



Weaving Data Into Wider Value

Leverage the power of data mesh with
Informatica, Wipro and Snowflake



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Weaving data into wider value

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Ask any organization what they base strategic decisions on and most will say that they are data-driven. Though many are on the path to data-driven management, only a few have recognized — much less addressed — inherent weaknesses in the way their data platforms have been engineered.

Having a robust data architecture is essential for delivering actionable insights, but navigating the data lakes and other huge, centralized repositories can be a huge challenge. As the number of data sources increase, use cases expand, and demand for access grows, the challenges multiply quickly.

Lack of data ownership clarity is a common issue, while dissonance and misunderstanding between source-system vendors, data platform developers, and business users who want access to analytics of their own, can all combine to cloud the picture even further.

A new data paradigm

Businesses need analytics that facilitate fast action and scale on demand, yet greater agility might mean data governance suffers. What good is speed and broader access if you can't trust the underlying information the insights are derived from? Overcoming these issues requires a new paradigm: the data mesh. An evolutionary, decentralized architecture that offers distributed data access, analytics and governance through domain-centered data ownership, data meshes can give you a clearer, more robust picture of your data, but it requires a light touch during implementation.

Understanding how to enable a data mesh through the right blend of platform, solution and implementation expertise is vital. It's why **Informatica, Snowflake and Wipro** are collaborating to make data mesh a reality.

Together, we're helping organizations use a data mesh to transform processes and infrastructure to ensure increased data trust, access and value.

What is a data mesh?

Data is inescapable, a by-product of every digital action we take. No matter where you look, every system, process, touchpoint and sensor generates data.

To help turn all that information into assets and insights, data meshes offer a new architecture that embraces the ubiquity of data by creating a domain-oriented self-service platform. It enables the business data users to discover, understand and trust their data to drive decisions and initiatives.

A data mesh framework is based on four principles that change the way data analytics are enabled in the enterprise:



01 Domain Driven:

Decentralizing ownership of analytical data to the business domains closest to the data. Sometimes those domains are the source of the data, and at other times they are the main data consumers.



02 Data as a Product:

Enabling the creation of data products that are accessible, discoverable, trustworthy, secure and have demonstrable business value of their own.



03 Federated Computational Governance:

Providing federated data governance that ensures data is secure, trusted and reusable – regardless of the domain or internal 'owner'.



04 Self-Service Infrastructure:

Developing a new generation of self-service platform that empowers domain-oriented teams to manage the life cycle from acquisition to democratization.

Combined, these principles enable a decentralized, yet robust and extensive data framework designed to deliver business outcomes. The resulting analytical data architecture and operating model treats data as a product that can be owned by the teams with the most intimate knowledge of their consumption and analytics needs.

A new data paradigm

Organizations relying on legacy architectures often struggle to scale data and improve their analytics. Common challenges include:

- Data proliferation and complexity from an ever-widening set of data domains, data consumers and data sources
- Lack of agility that stops them from quickly responding to data demands
- Lack of trust in terms of data lineage, quality, duplication and completeness
- Overreliance on central Business Intelligence (BI) teams for insights and data access

- Diminished collaboration as developers stay disconnected from the domains where data originates and the departments / functions who want to apply it

Data mesh aims to break up the monolithic data architectures and ownership structures that dominate in many large businesses. Data warehouses and lakes, for example, can still exist in a mesh architecture, but they are treated as just another node, not a centralized repository.

By delivering distributed, domain-based ownership and data custodianship, organizations can use a mesh architecture to build data products at the department, function or business unit level. The data products created can be shared easily across other domains or used to interoperate with other data products. A data mesh manages data as a distributed network of self-describing data products.

