INNOVATE

DATA EDITION

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Productize your data to deliver new value and revenue

From projects to products - Ingredients for accelerated data product development

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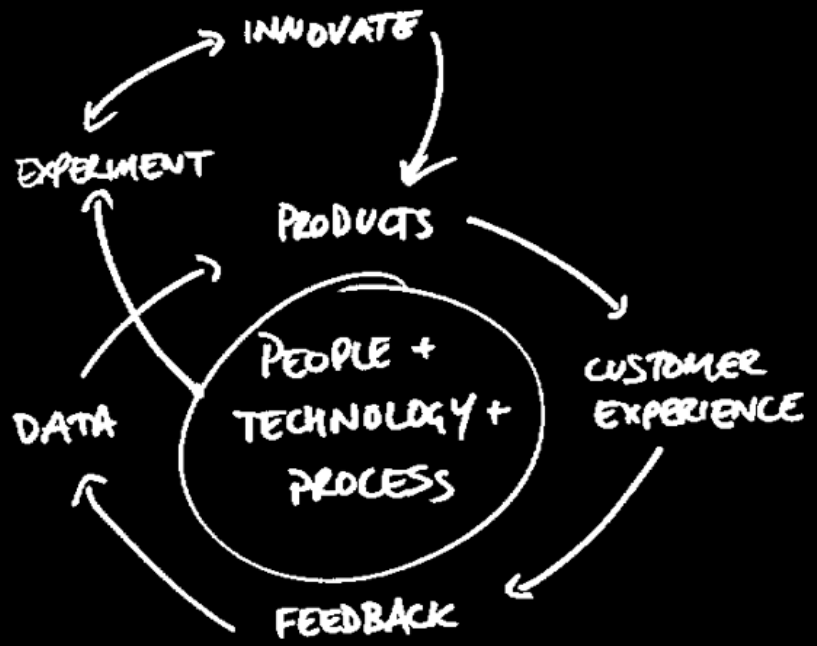
Agenda

- The data-driven organization
- Characteristics of being data-driven
- Importance of establishing technology foundations
- Aligning for data product development
- Driving data literacy to the organization
- Getting started with AWS

The data-driven organisation

An organization that harnesses data as an **asset**, to **drive sustained innovation** and create **actionable insights** to **supercharge the experience** for their customers so they **demand** more.”



Tenets of a data-driven organization

1	Strategic	Using data to improve performance	• Data (and related functions) is seen as a strategic asset, with economic benefit • Smart strategies and funding models in place towards data acquisition and monetization
2	Embedded	Data DNA	• Business opportunities are viewed from a data perspective • A methodology exists to support and nurture data-analytic thinking across the organization
3	Capability	Business led analytics outcomes	• Organisation has the right data and analytics talent to meet demands (analytical minded) • Culture where data scientists/product developers can thrive (experimentation based model)
4	Supported	Training / Culture / Technology	• High trust model, across data accessibility and ability to run experiments • Investment and formal training programs and opportunities to innovate in the front office • Data consumers benefit from open access to data and data platform technologies

Data-driven outcomes

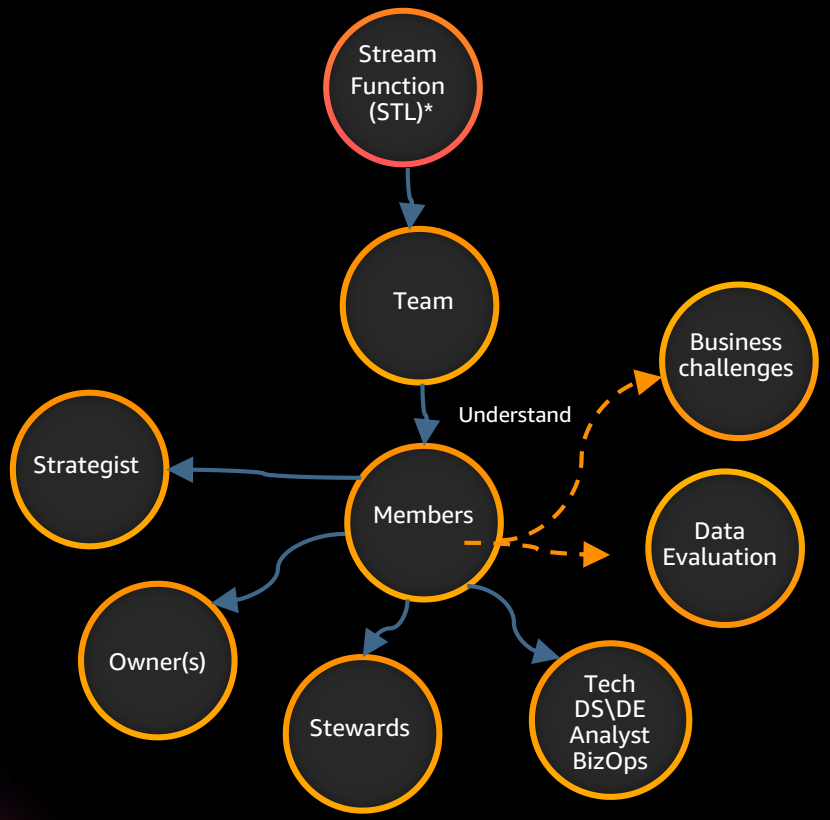
1	Tenets *Strategic*	Set priorities, enables, and tracks progress	• Light programme management , use tenets as a framework for decision making
2	Products *Embedded*	Deliver business value	• Establish domain driven product teams to own end to end delivery of data products
3	Data *Capability*	Data quality, security and metrics	• Establish policies and data governance standards to enable ease of data use across your business units/teams
4	Platform *Supported*	Build leverage	• Establish common capability for security, privacy, compliance and access controls to allow for repeatable development development standards towards data product development

