both of these capabilities is far easier said than done. Numerous individual reporting tools draw data from the central platform and deliver it to individual consumers, but healthcare organizations lack a single, overarching method for delivering all data to multiple users, intelligently prepared to meet their different needs.

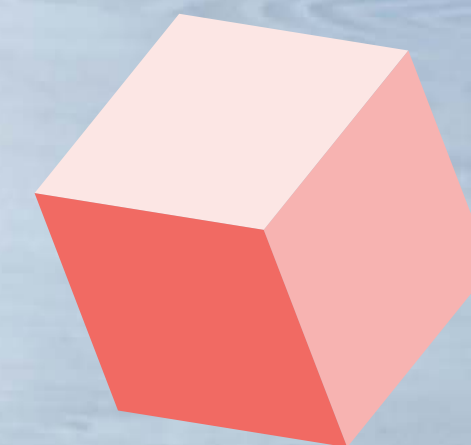
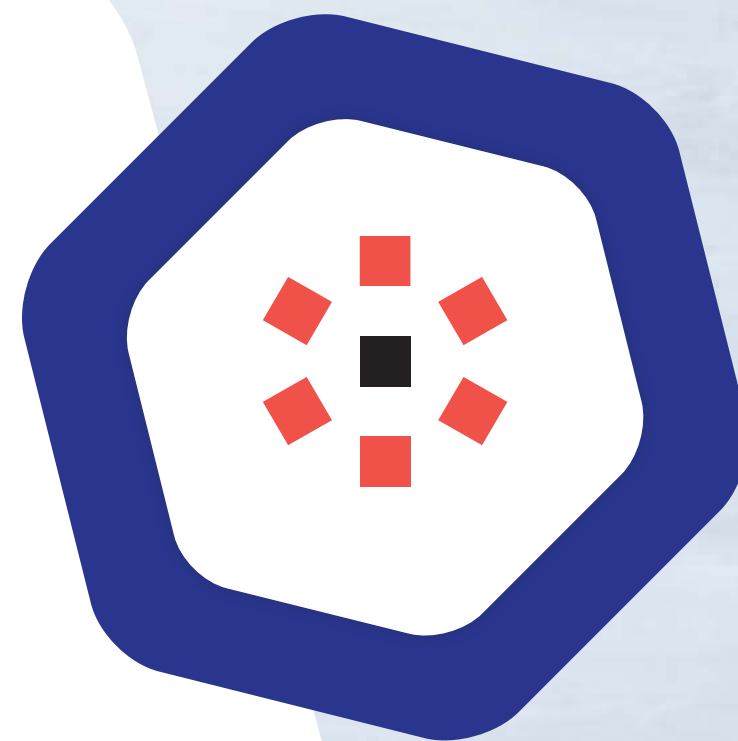


CHAPTER 3

# LOGICAL DATA MANAGEMENT AND THE DENODO PLATFORM

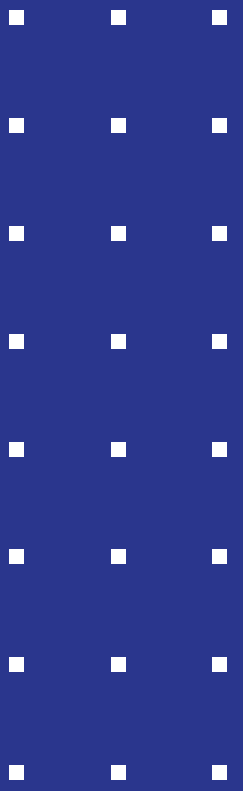
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Logical data management solutions solve the data challenge. “Logical” means that it’s not tied to the restrictions of any one system or reporting tool.



The Denodo Platform is the leading solution for logical data management. Regardless of how and where the data is stored, the Denodo Platform delivers data to business users at the speed of business, in the language of business.

It establishes an enterprise-wide logical layer that abstracts data consumers from the source data, enabling them to access and manipulate abstracted data views without affecting the underlying data.



