Deliver Trusted Data Products and Drive Better Outcomes with Data Mesh Governance

Realize Your Data Mesh Strategy with Trustworthy Data Available Across Data Domains

To succeed in today's business environment, enterprises must view data as a key strategic asset. They must respond quickly and efficiently to market demands and customer expectations while scaling operations. However, traditional data architectures' limited scalability, complexity and lack of flexibility can prevent enterprises from becoming data-driven. Centralized IT teams may also find it challenging to scale data operations to support the growing number of teams and their diverse data requirements, leading to bottlenecks, inefficiencies and, ultimately, a lack of trust in data.

With a **data mesh** approach, enterprises can overcome these challenges by operationalizing a decentralized data architecture where data is treated as a product, owned by domain teams that most intimately understand the data and are readily available across the organization. In a recent study, over 40% of data leaders surveyed planned to invest in data mesh as a priority in 2023.[1]

Data mesh governance empowers teams to independently manage, access and utilize data for their unique needs. Establishing a federated governance model encourages domain teams to take ownership of data products, leading to better alignment of data processes with business needs. This reduces dependencies, allows the business to scale and optimizes data quality and integrity.

[1] New Vantage Partners Report - Data and Analytics Leadership Annual Executive Survey 2023

Key Benefits

- Enable scale, speed and agility with distributed data ownership and federated governance

- Reduce data silos and maximize data value by empowering distributed domain teams to autonomously curate, enrich and publish widely discoverable data products

- Accelerate trusted, secure, self-service access to data in a decentralized setup through a governed data marketplace

- Establish standardized data contracts and metadata documentation of data products to boost data quality, consistency and interoperability

- Improve data literacy and promote a data-driven culture by enabling cross-domain collaboration and trusted knowledge sharing

informatica.com

Unleash Business Value from Your Data Mesh with Informatica

Informatica Intelligent Data Management Cloud™ (IDMC) offers a comprehensive set of services to help establish adaptive, federated data governance. It provides a complete range of capabilities through a single solution for **data discovery**, data lineage, data profiling, **data quality**, data governance and data sharing. Providing a common platform between centralized IT teams and distributed domain teams allows for a unified yet flexible data governance model with tailored practices for each domain and centralized alignment.

The IDMC Cloud Data Governance and Catalog service leverages AI-powered **CLAIRE**® copilot capabilities to help discover and classify large volumes of data, derive insights from metadata and apply automation to enforce consistent and standardized **data management** practices across domains. This helps to reduce the risk of inconsistencies, such as data errors and non-compliance with policies, as data management gets decentralized.

The IDMC Cloud Data Marketplace service offers a centralized, self-service data exchange to publish curated data products for data consumers to access, consume and collaborate on. Integrated Cloud Data Quality provides observability across data assets contributed by distributed data domain owners to help ensure data products meet centralized data quality standards and are available to data consumers with authorized access.

These cloud-native solutions let you quickly adapt to varying workloads as the number of domains and data products change. IDMC enables domains to integrate a wide range of cloud-based and on-premises data sources best suited to their needs. This approach offers seamless connectivity, improved agility, high performance and lower ownership costs.

Informatica designed these solutions to integrate with a variety of cloud-based and on-premises data sources to streamline data governance across a distributed data mesh, which means that you can adopt specific tools and solutions that best fit your needs.

IDMC can help you manage your data by integrating, organizing and helping to ensure the quality of your data. This includes data integration, **master data management (MDM)**, data quality, data governance and **data marketplace**. By doing this, IDMC helps ensure your data mesh is supported by discoverable, understandable, protected, trustworthy and relevant data.

Key Capabilities

Enhance the Visibility of Data Assets Across the Data Mesh with Automated Data Discovery and Classification

Cloud Data Governance and Catalog makes it easy to find relevant data assets and understand their relationships. Thanks to AI-powered CLAIRE intelligence and automation, domain teams can extract, index and classify metadata from distributed sources into a centralized catalog. This catalog can serve as a common metadata platform for data assets across the data mesh.