Transforming Teams

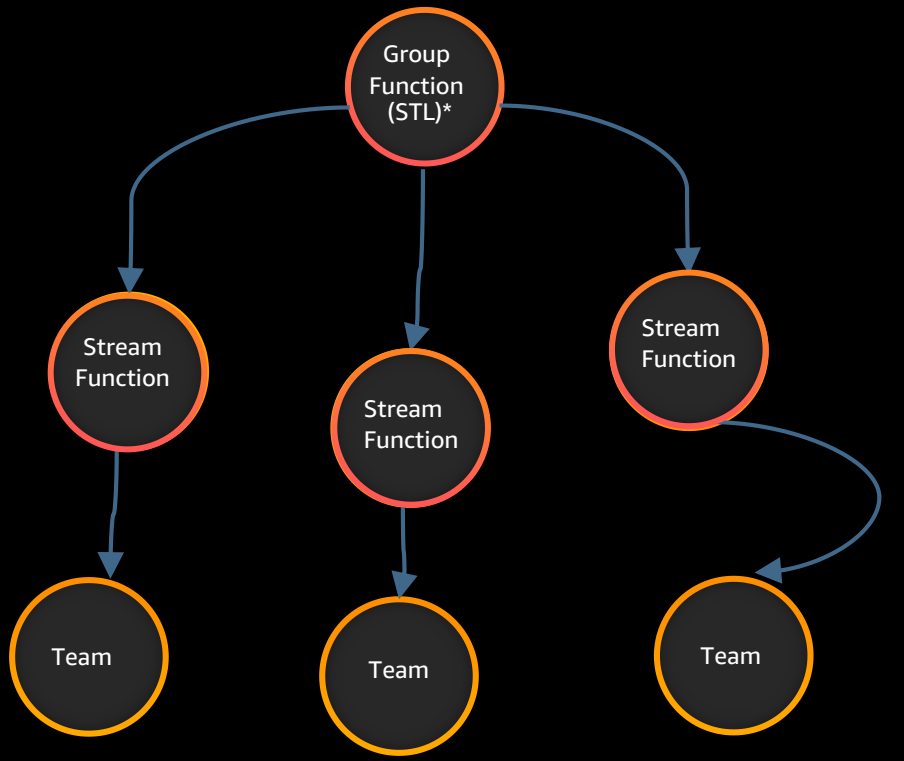
From Project		To autonomous data product teams
Data is a byproduct of process	→	Data drives value – e.g., customer and employee experience
Functional silos	→	Cross-functional teams with end-to-end ownership
Hyper-specialized teams	→	Data savvy business with product mindset
Rigid roles and responsibilities	→	Test and learn, fail-fast and be curious
Risk-averse policies	→	Respect risk red lines while moving with speed to embrace change
Multi-level approval process	→	Teams with autonomy, purpose and passion

