PANZURA

PANZURA CLOUDFS SOLUTION BRIEF

Architecture, Engineering & Construction

AEC firms today grapple with massive, complex CAD and BIM project datasets, demanding seamless collaboration across distributed teams and strict compliance with regulations like CMMC 2.0. Managing this file data efficiently, securely, and without hindering productivity is a critical challenge for IT leaders.

Panzura CloudFS is a hybrid cloud file services platform specifically designed for the demanding needs of AEC firms. By delivering immediate global synchronization of project files, it ensures seamless collaboration and eliminates version control issues. The platform's granular deduplication and compression capabilities dramatically reduce the storage burden of large BIM and CAD files, leading to significant cost efficiencies.

Crucially, Panzura CloudFS offers unbreakable resilience against ransomware, safeguarding critical project data and minimizing costly downtime. With complete visibility and control, compliance and data governance become simpler across distributed environments. As project complexity and data volumes continue to grow, CloudFS provides the necessary seamless scalability and, importantly, prepares your rich project data to drive future advancements through AI-powered workflows for design optimization, cost analysis, and project management.

Consolidate File Shares

AEC firms often struggle with project data scattered across office file servers, individual workstations, and even cloud storage, leading to version control issues with critical drawings and models. File replication across sites consumes unnecessary storage and makes co-editing between sites virtually impossible.

Panzura CloudFS, a hybrid cloud file platform underpinned by a global file system, consolidates distributed data into a single, authoritative data set that is visible and accessible, across the entire organization.

Reduce Storage and Restrict Data Growth

CloudFS translates files to objects and deduplicates redundant data blocks at the most granular possible level — blocks of just 128kb in size — before moving them to your chosen cloud or object store. Its global deduplication method runs advanced, inline block-level deduplication on any data in the object store, checking for redundancies every 60 seconds, before it moves data into your object storage. On average, CloudFS customers reduce their overall data volume by 35%, ranging up to 80%.

Work Like Everyone's Under the Same Roof

With CloudFS, all users in your organization work from the authoritative data set stored in your cloud or on-premises object store. No file replication across sites, changes in workflows, or user behaviors are required – users interact with files in the same way they always have, and CloudFS provides them with the performance of a local-feeling file experience.

Maintain Immediate File Consistency

The core of CloudFS is a global file system that is uniquely capable of immediate global file synchronization across all locations in your network. Every time users open a file, it's up-to-date with the most recent changes, regardless of where or when the file was last edited.

This real time file consistency, across every location in the global file network, means users can leave version control problems behind and rely on working with the authoritative file, complete with up to date changes, at all times.

Empower Collaboration Using CAD Files

CloudFS enables cross-site collaboration on AEC workflows in a way no other solution can. Instantaneous, automatic file locking will lock down a file for editing the moment it's opened. AEC applications that support element or byte-range locking, such as Revit, AutoCAD, MicroStation, and others, CloudFS allows multiple users to work within the same file, without overwriting each other. It's the same file experience users have when they're sitting in the same office location, even when they're thousands of miles apart.

Enable High-performance Remote Work

CloudFS enables VPN-less access for remote users and those on mobile devices, via Panzura Edge. Access is available via desktop app, mobile app, and browser. CloudFS also works seamlessly with cloud VDI solutions to deliver the ultimate high performance file experience for all users, even if they're working remotely without a high speed internet connection.

Make Data Resilient Against Damage

CloudFS protects against ransomware and other data damage or deletion by making data immutable so it cannot be changed. Every 60 seconds, every location syncs data into the object store simultaneously, where it is stored in a Write-Once, Read-Many (WORM) format and further protected by global, immutable snapshots, so a global recovery point is never more than 60 seconds away.

