

Guide 4 of 5

Understand the Role of Data Fabric

Guides for Effective Business Decision Making



By 2024,

data fabric deployments will quadruple efficiency in data utilization, while cutting human-driven data management tasks in half.

Source: Gartner

Most organizations struggle with a comprehensive data management design that allows them to optimally connect/collect, integrate and deliver distributed data from heterogeneous data sources and applications for their data and analytics (D&A) use-case demands.

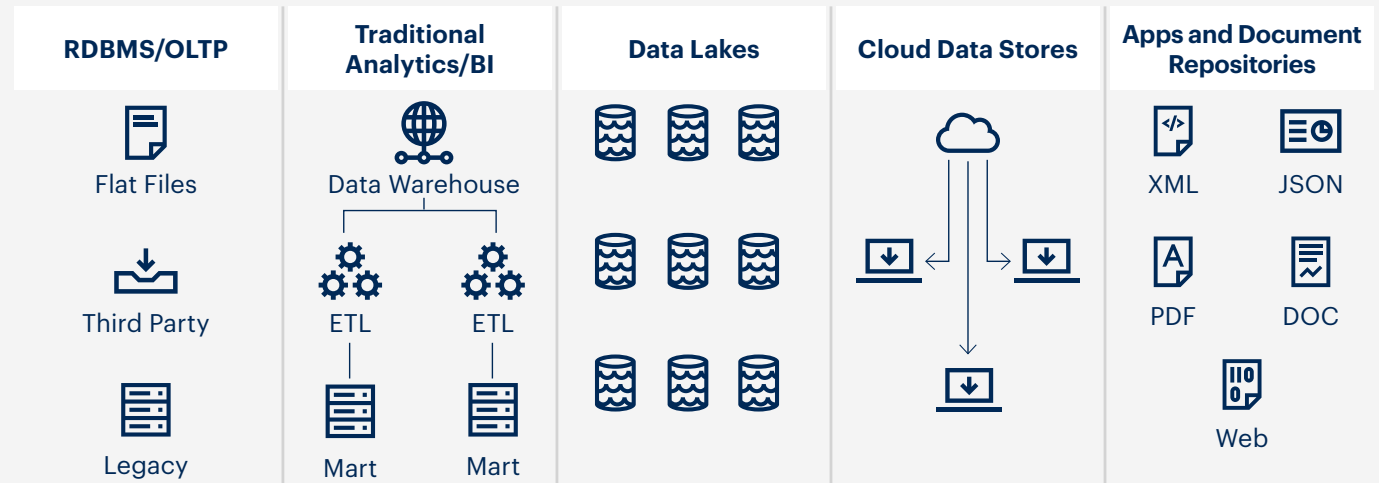
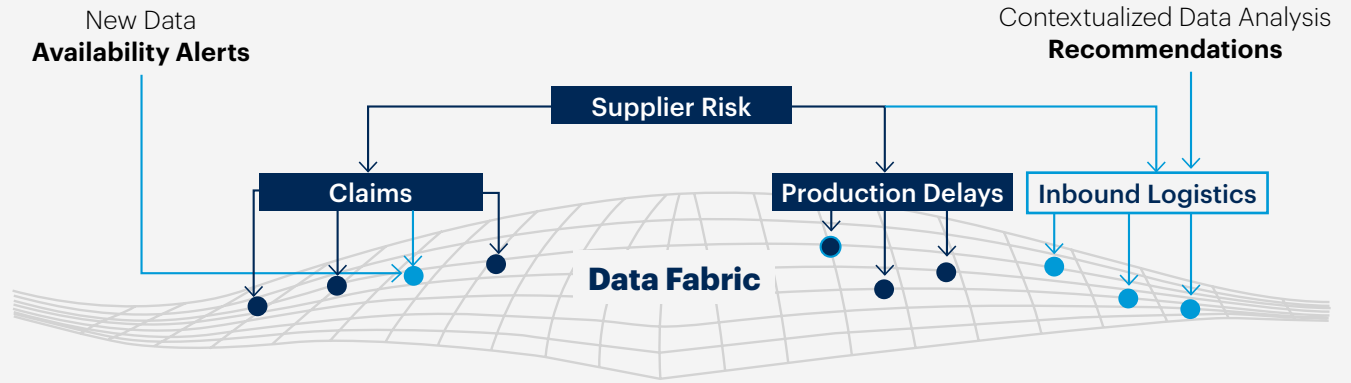
The number of data and application silos have surged in the last decade, while the number of skilled personnel on data teams has either stayed constant or even dropped. The result: The time deficit between the time the request for integrated data is raised and the time at which the request is fulfilled is now at an all-time high.