Data team topology – cross functional

Stream aligned team

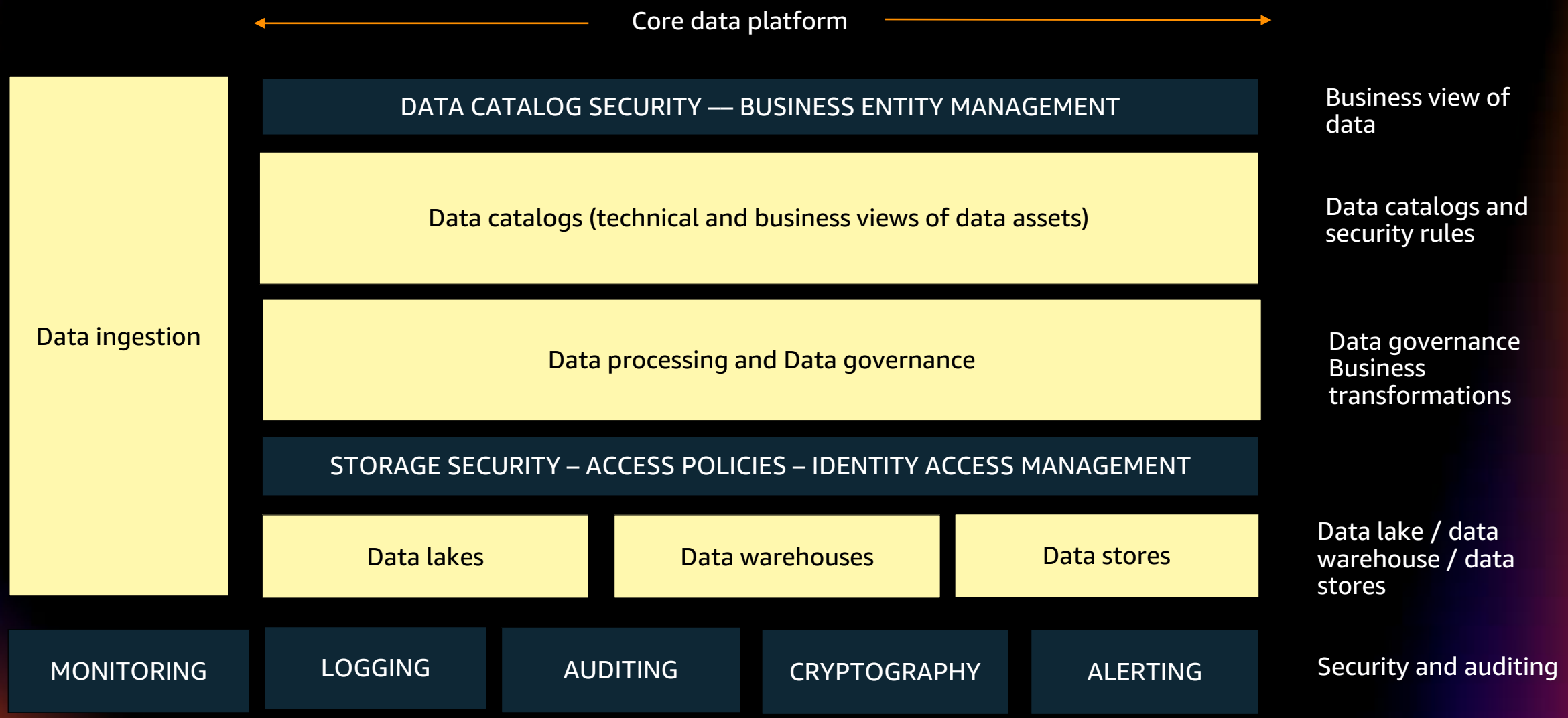


Team of teams



*STL - Single Threaded Leader

Data platform blueprint



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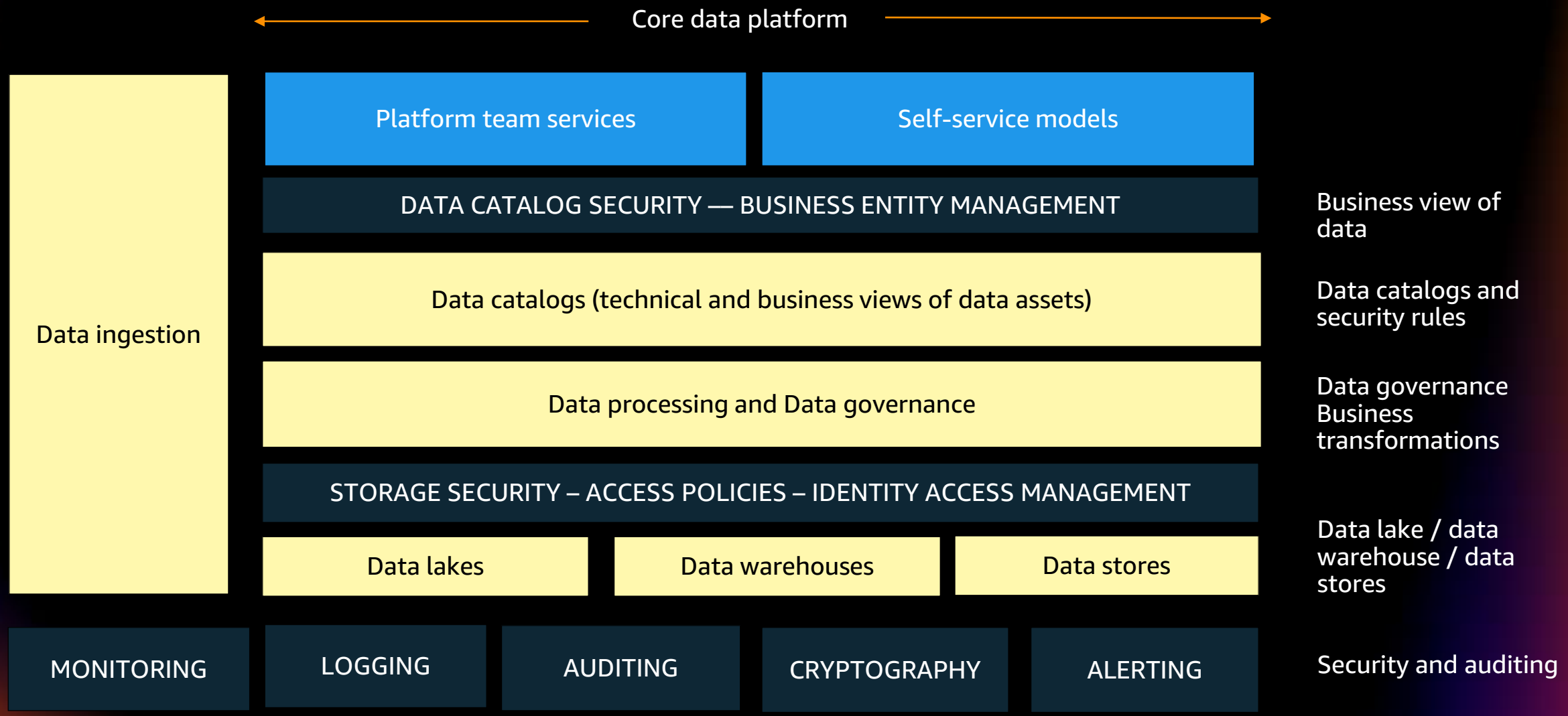

