
AWS
re:Invent
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FSI303

Drive business value with a multi-account data mesh

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Agenda

What is a data mesh?

Why should I build a data mesh?

Data mesh examples on AWS

Whiteboarding!

Q&A

Survey

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Common customer challenges with data lakes

"Current data architecture is complex, monolithic, and slow to change"

"I want to focus on innovation, not on maintaining and administering a data lake"

"My team needs to own datasets, pipelines and repositories that are isolated from other teams"

"Why doesn't our organization treat data as a product?"

"I just want to get access to the data I need"

"My data science team should easily find the datasets they seek"

"Sharing and searching data is difficult"

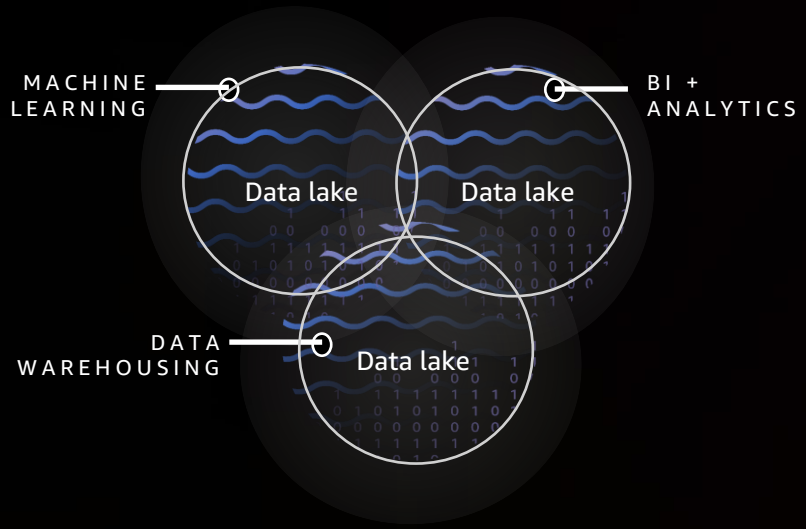
"If I share data, I've lost control"

"Our internal policies on what can be shared are unclear and there is a lack of incentive to share"

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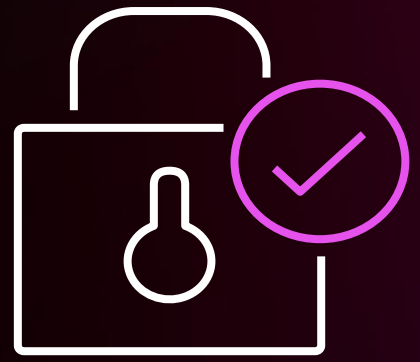
Core needs



Organizational autonomy & self-service



Increasingly diverse consumers of data



Data privacy and compliance



Secure collaboration and sharing

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What is a data mesh?

Data mesh is a pattern for defining how organizations can organize around **one or more data domains** with a focus on delivering enterprise data products. Data mesh supports data producers and consumers and provides federated governance through lightweight centralized policy.

