![ctera logo] **your files. your cloud.**

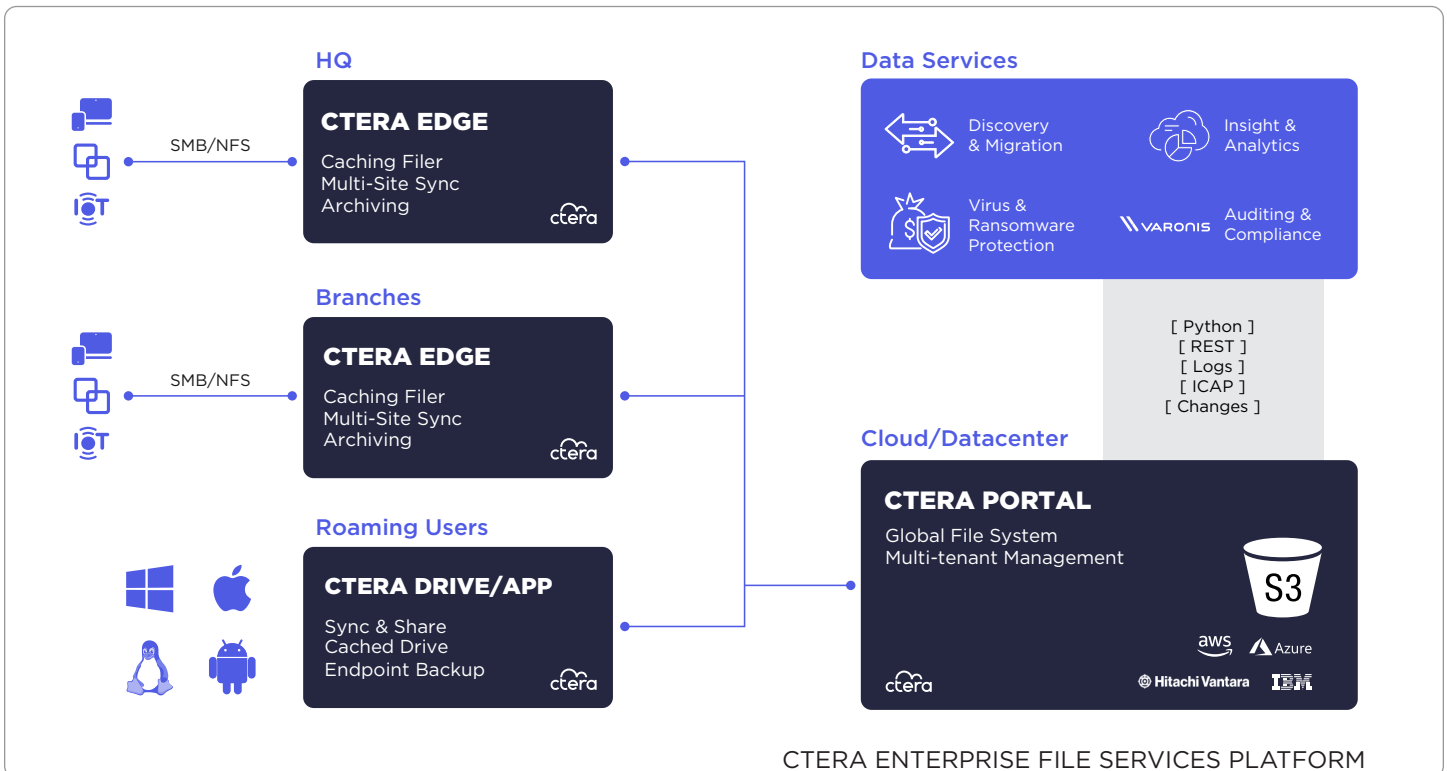# CTERA for Architecture, Engineering, and Construction (AEC) Industry

Leverage CTERA's Global File System technology to optimize operations, streamline workflows, and ensure project success.

The Architecture, Engineering, and Construction (AEC) industry faces unique challenges in managing projects and unstructured data across multiple sites, with professionals needing to store, access, and collaborate on large files daily. In this dynamic landscape, AEC firms need robust and flexible solutions to propel them forward while addressing these critical pain points:

- **File storage:** The sheer scale of data generated in the AEC industry, including multi-gigabyte BIM models, civil engineering plans, and 4D scheduling data, puts immense pressure on storage capacity and demands efficient management of unstructured data growth.

- **Collaboration:** With teams spread across various locations, devices, and time zones, fostering seamless collaboration is crucial. Facilitating a "follow-the-sun" approach ensures continuous project progress as work is handed off between global teams. Sharing design specifications, RFI documents, and change orders among internal and external stakeholders is key to ensuring project success.

- **Security:** The industry's high stakes and tight deadlines make it an attractive target for cyber threats, such as ransomware attacks. Safeguarding against disruptions, costly delays, and reputational damage is vital to maintaining a competitive edge.

In this solution brief, we delve into the complexities of the AEC industry and explore how CTERA's Enterprise File Services Platform offers a comprehensive hybrid cloud solution tailored to address these challenges. By leveraging CTERA's Global File System technology, construction and engineering firms can optimize their operations, streamline workflows, and ensure project success in a rapidly transforming industry.

CTERA ENTERPRISE FILE SERVICES PLATFORM

CASE STUDIES

The Korte Company Enhances Team Collaboration

The Korte Company, a fully integrated design-build construction firm with hundreds of employees in offices across the US, sought to modernize its file storage and management infrastructure. Key business requirements included reducing costs and enhancing collaboration among regional teams and roaming users. By implementing CTERA, Korte successfully streamlined project efficiency through smart file management and simplified collaboration.

