RAMBOLL

Engineering & Architecture Giant Deploys 3 PB of Agile, Collaborative Cloud File Storage with Nasuni®

Ramboll tires of management headaches, slow recoveries, and silos of file data associated with traditional storage

INDUSTRY:
Architecture, Engineering & Construction

CLOUD FILE STORAGE:
Nasuni

OBJECT STORAGE:
Microsoft Azure Blob Storage

USE CASES:
NAS & File Server Silo Consolidation; File Backup & Recovery; Global File Sharing/Collaboration

BENEFITS:
Unlimited, on-demand file server capacity; a single global namespace for all sites; faster file recoveries; agile, adaptive infrastructure; more efficient global workflows

Founded in Denmark in 1945, Ramboll is a leading engineering, architecture, and consultancy firm with 16,500 employees in 35 countries and 300 remote offices. The company partners with clients to create the infrastructure behind sustainable societies in which both people and nature can flourish. On a given project, Ramboll combines local experience with a global knowledge base, tapping the expertise of engineers and architects all over the world. As Ramboll built on this collaborative model, the company's IT leaders realized it would benefit from a new kind of file storage infrastructure.

Ramboll was relying on physical and virtual storage systems, backed by SnapMirror, at many of its global offices. While this environment worked, the recovery times were frustratingly slow for some locations. The challenge of maintaining this global infrastructure was significant, too. "We would have to do multiple updates on a weekly basis," recalls IT Project Manager Morten Madsen of Ramboll. "It was not a scalable solution for a company of our size."

File data was siloed at each site, inhibiting collaboration between employees in distant locations. Latency plagued CAD applications, and moving data across borders was particularly difficult. "We would have the data used by a branch office in that specific branch office, and it was always a pain to collaborate between offices," adds Madsen. "Whether they tried FTP, email, OneDrive, or similar solutions, it was never optimal."

NASUNI

Nasuni Cloud File Storage

As Ramboll began looking for solutions to its storage, backup, and management problems, IT discovered Nasuni, which delivers multiple capabilities in one platform. Nasuni consolidates all file data in cloud object storage, then caches copies of just the frequently accessed files wherever high-performance file access is needed using lightweight Nasuni Edge Appliance virtual machines. "We ended up purchasing 200 TB of Nasuni backed by Azure Blob storage and deploying Edge Appliances in different branch sites," Madsen recalls. "We were pleasantly surprised by how easy it was, and how each Edge Appliance can deliver the same file server experience as our NetApps using a much smaller local disk footprint."

When the coronavirus hit, the Nasuni deployment quickly expanded. Today, 3 PB of global file data is stored, protected, and managed in Nasuni.

Agile File Infrastructure

Ramboll's IT team had to ensure that its global offices could remain productive in a work-from-home environment. This proved particularly challenging in India, where the company has four locations, including a major engineering center with 300 users who support colleagues around the globe. "All of our people were sent home and we were basically unsure whether we would be able to fix it if a failure or cooling problem happened at one of our Indian data centers," says Madsen. "At that point we expanded our Nasuni deployment and offloaded our local file data to Nasuni."

In doing so, the company ensured that this local file data was securely protected in Azure Blob storage. When the server room at the company's Mumbai location went dark, IT took the additional step of deploying a Nasuni Edge Appliance VM in Azure. "The planning was actually perfect," Madsen notes. "We went over all the menus a couple of times, checked everything over, and in two hours we were up and running."

Optionality & Flexibility

The ability to deploy file shares on-premises or in the cloud with Nasuni gives Ramboll tremendous flexibility. Now, instead of connecting through VPN to file shares in the Mumbai office, local users connect directly to file shares in the Azure cloud. This fixed the immediate problem when the Mumbai office went dark, and it gives Ramboll a proven solution if something similar happens in another global office. "If we have any outages," Madsen notes, "we know we can switch to Nasuni file shares in the cloud like we did in Mumbai."

