

# Dell AI Data Platform: Unlocking AI's Potential with Your Enterprise Data

## Why Dell

### Open

Empower seamless integration by supporting diverse databases and file formats allowing an IT stack to evolve over time.

### Flexible

Enable efficient scalability by accessing data at its source, allowing for the necessary expansion required to accelerate the deployment of AI models.

### Secure

Proactively protect data, detect suspicious behavior and neutralize threats as they occur.

### 3-5X

Faster queries<sup>1</sup>

### 40%

Reduction in cluster sizes<sup>1</sup>

### Up to 53%

Reduction in the cost of data analytics<sup>2</sup>

<sup>1</sup> Performance benchmarks based on testing conducted by Dell in July 2024 using TPC-DS 1TB and 10TB datasets stored on Dell ObjectScale against a variety of Dell Data Lakehouse cluster sizes

<sup>2</sup> Cloud Data Warehouse vs. Cloud Data Lakehouse: A Snowflake vs. Starburst TCO and Performance Comparison, published by GigaOm

## The Promise of AI is Realized when it Learns from Your Data

Artificial intelligence holds immense promise, but its true power is only realized when it can learn from your most valuable asset: your own enterprise data. Many organizations find their data locked away in separate systems and silos, creating a significant barrier to innovation. This fragmentation makes it difficult to train AI models effectively, slowing down progress and limiting the insights you can gain. To truly harness AI, you need a way to bring all your data together, securely and efficiently.

The Dell AI Data Platform is a comprehensive solution designed to support the entire data lifecycle for your analytics and AI applications. It provides a unified, modern approach to managing complex data workflows at scale, empowering your teams to turn raw data into strategic assets and accelerate innovation.

## Overcoming Data Challenges for AI

Most leaders agree that training AI on high-quality, proprietary enterprise data combined with externally created data is critical for success. However, Data and IT professionals are challenged to make data available for analytics and AI:

- **Islands of Data:** Information is often trapped in various business silos, from corporate systems and data warehouses to edge locations and cloud environments.
- **Complexity at Scale:** Managing the ingestion, processing, and security of vast and diverse datasets required for AI can be overwhelming for traditional IT infrastructures.
- **Meeting Diverse Needs:** Data scientists, engineers, and IT teams have different requirements, from model training and optimization to ensuring performance, security, and compliance.

The Dell AI Data Platform is designed to break down these barriers and challenges, providing a cohesive foundation for end-to-end data management supporting your AI strategy.

# The Dell AI Data Platform: A Unifying Approach

The Dell AI Data Platform is built on three core pillars designed to empower both IT and data experts. Our unified approach helps you manage data wherever it lives—on-premises, at the edge, or in a hybrid cloud—turning complex challenges into powerful outcomes.