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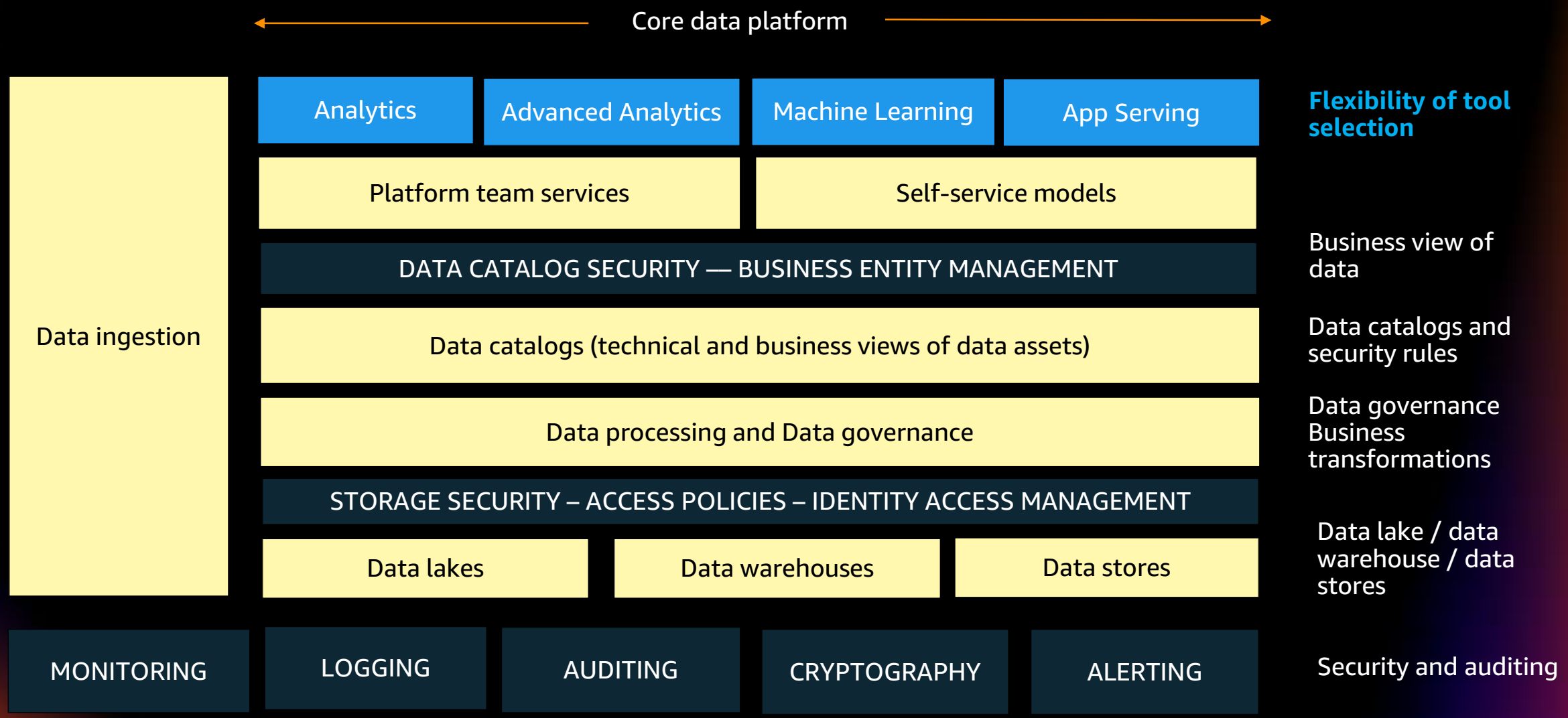