Catch and Stop Ransomware in Near-Real Time

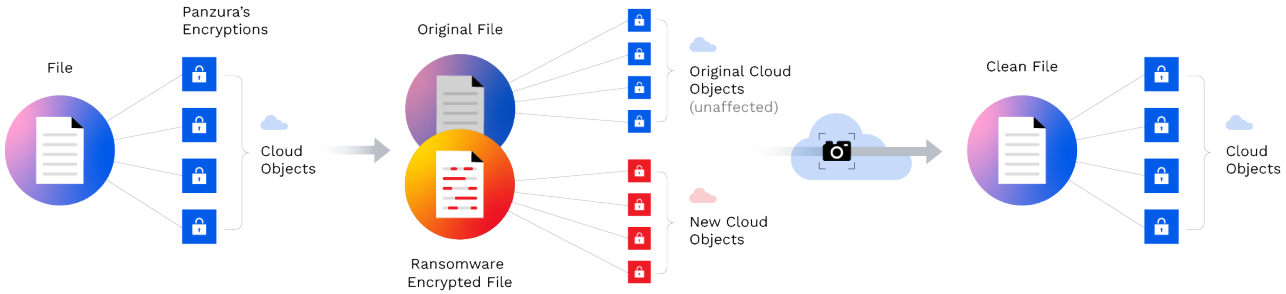
Panzura Detect and Rescue, an extended capability of the CloudFS hybrid cloud file platform, identifies ransomware in real time and stops it by automatically switching off the affected users, followed by a comprehensive ransomware tracker to help administrators rapidly identify and recover damaged files. Moreover, Panzura Data Services — CloudFS's data insights and intelligence layer — enables configurable alerting on suspicious user behavior, e.g. multiple file copy or move actions that may indicate data exfiltration.

Restore Damaged or Lost Data

In the event of any file damage – whether caused accidentally or as part of a wider encryption attack such as a ransomware attack – individual files, folders, or the entire file system can be restored to a pristine state without data loss, and minimal disruption. Users can even restore files themselves, using Windows Previous Versions functionality, without IT intervention.

Ensure Data Compliance

CloudFS equips you with cyberstorage, which incorporates NIST cybersecurity functions into storage, strengthening your security posture with multiple layers of defense and resilience. Using cyberstorage ensures your organization remains secure and compliant by providing advanced data protection and management throughout every phase of your projects. With built-in end-to-end encryption, immutable



storage capabilities, and granular access controls, CloudFS safeguards critical project data—including architectural plans, engineering designs, construction documents, and sensitive client information—against unauthorized access, breaches, and cyber threats such as ransomware attacks.

FIPS 140-3 certification ensures data remains securely encrypted both in flight and at rest, making it unreadable even if intercepted. Continuous monitoring and automated compliance tracking further ensure alignment with industry standards and regulatory requirements, significantly reducing risks, safeguarding intellectual property, and maintaining client trust.

Ready for CMMC 2.0 Certification

CloudFS is compatible with a wide range of object stores that are FedRAMP Moderate or High approved. Its FIPS 140-3 certification, required for CMMC 2.0 levels 2 and 3, means CloudFS can be used for workloads subject to CMMC.

High Availability for Data and Locations

CloudFS delivers the level of high availability (HA) that AEC organizations require to maintain a productive workforce. Each location always has read access to data from every other location, as well as read access to the authoritative data set stored securely in the cloud. In the event of a disaster in one location, every other location already has access to the data for immediate recovery.

Three options for CloudFS virtual nodes offer high availability to suit your requirements and budget.

Local HA uses an active/passive stand-by pair of nodes that offer rapid failover. With Global HA, a stand-by node will assume lock management for the failed CloudFS node in the case of a regional outage. Instant Node offers a sub-5 minute recovery, inclusive of boot time, with no dedicated stand-by node required. Instead, Instant Node utilizes available virtual machine CPU and memory.

