

Digital Transformation and the Insurance Industry - Taking customer connection to a new level

SOLUTION

Data Virtualization for the Insurance Industry

WEBSITE

www.denodo.com

PRODUCT OVERVIEW

The Denodo Platform offers the broadest access to structured and unstructured data residing in enterprise, big data, and cloud sources, in both batch and real-time, exceeding the performance needs of data-intensive organizations for both analytical and operational use cases, delivered in a much shorter timeframe than traditional data integration tools.

Insurance Companies are Leveraging Data Virtualization to Gain Greater Agility, Flexibility, and Efficiency.

Digital transformation is affecting all industries, and Forrester observes that it is profoundly affecting the insurance industry, saying that “digital insurance strategy leaders must reinvent their companies to become fundamentally digital, from underwriting through to claims settlement.”¹

For insurance companies, digital transformation is driven by the need to perform a variety of new capabilities, including the ability to:

- Engage in advanced, predictive analytics
- Use real-time data to better manage costs and other dynamic factors
- Gain holistic views of risk across multiple geographies
- Perform massive reorganizations without downtime

Unfortunately, digital transformation is particularly challenging for insurance companies, many of which rely on well-established systems that are often not only poorly integrated, but highly resistant to modernization without downtime. Typically, the integration is performed by batch-oriented extract, transform, and load (ETL) processes, operated by custom-coded scripts that need to be re-written, re-tested, and re-deployed whenever there is a change to a data source.

Data virtualization, in contrast, is a flexible technology that facilitates digital transformation via a modern data integration / data delivery approach that is significantly more agile, flexible, and powerful than most ETL processes. In this brief, we illustrate how data virtualization can help to transform insurance companies, enabling them to develop the four critical capabilities listed above. We close with five case studies of insurance companies leveraging data virtualization to enable digital transformation.

¹“The Digital Insurance Imperative,” 2017

What is Data Virtualization?

Data virtualization offers an innovative data consolidation and integration technology that contrasts sharply with most alternative data integration solutions which rely on moving a copy of the data to a new, consolidated source.

Rather than moving the data, data virtualization provides a view of the data, leaving the source data exactly where it is. This means that companies do not have to pay the costs of moving and housing the data, and yet they still gain the benefit of data integration.

Because data virtualization accommodates existing infrastructure in its existing state, it is relatively easy to implement, compared with other solutions. And because it provides a view of the data in real time, from a variety of systems that are normally very time consuming to integrate, such as transactional processing systems and cloud-based storage systems, it can support a wide variety of uses

Data Virtualization Benefits



Real-time data access without replication



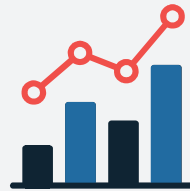
Consolidated views across myriad sources



The ability to connect with most legacy and modern sources, including transactional, cloud, and social media sources, accommodating the range of highly structured to completely unstructured sources.



A single point for implementing security and governance protocols



Detailed traces of data lineage

Data Virtualization and the Insurance Industry

Data virtualization enables insurance companies to develop each of the capabilities outlined at the beginning of this paper.



A 360-Degree View of Agents and Customers

Increasingly, agents are no longer dedicated to individual companies, and if one company is unable to furnish a response to a sales question in a timely manner, agents are readily able to switch to another. Poor data integration disrupts the view of the agent, leaving stakeholders with questions about the accuracy of reports.

Data virtualization establishes a layer of information about agents that sits above all of the various agent-related databases, unifying them, and resolving any discrepancies, for a true 360-degree view of each agent.

A highly-detailed, 360-degree view of customers' changing needs and behaviors is key for insurance organizations. In today's customer-centric market environment, it is imperative to empower representatives at the point of customer contact, with the correct customer profile, enhanced with the most relevant, up-to-date information, offers, and scripts.

To support such initiatives, data virtualization provides representatives with a real-time view into the customer's activities, a detailed understanding of what the customer needs, and an offer for a product that could meet those needs.



Improve Cost Management in Real Time

Costs fluctuate, so timeliness in cost data results in better accuracy. Data virtualization creates real-time views of data, not only across static, historical databases, but also across dynamic transactional systems. Through alerts and other feedback techniques, companies can incorporate highly volatile data into cost estimations, or other rapidly changing sources of information.



