

AUGUST 2025

# Cloudera and Dell Technologies Enable Trust, Compliance, and Innovation With Private AI in a Box

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**Abstract:** As enterprises seek to realize the potential of AI, they are confronted by a critical question: how can they unlock the value of sensitive enterprise data without compromising control, compliance, or cost? Public cloud alone cannot meet every need. Many organizations are moving workloads back on premises to address regulatory, security, and financial concerns.

Cloudera's AI platform, built on NVIDIA NIM microservices and optimized for Dell Technologies is a response to this shift by delivering Private AI in a Box: a scalable, secure, and enterprise-grade solution that brings AI to where data lives. This solution is designed to support complex, regulated, and data-intensive environments with full control, low latency, and built-in governance.

## The Imperative for Private On-premises AI Infrastructure

Despite the widespread embrace of cloud platforms for scalability and agility, organizations are recalibrating their AI strategies. In fact, 54% of enterprises have already moved workloads back from the cloud to on-premises infrastructure. Even more telling, 51% reported that most of their data still resides on premises, driven by compliance mandates, data security concerns, and financial control.<sup>1</sup>

This shift is not merely a retreat from cloud. It reflects a pragmatic understanding that AI initiatives require immediate, trustworthy access to sensitive, high-value data. AI success hinges on control and proximity to data, particularly in industries such as healthcare, finance, and government, where regulatory scrutiny is high and tolerance for risk is low. The need for private AI environments that offer full visibility, governance, and control has become critical.

Enterprises are not just migrating for security; they're also seeking predictability. More than one in five organizations cited higher-than-expected cloud costs as a top reason for cloud repatriation. And with AI workloads consuming vast compute and storage resources, often across long timelines, on-premises deployments offer not only stronger cost modeling but also performance consistency. Private AI enables organizations to own their infrastructure decisions while avoiding the uncertainty of metered usage and egress fees.

### Key Highlights

- **51%** of organizations keep most of their data on premises.
- **48%** of organizations are looking for AI solutions to address operational inefficiencies, as well as risk management and better data-driven decision-making.
- **AI needs to be brought to your data and not the other way around.** On-premises, cloud, and hybrid environments.
- **Cloudera's Private AI in a Box** features Cloudera's AI platform, optimized for Dell Technologies hardware with NVIDIA's accelerated compute technology, addressing a critical business imperative to help organizations accelerate their AI initiatives.

<sup>1</sup> Source: Enterprise Strategy Group Research Report, [Distributed Cloud Series: The State of Infrastructure Modernizations Across the Distributed Cloud](#), November 2023.

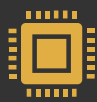
The top three reasons why organizations are keeping data on premises are:

- Regulatory compliance (29%).
- Data security concerns (28%).
- Cost predictability and management (22%).<sup>2</sup>

## Market Insights

AI is increasingly viewed as a core business driver. According to recent Enterprise Strategy Group research, 48% of organizations cited operational efficiency as their primary driver for implementing AI, followed by innovation (42%), risk management (39%), and decision-making (35%). However, these benefits cannot be realized without fast,

### Insights



48% of organizations are looking to AI to increase operational efficiencies, followed by an emphasis on risk management and enhanced decision-making.<sup>3</sup>

reliable, and secure access to enterprise data; data that, in many cases, cannot or should not leave the premises.

Private AI provides the foundation to operationalize these goals. By embedding governance into the infrastructure and AI stack, Cloudera and Dell Technologies

reduce risk while enabling speed. Whether it's accelerating R&D, streamlining compliance reviews, or developing tailored customer experiences, AI in a Box ensures enterprises can trust and control every stage of the AI journey.