Automated **data discovery** allows domains to integrate, classify and publish their data assets independently. It can also control their visibility and accessibility while promoting collaboration and reuse. AI-powered CLAIRE generates classifications to help distributed data owners classify large volumes of data without having to write complex classification rules. This feature lets CLAIRE learn from associations and auto-tag similar fields. This makes it easier for data users to discover, enrich and curate sensitive data. It also helps centralized teams to relate associated data privacy rules to data elements for better compliance with regulations and policies.
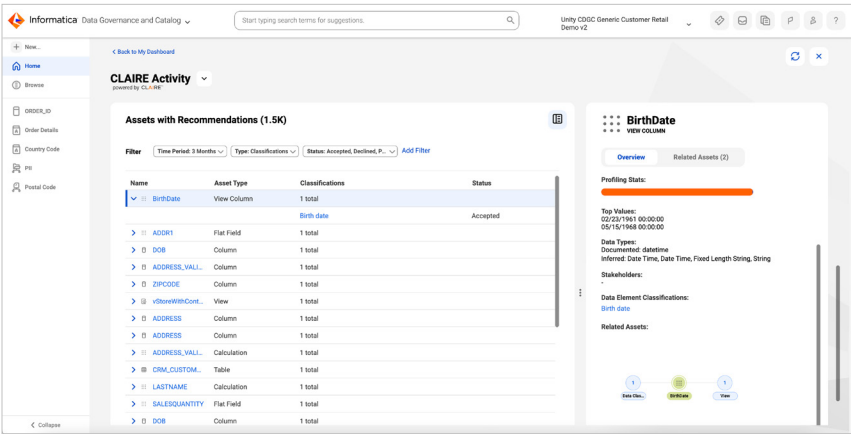

Figure 1. CLAIRE's AI/ML-powered capabilities help automatically classify and profile data assets.

Standardize Data Governance Across Domains with a Common Metadata Management Platform

In a data mesh architecture — with metadata management responsibilities distributed among domain teams — it helps to have a common metadata platform. This common metadata platform establishes consistent data management practices. It also makes it easy to implement governance policies such as data access controls, data privacy rules, data quality, data classifications and regulatory policies.

IDMC provides a common platform that unifies and centralizes metadata and associated intelligence in a single repository. Users can search, filter and explore metadata attributes across different data domains and benefit from a holistic view of relationships, dependencies and connections between different data products and domains. As new data domains emerge, the centralized metadata-driven platform allows seamless integration of diverse metadata sources via a unified framework. This facilitates interoperability, collaboration and data discovery across data silos.

Trace Data Flows Across the Data Mesh with End-To-End Data Lineage and Impact Analysis

When it comes to data, transparency and understanding are key. That's where automated **data lineage** comes in. With Cloud Data Governance and Catalog, data consumers can easily follow data as it moves across domains and undergoes transformations. This lets users quickly grasp each data product's origin, context and transformation. By exploring lineage graphs and identifying dependencies, data consumers can evaluate the impact of changes or updates on downstream data products and systems. This promotes effective troubleshooting and issue resolution.

Improve Performance and Reliability of Data Products with Integrated Data Quality and Observability

To help ensure that the data mesh is consistent, different domains can set up rules, metrics and limits for **data quality**. By managing data quality in a centralized way, domain-specific metrics can match the central data quality standards. Data contracts and scorecards help people who use the data understand how good it is and make better decisions about it.

Informatica Cloud Data Marketplace enables you to publish data products that meet central data quality standards and are easy to find and use. This helps different domains improve data quality and share the responsibility for keeping the quality level high, which makes the data mesh better for everyone.
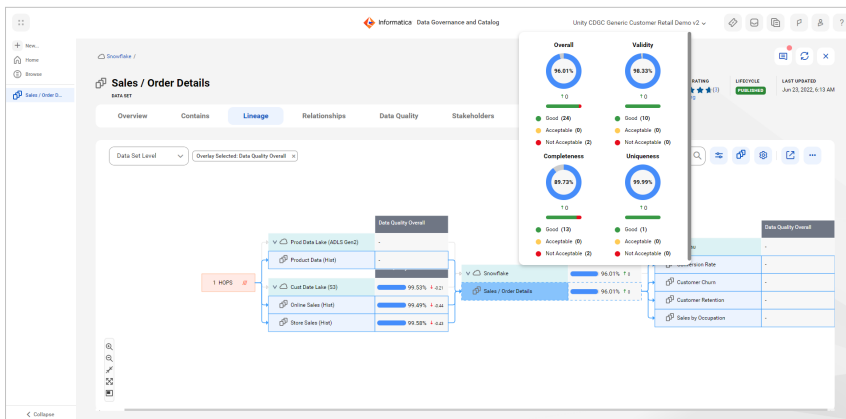

Figure 2. Explore data-element level data lineage from source to target and gain an additional understanding of your data by displaying graphical overlays, including data quality scores

Achieve Efficient and Consistent Compliance in Federated Data Environments with Automated Data Governance Workflows

Cloud Data Governance and Catalog enforces data governance policies across multiple domains while allowing local flexibility. It automates policies related to data access, sharing and quality, improving agility and consistency across domains with unique business requirements. Customizable roles and workflows help ensure stakeholders can create and modify assets in compliance with data governance principles.