Holistic Views of Risk

Similar to gaining a 360-degree view of agents or brokers, data virtualization enables stakeholders to gain a much broader view of risk, by integrating data from a wider variety of sources, such as geographically dispersed data warehouses.



Mergers and acquisitions without Downtime

Finally, mergers and acquisitions, divestitures, and other corporate restructurings are permanent features of the insurance landscape. Still, insurance companies must find a way to keep the business running during such activities.

Data virtualization plays a critical role in these situations. With a data virtualization layer in place, data consumers do not access the data sources directly; instead, data consumers connect to the data virtualization layer, which gets the data from the various sources to construct virtual views. In this way, consumers are abstracted from the complexities of accessing the various sources. In fact, because of this architecture, data sources can be moved, removed, or replaced, behind the scenes, without the consumers needing to know. This means that massive corporate restructurings can take place with zero downtime to day-to-day activities.

Case Studies

This section presents the case studies of four insurance companies, illustrating the power of data virtualization in action.

Asurion

Founded in the late nineties, Asurion is a relatively modern, niche player in the insurance industry, focusing on smartphones, tablets, and other small consumer electronics. Asurion wanted to modernize its infrastructure to include cloud-based analytics, but faced the challenge of integrating data from a variety of disparate sources.

The company also faced strict restrictions on migrating data, and had to remain compliant with stringent governmental regulations. Therefore, Asurion needed to ensure that any modernization of the infrastructure also included the centralization of companywide security management protocols around a single point of control. Additionally, Asurion was required to keep its on-premises systems intact, and physically separated, though logically connected, to any new cloud sources.

Solution

At the core of Asurion's modernization efforts, the company leveraged the Denodo Platform, which seamlessly integrates analytical data originating from on-premises and cloud sources, simultaneously. Through data virtualization, the platform abstracts data consumers from the complexities of access, regardless of the sources. Because the Denodo Platform can run either on-premises or in the cloud, Asurion deployed a Denodo instance in both infrastructures, with a bridge between the two, which formed a hybrid data hub that establishes a single point for accessing the on-premises sources. This enabled Asurion to maintain the required separation between the on-premises and cloud sources.