Data privacy

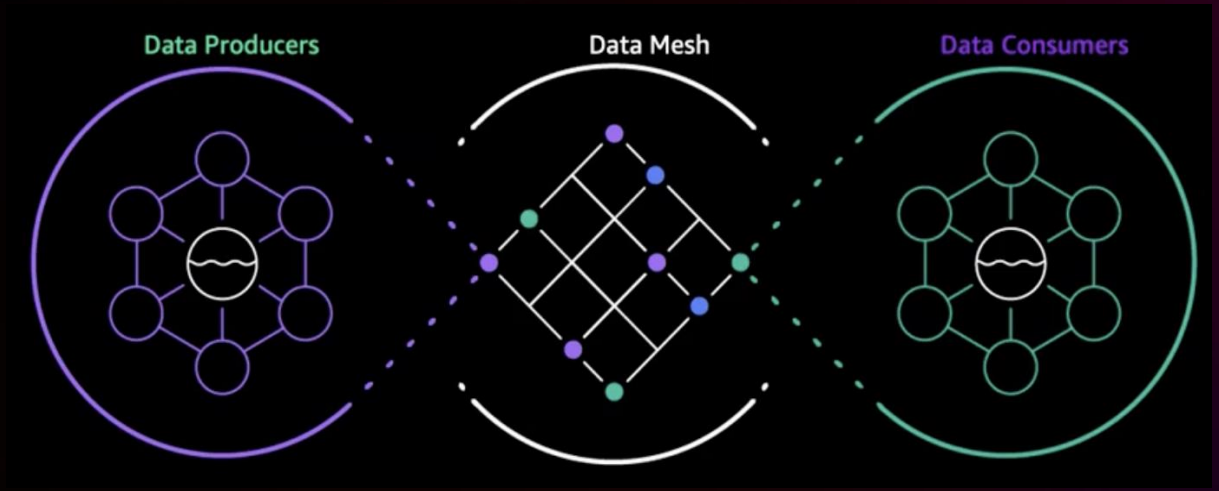
- Ownership and accountability
- Distributed governance
- Encourages product thinking

Secure collaboration

- Increase adoption of data
- Common security service
- Centralized audit

Organizational autonomy

- Distributed control
- Solutions aligned with business needs
- Scales to meet evolving org structure



Diverse consumers

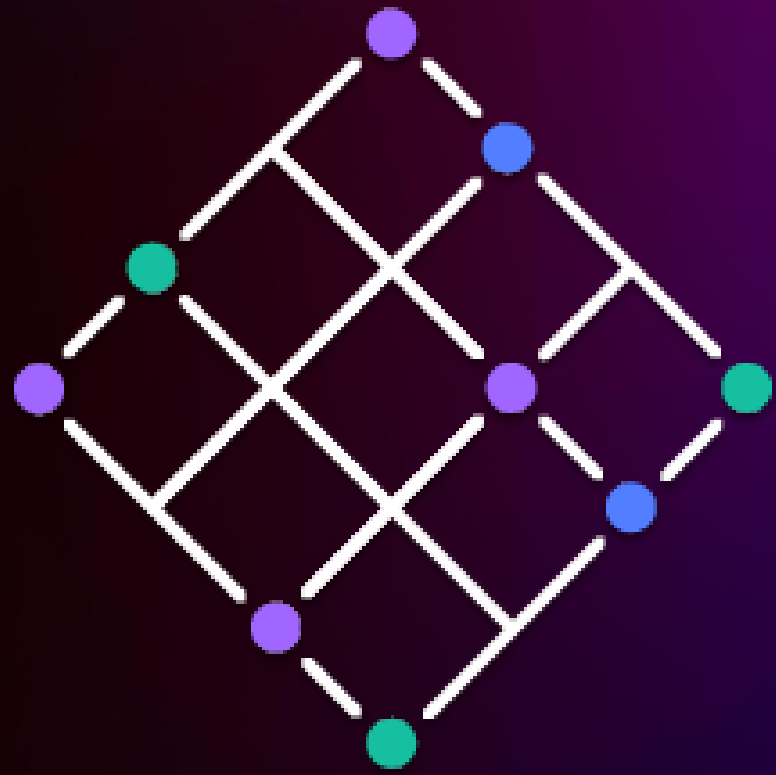
- Choice of tools
- Central data discovery
- Self-service

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Why build a data mesh?

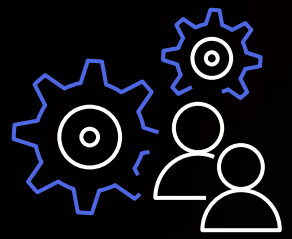
- Enable organizations to get value from data at scale
- Create a business-oriented data product that can support top strategic goals
- Allow business domains federated governance through lightweight centralized policy by removing bottlenecks
- Encourage data-driven agility
- Support the sharing of data product, with the goal of delighting the experience of data users



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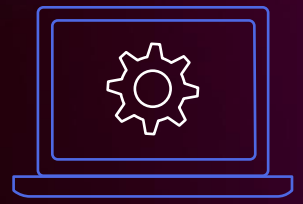
Fannie Mae objectives



