

PRESENTATION

AI-Ready Data Storage Infrastructure From Data Logistics to Data Trust

3:15 PM - 3:40 PM



PRESENTER

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Today's Topics

- 1 Defining AI-ready Data Storage Infrastructure
- 2 Understanding the Context
- 3 The Role of Data Trust
- 4 IT Priorities

Defining AI-ready data storage infrastructure

Hardware, software, and services

- *Prepare, ingest, store, manage, protect, secure, govern*, and move data to address the requirements of artificial intelligence applications

Service levels to support AI workloads

- Performance and system availability

Data services

- Data quality related attributes, such as trust and provenance
 - Post-analysis data disposition



“

We struggled to identify a single source of truth in our data, and inadequate data governance was a significant challenge. Data fragmentation across different fields made collection and curation difficult.”

UK Telecommunications Company

Infrastructure Architect



IDC QualBoard research

AI-project **success** factors:

High-performance NVMe, low latency, high throughput, seamless cloud integration

AI-project **failure** factors:

Inadequate data governance, unacceptable latency and insufficient IOPS, inadequate metadata indexing, and data silos

Key **challenges**: compliance and data regulation and system scaling



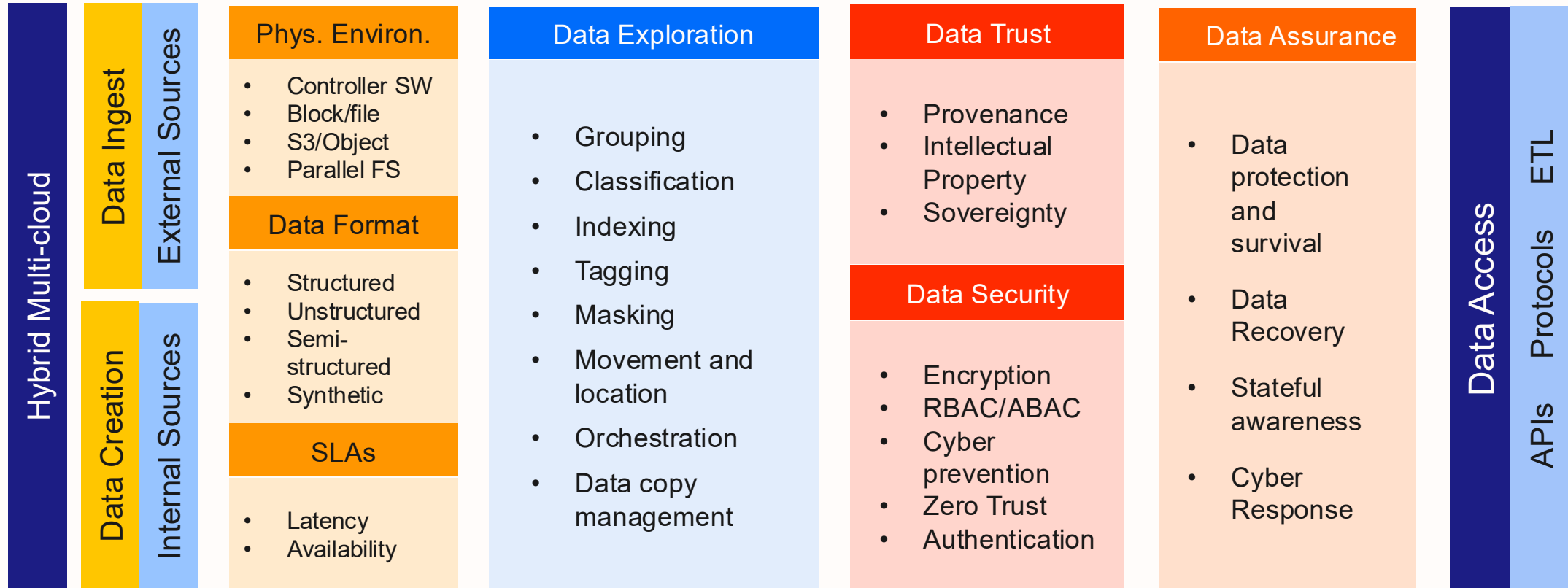
“

Data silos preventing usage, inadequate data governance, and insufficient data volume were major challenges. Additionally, the underlying file system lacked performance and scalability, impacting AI project outcomes.”

