



Civil Engineering Firm Cuts Capital Costs by 50% and Centralizes File Data with Nasuni®

As one of the nation's premier planning, engineering, and design consulting firms, Kimley-Horn, has nearly 7,000 staff members in more than 100 offices across the U.S. The company offers services for a wide range of disciplines, leading projects in public infrastructure and private development.

INDUSTRY:

AEC

CLOUD FILE STORAGE:

Nasuni

OBJECT STORAGE:

Amazon S3

USE CASES:

File Server Consolidation;
Multi-site Collaboration;
Business Continuity

BENEFITS:

Cost savings; unlimited capacity; accelerated performance; faster disaster recoveries

At Kimley-Horn, 90% of the firm's business comes from repeat clients. The engineers, planners, and environmental scientists apply creativity and rigor to deliver outstanding results to their customers. They believe in hiring top talent, and giving those individuals the tools and support they need to contribute to their ongoing success. That makes IT's job incredibly important, as the team needs to ensure that all employees have what they need to work efficiently and support the company's strategic goals.

For a highly-distributed organization like Kimley-Horn, this was an enormous challenge — especially regarding files. "Our file data was siloed in 80+ locations across the country, stuck in these islands of direct-attached storage," explains Chris Stetson, Vice President, IT Infrastructure at Kimley-Horn. "Every time we came up with an exciting idea that would help the business, we realized, well, that will only work if we have the data in one place. Our siloed file data was always the roadblock."

Then Kimley-Horn discovered Nasuni.



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Chris Stetson, Vice President, IT Infrastructure

Instead of maintaining file storage hardware at each site, Kimley-Horn now relies on Nasuni Edge Appliances, lightweight virtual machines that cache copies of frequently accessed files locally for fast access. At the same time, Nasuni ensures all file data resides in unlimited object storage. The back-end object storage Kimley-Horn selected for Nasuni is Amazon S3 from Amazon Web Services (AWS).

With the combination of Nasuni and Amazon S3, the company gains unlimited, cost-effective file server scalability, plus resilient data protection. With several offices in hurricane-prone areas in Texas and Florida, this was non-negotiable for the business. “We took the extra step of replicating our data in one AWS region to another AWS region for that once-in-a-lifetime event,” says Stetson. “I feel more comfortable having those different copies of our data separated by thousands of miles.”

Together, Nasuni and AWS provide Kimley-Horn with many new advantages, including:

50% Lower Capital Costs

In the past, the firm had to provision at least 10TB of file storage capacity per office on Dell or HPE servers with large Direct-Attached Storage (DAS) arrays. IT was forced to buy as much capacity as possible because it would have been too difficult to expand on-demand if file data grew unexpectedly. However, the average office was typically using only 40% to 50% of its purchased file storage capacity. The servers also needed to support the local VDI deployment and ensure fast file access for non-local users.

Nasuni simplifies this infrastructure. Today, Kimley-Horn has a standardized edge configuration for all its remote offices. Nasuni Edge Appliance VMs, deployed on less expensive servers, drastically reduce the need for local storage. Kimley-Horn can standardize on a smaller server with a single CPU, resulting in a vastly reduced DAS footprint and less RAM – decreasing the cost of each server by around 50%.

The non-local users can access a DFS namespace linked to a Nasuni Edge Appliance for fast access. “Nasuni decreases the capital costs in our offices because we don’t have to buy so much excess capacity,” says SAN Manager & Virtualization Engineer John Ferguson. “It simplifies our purchasing, lowers our costs, and simplifies our support, since we know that every office can have pretty much the same model server and cache underneath the Nasuni VMs.”

Smaller Data Center Footprint

Nasuni allows the firm to reduce the file storage footprint in its two data centers. Nasuni Edge Appliance VMs backed by Pure Storage and Tintri arrays cache copies of frequently accessed files in each data center, reducing the amount of local flash storage needed to store files, and ensuring that file storage scales in AWS instead of crowding high-performance hardware.

Fast and Efficient Collaboration

The firm operates as a single profit center, so when one office has too much work, and another has extra bandwidth, the company wants to be able to utilize those engineers. For major projects, Kimley-Horn needs to leverage its top talent, no matter where those engineers sit. This was challenging with its previous infrastructure, but high-speed file synchronization and Nasuni Global File Lock® technology allow colleagues in different offices to collaborate quickly on shared files without versioning conflicts — even large, complex CAD models that strain or break existing file sharing and collaboration solutions.

“We work in AutoCAD, and you can’t work over the wire on these files,” says Stetson. “Nasuni gives us the option to collaborate through the caching appliances across different locations and bring the data to our engineers, giving them local performance, even though the project file’s real home in Amazon S3 might be thousands of miles away.”

Accelerated Project Deployment

Enhanced collaboration allows the company to get projects for its largest clients off the ground faster. “We’ve accelerated deployments for some nationwide projects, where five offices at a time are having to work on the same project,” says Stetson. “The engineers really like the fast collaboration with Nasuni and having only one copy of the data and not several spread across the country.”

Simpler Data Protection

With Nasuni Continuous File Versioning®, a comprehensive version history of every file is automatically and securely stored in the cloud. This eliminates the need for separate backup while improving recovery points and recovery times. The result is unmatched data protection.

Less Plate Spinning, More Strategic Value

For IT, the simplicity of the Nasuni File Data Platform means less time managing storage, backup, VDI environments, and more. “If we can free up IT time from essentially keeping all these plates spinning, then our team can generate more value by focusing on strategic work,” says Ferguson. “In the past, we had six people maintaining file servers. A whole other team was just managing virtual desktops. Now that our file data is in Nasuni, these people can do other things for the company.”

Faster Disaster Recovery

Previously, when an office suffered a power outage or another disaster, IT had to work with the local engineers to determine which files and folders had to be restored first. By the time IT had spent several hours working on a solution, the power would often already be back on. Nasuni allows Kimley-Horn to recover almost immediately.

“Nasuni has already helped us with several small-scale outages,” says Stetson. “John was able to handle one of them within 15 minutes and provide everything the engineers needed. They were working from home and didn’t even know anything occurred.”

Remote User Support

Nasuni provides Kimley-Horn more flexibility with servicing remote users. As file data is consolidated in AWS by Nasuni, with Nasuni Edge Appliances providing access points in all locations, file storage didn’t need to move.

Outlook & Assessment

Ultimately, Nasuni enables the IT department to give the Kimley-Horn engineers the tools they need to excel, providing fast, efficient collaboration across different teams and unwavering data protection across all file data. “Nasuni has addressed the root of our problems by consolidating all of our file servers in the cloud,” says Ferguson. “The collaboration capability is big for us, but Nasuni also replaces complex multi-tiered backups and the need to do forklift storage upgrades. Those are big value adds. All that end-point maintenance and worry and monitoring around file storage capacity is gone because we’ve got our file data in Nasuni and AWS.”

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ABOUT NASUNI CORPORATION

Nasuni is a leading file data services company that helps organizations create a secure, file data cloud for digital transformation, global growth, and information insight. The Nasuni File Data Platform is a cloud-native suite of services offering user productivity, business continuity, data intelligence, cloud choice, and simplified global infrastructure. The platform and its add-on services replace traditional file infrastructure, including Network-Attached Storage (NAS), back-up, and DR, with a cloud-scale solution. By consolidating file data in easily expandable cloud object storage from Azure, AWS, Google Cloud, and others, Nasuni becomes the cloud-native replacement for traditional NAS and file server infrastructure. For more information, visit www.nasuni.com.