Accelerating Insurance Transformation

Faster Decisions through Logical Data Management using the Denodo Platform

Executive Summary

The insurance landscape is shifting rapidly, demanding bold modernization and extensive technology adoption. As market dynamics accelerate, mergers and acquisitions become more frequent, and hybrid/multi-cloud environments grow increasingly complex. Insurers face significant challenges in rapidly onboarding new entities, integrating disparate systems, and maintaining operational continuity. Simultaneously, regulatory pressures intensify, requiring unprecedented agility, compliance, and customer focus. Legacy data architectures built on fragmented systems, on-premises cores, and batch-based ETL pipelines, are no longer sufficient to meet these demands. These systems slow responsiveness, complicate cross-entity integration, inflate operational costs, and prevent insurers from accessing timely insights needed to optimize underwriting, accelerate claims, and proactively detect fraud.

Denodo offers a transformative alternative. Its logical data management capabilities—powered by data virtualization—enables insurers to access, integrate, and govern data across all on-premises, cloud, and multi-cloud systems, in real time, without delay or unnecessary duplication. It accelerates M&A onboarding while keeping legacy systems fully operational, provides unified cross-system views across policy, claims, billing, CRM, and external sources without having to physically move data, and supports seamless hybrid/multi-cloud data access without requiring replication or re-engineering.

The result: faster decision-making, reduced cost, and enhanced business agility.

This thought paper outlines why leading insurers are adopting Denodo to modernize data ecosystems, the strategic value that extends far beyond infrastructure savings, and our strategic recommendation for achieving modernization without disrupting core operations.

Legacy is Liability: Why Staying with Legacy Data Architectures Carries a High Cost

Our unique offering is an enterprise-grade, on-premises AI Agent platform that functions as a “core brain” for the enterprise, driving GenAI-powered process automation. The Denodo/PGi solution provides a complete, three-tiered approach to operationalizing your data:

- Persistent data silos, which are the natural result of reliance on legacy systems, delay analytics, impacting decision-making.
- Organizations are unable to support real-time analytics, AI, and ML initiatives, which are critical for competitive advantage.
- Organizations face escalating total cost of ownership (TCO) from replication, storage, and integration.
- Fragmented data governance and inconsistent data security become the new status quo.

Why Leading Insurers Are Fast-Tracking Their Move to Denodo

AGILITY AND SPEED-TO-INSIGHT

- Real-time data access across Guidewire, Duck Creek, Snowflake, and other enterprise systems.
- Elimination of ETL delays and data replication via Denodo's live queries, driving up to 40-60% cost savings across systems.
- 3-4X improvement in time-to-insight, empowering underwriters, claims analysts, and fraud teams.

UNIFIED GOVERNANCE AND COMPLIANCE

- Centralized access control, data masking, and lineage tracking across all sources.
- Built-in support for GDPR, HIPAA, and other regulatory frameworks with 77% lower compliance cost through metadata-driven governance.
- Reduction in shadow IT risks by standardizing secure, auditable data access across departments.