"CTERA meets the needs of every aspect of our business, from pre-construction to design to project management. Everyone in the organization uses CTERA: they manage their own files, they share projects externally, and they recover previous file versions if needed."

– Barry Kauhl, a representative of The Korte Company

S.J. Louis Construction Defeats Ransomware Attack with CTERA Global File System

S.J. Louis Construction, a national contracting company, faced a major ransomware attack at one of its regional offices. With their construction projects at risk, the company leveraged its deployed CTERA Global File System to combat the attack and prevent significant disruptions.

The construction industry is highly schedule-driven, making it a prime target for ransomware attackers. In the case of S.J. Louis Construction, CTERA allowed them to instantly "roll back" to a previous version of their data, safeguarding their ongoing projects.

CTERA provides significant ransomware resilience benefits compared to traditional backup:

Continuous Data Protection:
Continuously ship files to cloud, resulting in shorter recovery window (RTO) and less data loss.

Instant Disaster Recovery:
Near-immediate rollback to previous file versions in the event of an attack

Proactive Disaster Prevention:
Identify and block ransomware attacks in real-time with AI-based anomaly detection.

American Engineering Testing (AET) Enhances File Sharing and Performance for Autocad and ArcGIS

American Engineering Testing (AET), an environmental and engineering testing company, struggled with sharing large, unstructured data files from its 20 regional locations, some of which had poor internet connectivity. AET's business requires handling large, unstructured data files, including industrial and scientific surveys using Autocad and ArcGIS, drone footage, and thermal imaging data. Initially, data was stored on NAS storage in remote offices, causing maintenance issues due to dispersed hardware. AET then centralized storage at its HQ data center, but this resulted in performance problems for some locations.

To solve these challenges, AET adopted CTERA hybrid cloud Edge Filers, enabling swift local access to large files and client sharing. CTERA was chosen over other evaluated options because it allowed direct file sharing with external clients. This solution combined a local cache for frequently accessed data with cloud storage for long-term storage, enhancing file-sharing and performance throughout the company, even in areas with less reliable internet connections.

CTERA: A Comprehensive Solution for the AEC Industry

The CTERA Enterprise File Services Platform offers a wide range of features to address data management, collaboration, and storage challenges in the architecture, engineering, and construction industry. With CTERA, companies can benefit from cloud scalability and economics without compromising file data performance or security. Key features of the CTERA platform include:

Infinite File Storage for Branch Offices

CTERA's Global File System offers infinite storage for branch offices through the use of CTERA Edge Filers. These caching devices, deployed as virtual machines, replace legacy file servers, allowing IT teams to effectively manage unstructured data growth and facilitate multi-site collaboration.

CTERA Edge Filers are especially valuable in handling large files commonly found in the AEC industry, such as BIM models, civil engineering plans, and 4D scheduling data. By deploying CTERA Edge Filers, construction and engineering firms can enjoy a virtually-unlimited storage capacity and seamless collaboration across all their branch offices, resulting in increased efficiency, productivity, and improved project outcomes.

The CTERA Global File System acts as an active archive, backed by inexpensive cloud object storage, ensuring that file changes are continuously replicated to the firm's cloud of choice. This enables global file access and guarantees business continuity in the event of a data loss event. The solution can be deployed 100% in-firewall and leverages end-to-end military-grade encryption to ensure total data privacy.

Unlocking Business Value with CTERA

CTERA's Data Services, incorporating S3 connector and robust data access APIs, empowers AEC firms to transform their file data into tangible business value by integrating with cutting-edge analytics, search, and AI services. These advanced services enable AEC companies to generate a wealth of insights and powerful analytics capabilities, enabling firms to perform data classification, feed data to advanced AI models, as well as analysis of video footage for OSHA compliance. By leveraging CTERA, modern AEC firms can take advantage of next-generation data analytics, enhancing their operations, and driving business growth.

Enhanced Data Protection and Recovery

CTERA's Enterprise File Services Platform is designed to provide superior data protection and recovery for AEC firms. By automating built-in snapshots, CTERA enables files to be instantly restored to virtually any point in time. This eliminates the need for traditional backup software, media servers, tapes, and archival storage, along with their associated costs. With CTERA, recovery points (RPO) are reduced to minutes, and recovery times (RTO) are decreased to seconds. The platform's resiliency and ability to swiftly rehydrate CTERA Edge Filers ensure that IT can recover from equipment failures and natural disasters within minutes.

Boosting Productivity through Seamless Collaboration

CTERA's platform enhances cross-office file sharing and collaboration, streamlining work processes and cutting costs for AEC firms. Optimized to support popular AEC software like AutoCAD Civil 3D, Revit, ArcGIS, Sketchup, and more, CTERA enables end users to access shared files more quickly without altering their day-to-day workflow.

In addition to Edge Filers for corporate sites, CTERA Drive for Windows and Mac plays a crucial role in providing secure and accelerated file sync and share for roaming users' endpoint devices. It allows seamless collaboration on project files, including design specifications, RFI documents, and change orders, enabling remote works and collaboration with external contractors.

CTERA Mobile complements CTERA Drive by offering anytime, anywhere file access on iOS and Android. It ensures that project stakeholders have access to critical information, such as site logistics, punch lists, and project updates, from any location. Together, CTERA Drive and CTERA Mobile create a comprehensive solution that empowers AEC firms to collaborate effectively with both internal teams and external partners, resulting in improved efficiency and project outcomes.