Responsible innovation



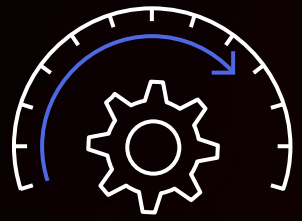
Operational agility



Accelerate digital transformation



Self-service capability



Increase efficiency

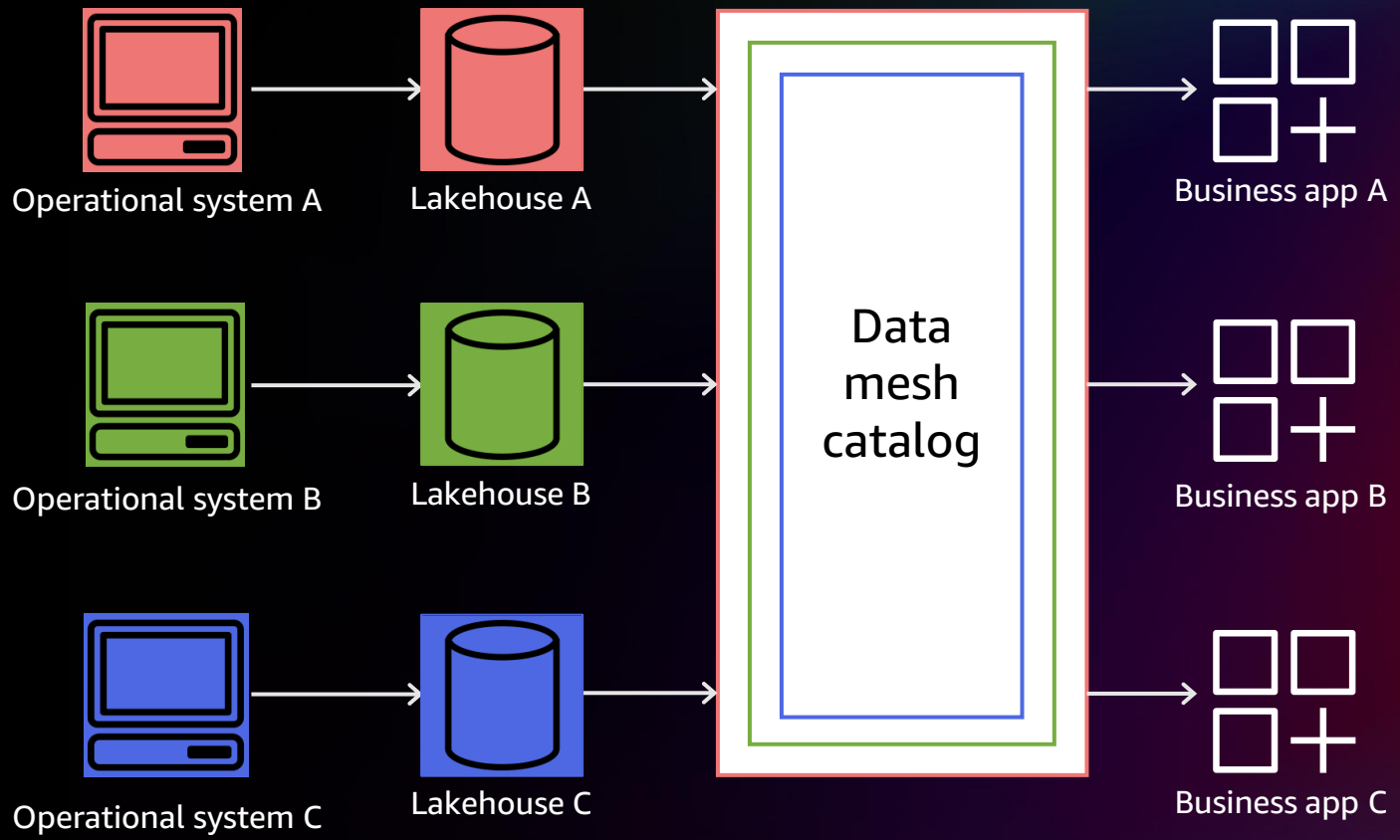


Data governance

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Fannie Mae: Data lake evolution