Organizations need a data management design that can not only optimally integrate data across a multicloud hybrid ecosystem, but also automate data engineering tasks to reduce complexity and optimize business outcomes and value.



Ehtisham Zaidi
VP Analyst, Data Management

Data Fabric Is an Integrated Layer of Connected Data



Source: Gartner

How to Use This Guide

Prepare

1

Define what data fabric means to your business.

Establish

2

Investigate how data fabric will deliver integrated data — and more — to all data consumers.

Engage

3

Communicate the value of data fabric to key stakeholders.

Tips for Delivery

4

Apply data fabric benefits by experimenting, reimagining and discovering what this emergent innovation can achieve.

Prepare

Define What Data Fabric Means to Your Business

Data fabric is an emerging data management design that enables augmented data integration and sharing across heterogeneous data sources. But to capture its value, define data fabric in a way that is well understood by all key stakeholders.

**The data fabric is an emerging data management design.
It is not one single tool or technology.**

- for attaining** → flexible, reusable, and augmented data integration pipelines

- that utilizes** → knowledge graphs, semantics and ML/AI on active metadata

- in support of** → faster and, in some cases, automated data access and sharing

- regardless of** → deployment options, use cases (operational or analytical) and/or architectural approaches

How you might define it for stakeholders

Data fabric is an emerging data management design that will enable us to:

- See across the silos that currently prevent us from sharing and finding information

- Surface and report insight more quickly, including insights we didn't know to ask for

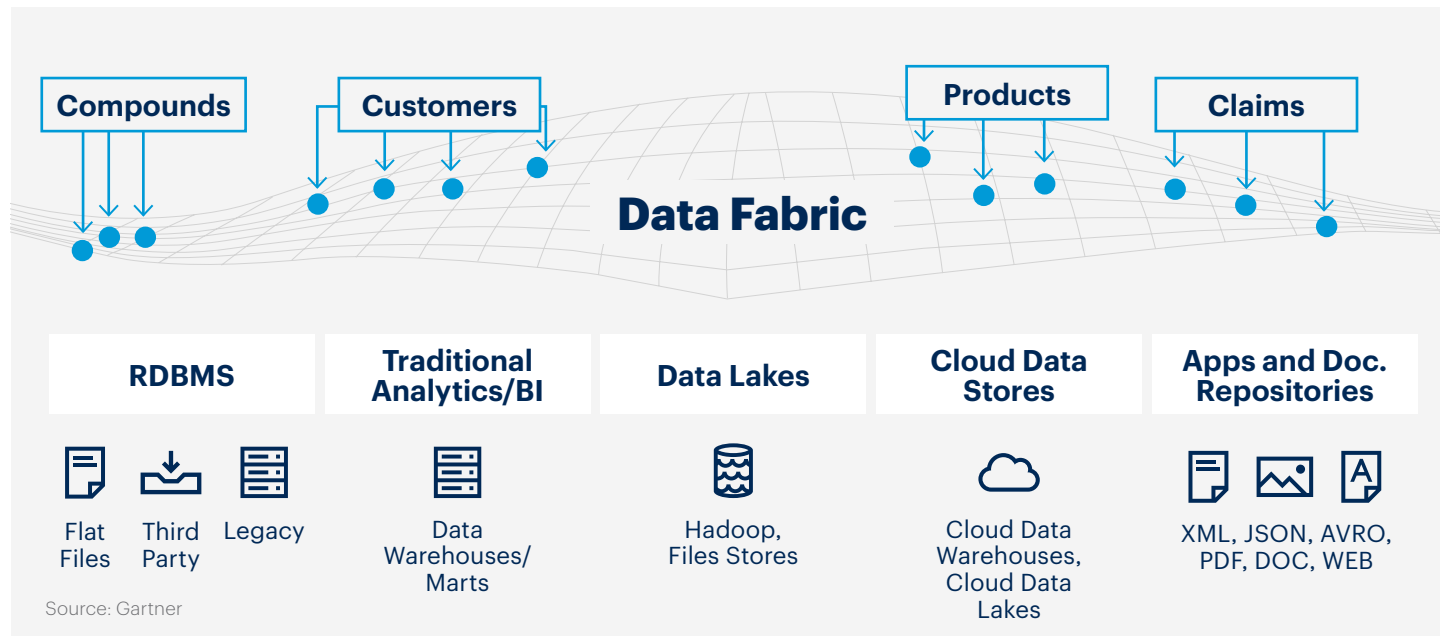
- Increase productivity/value of information