## Uniting Data, Compute, and Compliance Under One Roof

Cloudera and Dell Technologies address the challenge of bringing AI to your data, wherever it is, with an integrated solution designed for scale, performance, and security. At the center is Cloudera's open data lakehouse architecture, underpinned by its Shared Data Experience (SDX) governance framework. SDX provides unified policy enforcement, access control, and lineage across structured and unstructured data, delivering the governance rigor AI initiatives demand. Combined with Dell Technologies' enterprise infrastructure and NVIDIA's AI-accelerated compute, this "AI in a Box" solution provides a turnkey foundation for private AI, one that meets enterprises where their data lives.

Cloudera's platform is model-agnostic and framework-flexible, letting organizations deploy AI across virtually any use case, including generative AI, fraud detection, predictive maintenance, or semantic search. With embedded MLOps via Cloudera AI Workbench and support for tools including LangChain, Llama, and MLflow, teams can accelerate development while maintaining full compliance with internal and external standards.

This approach also removes a key barrier to AI adoption: data movement. Rather than exporting sensitive data sets to the public cloud for model training or inference, Cloudera's architecture brings AI to the data. This enhances trust, reduces latency, and ensures data never leaves an organization's secure confines. The result is a more agile, responsive AI strategy—one that meets privacy and performance goals simultaneously.

## Key Capabilities of Cloudera and Dell Technologies' Private AI Solution

The Cloudera and Dell Technologies solution enables organizations to confidently operationalize AI without relinquishing control. Capabilities include:

<sup>2</sup> Ibid.

<sup>3</sup> Source: Enterprise Strategy Group Research Report, [Navigating Build-versus-buy Dynamics for Enterprise-ready AI](#), January 2025.

- **End-to-end governance with SDX:** Secure data access, auditability, and policy enforcement embedded throughout the AI lifecycle.
- **Federated AI architecture:** Train and deploy AI across hybrid environments with unified control.
- **Model flexibility:** Support for open source and proprietary models, transformers, and large language models.
- **Low-latency inference:** Sub-millisecond response times powered by Dell Technologies' PowerEdge infrastructure and NVIDIA acceleration.
- **Cost predictability:** Fixed infrastructure investment eliminates cloud unpredictability.
- **Agentic AI readiness:** Build and deploy intelligent agents for customer service, legal analysis, or operational insight, all governed and secured.

These features make the solution suitable for innovation and mission-critical applications that demand tight operational controls and rapid responsiveness.

## Analyst Insight

AI is changing how organizations operate, and the race to innovate is accelerating. But innovation without control is a liability. Enterprises must ensure that AI systems are explainable, auditable, and secure. Cloudera's private AI solution enables organizations to retain control of their data and models, without slowing down innovation or compromising compliance. In particular, the ability to deploy advanced AI capabilities such as generative AI and AI agents on premises gives regulated industries a clear and viable path forward.

With so much data remaining on premises, Cloudera's SDX allows policies and access rights to follow data regardless of format or storage layer. This holistic control, when paired with high-performance infrastructure from Dell Technologies and accelerated compute from NVIDIA, gives enterprises the confidence to build AI into daily operations. It's a blueprint for private AI success that prioritizes both capability and trust.



As AI expands into every industry, maintaining trust, control, and performance becomes paramount. Cloudera's Private AI solution, backed by Dell and NVIDIA, gives enterprises the tools to deploy AI securely, scalably, and responsibly without relinquishing data ownership or increasing cloud risk."

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## Conclusion

As enterprises increasingly treat data as a competitive asset, the location, control, and governance of that data become foundational to AI success. Public cloud alone cannot support the full range of enterprise AI requirements, particularly where data sovereignty, regulatory mandates, and cost predictability are concerned. Cloudera's Private AI solutions with NVIDIA and Dell Technologies directly address this reality. By delivering AI to the data, instead of forcing data to migrate, organizations achieve high-performance, secure, and scalable AI that aligns with modern business and compliance demands. With proven architecture, flexible tooling, and embedded governance, AI in a Box enables enterprises to deploy trusted AI, on their terms.

In today's high-stakes AI landscape, the ability to act securely, flexibly, and responsibly is more than a competitive edge, it's a necessity.

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