Automated data products

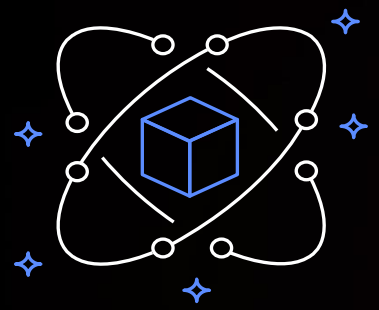
Cross-account data sharing

Centralized control plane

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Source: Fannie Mae Data Mesh Blog

JPMorgan Chase objectives



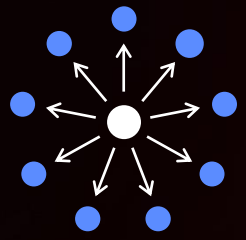
Democratize data



Data speed



Governance & control

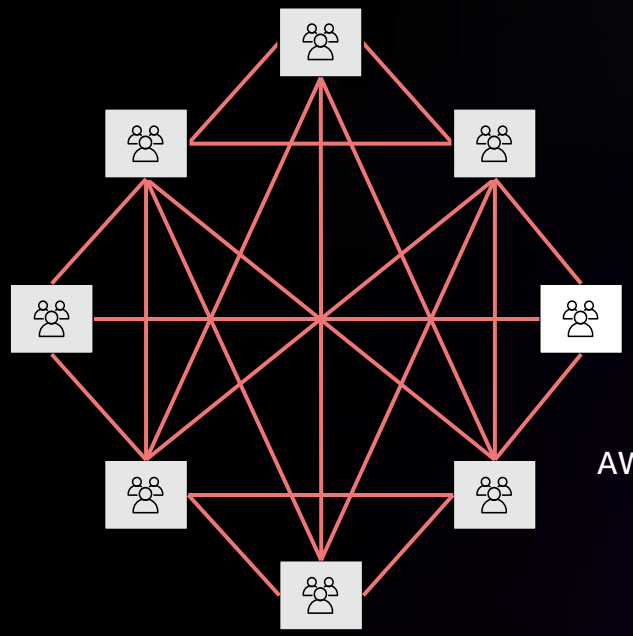


Do it all at scale

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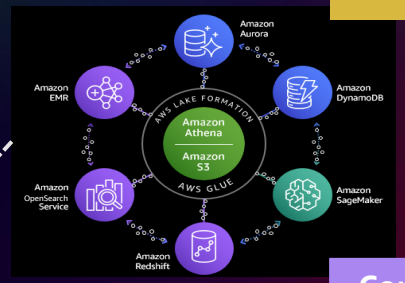
JPMorgan Chase: Data lake evolution



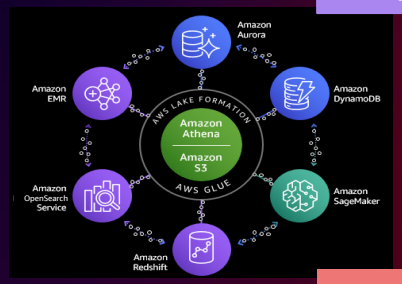


AWS Lake Formation

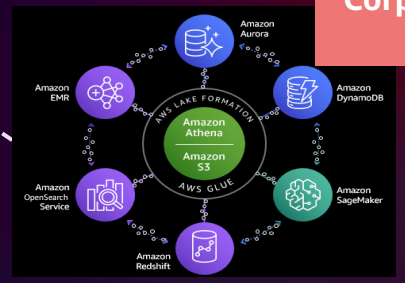
Consumer bank



Corporate technology



Corporate investment bank



Line of business autonomy

Enterprise data products

Federated governance

Central data discovery

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Source: JPMC Data Mesh re:Invent 2021

Q&A

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Thank you!

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