Results

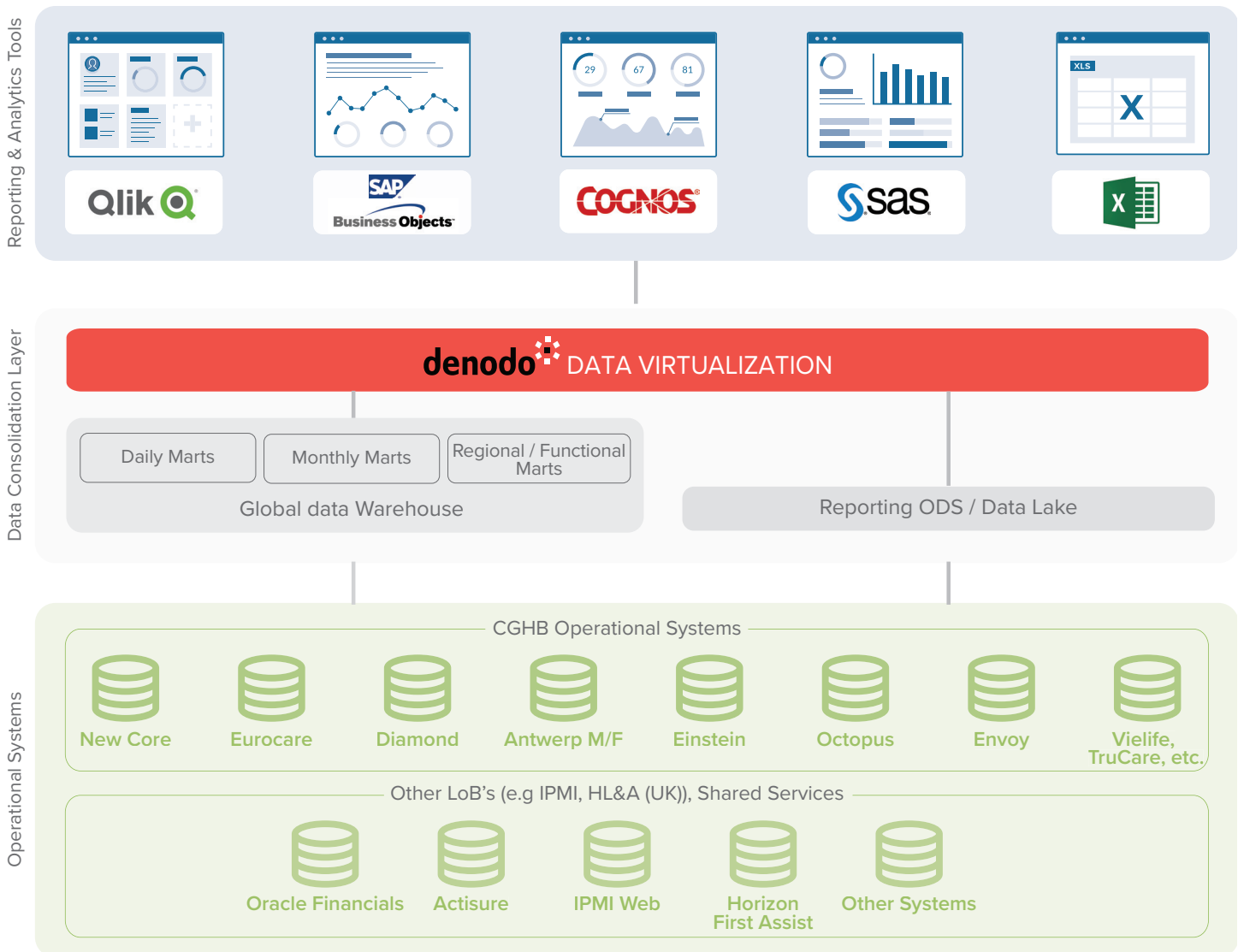
With the Denodo Platform in place, Asurion was able to better discover and co-relate data from disparate sources, and also engage in predictive analytics across data scattered across text, voice, streaming data, third-party data, and various other structured, unstructured, and telemetry based sources. Most importantly, Asurion was able to gain this intelligence while satisfying customer and regulatory demands for highly strict security. The Denodo Platform also enabled granular usage tracking across the cloud and on-premises systems.

Global Health Insurance Provider

This provider has a deep heritage going back 200 years. The company's analysts were adept at historical analysis, but the company needed to engage in advanced, predictive analytics to remain competitive, and was held back due to data that was fragmented across the enterprise and integrated via unsustainable manual processes.

Solution

Using the data virtualization capabilities of the Denodo Platform, the company implemented a single, overarching analytics and reporting hub for all of the company's claims and policy data. The hub provided a virtual, consolidated view of data across the company's data warehouse and operational data store.



Results

The new hub acts as a single, consolidated point of access for all reporting, with consistent data definitions across the board, enabling agile BI. The new hub enabled the company to set up alert processes for customer experience prediction, reduce data quality errors and fraud, and enhance case management through the more efficient management of medical costs. With access to timely, dynamic data, the hub provided a critical feedback loop for the company's continuous improvement. The hub also enabled the company to establish an overarching governance model across business and IT. Finally, the hub made it possible for the company to easily add, remove, or modify data sources without impacting daily operations.

Large Diversified Global Insurer (The Firm)

