

## Solution Brief

# Nasuni for Architecture, Engineering & Construction



### Highlights

**Optimize CAD and Revit model collaboration and design processes** across many sites

**Align with a dynamic business environment by** quickly integrating new acquisitions

**Enhance business continuity** with access to all files even if remote sites go offline

**Modernize NAS infrastructure with** a single solution for file sharing, backup, and DR

**Leverage a cloud-first architecture** to reduce CAPEX and operate with more predictable costs

**Archive design and as-built files at low-cost** but have them quickly accessible if needed

## The Challenge: Enabling Cross-Site Collaboration and Project Management as Data Growth Explodes

Today's AEC projects are larger and more complex than ever before, with new design and construction management technologies driving massive increases in unstructured data. Building information management (BIM), 3D modeling, and CAD files can run into hundreds of megabytes. Project folders can exceed hundreds of gigabytes. A single Lidar image can be a TB or more. This data explosion impacts projects "at the edge" and back at headquarters as traditional NAS, replication, sync, and remote access solutions fail to keep pace.

Unchecked file growth also strains backup and disaster recovery solutions. One site down can take days to restore using traditional solutions, impacting an entire project's schedule and cost.

While these file challenges impact daily operations, they also prevent AEC firms from fulfilling strategic objectives such as global growth and mergers and acquisitions. Efficiently absorbing newly acquired companies and their own storage assets is simply too difficult. Furthermore, IT cannot implement important collaboration and client service initiatives because they are spending too much time on file sharing and data protection issues.

## The Solution: Nasuni for Scalable File Storage and Global Project Collaboration

AEC firms that need to share project files across multiple locations have realized the cloud is the answer to improved design efficiency, greater productivity, and lower costs. And that Nasuni is the ideal hybrid cloud solution.

"With our rapid growth, we needed a drastically different solution for our file infrastructure. One that scales well yet is less expensive per unit. Provides global team access yet does not compromise on speed. Provides real-time access yet keeps data secure. Allows us to deploy storage fast yet provides uncompromising reliability. Is efficient to maintain yet provides redundancy and backup. A cloud solution became the clear choice. And the only cloud solution that met all our requirements was Nasuni."

– Murali Selvaraj,  
CIO,  
Perkins+Will

[Perkins+Will case study >>](#)

"Nasuni is highly scalable, with all edge appliances centrally managed. Even if something happens with one, each site remains independent. One site going down doesn't affect any other site's ability to access files. It has been a game-changer for us."

– Brian Erickson,  
IT Implementation and  
Acquisitions Manager,  
APi Group

[APi Group webinar on-demand >>](#)

Case in point: API Group is the parent corporation to more than 40 independently managed life safety, energy, specialty construction and infrastructure companies. Serving the file storage needs of more than 200 locations had been straining the company's IT infrastructure and staff resources. A file server failure at one site would impact collaboration on multiple projects. Using traditional back up and disaster recovery solutions made restoring the data costly and time consuming. API Group deployed Nasuni and an object store partner, replacing legacy NAS, backup systems, and file access software. The benefits were immediate. Support requests plummeted, business continuity has improved, and the company has realized savings in storage costs. Just as impactful – Nasuni has made onboarding new acquisitions much simpler and faster.

AECOM, Alberici Constructors, Perkins and Will, HOK, Kiewit, Penoni, and many more leading AEC firms are also deploying Nasuni with their preferred cloud storage.

## A Unique Hybrid Cloud Approach

Nasuni® is the new enterprise file services platform designed for the modern cloud era. Its hybrid cloud architecture is ideally suited for the multi-site project collaboration needs of today's AEC firms.

The Nasuni UniFS® global file system lives in cloud object storage but extends out to the edge using virtual or physical caching appliances that store only frequently used data. Any number of edge appliances can be deployed in any number of locations for limitless file sharing.

This unique "cloud-first" architecture offers the best of both worlds: the virtually infinite scalability of the cloud and the flexibility, performance, and compatibility of on-premises file servers. With Nasuni, AEC firms benefit from:

- A cloud-scale global file system that unifies file storage, data protection, and management across all design and remote sites.
- Unlimited capacity and secure file storage for unstructured data of all types and file sizes.
- Global access to the same files from any location, leveraging the cloud for cost-effective, efficient large file transfer.
- Powerful file infrastructure for BIM, 3D modelling and CAD applications such as AutoCAD Revit that enables multi-site collaboration and improves time-to-build.
- Global File Lock™ to minimize the threat of data loss due to version conflicts across different design centers.
- Continuous File Versioning™ to provide an infinite history of all files and file versions for easy self-service or IT-assisted recoveries.
- Up to 60% cost savings compared to the cost of NAS, backup, DR, replication, WAN optimization, and other antiquated tools traditionally needed for enterprise file services.