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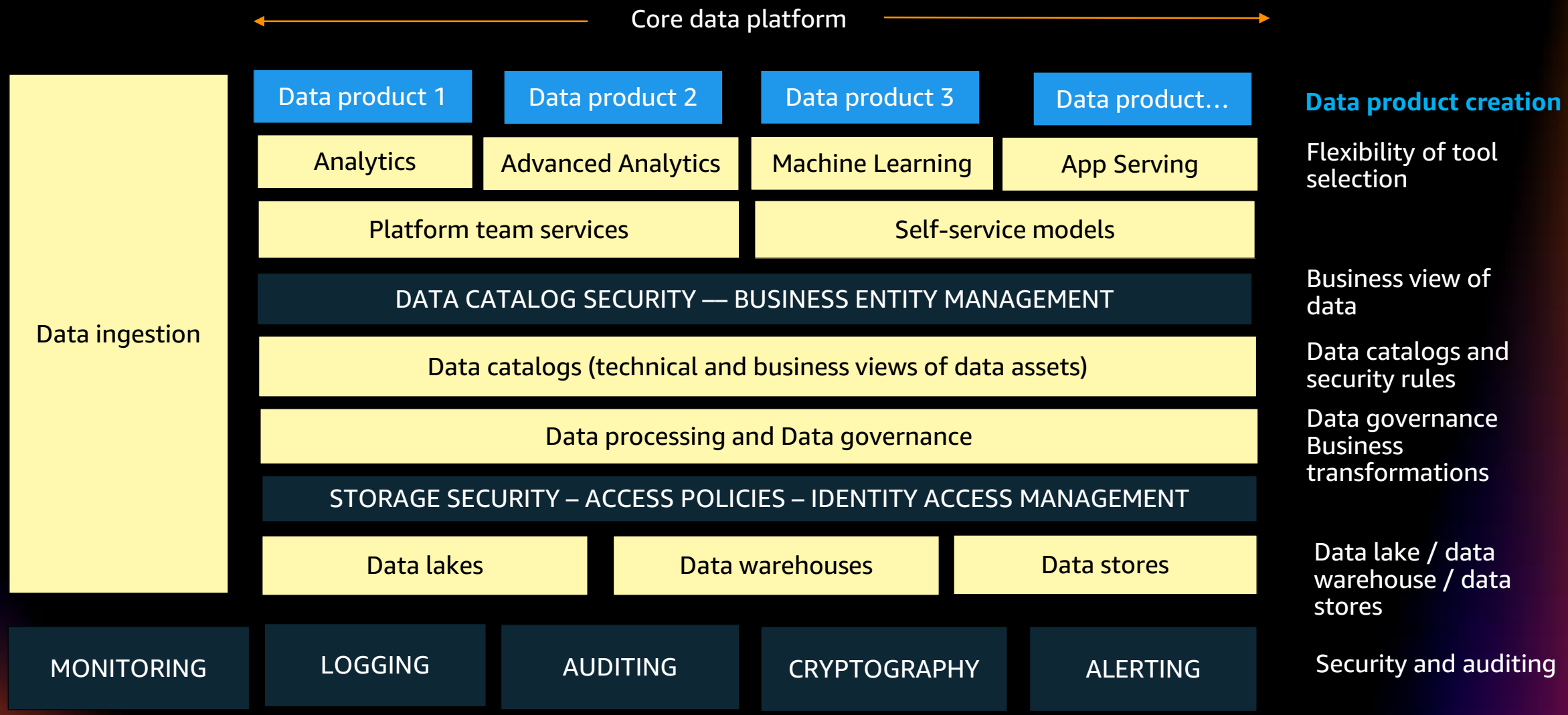
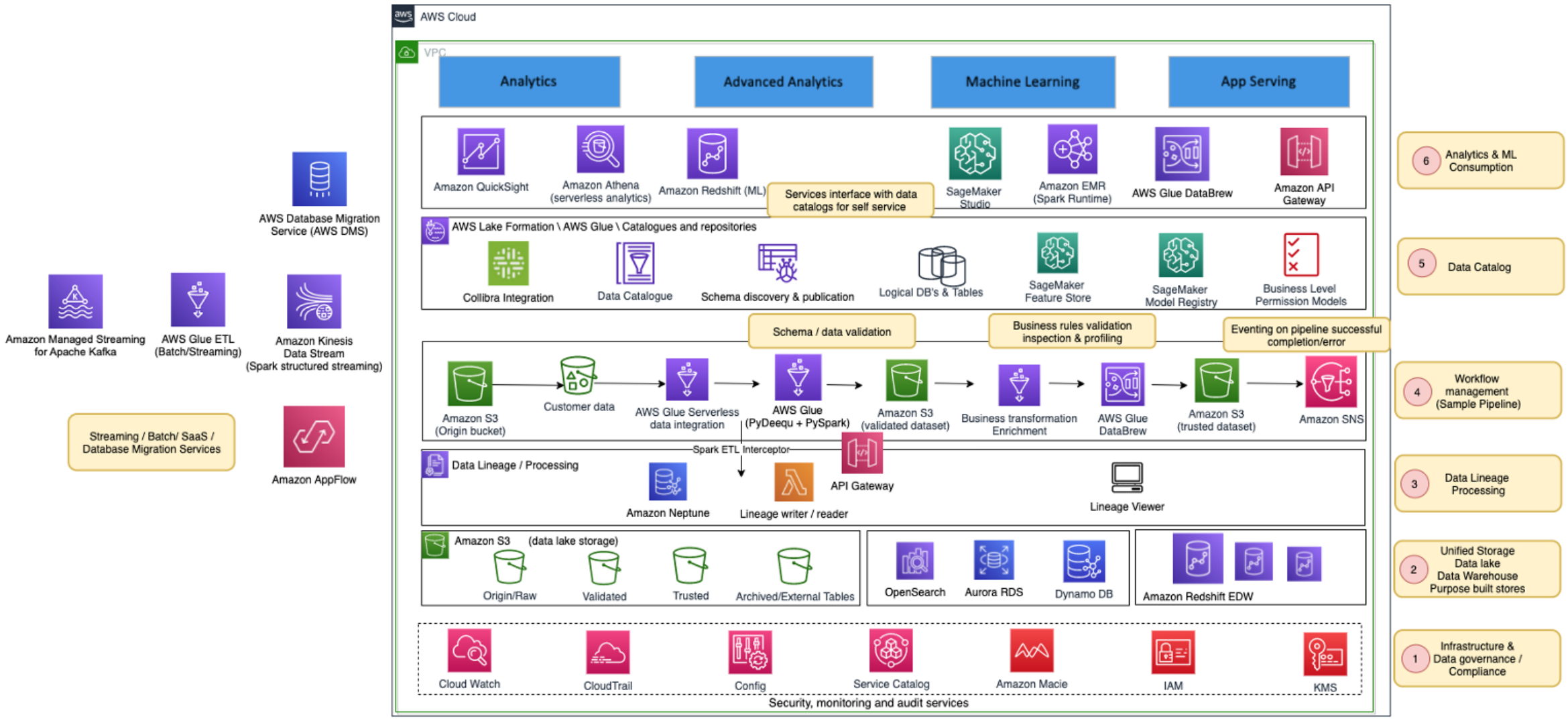
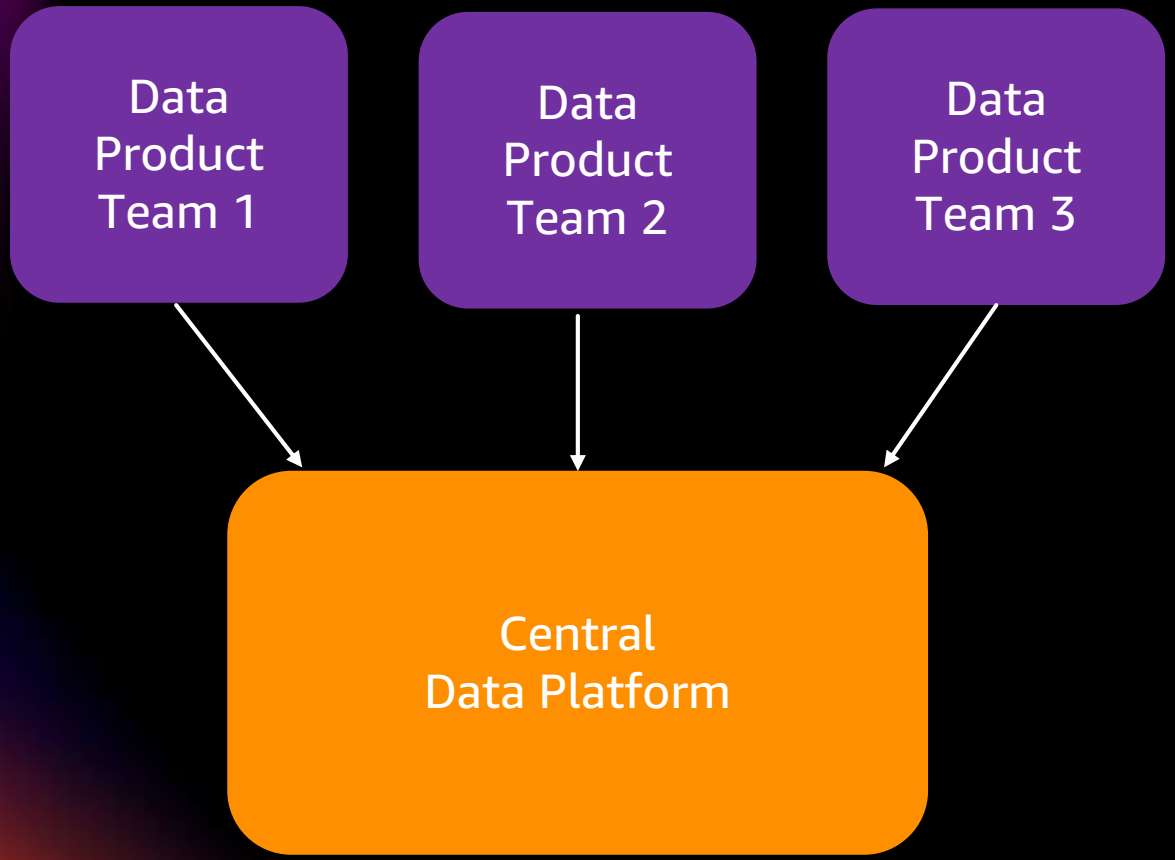