COST EFFICIENCY AND IT SIMPLIFICATION

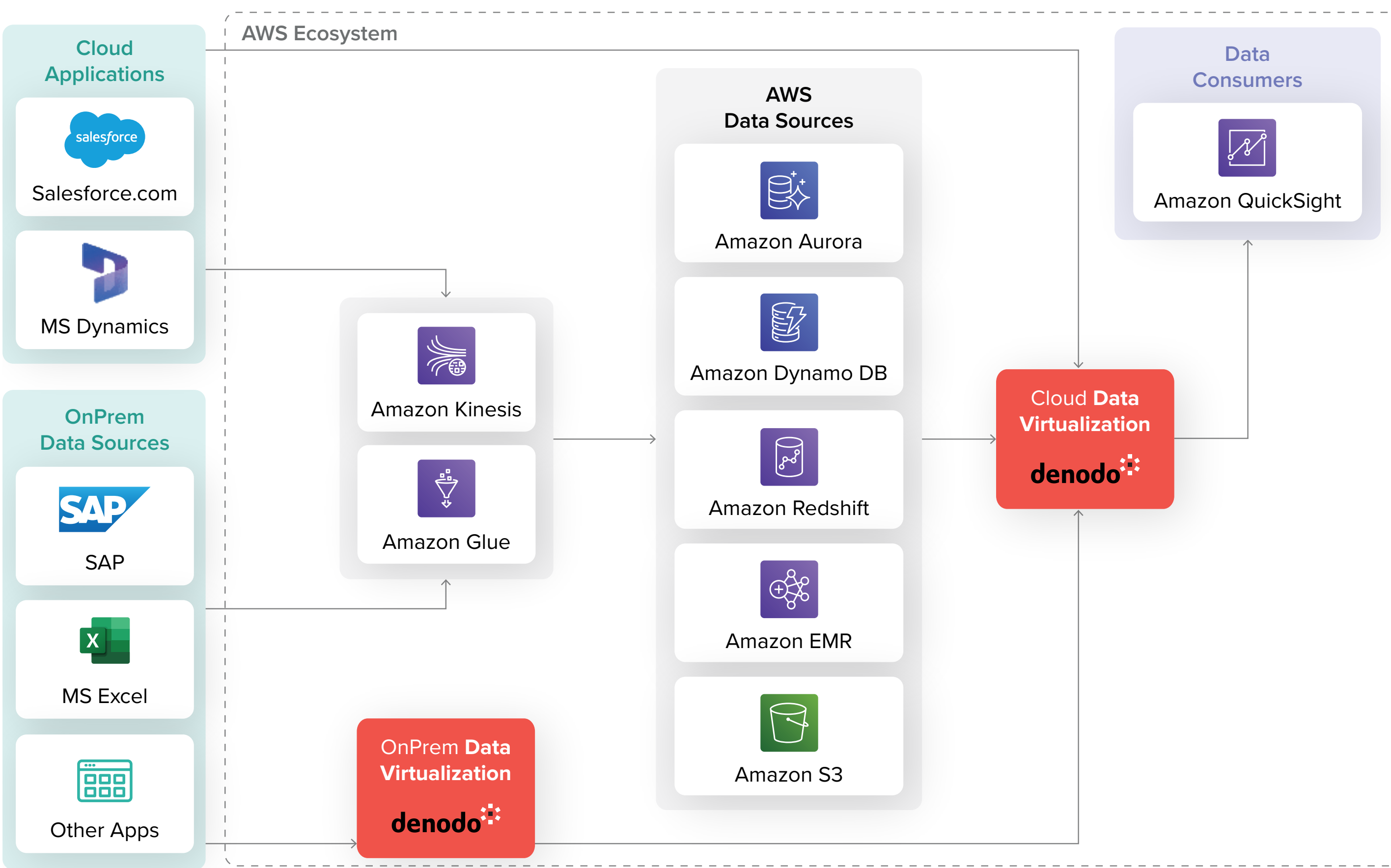
- Removal of redundant data warehouses and elimination of complex ETL pipelines.
- 60-75% reduction in integration efforts through virtualized data access.
- Lower infrastructure costs with faster innovation cycles.

ON-PREMISES/HYBRID/CLOUD-READY ARCHITECTURE

- Seamless integration with AWS, Azure, and GCP in hybrid or multi-cloud environments.
- Modernization without data migration disruption.
- Containerized deployment and Kubernetes orchestration for scalable operations.

A Reference Architecture - Denodo in a Cloud Ecosystem

This diagram illustrates the reference architecture for Amazon Web Services (AWS). A similar configuration can be implemented using Denodo on other cloud ecosystems such as Google Cloud or Microsoft Azure.



