



Penspen accelerates shift to Windows virtual desktops with Nasuni

Penspen modernizes its infrastructure to leverage unlimited file storage capacity, enhanced data protection, and one global namespace.

Penspen provides engineering and management services to the oil and gas industry in over 100 countries worldwide. Founded in the U.K. in 1954, the company has undertaken more than 10,000 projects, and now has major offices in London, Mexico, Houston, Abu Dhabi, and Bangkok.

Penspen differentiates itself based on the technical and operational quality of service the company delivers to its clients and partners. This emphasis on technical and operational excellence inspired the firm's IT leaders to modernize its infrastructure with Nasuni cloud file storage. With Nasuni backed by Azure Blob storage, Penspen has unlimited file server capacity, stronger data protection, and simpler management for its small IT team. Nasuni and Microsoft were also instrumental in Penspen's rapid transition to virtual desktop infrastructure (VDI) at the start of the coronavirus pandemic.



Industry

Oil and gas

Cloud file storage

Nasuni

Object storage

Microsoft Azure Blob storage

Use cases

VDI; NAS consolidation;
backup/DR to the cloud;
global multi-site collaboration

Benefits

Agile, adaptive infrastructure;
unlimited scale in the cloud;
reduced global storage
infrastructure footprint; hands-
off data protection; rapid
ransomware recovery

“Penspen’s shift to Nasuni delivered real value as we transitioned our entire global workforce to a working from home model without having to worry about disrupting project delivery, global collaboration or productivity,” says Andrew Bond, director of IT at Penspen.

Nasuni cloud file storage

Initially, Penspen deployed hardware-based Nasuni Edge Appliances at 19 global locations. The appliances cache copies of frequently accessed files locally for fast access, while all file data resides and scales in Azure Blob storage. By modernizing with Nasuni, Penspen was able to trade its traditional file server hardware and backup systems for a single platform. “All of our old file servers are gone now,” explains Penspen Infrastructure Engineer Michael Norman. “We’ve shut those file servers down and we’re pointing everything to Nasuni.”

Nasuni’s cloud-native approach to file storage leads to a wide range of benefits, including a single global namespace for all file data, but it also gives enterprises like Penspen a more agile, flexible infrastructure. This, in turn, allows companies to respond quickly to unexpected events or strategic shifts.

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Rapid transition to Windows virtual desktop

Prior to the pandemic, Penspen had begun to experiment with VDI through Microsoft Windows Virtual Desktop (WVD) instances. Several of its engineering machines were approaching end-of-life, and the IT team was testing whether high-powered virtual desktops could handle the demands of their critical engineering software. Then, COVID-19 struck. “At the last minute, we needed to get people quickly working from home,” recalls Norman. “The majority of our technical staff are in the U.K. and Southeast Asia. They don’t all have laptops that would allow them to VPN into the office, so they needed a way to work from home using their own devices, and WVD and Nasuni fit the bill.”

Nasuni and Microsoft Windows virtual desktop

Penspen had already deployed a Nasuni Edge Appliance virtual machine in Azure as a failover for its UK offices. To support its now remote workforce, the firm stood up WVD instances in the Azure regions closest to its employees, and pointed each of those virtual desktops back to the Azure-based Nasuni appliance. “The transition was seamless,” says Bond. “We ran some tests, spun up resources in the key regions, and then optimized them as our design teams started to work from home. They simply logged on, and it was as if they were working in the office.”

Nasuni and Azure are giving the firm:

Single source of truth

With Nasuni, Penspen can spin up Edge Appliances to cache active files wherever fast access is needed – and spin those VMs down just as quickly. Yet that single source of truth is still the gold copies of all files stored in Azure Blob.

Cost-effective cloud usage

Nasuni ensures that all file data scales in low-cost Azure Blob storage, while the Edge Appliances running in Azure use only a small amount of Azure premium disk to deliver high-performance I/O for frequently used files. Thanks to Nasuni's intelligent caching algorithms, Penspen only provisions premium disk for 1.8% of its total storage footprint. Even that, Norman estimates, could be overkill, and his team might reduce that number.

Hybrid office/home support

Today, companies are uncertain about whether they're going to need to support a fully workfrom-home (WFH) environment, an office-centric model, or a more flexible hybrid setup. Nasuni allows Penspen to adapt to any of these models. If its users return to the office, lightweight Nasuni Edge Appliances will be waiting on-premises to give them fast access to the files they need. Either way, Nasuni maintains a single source of truth for all file data in Azure.

Fast VDI performance for all global users

In any VDI deployment, the closer the files are to the VDI instances, the better the performance. For that reason, Penspen is considering deploying Nasuni Edge Appliance VMs in other Azure regions, such as Southeast Asia, to optimize performance for local engineers. Even in the current scenario, however, with global WVD users accessing the Azure-based Nasuni appliance in the U.K., performance has met expectations. "The users in the US who are using the UK VM's were impressed with how quick it was pulling up the images they needed, because some of the CAD drawings are quite large," says Norman. "With the WVD instances and Nasuni file storage being in the same Azure data center, you're using the Microsoft links and back ends, and it's very quick."

Additional Nasuni benefits

Nasuni continues to impact Penspen in other ways, beyond supporting its increasingly virtual infrastructure.

Simpler IT management

Despite its global presence, Penspen has a small IT team, so any solution that reduces IT workload is beneficial. "With Nasuni we're not having to look after all the hardware, the backups, the backup tapes, and everything else that goes along with them," notes Norman. "Nasuni is quite easy. You set it and forget it."

Fast ransomware recovery

Like so many other large global enterprises, Penspen has to manage the occasional ransomware incident, and Nasuni has proven to be a valuable asset here as well. "We've had a few issues with files or folders that caught ransomware, but we caught it quickly and rolled back to the last Nasuni snapshot within a few hours," Norman says. "Nasuni saves you that time of going offsite, getting tapes, bringing them back, cutting open the tapes, reading them. With Nasuni, it's a quick click a box and go, and then all the files are back."

Looking ahead

As Nasuni innovates, Penspen is exploring new functionalities, including the Nasuni Analytics Connector. Overall, Nasuni's integration with Azure and Windows Virtual Desktops, combined with its versatility as a replacement for traditional file storage and backup, have solidified the platform's position as a critical piece of Penspen's infrastructure for years to come. "The agility we get from Nasuni's cloud-based file synchronization technology and Microsoft's cloud virtual desktops is going to make us think long and hard when the time comes to purchase our next set of physical workstations," says Bond.



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Nasuni is a fluid data platform for enterprises facing an explosion of unstructured data in an AI world, eliminating the choice between expensive tinkering or an overwhelming transformation of your entire data infrastructure.

The Nasuni File Data Platform delivers effortless scale in hybrid cloud environments, enables control at the network edge, and meets the modern enterprise expectation for protected, insight- and AI-ready data. It simplifies file data management while increasing access and performance.

Consolidate data, cut costs, and empower users — all while transforming your data from obstacle into opportunity.