USA Manufacturing Company
Infrastructure Architect



AI-ready data logistics, ingest to access



Ingest

Store

Manage

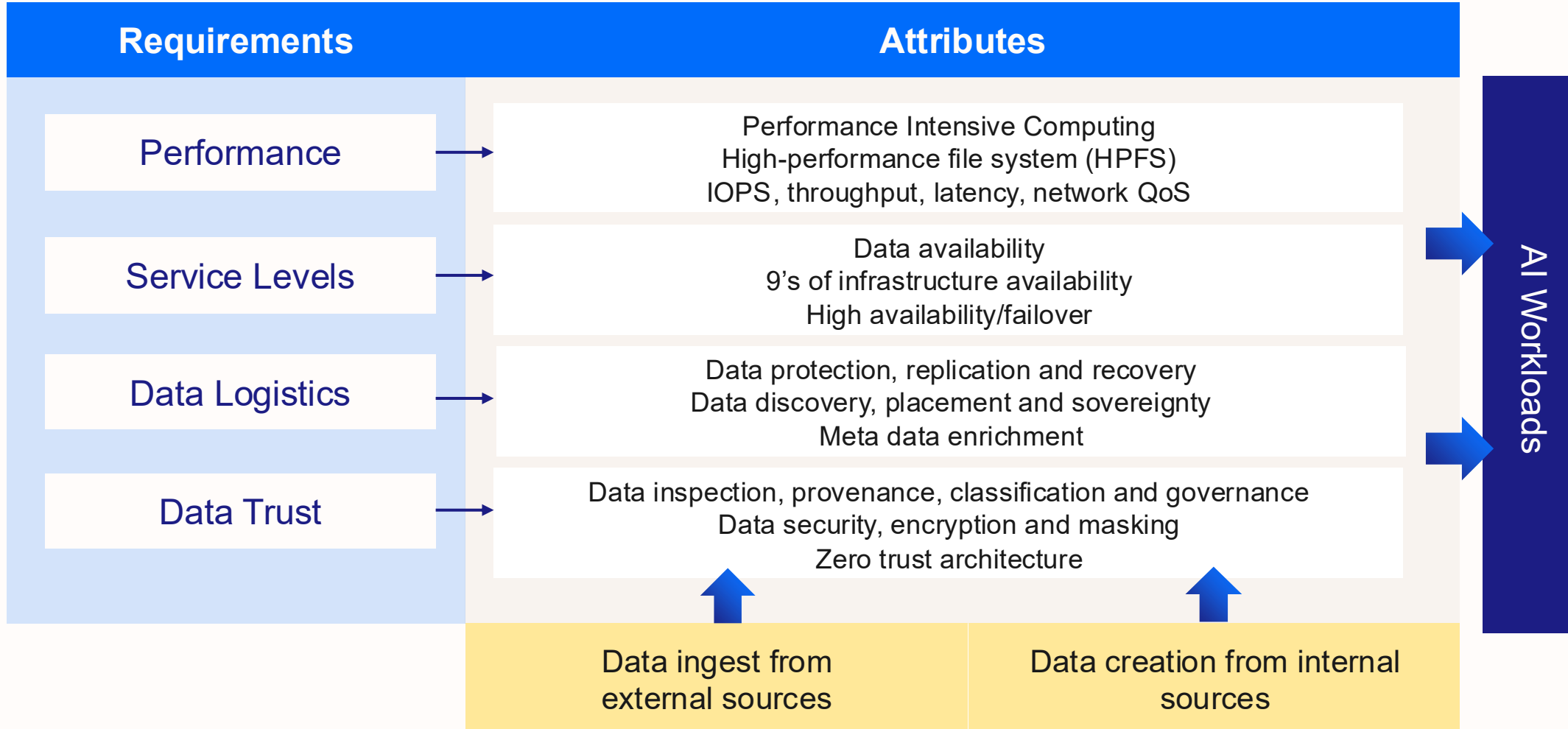
Secure

Protect

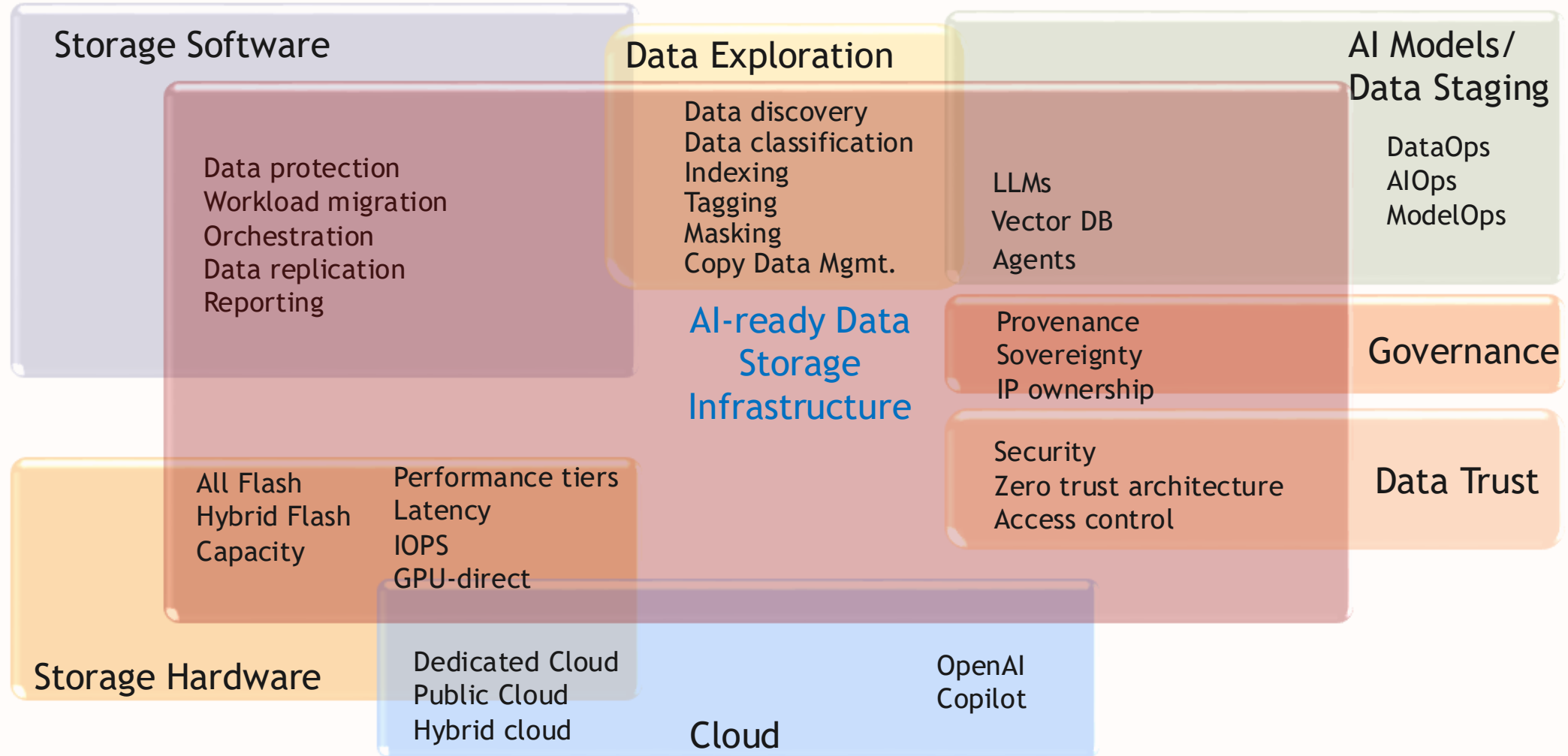
