



# CTERA Fusion Direct

A Unified Data Foundation for File, Object, and AI Workloads

Enterprises typically operate separate storage environments for file and object workloads. File systems support collaboration and application compatibility. Object storage supports analytics, scale, and increasingly AI-driven workloads. As organizations expand AI initiatives, this architectural divide becomes a constraint. Bridging file and object environments often requires gateways, duplication, or translation layers that increase cost, add latency, and slow the use of enterprise data in modern pipelines.

## Open File and Object Access within a Single Global Namespace

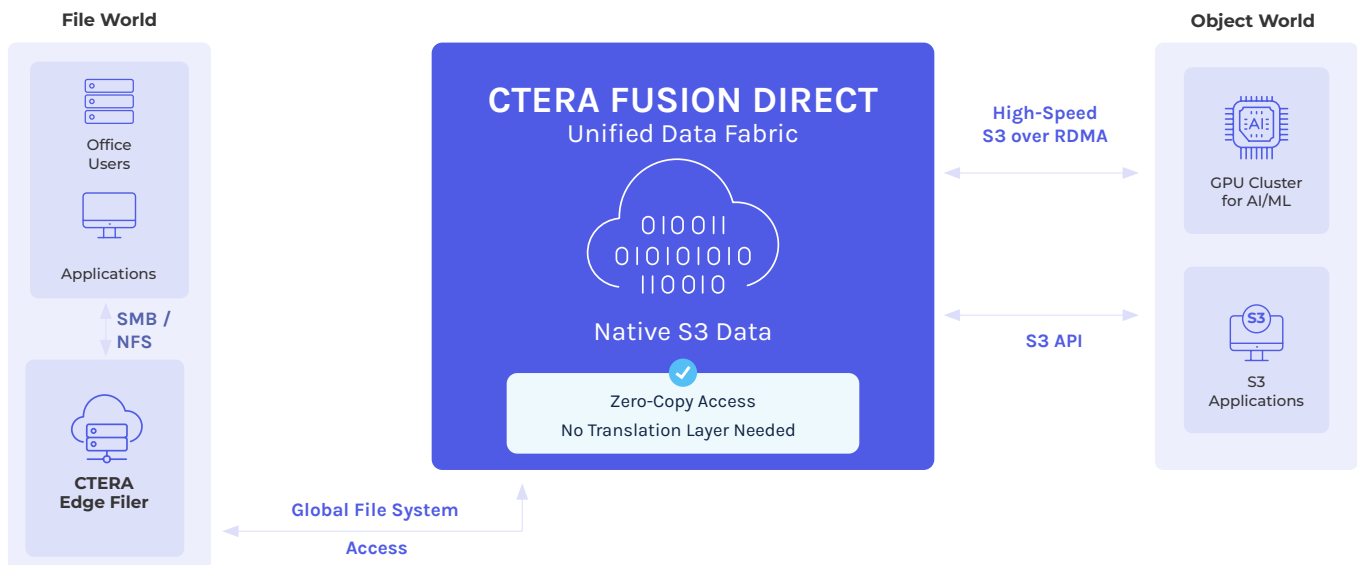
CTERA Fusion Direct introduces a federated data architecture that eliminates the need for file-to-object translation layers by allowing files and objects to coexist natively within the same global namespace.

Data can be written as files and immediately accessed as standard S3 objects, or written as objects and instantly accessed as files, without duplication or format conversion.

Unlike traditional gateways, there is no file-to-object translation layer, no background synchronization process, and no proprietary encapsulation.

Data remains in native S3 format while being accessible simultaneously over SMB, NFS, and S3. Because objects remain standard S3, organizations retain portability and avoid proprietary lock-in.

By eliminating the need to copy or rehydrate datasets, Fusion Direct allows organizations to use enterprise file data immediately in analytics and AI pipelines without creating parallel storage environments.



## KEY CAPABILITIES

- ✓ **Zero-Copy, Bidirectional Access**  
File and object protocols operate on the same underlying data, eliminating duplication and reducing storage overload.
- ✓ **Single Global Namespace Across Protocols**  
Users and applications access data over SMB and NFS as usual, while analytics and AI workloads access the same datasheets over S3.
- ✓ **Direct Attachment of Existing Object Storage**  
Existing S3 buckets can be connected into the global file system without migration or restructuring, making object data immediately accessible as files.
- ✓ **Performance for AI and Data-Intensive Workloads**  
By exposing native S3 objects, Fusion Direct supports high-throughput access patterns, including S3 over RDMA, enabling efficient data delivery to AI and HPC environments.

## Use Cases Across Industries

CTERA Fusion Direct accelerates innovation across data-intensive sectors such as:



### Precision Medicine

Apply AI models to large-scale genomic and medical imaging datasets while sustaining a globally accessible file environment for researchers and clinicians.



### Global Finance

Enable high-frequency risk modeling and fraud detection with native S3 performance, while enforcing immutable WORM policies for regulated financial records.



### Industrial AI

Capture telemetry and satellite imagery at distributed edge locations and make it immediately available for centralized AI processing and global operational access.



**One dataset.  
Multiple  
access  
methods. No  
architectural  
trade-offs.**