Global Engineering Collaboration

The cloud-native architecture of Nasuni – which also orchestrates the Nasuni Global File Lock® to eliminate version conflict - offers much improved support for Ramboll's collaborative workflows. Not all Ramboll projects require global collaboration, but for the ones that do, it is essential.

Ramboll has tried SharePoint and other solutions over the years, but they never worked well enough with the firm's CAD applications. Nasuni's cloud-native file system, UniFS®, is built to handle files of any size, volume or complexity. "Nasuni's ability to support those applications and present the data in multiple locations is going to be an enormous help to the business going forward," Madsen says.

More Efficient Workflows

Ramboll's margins are determined in part by the hours its engineers spend on a given project. Delays with downloading, uploading, or sharing file data impact the company's bottom line. By maintaining fast local access to files, and accelerating global file sharing and collaboration, Nasuni is reducing unproductive downtime.

Reduced Complexity

Ramboll now has a single platform for storing, protecting, and managing file data across its 300 remote offices, which simplifies work for IT. Yet Nasuni has also had a major impact at the company's Copenhagen headquarters, where the technology eliminated all the complexity associated with AltaVault.

Built-in Data Protection

Ramboll no longer has to worry about slow recoveries at distant global sites. Nasuni Continuous File Versioning® ensures that all locations enjoy vastly improved recovery times and recovery points, including 15-minute disaster recovery. Plus, data protection is automatic, requiring little or no maintenance on the part of IT.

Total Cost of Ownership

When evaluating the cost of switching to Nasuni and Azure, Ramboll realized that it wasn't a straight price per TB comparison. For example, Nasuni Continuous File Versioning, which creates an infinite read-only version history of every file system change in Azure Blob storage, eliminates the need for traditional backup infrastructure. And this feature is included with the Nasuni subscription. "Looking at the total cost with backup included, it actually came down to roughly the same as what we would be paying for a new NetApp system, but we would still have the challenges of scale which we don't have with Nasuni," Madsen says. "And of course Nasuni provides many extra features that we wouldn't get with traditional storage."

90% Hardware Reduction

Many Nasuni customers report reducing local file storage infrastructure by 90%. As Nasuni is deployed in more locations, and more of Ramboll's file server and NAS hardware at these sites approach end of life, the company envisions a similar shift. "Instead of buying a hardware solution with eight drives," Madsen says, "we could go for a smaller host with just two SSDs for the Nasuni Edge Appliance, and that would be plenty of space for Nasuni to cache copies of the frequently used files."

Fast Branch Office Performance

The report back from branch offices that have switched to Nasuni has been quiet, which in Ramboll is a good thing. IT tries to minimize disruption when moving to a new system, and the move from local storage infrastructure to Nasuni cloud file storage has met its standards. "It basically means that they have been unable to tell the difference," says Morten.

Unbound by Infrastructure

Although Ramboll does not have a strict cloud-first policy in place, management is very eager for IT to shift away from physical infrastructure when possible. In this vein, Nasuni addressed Ramboll's immediate challenges around global access, WFH support, and backup, but it also supports the company's vision for the future. "We don't want to be bound by data centers," Madsen explains. "Nasuni makes a lot of sense as it gives us unlimited object-based file storage in the cloud, and offers the flexibility of moving or deploying a new appliance within a two-hour time frame and making the data available somewhere else."

About Nasuni

Nasuni is a file services platform built for the cloud, powered by the world's only global file system, UniFS®. Nasuni consolidates Network Attached Storage (NAS) and file server silos in cloud storage, delivering infinite scale, built-in backup, global file sharing, and local file server performance, all at half the cost of traditional file infrastructures. The Nasuni software-as-a-service platform is most often used for NAS consolidation; backup and recovery modernization; multi-site file sharing; and rapid, infrastructure-free disaster recovery, while also serving as a foundation for data analytics and multi-cloud IT initiatives.