## BECAUSE THIS LAYER IS ENTERPRISE-WIDE, IT PROVIDES



**Universal semantics, automatically transforming data into the language required by different user groups**



**Data governance for “guard rails” and data security for protection, risk mitigation, and compliance**



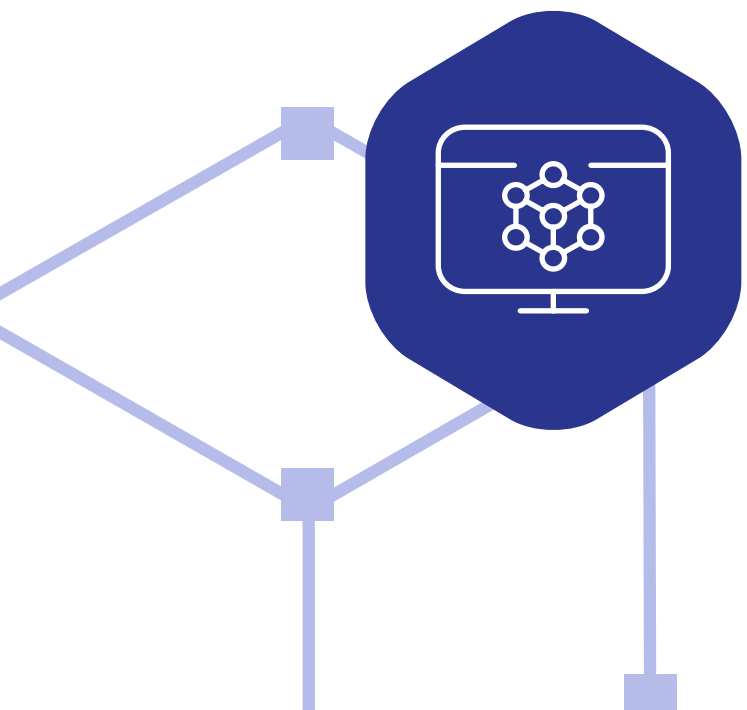
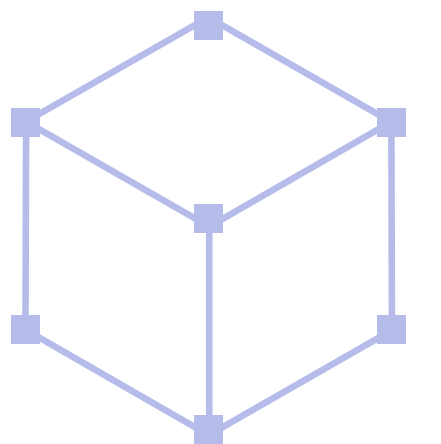
**Full-featured data catalogs that list all data in a user-friendly, searchable interface and provide access right from the catalog**



**The ability to develop data products in an iterative, creative manner, to meet myriad use cases, without affecting the data that feeds them**



**A future-proof data infrastructure that enables zero-downtime migrations and modernization efforts, while supporting agile new developments across the entire healthcare system**



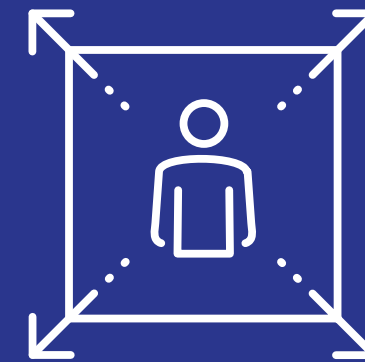


## CHAPTER 4

# TOTAL EXPERIENCE TRANSFORMATION

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Patients speak with multiple parties on a single visit, from nurses, to specialists, to phlebotomists, to schedulers, and they may communicate over multiple channels such as phone, text, in-person, or over a dedicated portal. Ideally all parties would have the full, up-to-date information about where the patient is coming from, where they are going next, and when they are going home. However, this requires data to be quickly integrated and delivered over multiple channels, which is not easy.