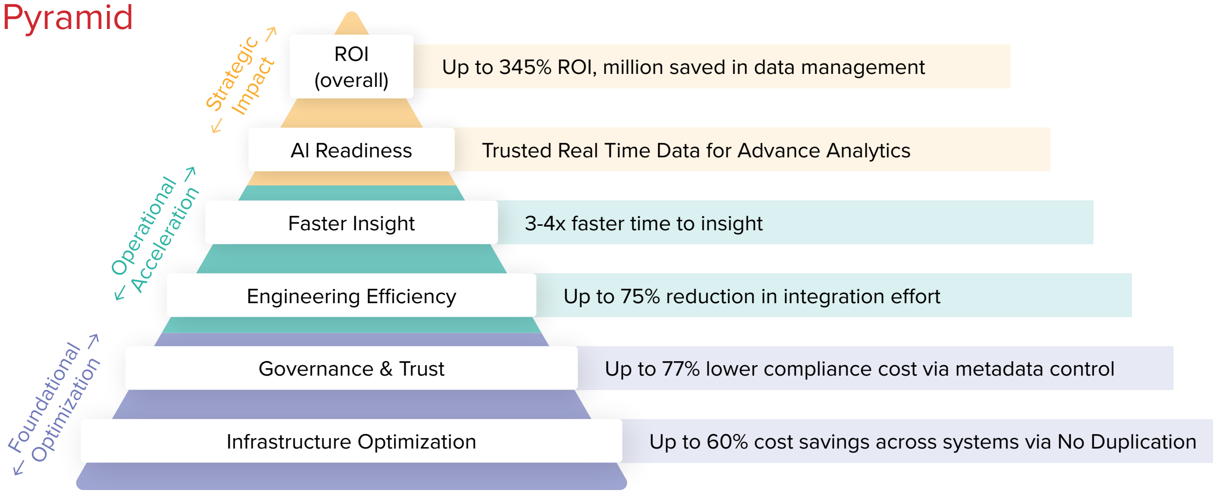
The ROI Equation: Not Just Budget-Friendly but Value-Driven

Independent analysis reveals that organizations leveraging the Denodo Platform can achieve 3X ROI, translating to millions in savings on data management and integration costs.

This return isn't merely financial—it represents strategic acceleration across the enterprise, which means faster access to insights, reduced operational friction, and improved data governance. By virtualizing data access rather than replicating it, insurers can redirect both capital and talent toward innovation and customer value creation. This is not an IT efficiency gain; it is a business transformation catalyst.

Denodo's value proposition extends well beyond cost optimization. It empowers insurers to become data-driven enterprises that respond to market shifts in real time.

ROI Pyramid



Data Migration vs. Logical Data Management: Choosing the Right Approach

As insurers modernize, an imperative decision is whether data needs to be moved or simply accessed. Many initiatives, especially those that require speed, agility, and minimal disruption are better served by logical data management. On the contrary, efforts needing long-term consolidation, regulatory precision, or deep historical analysis are typically best addressed through traditional data migration.

USE CASE	DATA MIGRATION	LOGICAL DATA MANAGEMENT
Consolidating multiple legacy policy admin systems	✓	-
Historical analytics, actuarial modelling and regulatory reporting	✓	-
Full retirement or decommissioning of outdated systems	✓	-
Real-time underwriting, claims decisioning, and operational insights	-	✓
Fraud detection using stitched, cross-system real-time views	-	✓
Rapid onboarding during mergers & acquisitions while systems stay active	-	✓
Creating cross-system unified views of policy + claims + billing, without having to move data	-	✓
Hybrid or multi-cloud access without requiring data replication	-	✓

Supported by the Denodo Platform, Insurers gain **faster access to trusted data, lower integration costs, improved compliance, and greater agility** — with a scalable foundation for analytics, AI, and continued modernization.

Case Study: Global Top 10 Insurer

Despite building a modern lakehouse, a global top 10 insurer struggled with siloed data, manual reconciliation, and delayed insights. To bridge on-premise and cloud systems without centralization, the company adopted a federated approach using Denodo and Databricks. This logical data layer established universal governance, accelerated high-value use cases, and enabled a robust data-product strategy.

BUSINESS NEED

- **Unified Semantic Layer:** To enable governed, business-ready views with minimal preparation.
- **Centralized Security:** Consistent access control and dynamic data masking across all platforms.
- **Accelerated Delivery:** Reduced lead times for critical use cases like claims reconciliation.
- **Secure Integration:** Seamless connectivity across Oracle, SharePoint, and Azure-native environments.