Technology view



Conceptual approaches to platform models

Centralized



Top-down organizations that are fully coordinated from a central management level with basic self service capability for consumption.

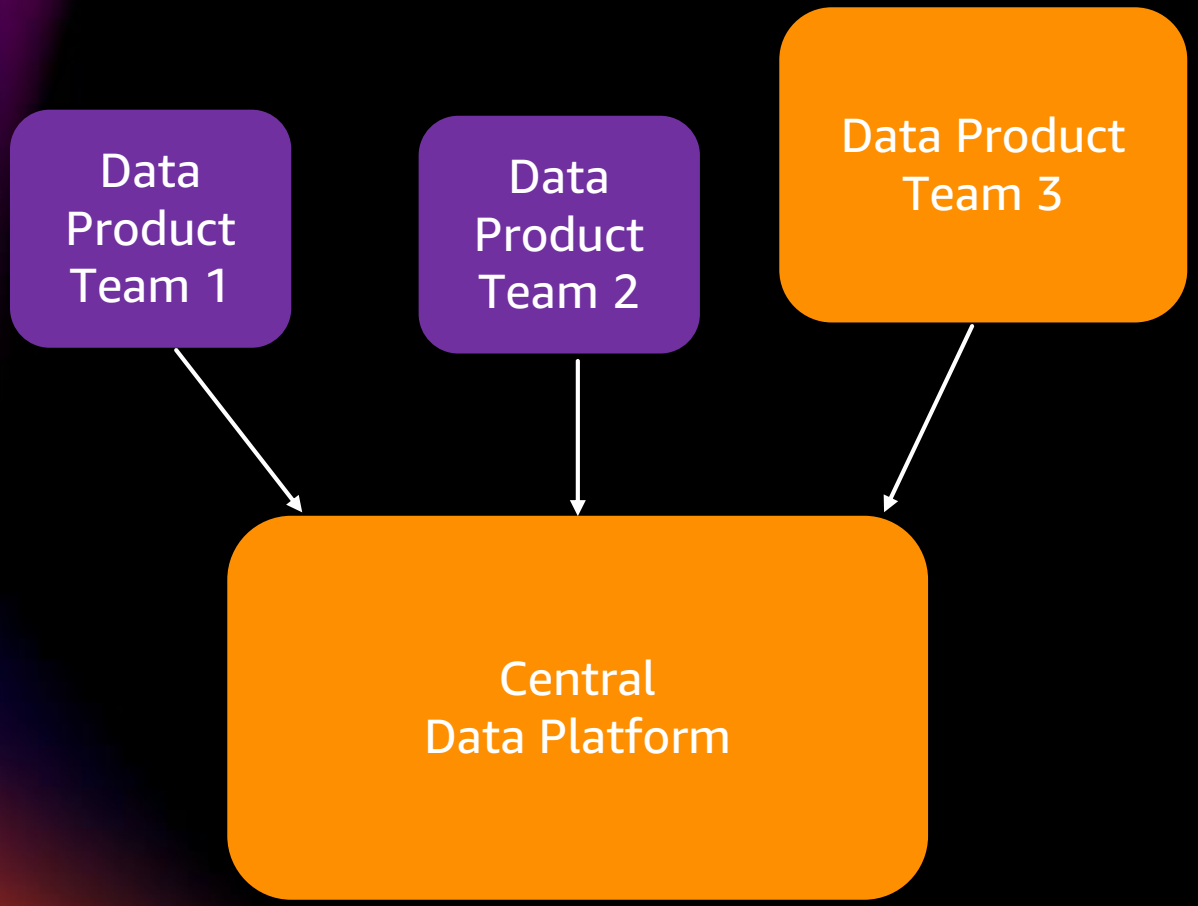
- Business domains have independence towards toolset selection and governance over approved delegated datasets. Enables domain owners to own who has visibility and access of datasets.

- Platform team responsible for dataset onboarding and permission model implementation and domain access delegation.

- Defines and implements platform controls focused on auditing and monitoring, security controls, data governance policy enforcement, data quality and verification controls and platform health against business metrics.

Conceptual approaches to platform models

De-centralized



A state between centralization and decentralization where functions of the organization are *purposefully* centralised