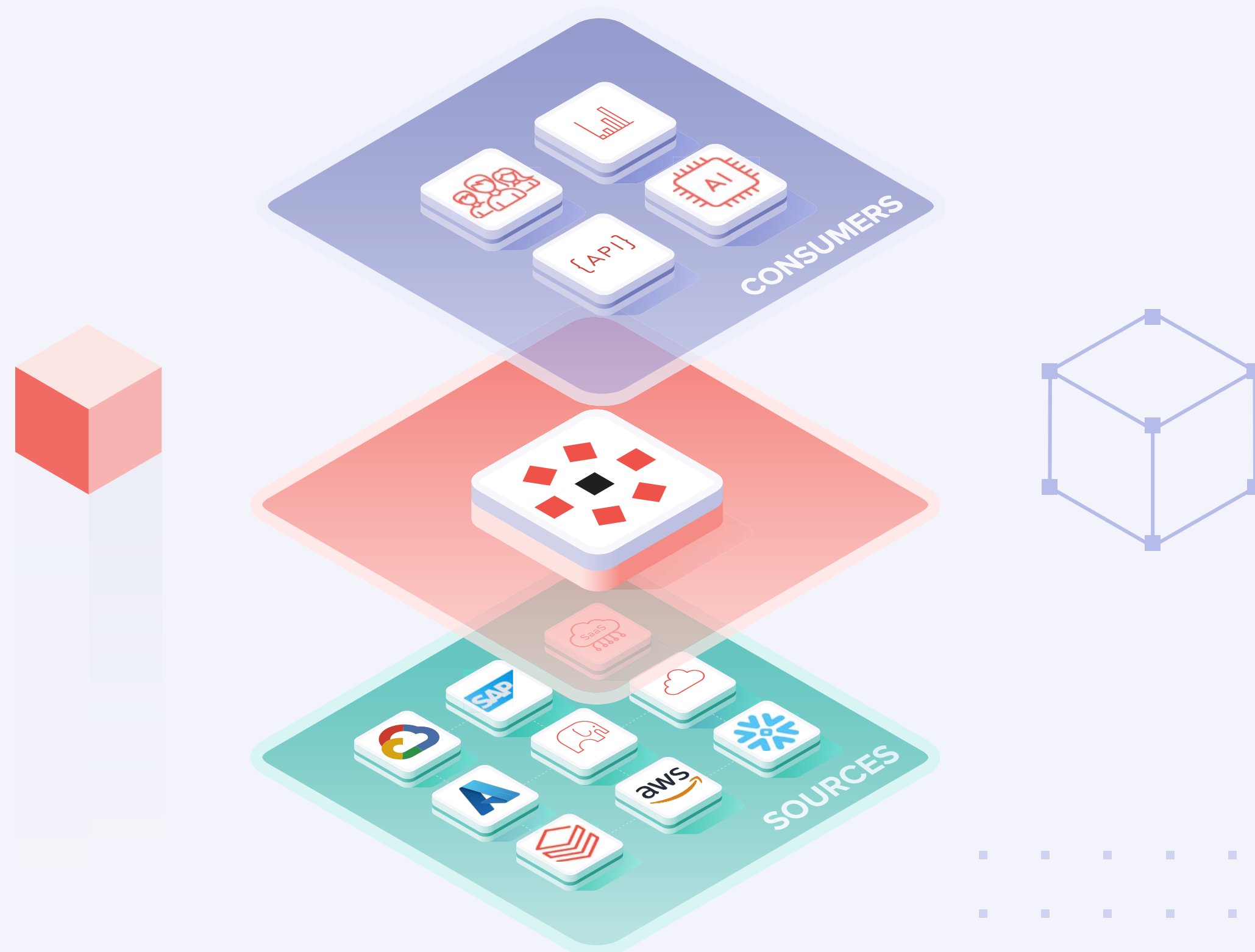


The Denodo Platform facilitates the transformation of patients' total experience by first being able to access up-to-date views of patient information drawn from all applicable sources, and then delivering it over myriad channels in myriad ways, such as web services and APIs.

