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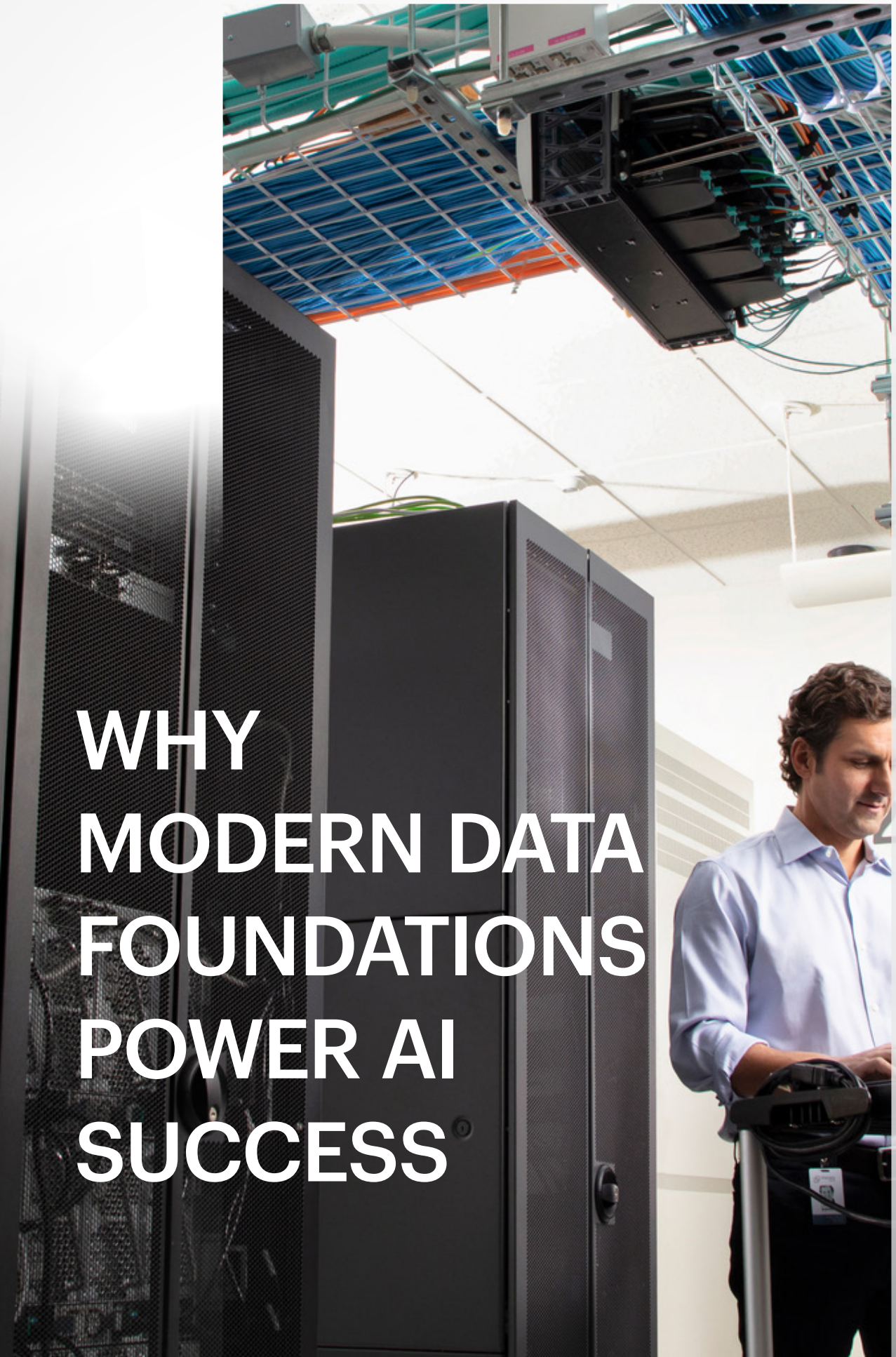


WHY MODERN DATA FOUNDATIONS POWER AI SUCCESS

Powering AI everywhere: The case for data modernization

AI needs a data ecosystem built for speed, scale, and resilience. By creating a modern foundation that unifies storage, compute, and AI-ready data, organizations can transform insights into action that keeps pace with an ever-evolving world.

At a glance

- **Modern data foundations are critical:** AI success depends on a unified data ecosystem that combines clean, accessible data, high performance compute, and resilient architecture—enabling real-time intelligence across the business.
- **Confidence vs. capability gap:** While many organizations believe they're AI-ready, HPE research shows most still struggle with real-time data access and preparation, slowing innovation and limiting ROI.
- **Four best practices to close the gap:** Key strategies include improving data accessibility, modernizing storage with hybrid cloud solutions, automating data governance, and building resilience against security and operational risks—laying the groundwork for scalable AI adoption.

To scale AI-led innovation seamlessly and without compromise, a modern data ecosystem is essential. This is because AI has moved beyond centralized training in isolated data centers and is now embedded directly within business processes. Instead of being locked in a single training phase, AI continuously learns and adapts in real-time—reliant on a modernized data core to deliver the ongoing intelligence we expect.

Building this foundational core means creating AI-ready data—organized, cleansed, stored, and accessible across hybrid environments from edge to cloud—supported by GPU-enabled compute within a secure, reliable operating system.