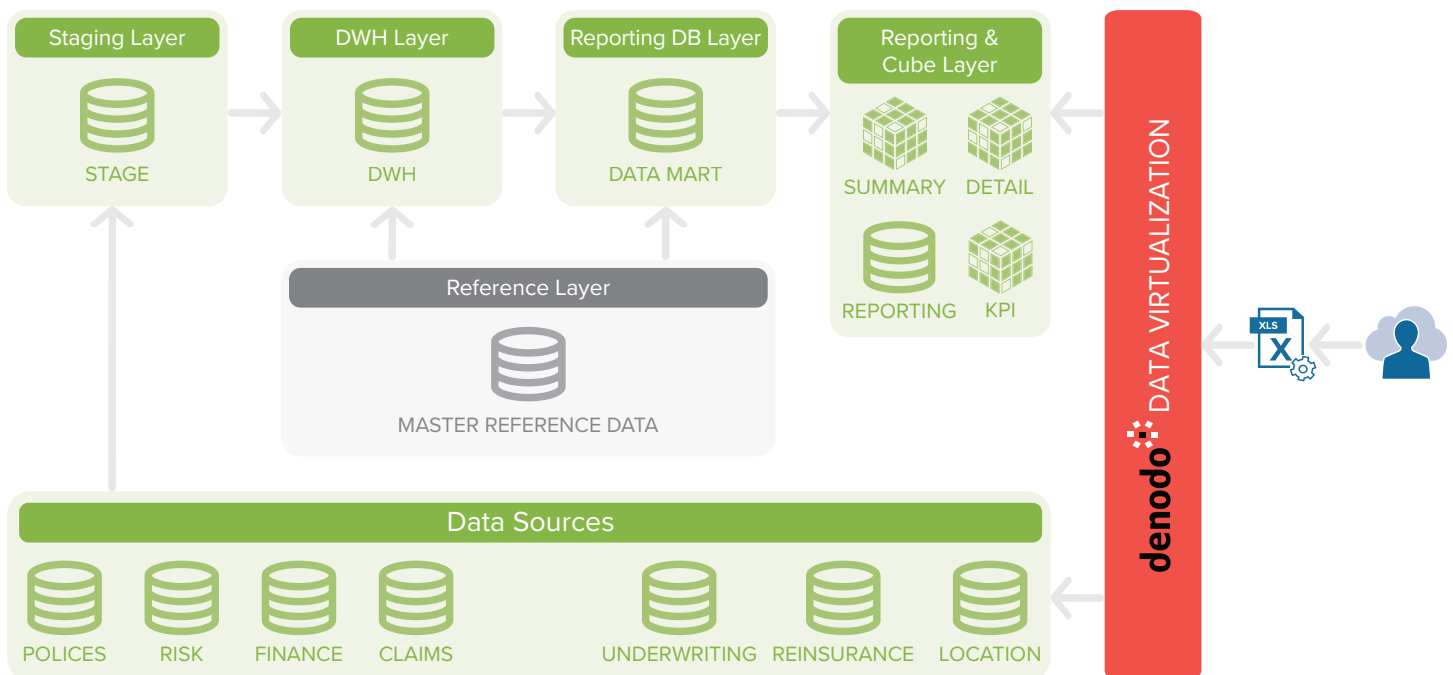
The Firm, headquartered in Boston, Massachusetts, has been in business since 1912. A diversified insurer, The Firm offers a range of insurance products including personal and commercial automobile, homeowners, accident and health, general liability, property, surety, workers compensation, group disability, group life, specialty lines, reinsurance, individual life, and annuity products. Today, the company has operations in 30 countries and economies around the world.

Recently, The Firm wanted to improve its view of surety risk exposure across North, Central, and South America, but in addition to being geographically dispersed — the relevant data for Brazil, for example, was in one data warehouse, while U.S. data was kept in another — the data was inefficiently integrated. Additionally, The Firm lacked a consistent, unified view of the broker across the multiple data warehouses and a key data mart.

Solution

Leveraging the Denodo Platform, The Firm implemented a data virtualization layer above the disparate, geographically dispersed data warehouses and data mart. As an independent layer, the data virtualization layer acts as a single point for implementing authentication across the various sources, and is able to mask sensitive fields in the output, based on the credentials of each user.

With data virtualization, users will have seamless access to multiple layers of data within the topography. Security, SDLC and compliance policies and guidelines remain integrated, while dedicated access is governed by the DB layer.



Results

The data virtualization layer provided:

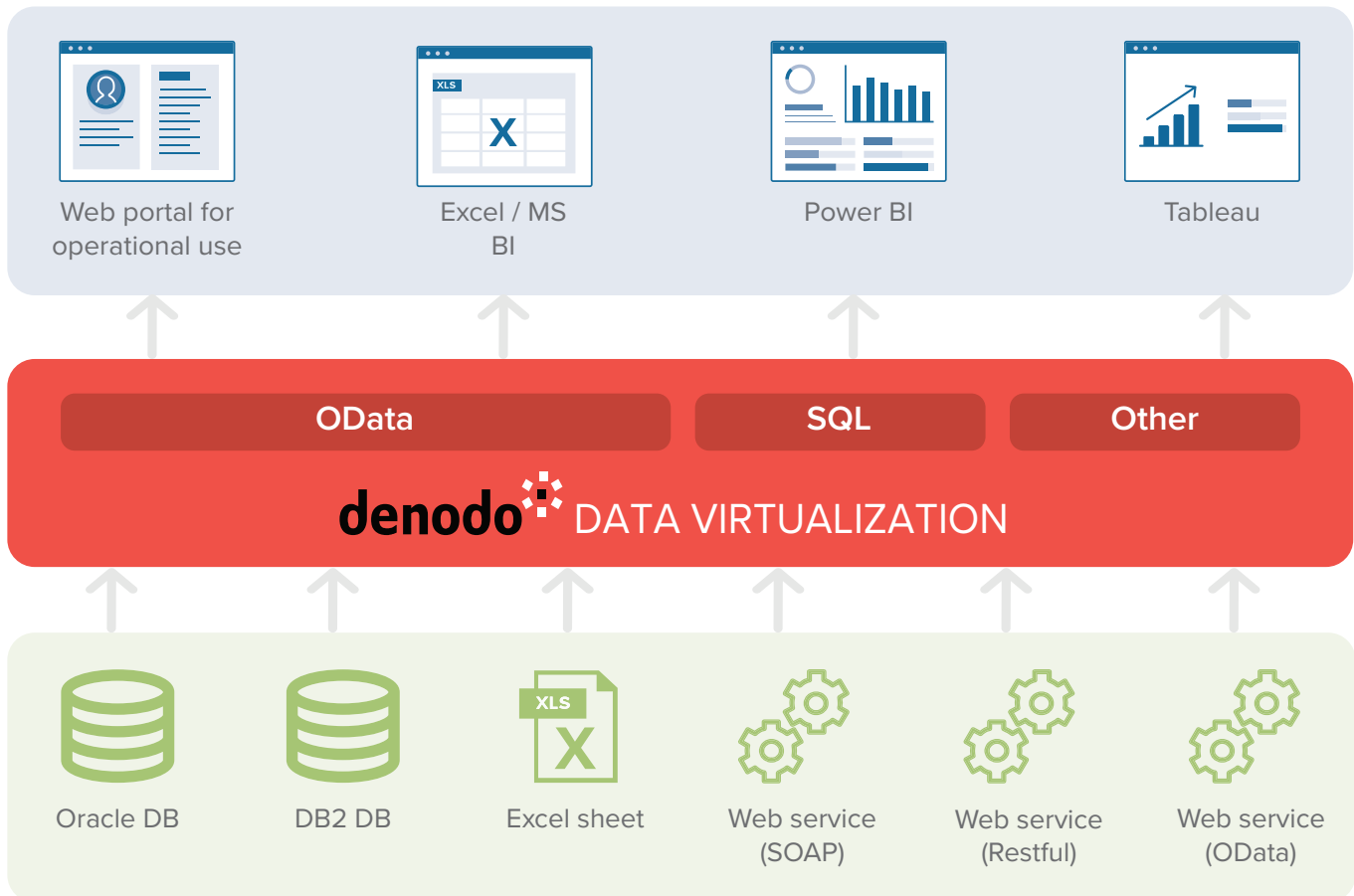
- An overall view of risk exposure across the surety bond business
- A unified view of the broker
- Real-time data access
- A fully auditable data delivery system from consumers to targets
- A single point for implementing security protocols across the disparate sources

Swiss Re

The Swiss Re Group is a leading wholesale provider of reinsurance, insurance, and other insurance-based forms of risk transfer. The company's internal business users needed a 360-degree view of relevant data, but its traditional infrastructure was not delivering all of the relevant information to the data warehouse. So Swiss Re planned to support this infrastructure with an agile data integration platform.

The Solution

Swiss Re chose the Denodo Platform to perform this critical role. The platform leverages data virtualization to connect with a variety of data sources including Oracle databases, DB2 databases, and cached Excel sheets, and delivers integrated views of the data via a service layer based on the OData standard. In real time, the combined data is made available to a number of consuming applications, such as Web based portals for operational use, and business intelligence tools.