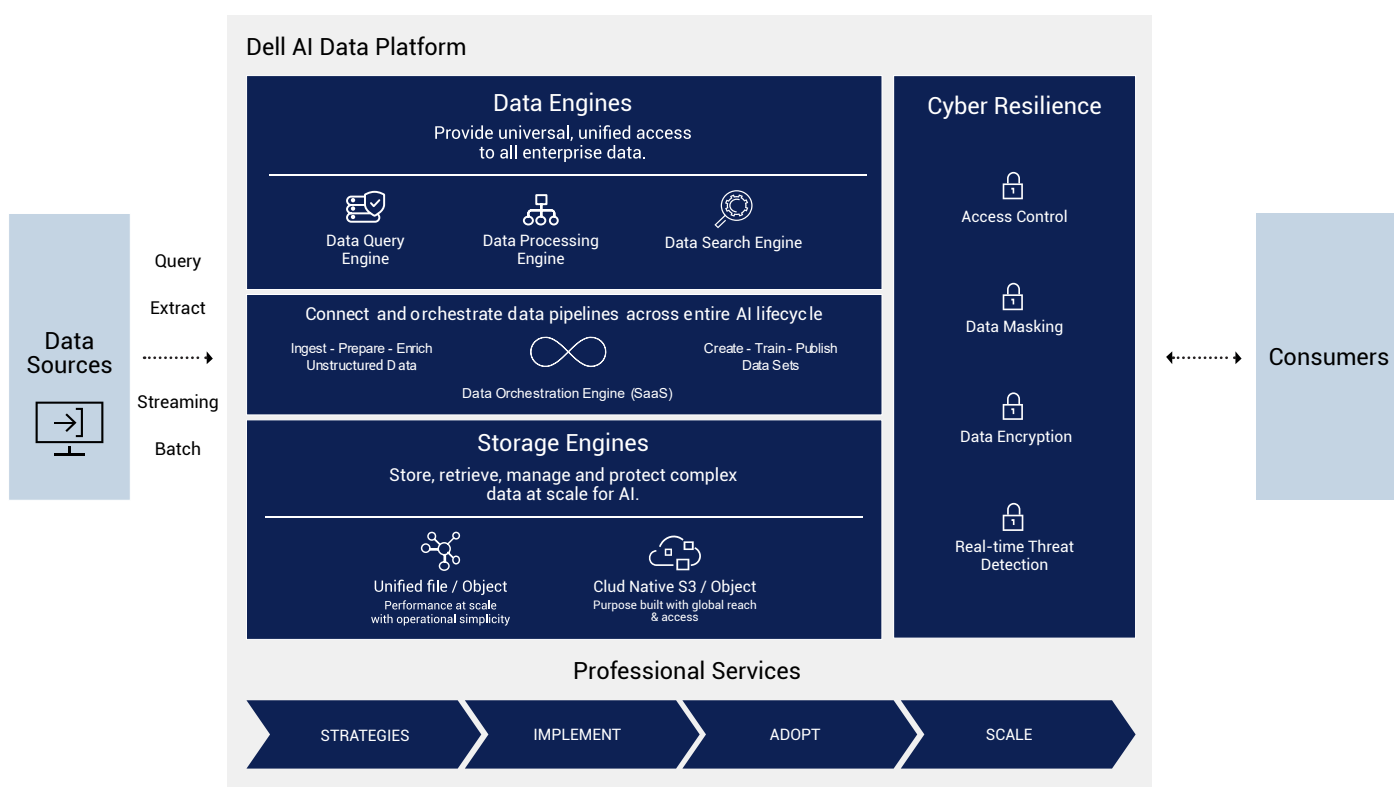
## Empowering Data and IT Professionals

- **Data Placement:** Achieve high performance and efficiency by supporting the most demanding AI workloads. The platform is optimized for data ingestion, processing, model training, and inferencing, allowing infrastructure to scale with innovation.
- **Data Processing:** Gain universal access to enterprise data. Easily ingest, prepare, and curate information from any source, transforming scattered data into high-quality assets for AI and analytics.
- **Data Protection:** Operate confidently and securely. Advanced data protection and cyber resiliency features—like threat detection, data isolation, and encryption—safeguard mission-critical assets and ensure compliance throughout the AI lifecycle.

## Composable by Design

Successfully deploying data driven AI solutions requires overcoming the limitations of traditional data architectures, which are often centralized, siloed, rigid, and proprietary. These outdated systems create bottlenecks, isolate valuable data, and restrict enterprises from adapting to changing business needs.

The AI Data Platform features a modern alternative, designed to break through these barriers by embracing open standards, flexibility, and scalability. We take a composable approach—using specialized engines for data, storage, and protection. Each plays a unique role, but together, they form a powerful foundation for AI success.



### Data Engines: The Brain of the Platform

Data engines are central to accessing and preparing your information for AI. They help you connect to data from applications, devices, and other sources, then clean, organize, and enhance it. This makes your data ready for analytics, model training, and real-time decision-making. Dell's data engines are powered by trusted technologies, including Starburst for data analytics, Apache Spark for data processing, Elastic for unstructured data search, and a robust data orchestration engine to effortlessly manage and orchestrate enterprise multimodal data for generative AI applications. This combination empowers you to turn raw information into a powerful asset for innovation.

### Storage Engines: Active Enablers of Performance with Efficiency at Scale

In an AI-driven world, storage is more than just a place for data; it is an active enabler of performance, scalability, and flexibility. Our storage engines are designed to manage all types of data—structured, semi-structured, and unstructured—ensuring it is always available, secure, and ready for demanding workloads. Dell provides Unified File

and Object Storage with PowerScale to simplify hybrid environments and S3 Object Storage with ObjectScale for scalable, cloud-native data handling, helping you move faster and scale smarter.

### Cyber Resilience: Protection from the Ground Up

Security is essential in today's environment, and the Dell AI Data Platform is engineered with protection at its core. We build in safeguards like access controls, data masking, and encryption to protect your sensitive information. To defend against modern threats, the platform includes advanced cyber-resilient features such as data isolation and air-gapped architecture. This ensures your data remains protected and accessible, even in the event of a cyberattack, allowing you to operate with confidence.

### Professional Services: Accelerate Value Across a Fully Integrated Data Estate

Dell Professional Services for Data Management lay the foundation for a reliable, agile, and AI-ready data pipeline, enabling you to scale outcomes with confidence. We ensure seamless implementation of the AI Data Platform, delivering tailored integrations designed for your unique environment. By unifying data islands, automating workflows, and transforming data for scalable AI operations, we create a future-ready data estate that delivers consistent, repeatable outcomes. With expertise at every stage, we accelerate AI adoption, turning your data into a strategic asset that fuels innovation, empowers teams with actionable insights, and achieves measurable business value.

## Get Started on Your AI Journey

### Powering Innovation Across Every Industry

RAG systems are transforming healthcare, retail, and financial services by leveraging document stores and vector databases to retrieve and analyze unstructured data efficiently.

- In healthcare, RAG enhances decision-making by providing clinicians with timely access to patient records, treatment guidelines, and research insights, improving care outcomes.
- Retailers use RAG to deliver personalized shopping experiences through tailored recommendations and dynamic offers, while also optimizing inventory management.
- Financial institutions benefit from RAG by detecting fraud, analyzing customer interactions, and offering real-time investment insights, fostering trust and streamlined operations.

At Dell, we believe your vision should never be held back by technological limitations. The AI Data Platform is your complete solution to transform how data is ingested, stored, processed, and protected for all AI workloads.

### Move from Concept to Reality and Achieve Tangible Results Faster

Accelerate data-driven AI success with expert guidance and hands-on execution. Whether you need help aligning your AI data strategy across people, processes, and infrastructure, or validating AI use cases through targeted pilot engagements, our services experts are ready to meet you where you are. Start your journey with an Accelerator Workshop to align stakeholders on defined AI priorities, or leverage our AI use case pilots to quickly demonstrate the value and expected outcomes of your AI initiatives ahead of scaled investment. With a strong foundation and scalable approach, you'll gain the clarity, confidence, and momentum to achieve your AI goals faster.



[Learn more about PowerScale, ObjectScale, and Dell Data Engines](#)



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