



Solution Brief

Distributed File Data Management with CTERA and Cloudian

AI-Ready File Services from Edge to Core



The Rise of Enterprise Intelligence

The rapid growth of unstructured data and advances in AI are revolutionizing how organizations operate, driving faster insights, improved efficiency, smarter decision making, and new opportunities for innovation.

The proliferation of LLMs and intuitive AI interfaces is driving a surge of tools and integrations, pushing organizations to modernize their infrastructure for smarter, faster, and more reliable outcomes. Yet, a recent study found 95% of generative AI pilots fail to deliver measurable impact, not because of the technology, but due to data integration challenges.

The winners will be those who break down data silos, provide AI with timely access to high quality data, and apply proper guardrails, unlocking real productivity, actionable insights, and measurable business value.

A Unified Data Fabric, the Nexus of Information & Intelligence

The CTERA Intelligent Data Platform, powered by Cloudian HyperStore Data Platform, delivers a unified data fabric that allows enterprises to gain control over rapidly growing file estates, improve corporate resiliency, boost user and team productivity, and reduce infrastructure costs while creating a single data foundation that enables seamless application integration.

The solution enables enterprises to consolidate aging NAS environments by integrating Cloudian HyperStore with CTERA's intelligent edge caching appliances, delivering seamless integration with existing IT environments through support for native file and object protocols (CIFS, NFS, and S3) and continuous data protection to virtually unlimited and scalable S3 compatible object storage.

This unified data fabric provides highly available access to petabytes of file data across any number of sites, enabling rapid disaster recovery, secure remote access without a VPN, and global collaboration that streamlines business processes and workflows, all while delivering high performance access to frequently used files and keeping the authoritative copy of data protected in the core data center.

Key Benefits of Cloudian and CTERA

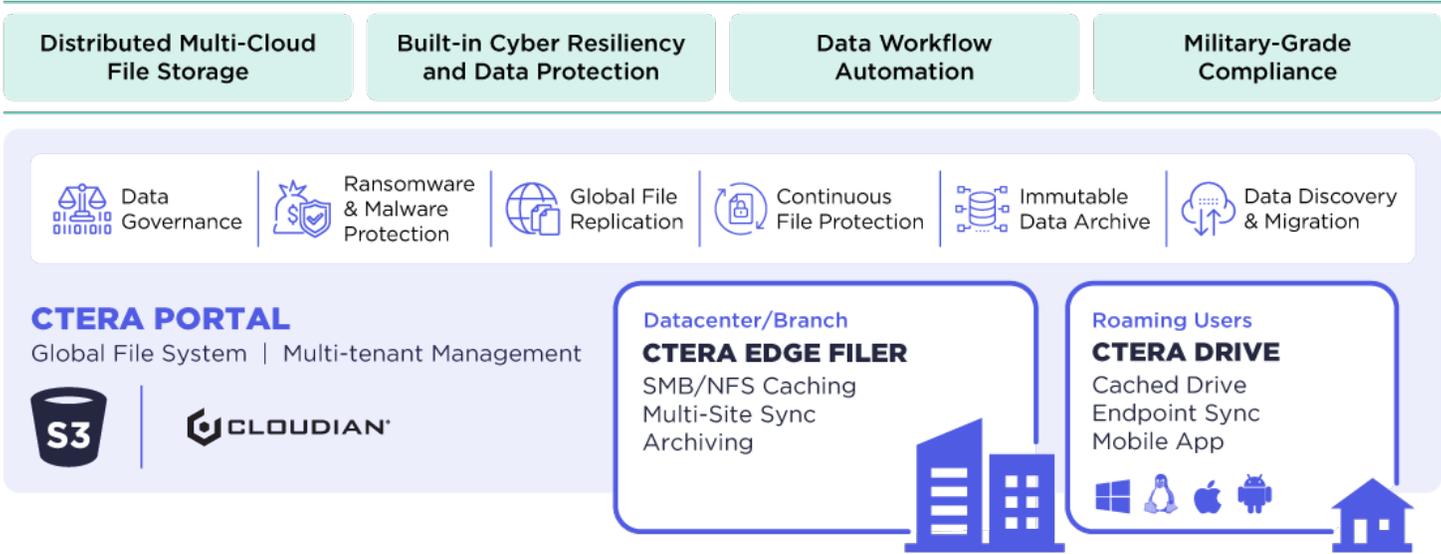
- ✓ Replace expensive legacy NAS with a unified private cloud, reducing your total cost of ownership by up to 70%.
- ✓ Deliver LAN-speed file access to users anywhere with intelligent edge caching, powered by a scalable, centralized data repository.
- ✓ Create a limitlessly scalable on-premises private cloud, giving you total control over your data, sovereignty, and storage costs.
- ✓ Protect data with AI-driven threat detection, an immutable architecture, and S3 Object Lock for multi-layered ransomware defense.
- ✓ Manage your entire distributed file infrastructure from a single pane of glass, eliminating data silos and operational complexity.
- ✓ Ensure business continuity with instant, centralized disaster recovery, providing uninterrupted data access if a site goes down.