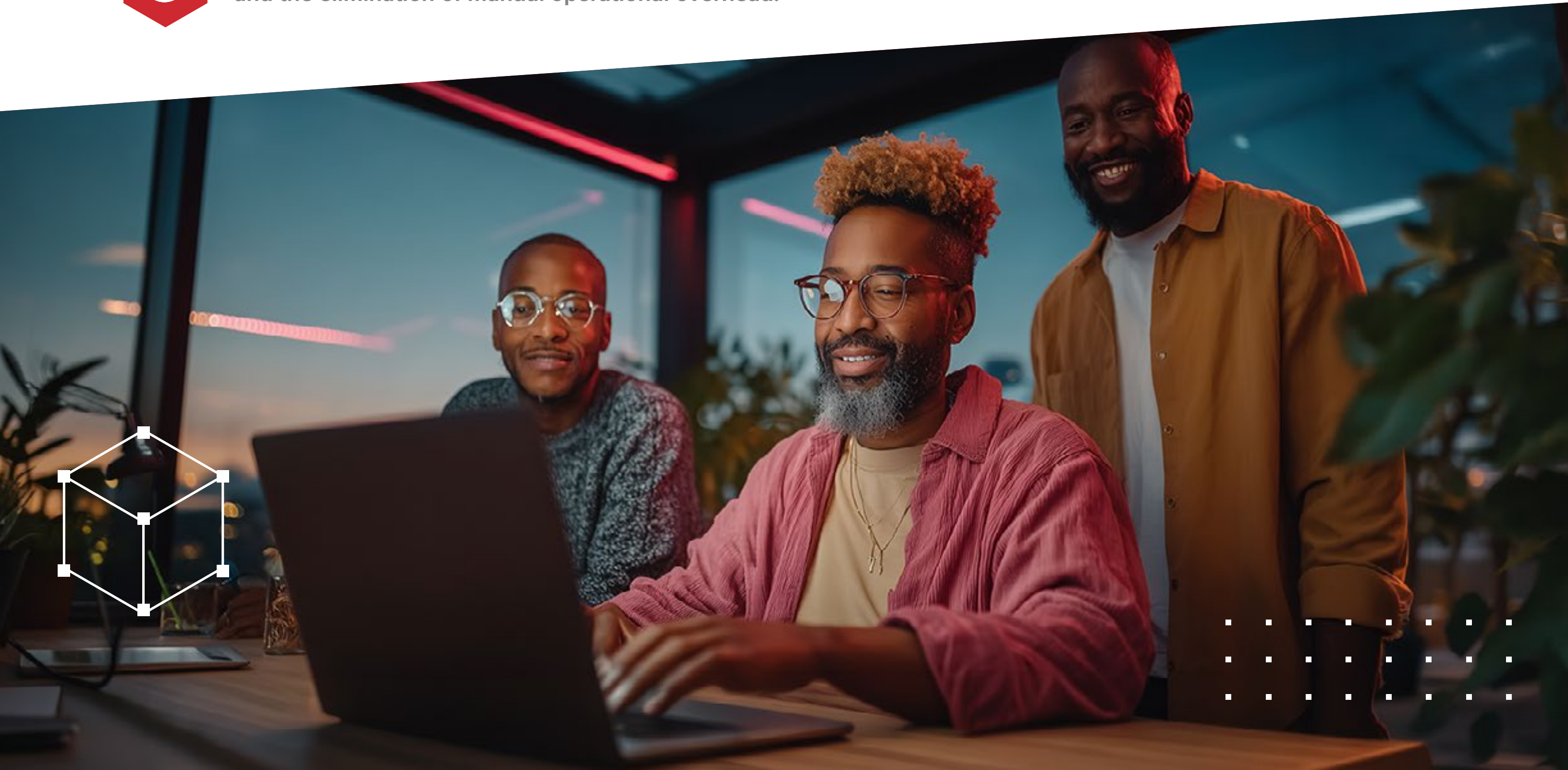
THE SOLUTION

The company successfully deployed Denodo to create a logical data layer, connecting disparate systems like Oracle, SharePoint, Azure, and Databricks without data duplication. The solution exceeded performance expectations, cutting processing time from weeks to hours and enabling real-time annuity validation. By centralizing business logic and enforcing universal security policies (including dynamic masking), the new architecture ensured consistent, secure, and rapid access for business users.