Harness Collective Intelligence and Expertise of Distributed Teams with Cross-Domain Collaboration

Cloud Data Governance and Catalog facilitates knowledge exchange between domains. This helps to avoid creating disconnected silos and duplicated efforts. The solution also helps ensure that data products produced locally meet centrally defined standards, making products more easily consumable and available across domain teams and through APIs. This also encourages users to share and reuse data and governance policies across domains and helps reduce redundancies.

Shared data governance templates, policies, standards and frameworks can serve as starting points for individual domains and can be collectively improved with learnings, best practices and knowledge exchange. By establishing agreements and defining data exchange protocols, domains can benefit from seamless data flows while respecting data ownership and privacy concerns. The solution offers a platform for multiple entities to collaborate, share knowledge, align practices and collectively govern the federated data ecosystem.
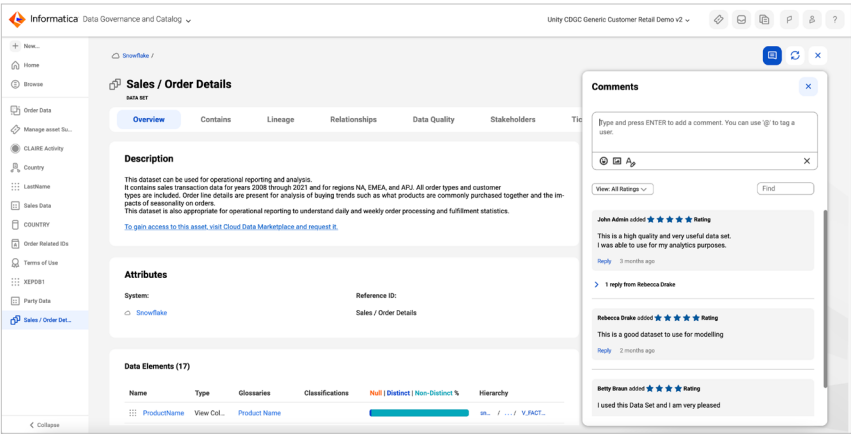

Figure 3. Collaboration capabilities allow users to discuss and share comments and user ratings for data products across domains.

Key Benefits

Enable Scale and Speed with Distributed Data Ownership and Federated Governance

Empower data producers to autonomously curate and publish data products. This leads to faster decision-making at the local level. Cloud Data Governance and Catalog helps to ensure compliance with standards, policies and regulations. It also provides data consumers fast access to tailored data products for rapid innovation. This cloud-native, flexible solution helps you scale up additional domains, governance processes and data products without administrative bottlenecks.

Reduce Siloed Data and Maximize the Value of Data Products

The solution helps maintain consistent standards, protocols and guidelines for data domains. This enables better integration and reduces silos. It establishes a unified **data governance framework** in the cloud, improving interoperability and reusability. This leads to broader access to trusted data products, reducing discrete data silos and encouraging collaboration.

Enable Self-Service for Secure and Trusted Data Democratization

To help ensure that data is shared reliably in distributed data ownership models, it's important to have centralized policies that confirm authorized access and protect sensitive information. Informatica **Cloud Data Marketplace** offers a self-service platform for data collaboration that ensures local data access requirements, policies and security are in place. This secure environment allows data producers to share their curated data products with the broader organization, making them available for consumption.

Boost Data Quality and Usability of Data Products

Cloud Data Governance and Catalog helps to maintain data quality and reliability by creating a standardized governance system and enabling automatic data profiling. Data profiling capabilities help domain users automate data quality measurement and continuously monitor the health of their data products.

Facilitate Data Literacy and a Data-Driven Culture

With Cloud Data Governance and Catalog, distributed data users can manage and govern data products independently while maintaining consistency in processes and procedures. This helps to improve data quality and classification accuracy, which increases trust and relevancy. Cloud Data Marketplace Data enables data producers and data consumers to provide feedback and insights on the usability of data products, promoting collaboration and shared responsibility for data.

Next Steps

Learn how to turn data into a competitive advantage with **Cloud Data Governance and Catalog**, discover why **Cloud Data Marketplace** is a better way to share data, experience our **interactive demo** and **connect** with our team.

Get a faster return on your investment with Informatica Professional Services

Talk to our experts in cloud data management.
Check out our services.

Informatica (NYSE: INFA) brings data to life by empowering businesses to realize the transformative power of their most critical assets. When properly unlocked, data becomes a living and trusted resource that is democratized across your organization, turning chaos into clarity. Through the Informatica Intelligent Data Management Cloud™, companies are breathing life into their data to drive bigger ideas, create improved processes, and reduce costs. Powered by CLAIRE®, our AI engine, it's the only cloud dedicated to managing data of any type, pattern, complexity, or workload across any location — all on a single platform. Informatica. Where data comes to life.

IN17-0823-4587