



NEXT-GEN TEAM COLLABORATION

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HOW TO ACHIEVE HIGHER PERFORMANCE WITH CLOUD STORAGE





NEXT-GEN WORK REQUIRES MORE THAN CONNECTION

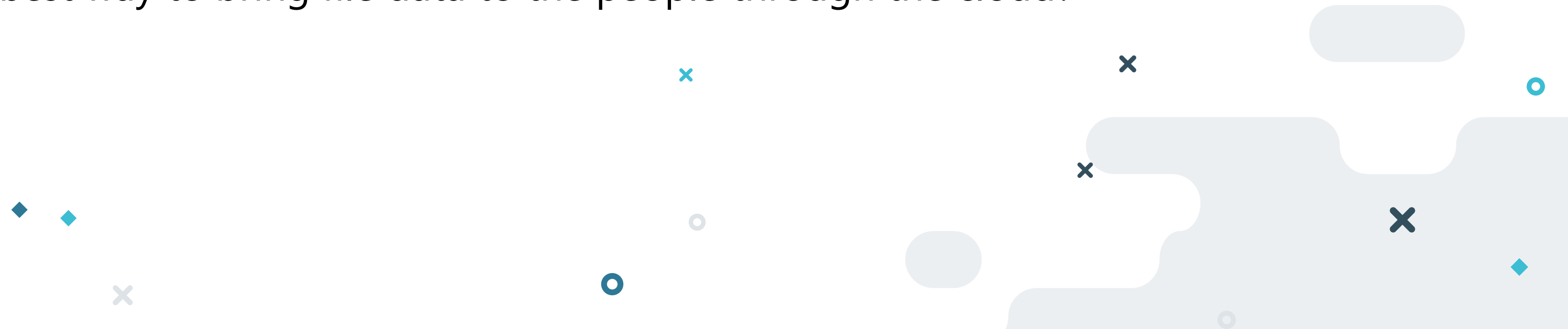
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The modern workplace is no longer a place. It's a group of people brought together by skills and organizational goals. The data team might be in Hong Kong, the strategy guru could be out of London, with design in San Mateo. With advances in modern computing, competitive advantage depends on bringing skills and talents together, wherever they happen to be.

As computing power grows every month, collaboration issues are only expanding. File sizes have exploded in every field from healthcare to manufacturing, from engineering and construction to the creative industries. Three-dimensional medical images allow for quantum leaps in noninvasive diagnosis, but the image files can be more than 20 times the size of flat images. High-quality 8K-resolution video provides far more detail and range of creative application than even HD, but the files are 16 times larger. The data and applications we work with are growing 10 times faster than block storage needs. And if you've got multiple locations, coordinating all that unstructured data, from AutoCAD to video files, puts a huge strain on organizational agility—not to mention the sanity of your IT department.

This is just the beginning. While IT organizations are dealing with storage and management of ballooning files, line-of-business teams struggle to access the data and apps they need for effective, essential collaboration. Productivity, agility, innovation, worker morale, and, of course, profits all depend on teams working together, regardless of location. The collaboration revolution means nothing if our teams are constantly tangled up in out-of-space issues, version confusion, and access performance problems.

With all these considerations across multiple locations, it's clear traditional file-storage solutions are too ungainly and expensive to hold on to for long. The question is, what's the best way to bring file data to the people through the cloud?



THE CLOUD OPPORTUNITY: MOVING FROM CAPITAL EXPENSE TO OPERATING EXPENSE

To find the real value of moving to the cloud, IT infrastructure analyst firm Enterprise Strategy Group (ESG) quantified the business advantages of cloud storage and management of unstructured data through an economic value validation study over a three-year period. The result? Overall, they found a 73% savings and benefits advantage in moving to cloud-based enterprise file services using cloud storage platforms such as Azure and a cloud-based global file system such as Nasuni.