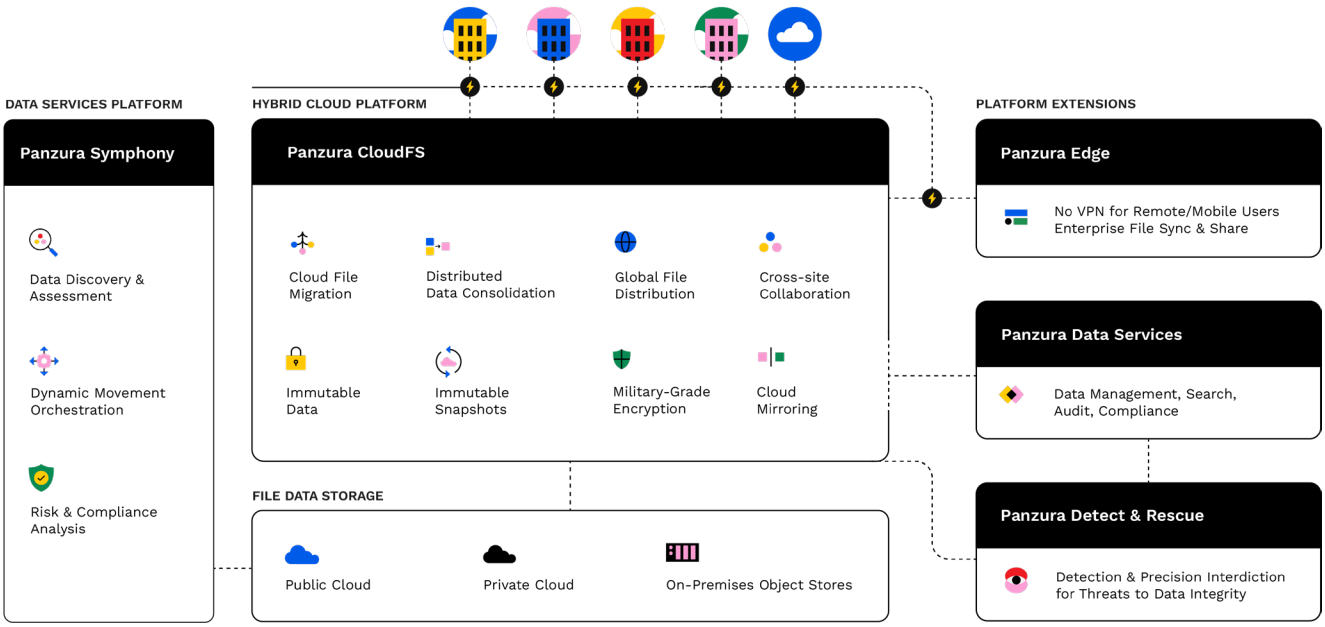
Cloud Mirroring provides high availability for your object store by enabling a passive, identical copy of your data in a secondary hyperscaler or low cost object store provider such as Wasabi, Backblaze or Seagate Lyve Cloud. In the event of a primary object store outage, all CloudFS nodes will fail-over to the secondary store for read and write operations, with no disruption to users.

Regional Store allows globally dispersed organizations to operate up to 4 active copies of the object store in different cloud regions offered by their choice of AWS or Azure. These regional buckets are

synced via the hyperscaler back-end network and allow office locations in each region to read and write data over the shortest possible distance to maximize performance. Should a single object store become unavailable, the CloudFS nodes will fail over to an object store in the next closest region.

Work with your data, the way that works for you

CloudFS is designed to let you manage, protect and work with the most challenging file types, with no changes to workflows or learning curve for users. With unmatched performance collaborating across sites, you deliver better, faster project outcomes. CloudFS is built for high performance at scale, and is used by some of the world's largest and most respected AEC firms to consolidate and control data, make it resilient to damage, and to allow distributed teams to securely collaborate on projects, wherever they are.



Panzura empowers today's digital-first organizations to do impossible things with file data, making them more agile, efficient, and productive. They trust Panzura to help them consolidate dispersed data, see and manage data in and out of the cloud, make it more cyber-resilient and AI-ready, and ensure it is available to people and processes where and when it's needed.

Discover how Panzura can fuel your success at **panzura.com.**