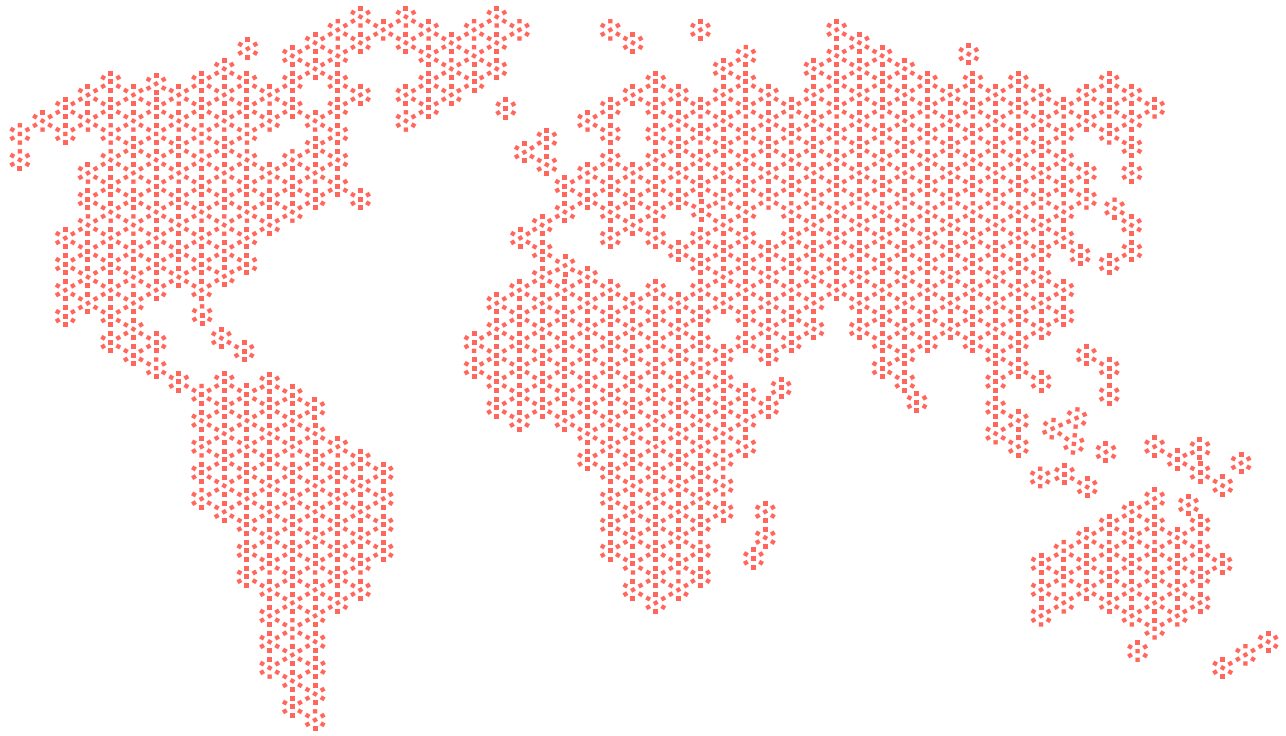


Results

The Denodo Platform enables the rapid integration of multiple data sources. In addition, it enables use cases that would otherwise be difficult to implement:

- **Real-time data from transactional systems**, to supply users with the latest information about deals or claims
- **Larger data stores**, since replication in a traditional data warehouse is cost-intensive
- **External services like newsfeeds**, for cases when data changes quickly and data replication is not permitted
- **Data for smart analytics** from a variety of data stores, including NoSQL databases and Hadoop clusters

“The Denodo Platform demonstrated an impressively quick turnaround time for unlocking data from siloes and legacy systems,” said Roman Vollenweider, business analyst at Swiss Re. “Few vendors, if any, can compete with Denodo’s support of the RESTful/Odata standard, both in terms of provisioning data and accessing data.”



Denodo

Denodo Technologies is the leader in data virtualization providing agile, high performance data integration, data abstraction, and real-time data services across the broadest range of enterprise, cloud, big data, and unstructured data sources at half the cost of traditional approaches. Denodo's customers across every major industry have gained significant business agility and ROI.

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