95%

of generative AI pilots at companies are failing

MIT State of AI in Business 2025





Get More with a Joint Solution

CTERA and Cloudian combine to provide an integrated solution that addresses critical enterprise requirements including data sovereignty, cyber resilience, and global collaboration across distributed workforces. Organizations can now implement a complete intelligent data strategy with local high-performance access, centralized data governance, and seamless disaster recovery capabilities.

By 2028, large enterprises will triple their unstructured data capacity across their on-premises, edge and public cloud locations, compared to mid-2024.

Julia Palmer, Gartner: Use Data Storage Management Services to Address Exponential Growth of Unstructured Data, Published October 10, 2024

- ✓ **Unified Data Management:** Manage unstructured file and object data across a geo-distributed environment with complete control and visibility from a single pane of glass, leveraging Cloudian HyperStore for a limitlessly scalable central repository.
- ✓ **Modernize Legacy NAS:** Replace traditional filers with a software-defined global file system and intelligent edge caching to reduce TCO, protect against modern cyber threats, and enable seamless remote workforce collaboration.
- ✓ **Continuous Data Protection:** Ensure business continuity with replication to immutable Cloudian storage, custom retention periods, and granular file-versioning with both self-service and administrative recovery controls.
- ✓ **Enhanced Security and Compliance:** Meet the strictest regulatory requirements with a military-certified, zero-trust architecture, end-to-end encryption, AI-based ransomware protection, and private key management.
- ✓ **Centralized Global Management:** Streamline the administration of thousands of remote sites and users from a centralized web console for configuration, software updates, incident management, provisioning, logging, and alerting.
- ✓ **Global Geo-Distribution:** Support multi-site deployments with policy-based data placement and automated replication, ensuring data is stored where it's needed for performance, compliance, and business continuity.
- ✓ **Instant Disaster Recovery:** Simplify recovery procedures with instant failover of file shares. In the event of an outage, users are re-routed to the central Cloudian repository for uninterrupted data access.
- ✓ **Seamless Data Migration:** Promptly discover and migrate petabytes of data, ACLs, and attributes from legacy NAS platforms while ensuring a complete chain-of-custody.
- ✓ **WAN-Optimized Performance:** Protect large datasets from edge to core with network-resilient replication. CTERA technology optimizes bandwidth utilization using source-based deduplication, compression, and multi-tier QoS controls.
- ✓ **Intelligent Caching for LAN -Speed Access:** CTERA Edge Filers cache frequently accessed data locally while maintaining global namespace consistency, optimizing performance for users and applications across all distributed locations.
- ✓ **Exabyte-Scalable Central Storage:** Cloudian HyperStore provides seamless capacity scaling from terabytes to exabytes, ensuring seamless growth without infrastructure constraints or costly forklift upgrades.