Benefits of a data mesh

Data mesh enables enterprises to improve the value of their data in five essential ways:

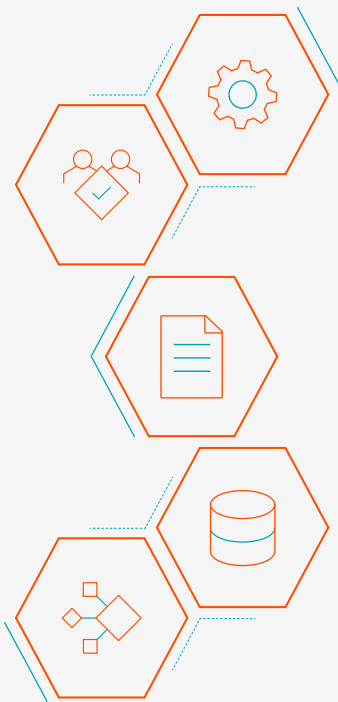
THINK by decentralizing data access, ownership and accountability. A data mesh enables faster creation of customized data products that meet the business needs of users across the organization.

RESPOND to the need to treat data as a product and facilitate collaboration. A data mesh improves agility by breaking down centralized legacy architectures and the barriers they place to business demands.

UTILIZE data more widely by enabling self-service, easing the creation of data marts and democratizing data access and use across the enterprise. Strategic business objectives can draw from an ecosystem of data products and drive more value as a result.

SCALE in response to increasing data volumes and data types. A data mesh enables the flexible creation of data products through democratized ownership that supports a data-centric business culture.

TRUST the data they have by implementing a federated operating model for data governance that frees the business to customize it according to domain-specific needs.



Data mesh versus data fabric

Data fabric is an architecture designed to take the complexity out of data management and minimize disruption to data consumers. Its 'fabric' is an integrated platform shaped by the organization to deliver customized data products.

As a design concept, data fabric is meant to address the complexity of data management. It helps ensure data can be successfully accessed, combined, shared and governed effectively. The technical architecture uses machine learning and automation, drawing metadata from a cloud-native technology backbone that's API-driven, interoperable and microservices-based.

Data mesh is designed to enable organizational change, enabling data-driven decisions at the business

unit and team level by allowing them to own the delivery of data products. A mesh architecture organizes data to be domain-oriented and facilitate self-service. With a mesh, data consumers can discover, understand, use, and trust data and data products.

The Informatica, Snowflake, Wipro trifacta

Data mesh is a revolutionary architecture that gives organizations the power to connect and deliver data across a distributed data landscape. Organizations considering a data mesh architecture need to evaluate whether a domain-oriented design approach is suited to their needs. For example, it's important to consider if data products will be reused and designed to address the needs of both department-level and C-suite users.

Questions to help guide that evaluation could include:

01

When creating a data product, what does 'good' look like?

02

Who currently owns the enterprise data?

03

Will the data standards be the same for each domain?

04

How will a data mesh impact data management costs?

05

What enabling solutions will we need to invest in?

06

What data governance model do we use?

Informatica, Snowflake and Wipro can help you find those answers. We've joined forces to support data mesh architectures with joint solutions, services and expertise that align to help advance the results of your investment in data and analytics.

Informatica's Intelligent Data Management Cloud (IDMC) is the foundation of a data mesh architecture,

while Snowflake — a global leader in domain-centric data architecture — adds its Data Cloud to support federated governance.

Bringing it all together is Wipro's global implementation and consulting expertise, with 2,500+ consultants around the globe trained in delivering Informatica and Snowflake solutions.

Want to learn more?

For a deeper understanding on Data Mesh and other topics, check out our on-demand Architect Workshops [here](#).

Join our webinar 'TRUST with Data Mesh' on 20 April at 2pm BST/3pm CEST – register [here](#).



About Informatica

Digital transformation changes expectations: better service, faster delivery, with less cost. Businesses must transform to stay relevant and data holds the answers.

As the world's leader in Enterprise Cloud Data Management, we're prepared to help you intelligently lead - in any sector, category or niche. Informatica provides you with the foresight to become more agile, realize new growth opportunities or create new inventions. With 100% focus on everything data, we offer the versatility needed to succeed.

We invite you to explore all that Informatica has to offer - and unleash the power of data to drive your next intelligent disruption.

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