- Build resilience

Establish

Ask How Data Fabric Will Deliver Integrated Data — and More — to All Data Consumers

Data fabric ultimately promises to significantly eliminate manual data integration tasks and augment (and at times automate) data integration design and delivery. Data fabric architecture can also learn what data is being used where — and make recommendations for more, different and better data. From the outset, understand the potential and formulate the use case.



You can leverage these Gartner resources:

- **Data and Analytics Essentials**

Data Fabric — a foundational report explaining the fundamentals of the data fabric, why they are necessary and how to go about creating them

- **Cool Vendors**

A Gartner trend insights report citing vendors focused on measurable, delivery-focused data management, pushing the envelope for what it means to be both practical and innovative

- **Magic Quadrant for Data Integration Tools**

Positioning technology players within specific markets-management-based designs

Engage

Communicate the Value of Data Fabric to Key Stakeholders

Most companies correctly map the intended business outcomes to their intended data architecture and technology procurement plans. The data fabric should be no different. Know how to articulate the “why” — tying the value proposition of the data fabric with the main business goals/business outcomes of key stakeholders/teams.

Business Perspective

Benefits:

- Enables less technical users to quickly find, access, integrate and share data
- Allows subject matter experts in the business to become a part of the data modeling process
- Reduces the cycle time of accessing ready-to-use data

Data Management Perspective

Benefits:

- Productivity advantages of automated data transformation and integration — gives time back to IT resources
- Cost optimization benefits of not having to buy multiple tools with redundant/overlapping capabilities
- Automated optimization of data integration resulting in better price/performance and ROCE

Organizational Perspective

Benefits:

- Improved communication between data managers and data consumers creates a collaborative culture

Tips for Delivery

Experiment, Reimagine and Discover

Data fabrics will take time to mature; don't ignore some important considerations:



Assembly Required

You cannot buy the data fabric! Develop it based on use cases, design and various tools.



Comprehensiveness of Input

Lack of metadata in the early stages of data management initiatives, especially for on-premises deployments.



Lack of Talent

Knowledge graphs, nonrelational data stores, graph modeling (RDFs, etc.), query languages (GraphQL).
Do you have the talent?



Culture

Existing culture is to throw **traditional technology at problems**. Metadata-driven architectures will likely face huge pushbacks.

Apply the benefits of data fabrics by experimenting, reimagining and discovering — as the innovation is at an early stage.

Actionable, objective insight

Explore these additional complimentary resources and tools to make better business decisions.

Roadmap

[Enhance Your Roadmap for Data and Analytics Governance](#)

Set the right governance foundation.

Webinar

[Data & Analytics Series: Modernize Your Data Strategy to Achieve Digital Success](#)

Connect the strategy to your operating model.

Resource Hub

[Chief Data Officer to Build Data & Analytics Leadership Traits](#)

Create competitive advantage through D&A.

Roadmap

[The IT Roadmap for Data and Analytics](#)

Follow D&A best practices to create a strategy.

This guide is part of the **Effective Decision Making Series**. You can access other guides in this series to continue **improving how your business makes decisions and learn:**

- How to prioritize data and analytics
- When to augment decisions with AI
- Which decisions to reengineer and why
- Building skills, habits and teams geared for effective decision making

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