Are such foundations already in place? And if not, what steps should organizations take to lay them? This report reviews current data capabilities and offers best practices to enable AI-ready data success.

Mapping current data capabilities

Recent HPE research from One year on: Architecting an AI advantage gleans insights from IT leaders on enterprise AI progress. These insights reveal that, while many organizations are confident in their AI readiness, data maturity remains surprisingly low.

> **"Our data is scattered across multiple systems and business units, with inconsistent formats and missing governance, making it very difficult to prepare it for AI projects."**
>
> — **Healthcare chief data officer**, on the barriers to supporting AI

Far from being in the initial AI-preparation stage of their AI journeys, 22% of IT leaders say their organization has already operationalized AI and 41% believe they are only one step behind this—productionizing AI and running deep learning applications.

And yet only 45% of those same surveyed leaders agree their organization can run real-time data pushes or pulls, and fewer than 60% say it can fully handle most key stages of data preparation. This gap in belief versus capability leads to delayed business benefits, unusable AI results and rising stakeholder frustration.

The picture around data preparedness is clear—businesses aren't as caught up as they need to be, and their AI projects will suffer as a result. So, what should organizations do to prepare? Below, we share a list of best practices.

Best practices for AI-ready data

01: Address data accessibility: Enable enterprise data scientists to find and access all relevant data sources in real time. Only 41% of surveyed IT leaders have set up shared data models with centralized business intelligence, meaning access to data will be unequal across the business. Best practice requires an overarching data-first and AI-ready platform architecture that brings all data together across applications and locations (from edge to cloud), unifying access no matter where data resides.

> **"Ensuring consistent data across multiple platforms is a challenge; we are actively working towards centralizing data to address this."**
>
> — **FSI IT ops leader,** on the need for centralized business intelligence

02: Modernize data storage: To enhance speed and relevance, we need to bring data closer to compute with integrated intelligence services. The problem with legacy storage systems is that they aren't built to support modern AI workloads—a fact that is recognized by 86% of IT leaders who say their organization is focused on extending storage technology for AI. The architecture you choose also makes a difference. Hybrid cloud architectures offer the flexibility and scalability needed for AI data storage, giving you the ability to spread out your storage wherever data is generated or ingested. Currently, only 46% of IT leaders are opting for hybrid solutions to meet this need.

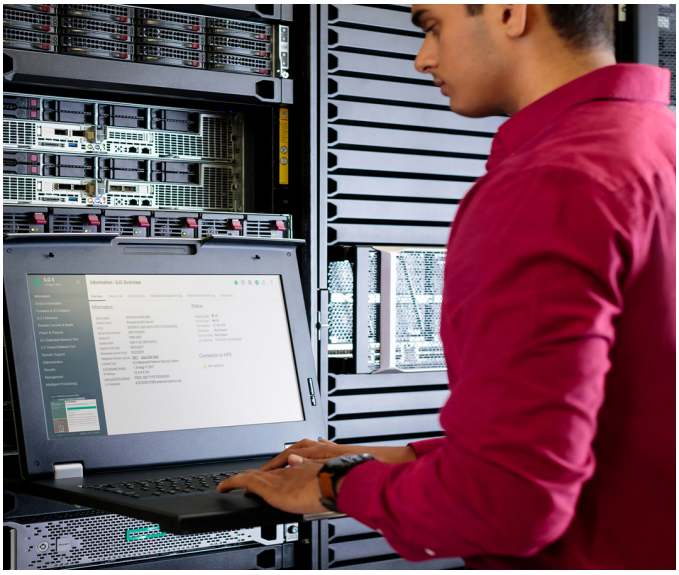
> **"Many of our applications are legacy systems not designed for AI and upgrading them would require significant investment in storage and integration efforts."**
>
> — **Manufacturing cloud architect,** on key data challenges

03: Automate data governance: Though team members like your chief technology and data officers should play a role in initial data classification, you can now use AI algorithms to cleanse data, address inconsistencies, and enforce smart, automated governance policies before it is used to train AI models.

> **"We need stronger data governance and clearly defined policies."**
>
> — **Architecture, engineering and construction CISO,** on data access delays

04: Build resilience: Almost three-quarters (74%) of IT leaders are concerned about their organization's ability to secure AI datasets. It's critical that businesses protect and automate their data quality processes to safeguard AI initiatives from cyber threats, hardware failures, and operational challenges. Actions to take here include building in backup, redundancy, and disaster recovery protocols

> **"We're strengthening data protections and running regular security checks to stay ahead of risks."**
>
> — **Retail cross-LOB executive,** on data leakage concerns



Strategic upgrades unleash ROI

Establishing an AI-ready data foundation is a strategic imperative for organizations aiming to thrive in the era of AI. Seamless access, management, and security of data across hybrid environments will determine who can innovate and adapt at speed.

HPE research highlights a persistent gap between perceived AI readiness and actual data maturity. Many organizations still struggle with real-time data access and preparation, stalling AI initiatives and limiting the value derived from advanced analytics. Closing this gap requires best practices: unifying data accessibility, modernizing storage infrastructure, automating data governance, and building resilience against evolving threats and operational volatility.

By investing in scalable, intelligent data management and storage solutions, organizations can unleash the full potential of AI—accelerating innovation, enhancing productivity, and enabling new business models. Ultimately, data excellence is not just a technical goal but a foundational pillar for long-term business success. Those who prioritize a robust, unified data foundation today will lead and transform their industries tomorrow.

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