## How One Large U.S. Health Plan Leveraged the Denodo Platform to Transform the Total Experience for Insureds

This major U.S. health insurance provider wanted to improve the insureds' total experience as they progressed through the process of submitting claims for new service, understanding the cost, and making decisions. But the relevant data was stored across a variety of different databases, NOSQL systems, and even flat files, so it could not be quickly leveraged, transformed, and delivered to the relevant representative(s) to affect the insured's experience.

This provider leveraged the Denodo Platform to combine the data from the relevant systems into a single logical view, in real time, so it can be quickly delivered to multiple business users in dashboards and mobile web applications. With the Denodo Platform, all relevant representatives knew the full story of every individual passing through the system, dramatically improving the insureds' total experience.





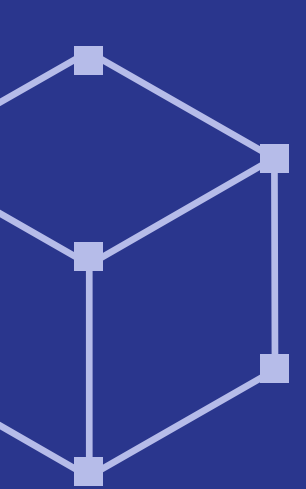
CHAPTER 5

# GOVERNED HEALTHCARE DATA SHARING

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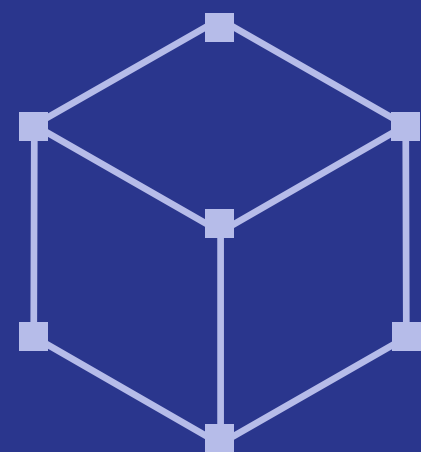
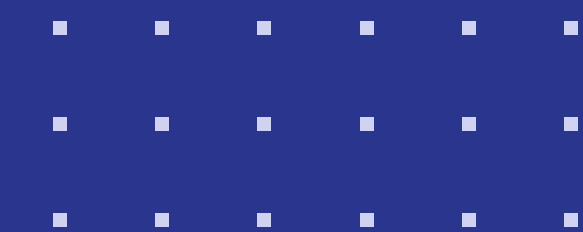
Virtually all healthcare capabilities hinge on the ability to share data, quickly and securely, with confidence that the data is accurate and up-to-date. However, even when supported by full-featured data lakehouses, many healthcare organizations struggle with data that is stored outside of the central lakehouse or platform, data that is formatted in incompatible ways, or data that needs to be first translated into actionable terms.



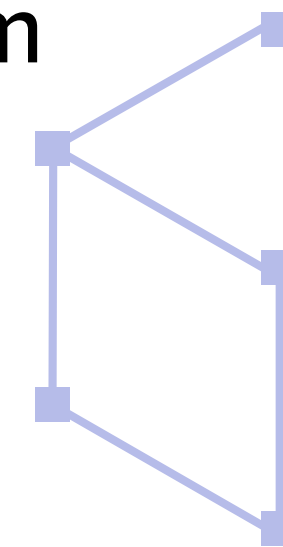


The Denodo Platform provides healthcare organizations with a future-proof, semantically unifying data infrastructure, in the sense that it can draw real-time, governed views of data from virtually any data type, including static and streaming, or structured, unstructured, or anywhere in between, and virtually any legacy system, to enable seamless data sharing.