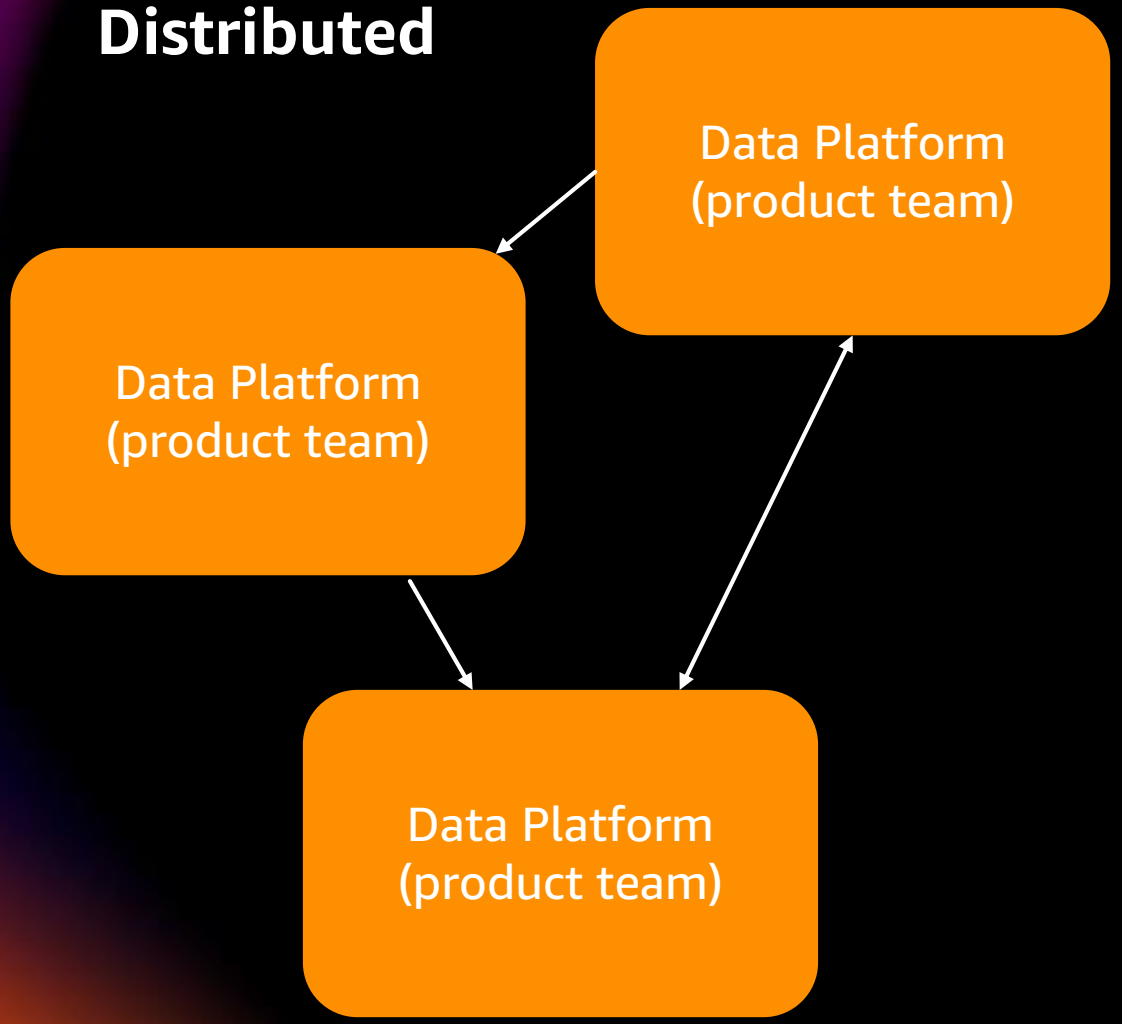
- Progressed business domains have their own data platform environment. While working within a organisational governance model, data teams will have greater control of policy implementation and toolset selection..

- Central data platform remains and holder of enterprise assets (ML models, reports and governance policies)

- Provides publish and subscribe facilities between other data product teams and de-centralized business domains.

Conceptual approaches to platform models

Distributed



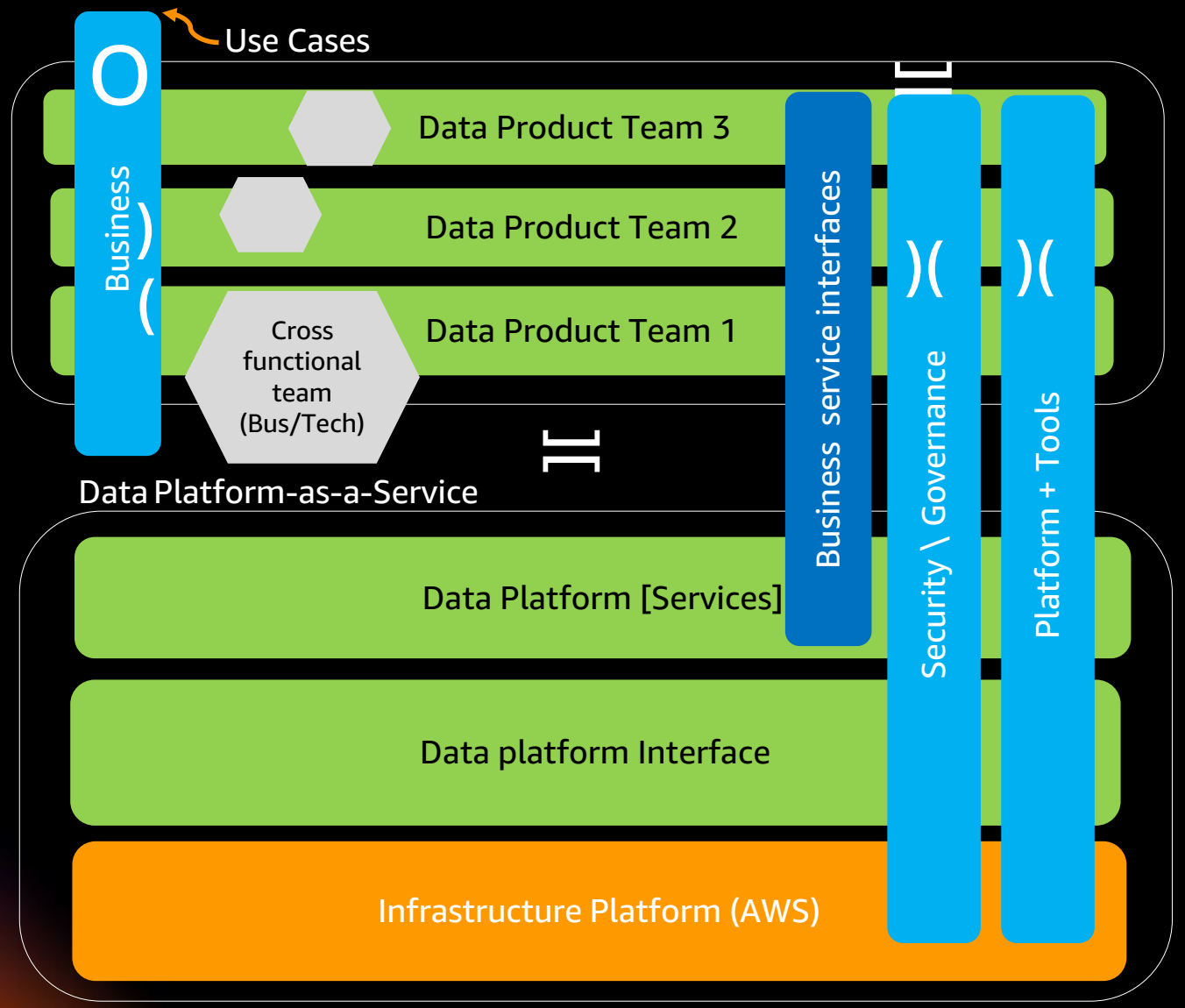
Organisations with autonomous distributed decision making, occasionally prioritizing overlapping initiatives and managing dependencies between teams