Access



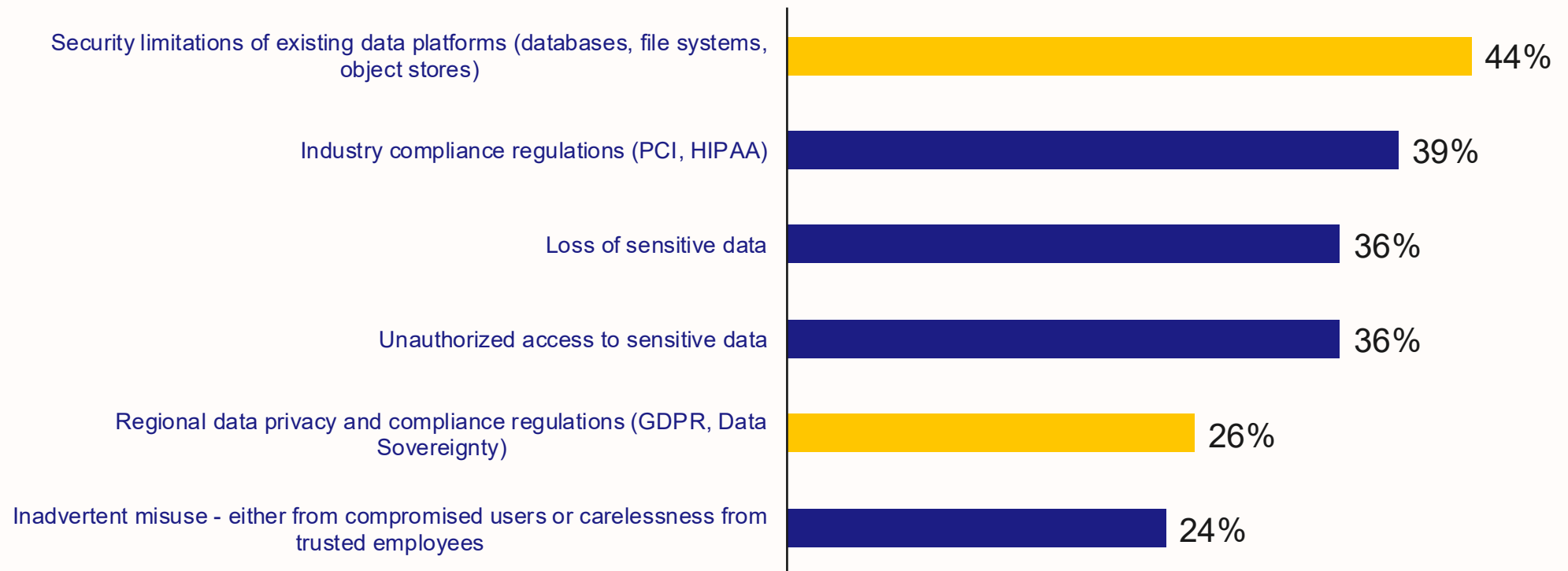
AI enabling data infrastructure



AI-ready data storage infrastructure ontology

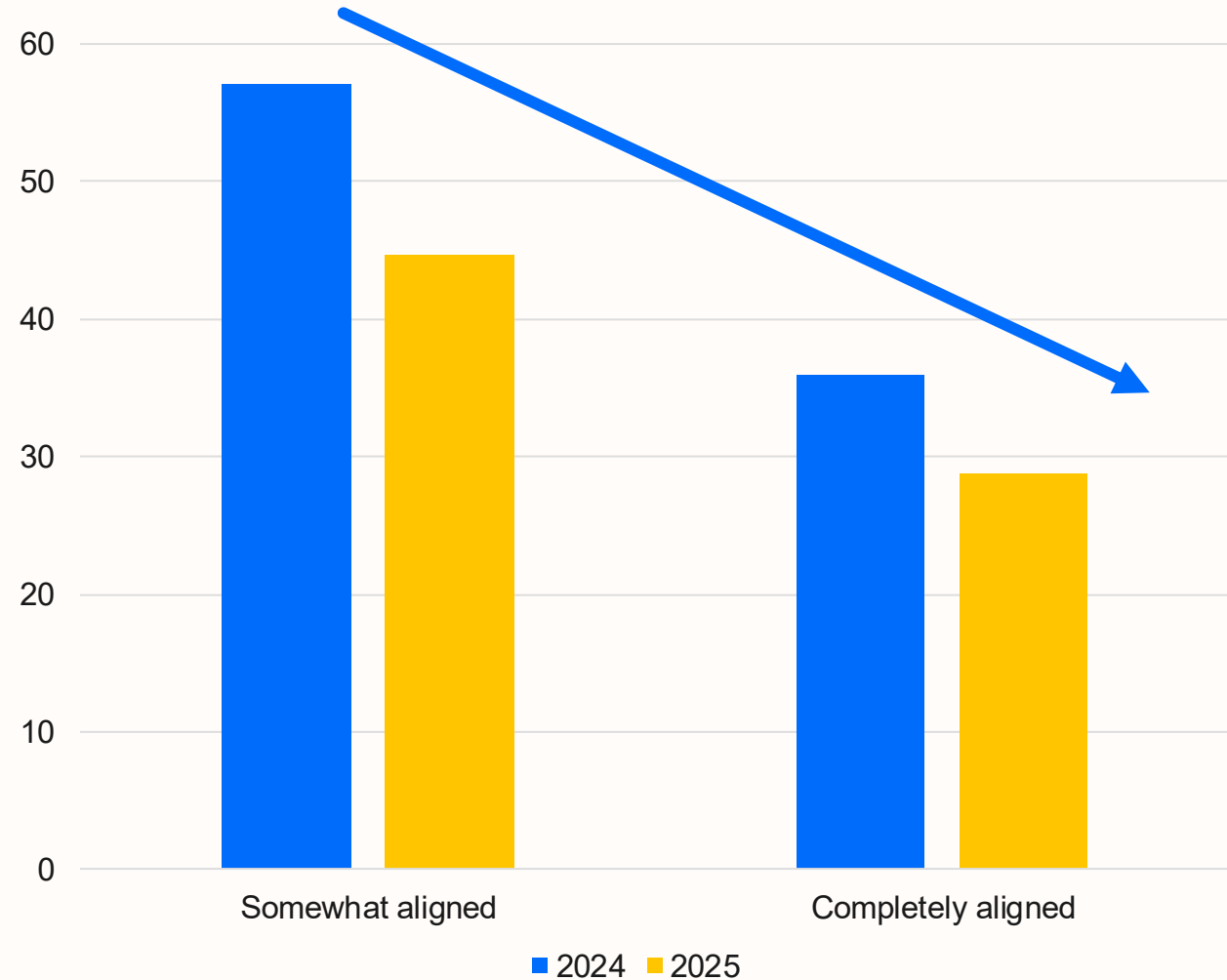


