



A Global Telecommunications Leader and MinIO AIStor: Powering the Next Generation of Data Lakehouse for Analytics and AI

Our customer, a global telecommunications leader, established a Data Platform team to transform how data improved customer experiences and business operations.

Faced with ballooning data growth and legacy storage constraints, they replaced aging legacy data storage systems with a high-performance, cloud-native data lakehouse, built on MinIO's AIStor. The result: a scalable, cost-efficient foundation ready for AI, analytics, and next-generation innovation.

The Environment

This telecommunications leader manages one of the world's largest data ecosystems - over 80 petabytes spread across on-premises and cloud platforms. The Data Platform team, created to establish data as a first-class citizen in their organization, faced mounting pressure to modernize. Their mission: unify access, governance, and innovation across every dataset while preparing for AI-driven workloads.

Challenges

Their legacy infrastructure was built on the Hadoop File System (HDFS), tightly coupling storage and compute. This forced teams to scale both components simultaneously - driving inefficiency and cost. Cloudera licensing added expense, while AWS cloud storage proved prohibitively costly for analytics workloads. Engineers struggled to repurpose hardware, slow dashboard refreshes frustrated analysts, and operations teams wrestled with high FTE overhead to manage data growth.

The Vision

The Data Platform team envisioned a flexible, self-service data platform - one that would deliver cloud-like agility inside their own infrastructure. The goal was to democratize data, reduce OPEX, and prepare the enterprise for GPU-driven AI workloads. This initiative aligned with the organization's broader vision: enabling consistent workload execution across any environment, from private data centers to public clouds.

Results & Outcomes

With AIStor, this organization's Data Platform team achieved:

- OPEX savings by repurposing hardware and simplifying data operations.
- Faster time-to-insight, with interactive queries and BI dashboards that update in near real time.
- AI readiness, enabling integration with Kubeflow, MLflow, and future LLM hosting plans.
- Reduced vendor dependency, maintaining control while aligning with open standards.

To learn more about how AIStor can help your organization, contact us using the link below or download a trial version of AIStor [here](#)

MINIO **AI*STOR** Solution

AIStor provided the Data Platform team with a unified, Kubernetes-native object storage platform that could scale elastically across commodity hardware. Key benefits included:

Operational Freedom and Cost Efficiency

By decoupling compute from storage, the Data Platform team avoided the waste of scaling both together. AIStor's lightweight architecture allowed them to repurpose legacy hardware and optimize OPEX.

Cloud Agility on Premise

AIStor's compatibility with the S3 API enabled consistency and flexibility - supporting multi-cloud interoperability while keeping sensitive workloads on-premise.

AI and Analytics Readiness

The deployment of AIStor, currently managing 9 of 14 petabytes, positioned the organization for next-generation workloads like GPU-optimized data pipelines, MLflow integration, and vector database exploration for RAG applications.

“Our goal was never just to store data - it was to unlock it. AIStor gave us the flexibility and performance to manage data like a cloud provider, but on our own terms.”

- Senior Director, Data Platform Team