

CASE STUDY

Industry

Healthcare

Profile

One of Canada's largest healthcare organisations that provides services to more than a million people through a network of hospitals, primary care clinics, community health centers, and long-term care homes. This organization provides services like primary care, community-based residential and home health care, mental health and substance use services, public health, hospital care, research, and other services with the help of more than 2000 physicians and 5000 nurses.



“The Denodo platform enables us to release small changes very quickly allowing us to rapidly adapt to user requirements and also improves our system turnaround time by 30 to 50%.”

- Chief Technical Operations
Manager



Large Healthcare Provider Leverages the Denodo Platform to Streamline Operations

This company is one of Canada's largest public health service providers, responsible for the healthcare of over a million people. It needs to reliably and securely manage a large amount of data, much of which is comprised of personal health records, prescription information, lab results, and other sensitive information.

Business Need

Recently, the healthcare service provider decided to replace its main patient information system with a completely new system. Because of the importance of this system in the context of the organization's data infrastructure, this was going to be an expensive project that could span a number of years.

As part of this initiative, the company also decided to modernize its data infrastructure built around an enterprise data warehouse. It took the company's IT operations team a significant amount of time to implement changes to this infrastructure, which impeded the company's overall agility as well as its ability to test new functionality. In addition, it was a batch-oriented infrastructure that furnished nightly reports.

The company planned for the new patient information system to be built around a Cerner instance, a highly transactional, Oracle-based system capable of offering near real time data access with a latency of 5 to 10 mins. But this new data source also introduced new challenges in the enterprise data architecture. The company needed a solution that would enable the new infrastructure to seamlessly support both the dimensionally modeled enterprise data warehouse and the new transactional system, enabling both to work in tandem. As the company's chief technical operations manager explains, “We had to find a way to bring those two data sources together, publish them, and make them available to the end consumer.” In addition, the company wanted to reduce data replication across layers and also reduce business reporting time.

The Solution

The company implemented The Denodo Platform as a single semantic layer above all of its data sources including the company's enterprise data warehouse and the new Cerner system. As the chief technical operations manager describes it, “We do that by using a number of Denodo layers to transform the transactional data system to mimic a structure similar to our data warehouse and then we combine those two streams together and make them available to our end consumer.”

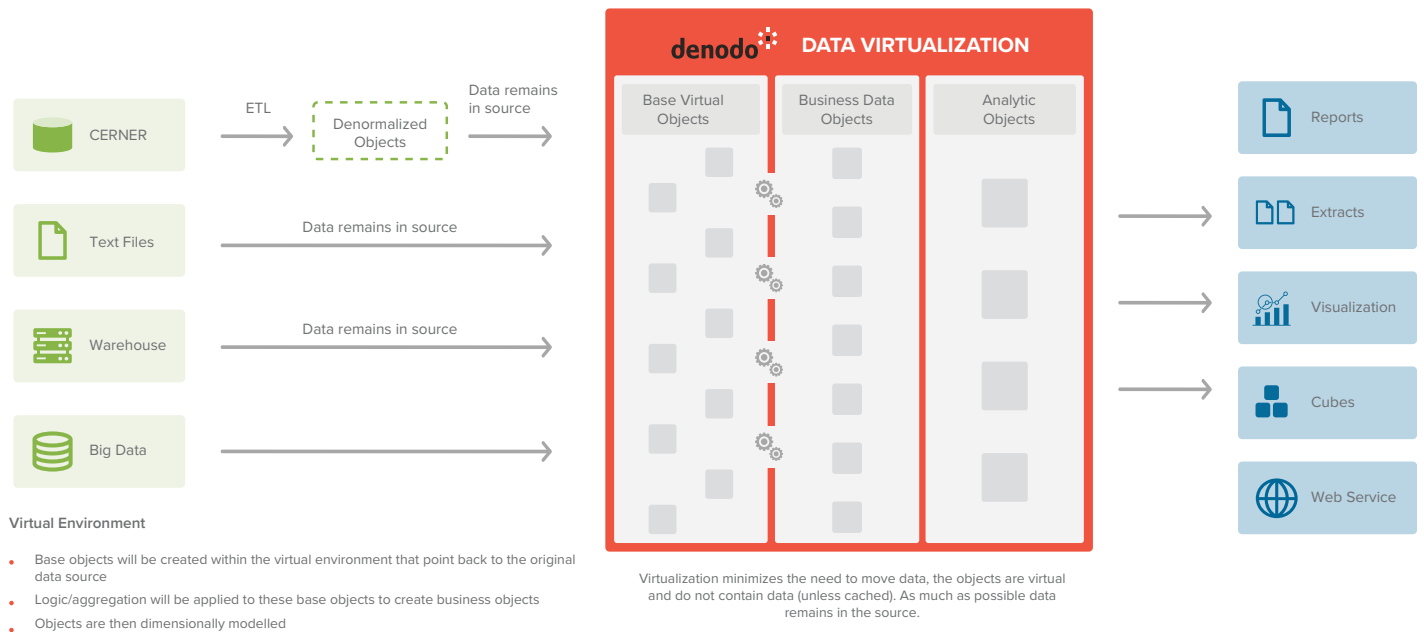
The chief technical operations manager explains: “Rather than replicating data from both systems into a third R/DBMS, The Denodo Platform uses data virtualization to provide integrated, virtual views that point to both systems. This enables customers to report on all of our data without having to move the source data using traditional ETL processes.”

The Denodo Platform also acts as an abstraction layer hiding the complexities of the underlying data sources from the data consumers, and it also provides a single point of



entry to the enterprise data. This allows the company's IT operations team to implement security and governance controls across the company's diverse, disparate data sources. The company connected the Denodo Platform directly to the company's Active Directory instance, so that user identities could be seamlessly applied throughout the data access layer.

Before selecting Denodo, the company had researched a number of solutions and decided that data virtualization was the most promising approach. "After Denodo emerged as the clear leader in the data virtualization space," the chief technical operations manager says, "We put out an RFP looking for different alternatives, and Denodo scored very highly with regard to TCO."



Benefits

Despite the company being a Microsoft shop, and its developers being very comfortable on the Microsoft stack, they found it very easy to pick up the new technology and were able to quickly create the virtual views using the Denodo Platform, which transformed the transactional data for end user reporting.

The Denodo Platform enables rapid prototype building, and that in turn enabled the company's IT operations team, which followed an agile methodology, to quickly release changes to the production environment. As the company's chief of IT operations explains, "The Denodo Platform enables us to release small changes very quickly, so we can rapidly adapt to user requirements and easily push forward our BI solution." Thanks to these platform capabilities, the decision support team at the company was able to turn around 7 data sets in 7 months. The company's head of IT operations estimates that overall system turnaround time has improved by 30 to 50%. The Denodo Platform's automated testing feature enabled the IT operations team to perform thousands of tests on a nightly basis and ensured the integrity of the data that went into the end-user reports.

Finally, supported by the Denodo Platform, the company's new data infrastructure delivers near-real-time reports, a dramatic improvement over the nightly reports furnished by the previous infrastructure.

In addition, the Denodo Platform provided additional value to the health care service provider by

- Reducing the company's costs for storing multiple copies of the same data
- Enabling the company's IT operations to seamlessly integrate information from big data sources
- Providing powerful features to manage data lineage and metadata