Compliance and infrastructure limitations are the biggest security hurdles for Agentic and GenAI implementation.

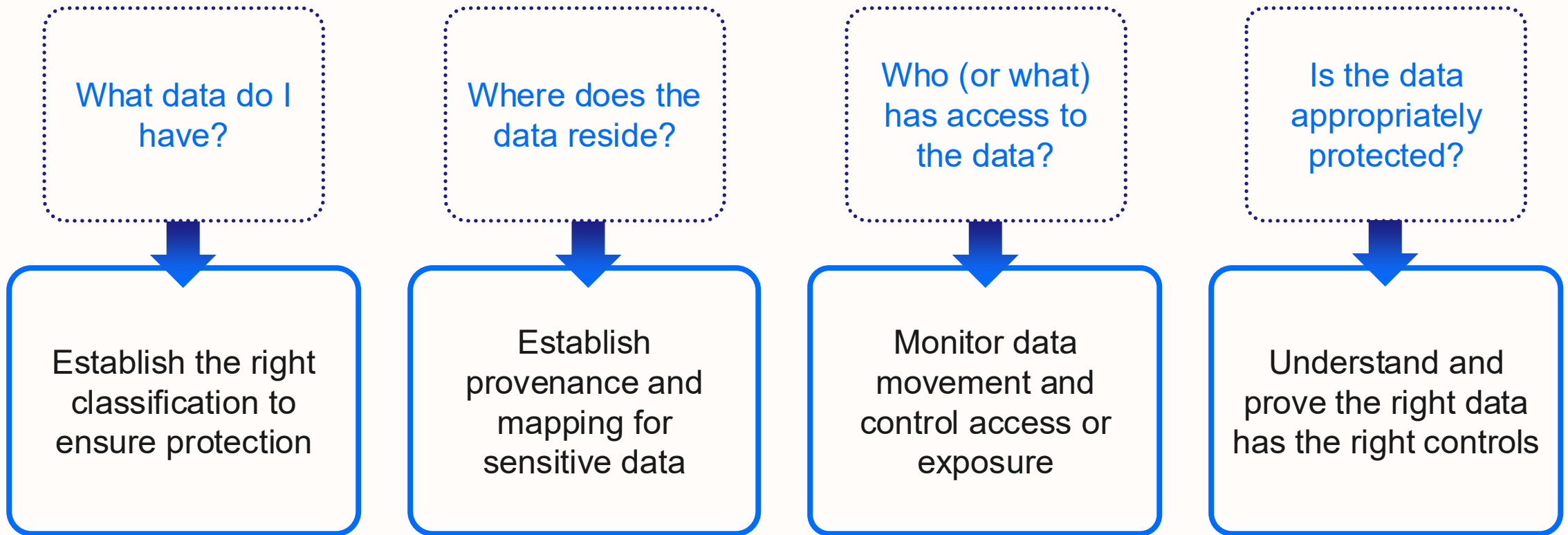


Q: Which of the following data security concerns, if any, limit your organization from implementing AI and Agentic AI?
Source: IDC [IT Data Management Quick Poll Q1](#), February 2026
N=107

How aligned are the company's business objectives and goals for GenAI with that of security?