OUTCOMES & ROI

- Accelerated Delivery: Reduced time-to-insight for claims and annuities from weeks to hours.
- Superior Performance: Surpassed SAS benchmarks for data preparation and query speed with significantly less overhead.
- Unique Integration: Achieved out-of-the-box SharePoint connectivity where competitors (Starburst, TIBCO) failed.
- Scalable Adoption: Empowered over 50 engineers and data scientists with governed, self-service access.
- Complementary Architecture: Validated a dual-platform strategy: Databricks powers ML/analytics while Denodo provides the unified, non-replicating access layer.
- Strategic Pivot: Cemented Denodo as a core component of the roadmap, enabling a shift toward a product-centric, business-aligned strategy.

ROI Drivers: A federated approach with Denodo establishes universal governance, acceleration of time-to-insight, and the elimination of manual operational overhead.



What's Next – Driving the right strategy with Exavalu's recommendations

To translate this vision into measurable business outcomes, insurers need a pragmatic, domain-focused roadmap that strengthens their data foundation while enabling rapid business value. Exavalu's Point of View centres on helping insurers to modernize intelligently, prioritizing high-impact domains, unifying data access, and building repeatable capabilities that scale across the enterprise.

This guidance enables insurers to move beyond fragmented initiatives and adopt a cohesive data strategy that accelerates insight delivery, enhances governance, and unlocks self-service capabilities across business teams.

Exavalu recommends:

Audit your data landscape
Conducting a comprehensive audit of the current data landscape to identify silos, integration gaps, and data governance challenges.

Prioritize high-impact domains
Prioritizing transformation efforts in high-value domains such as underwriting, claims, fraud analytics, and customer intelligence.

Adopt a logical data management strategy
Implement a logical data management strategy, using platforms like Denodo, to unify data access without disrupting core systems.

Establish a Data CoE (Center of Excellence)
Establishing a Data CoE to drive self-service analytics, enforce best practices, and scale reusable data assets across the organization.

Conclusion: Logical Data Management as a Strategic Fit for Modern Insurance Data Needs

Insurers can strengthen their data strategy without a full-scale rebuild. Logical data management provides real-time access, data governance, and agility, by leveraging existing systems rather than replacing them. With Denodo, insurers gain a unified and scalable logical data layer that accelerates insight delivery, supports regulatory demands, and enhances customer experience in an increasingly competitive market.

MORE ABOUT THE DENODO/EXAVALU PARTNERSHIP

Exavalu brings deep insurance domain expertise, consulting-led execution, and industrialized data accelerators that enable Denodo to deliver measurable business value—not just data access. Exavalu has successfully delivered large-scale data transformation programs for multiple insurance carriers, spanning policy, claims, underwriting, billing, finance, and regulatory domains. This real-world experience enables us to apply battle-tested patterns and proven delivery approaches to every Denodo engagement.

While Denodo provides powerful logical data management and virtualization capabilities, Exavalu aligns these capabilities to insurance-specific business needs, governed correctly, and adopted at scale. We translate complex insurance data into trusted, business-ready semantic views, enabling faster analytics, regulatory reporting, and digital initiatives—without costly data migrations or prolonged transformation cycles. Our Datalytics accelerators and proven methodologies significantly reduce implementation risk and time-to-value.

Services Exavalu Offers with Denodo

- **Insurance Data Strategy & Advisory**
  Define high-value use cases, target semantic layers, and phased roadmaps to position Denodo as a strategic enterprise capability.
- **Denodo Implementation & Enablement**
  Design and implement insurance-ready logical data layers with optimized performance, security, and scalability across cloud and hybrid environments.
- **Business Semantic Modelling**
  Deliver governed, reusable semantic views aligned to core insurance KPIs—reducing IT dependency and improving trust.
- **Data Governance & Trust Management**
  Embed metadata, lineage, quality rules, and access controls to support regulatory compliance and executive confidence.
- **Analytics, BI & AI Enablement**
  Enable faster BI, analytics, and AI outcomes through consistent, trusted enterprise data access.
- **M&A and Modernization Support**
  Rapidly unify data across legacy and acquired systems using logical integration, avoiding costly physical consolidation.
- **Managed Services and Optimization**
  Provide ongoing support, enhancements, and optimization so that Denodo continues to evolve with business needs.

EXAVALU
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