## Capabilities Suited for Modern AEC Firms

The Nasuni enterprise file services platform is tailor-made for modern, collaborative AEC firms that operate in many locations. Delivered as a subscription service, Nasuni presents local volumes like a standard NAS device, giving existing AEC applications access to unlimited file storage without changing the user experience. Capabilities include:

**Unlimited primary storage** – Physical or virtual Nasuni Edge Appliances are deployed on-premises to provide fast, secure access to files. These appliances send all files immediately to the cloud (no tiering), where the authoritative copies are stored by the Nasuni UniFS® file system in your preferred object store. Since the gold master copies of all files live on inexpensive, virtually unlimited cloud storage, the Edge Appliances only need enough local storage to cache the active data.



**Unlimited archive storage** – By leveraging cooler tiers of cloud storage and the same edge caching architecture, Nasuni offers a secure, long-term, and cost-effective means of storing AEC project files, without the lengthy retrieval times of traditional archive solutions.

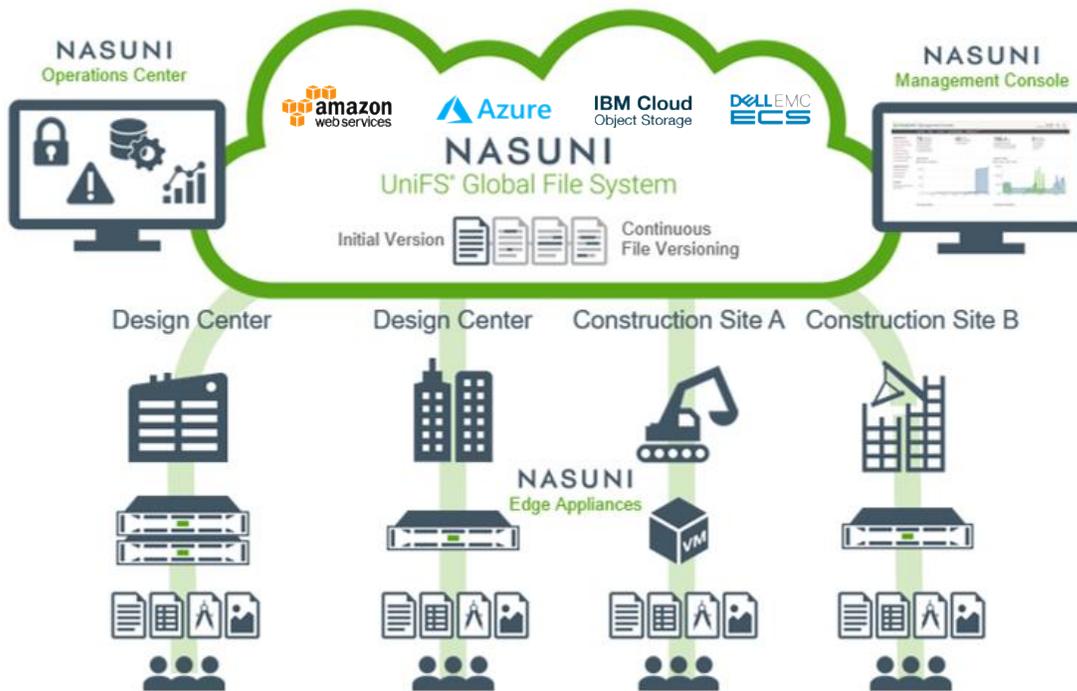
**Global file access** – Files are cached locally in each on-site Edge Appliance, giving users in all locations, from design centers to temporary job sites, fast access to all files. Since all changes and updates are constantly sent to the single master copy in the cloud, users in all locations are always working with the most current files.

**Global file locking** – Scalable cloud-based global file locking enhances collaboration and protects project files from loss or corruption by preventing data from being simultaneously written in multiple locations. File locks are extended across the global enterprise and function as if users were accessing files from the same file server.

**Advanced data protection** – Nasuni Continuous Versioning™ eliminates the need for traditional file backup, while providing superior recovery points and recovery times. Every change to every file is continuously sent to cloud object storage, where it is versioned and stored by UniFS. This enables any version of any file to be recovered in minutes, minimizing the impact of data loss or accidental deletions. In the event of a disaster, equipment failure, or local office outage, files can still be accessed by all users in the cloud. Even restoring local file access by repopulating Edge Appliances takes only minutes, enabling any location to be a DR site.



**Strong Security** – Nasuni Edge Appliances join the organization's Active Directory or LDAP directory for full integration with existing user authentication and access control policies. Data is encrypted with strong AES-256 encryption before being sent to the cloud using a key generated and controlled by the customer. Data is never visible to the cloud provider or Nasuni.



*Nasuni stores "gold copies" of all files in the cloud, while caching active files on-premises using virtual or physical Edge Appliances for fast, secure local access.*

## About Nasuni

Nasuni ("NAS Unified") transforms how enterprises store, share, protect, and manage fast-growing file data. Powered by Nasuni UniFS®, the first global file system as scalable as the cloud itself, Nasuni's hybrid cloud file services platform combines the limitless capacity, geo-redundancy, and low cost of object storage with the security, performance, and flexibility of local file servers. By using Nasuni and their preferred cloud provider for Network Attached Storage (NAS) consolidation, multi-site file collaboration, and active archiving, Nasuni customers are meeting global growth, workforce productivity, and "cloud-first" objectives, while also realizing massive IT cost savings. Visit [www.nasuni.com](http://www.nasuni.com).