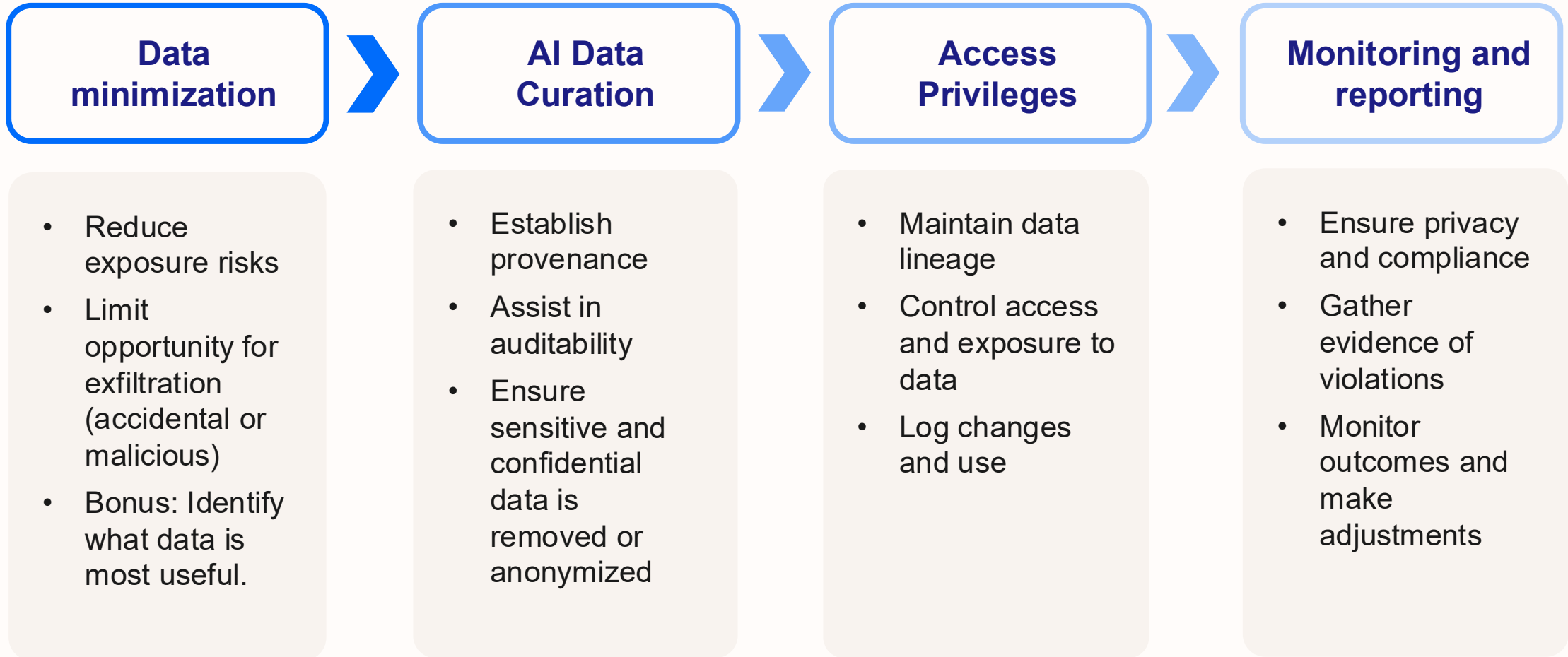
Successful AI outcomes require trusted data



...trusted data requires security, privacy and compliance.



Security milestones for AI-ready data



IT AI-ready data storage infrastructure priorities

- Hardware modernization – high throughput, low latency storage systems^{1, 2}
- Automated data management¹
- Compliance/Governance^{1, 2}
- Cyber resilience²
- Data security²
- AI model protection²

¹ Source: IDC AI-Ready Data Storage Infrastructure QualBoard, n=12, July 2025

² Source: IDC AI-Ready Data Storage Infrastructure WW Survey; Read Out of Findings, n=1029, doc #US53856625, October 2025



Summary

Infrastructure Modernization

High throughput, low latency, GPU optimization, HPFS

Data Management

High-quality data, single source of truth

Data Trust

Governance, Security, Cyber resilience



 IDC
The logo icon for IDC, consisting of five horizontal white bars of varying lengths, creating a stylized globe or sphere.

DIRECTIONS

The word "DIRECTIONS" in a bold, white, sans-serif font. The letter "O" is replaced by a stylized globe icon, which is a yellow circle with a blue arrow pointing to the right, set against a blue background.