98%

LOWER HARDWARE AND SOFTWARE ACQUISITION COSTS

This dramatic savings comes from a number of efficiencies and reductions, the first of which is equipment costs. Naturally, traditional file storage requires the capital layout for equipment. That's no longer necessary with modern solutions like Azure and Nasuni. Files are hosted in the cloud with a small subset of active files cached on-premises, and files are continuously protected as independent versions in the cloud as they change. This significantly reduces hardware and software acquisition costs by eliminating the on-site need for:

- Full-sized storage arrays
- Backup devices and media
- Licenses for data protection
- Deduplication of redundant files

98%

LOWER MAINTENANCE AND SUPPORT

Without as much hardware and software to buy, maintenance expenses all but disappear for things such as:

- Electrical power
- Datacenter cooling
- Floor space for equipment
- On-premises data protection

88%

LOWER STAFFING AND PROFESSIONAL SERVICES COSTS

Simpler, centralized administration lowers the costs of staffing and professional services. When changes are called for, ESG found that organizations also save on:

- Storage provisioning
- Setup and upgrades
- Project management
- Help desk staffing
- Management of backup, replication, and restore activities

Finally, a move to the cloud has strategic budgetary advantages. Because it's subscription-based, much of the cost moves from a relatively unpredictable capital expense, to a more evenly distributed, affordable operating expense.

5 KEYS TO A SUCCESSFUL CLOUD PARTNERSHIP

To make the most of the savings and increased efficiency of cloud-based file storage, there are several key elements any solution should offer your organization.

MULTI-SITE ACCESS

Of course, this is the whole point for the lines of business: global accessibility. The variable is speed. Look for solutions with the gold copies of all files stored in the cloud, with caching appliances located anywhere high performance file access is needed. This architecture takes advantage of the limitless capacity of cloud storage, while providing fast access to actively used files through standard file-sharing protocols. Also look for solutions that can synchronize files across all caching appliances using public internet bandwidth – it's a lot faster and cheaper than transferring files using a private MPLS-based network.

BUILT-IN DATA PROTECTION

Teams shouldn't have to spend a lot of time trying to recover data after an outage. Modern file systems designed for cloud storage use snapshot and data sharding technology to provide unlimited version retention without the expense of backup or replication. Data sharding enables files to be continuously protected by sending just the tiny fragments of the file that changed to the cloud, rather than protecting them once a day or once a week using large single-point-in-time snapshots or traditional file backup. By having a continuous version history of every file, you'll have the ability to recover files from any point in time to mitigate malware, ransomware, and accidental deletions. And the recoveries will be much faster, too.





INFINITE SCALABILITY AND STORAGE CAPACITY

Scaling traditional file storage on-premises can be an expensive, time-consuming, and complex process. But scale is one of the major benefits of a cloud solution. If you have a modern file system that scales up in the cloud, increasing capacity to any size should be no more than a matter of license expansion. Since on-premises caching appliances only store the active files, which increase at a much slower rate, you won't even have to upgrade those. Just increase your cloud storage volume, and watch your on-premises project directories, group shares, and user home drives automatically expand.



VERSION ALIGNMENT AND GLOBAL FILE LOCKING

This is a major concern for any collaborative organization that needs to share files across multiple locations – making sure changes made in one office don't overwrite changes made in another office. This can be addressed in part by a global file system with the ability to store every change made to every file in cloud storage and align every version of every file in the order in which they were changed. The other critical part is to have a way to globally lock a file to ensure only one person in any location has editing rights. This combination of global file locking and global version alignment enables distributed teams to collaborate without the data loss—and lost productivity—that often comes from cross-office version conflict.



STRONG SECURITY

Some organizations are still wary of storing data in the cloud. The first way to overcome this concern is to use a modern file system that uses the same on-premises authentication and access procedures you use today—such as Active Directory—to store and retrieve files. The second way is to use a file system that encrypts all file data on-premises using an industry standard such as AES before it is sent to the cloud. The third way is to use a file system that lets you—and you alone—hold and manage the encryption keys. That way, neither the cloud storage provider nor the file system provider can see your data, and it will be fully secure both at rest and in transit.