By establishing a unified data-access layer above legacy and new data sources, the Denodo Platform also enables organizations to secure all data, while verifying its authenticity.

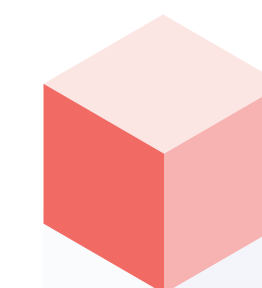


## How Fresenius Leveraged the Denodo Platform to Unify Disparate Data Sources, Facilitating Secure Data Sharing



Fresenius Medical Care, based in Germany, is the world's leading provider of products and services for people with chronic kidney failure. Fresenius saw an opportunity to accelerate the speed with which data can be leveraged. Fresenius was managing a data infrastructure built around SAP, but the company also needed to combine data with a variety of non-SAP sources, and this took both time and effort.

Fresenius implemented the Denodo Platform as an enterprise-wide logical layer above all of the SAP and non-SAP data sources, which simplified and accelerated the delivery of trusted, actionable data to business analysts. Analysts could immediately start leveraging the data from both sources simultaneously, and securely share their results with authorized recipients.

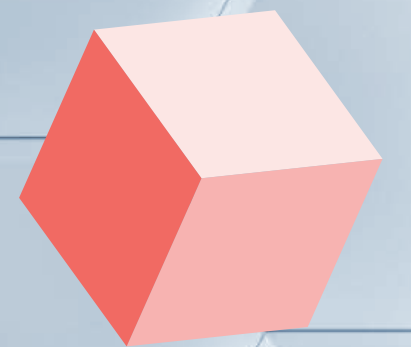
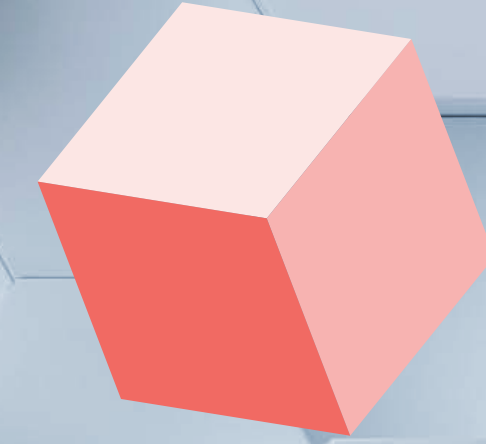


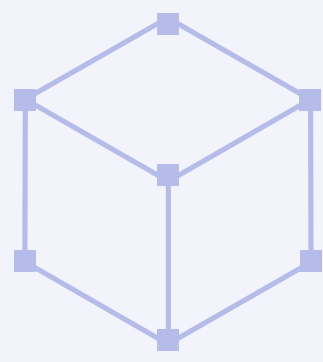
## CHAPTER 6

# REGULATORY COMPLIANCE AND RISK MITIGATION

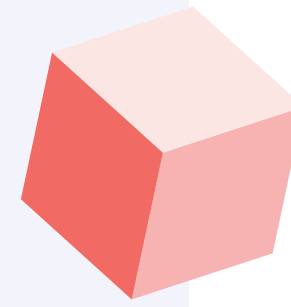
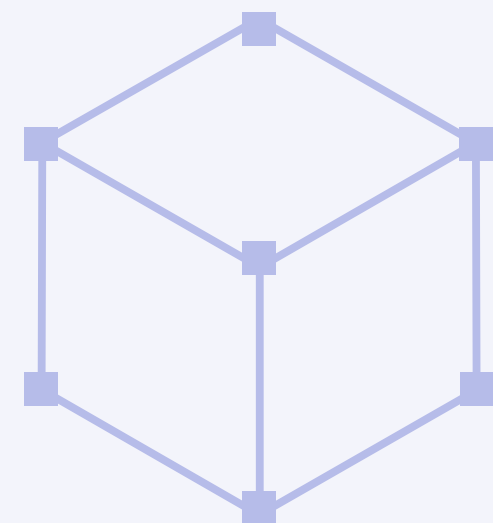
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Regulatory compliance and risk mitigation are two sides of the same coin. The former, though it is centered on the risks of incurring fees, is ultimately also concerned with the mitigation of risk, such as what might follow the mismanagement of patient data, the subject of many regulations. Likewise, in mitigating risk, organizations are already facilitating compliance with numerous regulations. Both initiatives require the ability to quickly produce integrated reports that draw data from multiple different tools or systems.