- Progressed organisations with a high level of data and product maturity with the need to work autonomously.

  interoperability across business domains remains.

- Each team has ownership across data infrastructure , toolsets and internal processes for product development while remaining aligned to business objectives , compliance and governance policies.

Data teams “Team Topologies style”



Key:

Stream-aligned team – A team with a business-aligned objective

Business Interface Services
Enables data service interfaces between business outcome focused capability and technical capability

Enabling Team - An Enabling team helps a stream-aligned team to overcome obstacles.

Complicated Subsystem Team – A team with specialist skills that facilitate acute functionality

O Collaboration

)(Facilitating

][Federated Service (i.e. data product-as-a-Service

Data teams interactions

Data Platform Team

- Provide data infrastructure and data services to facilitate creation of data products
- Operations and data management support
- Centre of Excellence (org wide policies – privacy / security …)
- Build out user experiences / accelerators / evangelism (business interfaces)
- Organizational wide data producer

Data Product Team

- Multi disciplinary team , full stack
- Alignment across with Business & IT
- Data stewardship versus ownership
- Intricate domain knowledge
- Clear roles and responsibilities with Single Threaded leader (STL)
- Learning by doing and iterating

Driving data literacy to the organization

People & Culture

- Foster data culture through top-down leadership principles and use of metrics in business decisions
- Survey your users, understand the “Cant’s”
- Implement problem/opportunity framework
- Instill story telling that combines human insight with underlying data to convince, convey or empower individuals

Learning mechanisms

- Run enablement sessions / learning and partnering (Immersion days / Game days)
- Design a data product review (DPR) process. (Use Case Definition, / Metrics / Feedback/ Usability / Learning)
- Communities of practice / champion teams
- Class/online based learning programs

Recommendations

- Think big, start small, scale fast.
- Work backwards from customer challenges.
- Foster data literacy through leadership principles and daily use of metrics in business decisions.
- Form a multi-disciplinary teams including business, technology, and data skills.
- Incentivize your data producers by creating metrics on the availability and completeness of their data.
- Build a community, celebrate success by publishing blogs and writing stories about what you're doing.
- Automate tasks to increase adoption.

Want to build a data vision and strategy?

aws data-driven everything

Joint engagements with business and technology stakeholder alignment

Create an organizational vision for innovation with data to drive business outcomes

Define the first pilot, learn, and build

Jumpstart the data flywheel

Have a strategy and need help executing it?

aws data lab

Joint engineering engagements between customers and AWS technical resources

Create tangible deliverables to accelerate strategic databases, analytics, and ML initiatives

Leave with an architecture, working prototype, path to production, and deeper knowledge of AWS services

Come with an idea, leave with a solution

aws

Visit the AWS Data resource hub

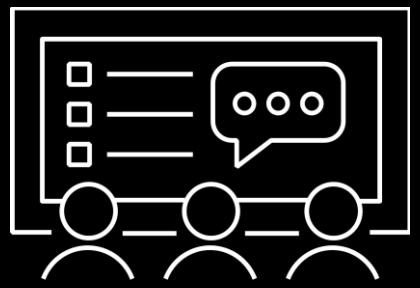
A modern data strategy can help you manage, act on, and react to your data so you can make better decisions, respond faster, and uncover new opportunities. Dive deeper with these resources today.

- Harness data to reinvent your organization
- In unpredictable times, a data strategy is key
- Make data a strategic asset
- Rewiring your culture to be data-driven
- Put your data to work with a modern analytics approach
- … and more!

https://tinyurl.com/data-hub-aws

Visit resource hub

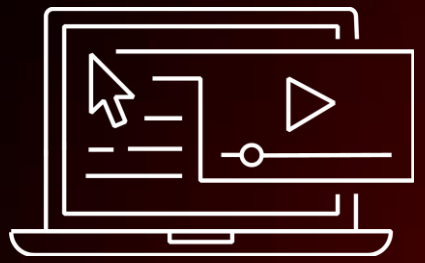
AWS Training and Certification for Data and Analytics



AWS Data & Analytics FREE Training Resources

Discover how to harness data, one of the world's most valuable resources, and innovate at scale.

https://bit.ly/3Ntlhy7



AWS Data Analytics Learning Plan

This learning plan expose you to the fastest way to get answers from all your data to all your users. It can also help prepare you for the AWS Certified Data Analytics - Specialty certification exam.

https://bit.ly/3wBVjD1

AWS Certified Data Analytics - Specialty

Earning AWS Certified Data Analytics – Specialty validates expertise in using AWS data lakes and analytics services.

https://go.aws/3lwF0RR

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Thank you!