COLLABORATION IN THE CLOUD: BRINGING FILES TO THE PEOPLE BENEFITS THE PEOPLE

There are well-documented business advantages to the improved teamwork engendered by collaboration technology. A well-known study by Frost & Sullivan showed that improved collaboration increases worker productivity by [as much as 400%](#). The study also found that the more advanced tools a company uses and the more collaborative culture the company nurtures, the greater the productivity boost. Even small efforts result in increases.

The benefits of increased collaboration apply to the needs of specific industries. Engineers, for instance, improve product development, which lowers the cost of innovation. Marketing collaboration results in increased sales performance and customer retention. Even HR organizations benefit by improving recruitment and employee retention rates. As an aside to the recruitment findings, more and more of the top candidates for employment are strongly considering an employer's ability to put them in contact with the best in their field—no matter where they are. The companies that win these star employees will be able to make the connections workers demand without missing a beat.

The benefits in ROI have been measured in a study by Salire. They found that the return on an investment in collaboration technology can show a 100% payback in as little as 21 months. And depending on the industry, the five-year ROI on collaboration technology can be as high as 204%.

WHO'S MOVING TO THE CLOUD FOR COLLABORATION? JUST ABOUT EVERYONE

Given all the advantages and cost savings moving to the cloud provides, it's no surprise that companies are making the move—and they're making it fast.

According to a [McAfee study](#), 74% of organizations surveyed currently store sensitive material in the cloud. The same survey by McAfee found that respondents with a cloud-first strategy expect that within an average of 15 months, 80% of their IT budget will be cloud-related.



CASE STUDY IN MOVING TO THE CLOUD: AUSTIN RADIOLOGICAL ASSOCIATION

Austin Radiological Association (ARA) stores almost a million digital imaging studies every year for medical facilities in central Texas—from X-rays to MRIs. This large volume of data—and the growing size of medical imaging files themselves—meant ARA was quickly running out of on-premises storage capacity. Todd Thomas, ARA's CIO, describes their data growth dilemma: "It put our organization in a bind...is it really smart for us to continue to put capital outlay toward storage technologies when our consumption of that storage just keeps growing and growing and growing?" With a single expansion taking up to 10 months to complete, ARA had to find an alternative.

By moving to a hybrid cloud solution based on Microsoft Azure cloud storage and Nasuni's global file system, ARA solved multiple issues while maintaining the speed, scalability, security, and compliance standards essential to their operation. The protection benefits of Microsoft Azure allowed files to be replicated in multiple datacenters across the central United States. In addition, ARA uses Nasuni AD-based authentication for on-premises access to cached files, and encrypts all data stored in its file system using customer-controlled encryption keys before it leaves ARA's security perimeter. This allayed any concerns about data protection. "That was major for us," says Terrence Jones, ARA's Cloud Engineer. "Our compliance officer was very happy."

Not only was ARA's need for storage capacity growing quickly, it was also unpredictable, and purchasing more capacity could take 90 days or more. In one instance, a 150 TB migration had taken 10 months to complete. This would no longer meet business requirements, and growth was only accelerating, demanding almost instant scaling of capacity. Jones explains, "We figured that with our current storage infrastructure, we would possibly duplicate the floor space within a year, so we started looking at cloud storage."

Once ARA made the decision to store and secure its files with Azure and Nasuni, the implementation was simple and painless. "We were able to throw it into production in an hour or two and our radiologists didn't really notice a change," says Jones.

Todd Thomas sums up ARA's decision to move to the joint Azure-Nasuni solution: "It's much more cost-effective for us now. It's a lot easier for us to manage. Migrations become a thing of the past. The Nasuni platform was perfect for this particular project."



Working in the Azure environment, Nasuni provides an integrated solution to store, synchronize, protect, and access enterprise files globally at any scale. Powered by the first-ever cloud-native file system, Nasuni UniFS, Nasuni enterprise file services addresses two key use cases: multi-site file collaboration to boost the productivity of distributed teams, and remote and branch office file server and NAS consolidation to reduce IT cost and complexity. Nasuni offers the flexibility to be deployed fully on-premises, fully in the cloud, or as a hybrid cloud solution, with all options delivered as a predictable, pay-as-you-grow subscription software service.

MOVE UP TO THE CLOUD.

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