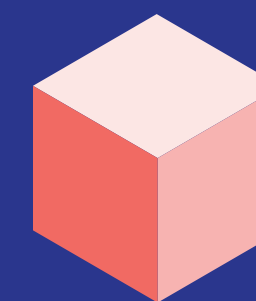
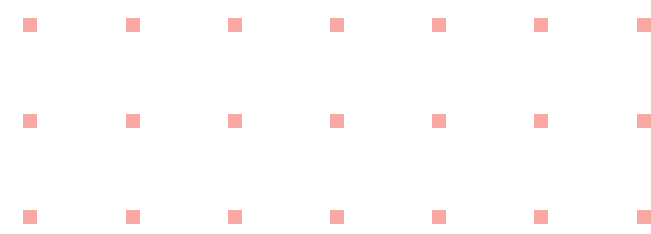
The Denodo Platform unifies and simplifies access to the required data within a central data repository or across multiple siloed systems and tools, in advance of regulatory deadlines, and it enables healthcare organizations to deliver this data in myriad ways, such as to reporting tools or real-time dashboards, to report on risks that have exceeded specified thresholds. The Denodo Platform also facilitates the development of compliance/risk management data products that draw on authoritative data sources to deliver exactly what is needed in its expected format.



## How Allergan Leveraged the Denodo Platform to Streamline Regulatory Compliance and Mitigate the Risk of IP theft

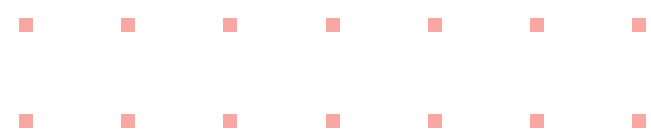
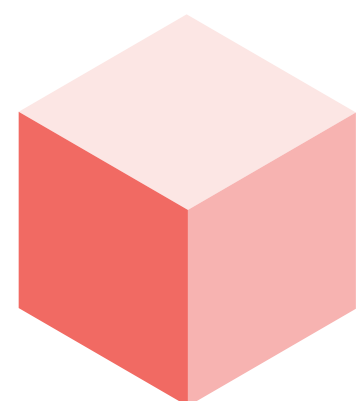
Allergan focuses on a diverse set of services, including eye care, neuroscience, medical dermatology, and medical aesthetics. Recently, a near-constant stream of mergers and acquisitions prevented the company from keeping an accurate, up-to-the-minute list of all current employees, to enable compliance with the Sarbanes–Oxley Act (SOX), so Allergan implemented the Denodo Platform.

The Denodo Platform enabled the real-time integration of myriad heterogeneous, distributed, structured, and semi-structured data sources across Allergan’s holdings, regardless of where they were in the M&A process. This enabled Allergan not only to keep better track of current employees for SOX compliance, but also to reduce the risk of intellectual property theft, since before the implementation of the Denodo Platform, some terminated employees still had access to proprietary company data.



## Learn More about the Denodo Platform

In addition to the companies mentioned in this ebook, Denodo has empowered many other healthcare organizations to meet their diverse business goals, including Johnson&Johnson, Fastaff Travel Nursing, and National Services Scotland (NSS).



Denodo.  
Data at  
the speed  
of business.

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Visit [denodo.com](https://denodo.com) to access hundreds of other case studies and learn more about logical data management and the Denodo Platform.