Azure NetApp Files

Meet your cloud mandate. Solve the capability gap. Move every workload to the cloud and run them at optimal performance in Azure with Azure NetApp Files.

KEY FEATURES

AT A GLANCE

- Fully automated, rapid service provisioning as a native Microsoft Azure service (run within Azure data centers)

- Migrate Linux, SAP, Oracle, SQL and other enterprise workloads in minutes

- Deliver bare-metal data performance as a service – available in minutes through the Azure portal

- Meet your cloud mandate in days or weeks instead of months or years

- Accelerate big data analytics to enhance research and data-driven decisions

- Increase operational efficiencies – save hundreds to thousands of hours without re-architecting for the cloud

- Best-in-class service performance (throughput and latency) delivered through full integration with Azure infrastructure

- Deep integration – prioritized compute capacity easily purchased through existing Microsoft EA

Although the cloud journey is well underway and continues to mature rapidly in this period of digital transformation, most enterprise and mission-critical workloads continue to remain trapped on-premises. With 65% of enterprise workloads still on-premises and nearly half of these workloads requiring file-based data, there is a capabilities gap.

The cloud is helping organizations reduce costs by removing the expense of building and managing data centers, while enabling scale-up capabilities on demand. This is driving every company to push for the cloud, or to meet a "cloud mandate", and we are experiencing a rapid explosion in demand for file protocols to service enterprise workloads as a result.

The Case for File-Based Storage in the Cloud

Microsoft and NetApp recognize that these organizations are considering large-scale migrations to the cloud to drive agility, developer productivity, and CapEx improvements, but have faced challenges with moving their enterprise file-based workloads for the following reasons:

- The lack of native file-based services in the cloud, whether Linux or Windows based, is forcing enterprises to refactor or rearchitect their applications to run in the cloud. In many cases, this can be extremely difficult if not impossible.

- Addressing file requirements in the cloud today, enterprises are forced to create their own, self-managed file servers based on top of cloud resources, resulting in a loss of productivity maintaining these file servers.

- Complex, self-managed virtual file servers lack the requirements for enterprise workloads with extremely limited performance requiring many servers to address scale.

Organizations are demanding a fully managed, native file share service in the cloud. One that is simple to deploy and without compromising performance, scale, availability and resiliency.
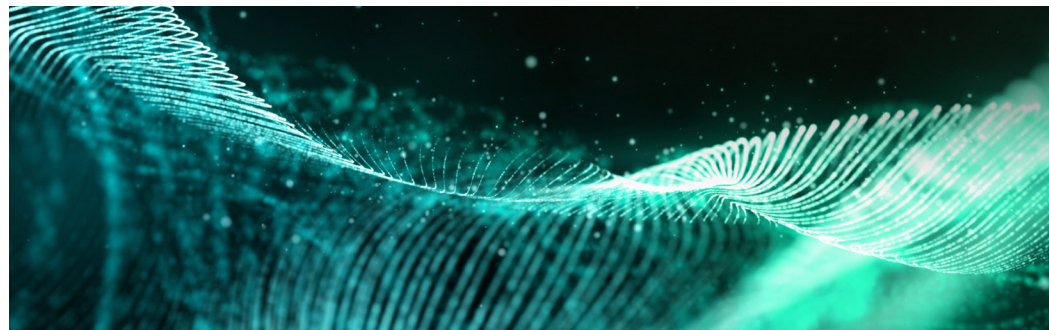
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Microsoft and NetApp – Two Decades of Innovation

Building on a two-decade relationship, Microsoft and NetApp have entered into a strategic partnership to tackle these challenges head on. This partnership sets the stage for the future with an ever-expanding portfolio of data management services.

The result is Azure NetApp Files, a native Microsoft service that delivers a seamless method to move and manage NFS workloads in the Azure Cloud. With Azure NetApp Files, customers are getting advanced data management capabilities and unprecedented performance for enterprise data and mission-critical, production applications.

The solution is built on NetApp technology designed with 25 years' experience delivering high-performance, highly available data management solutions.
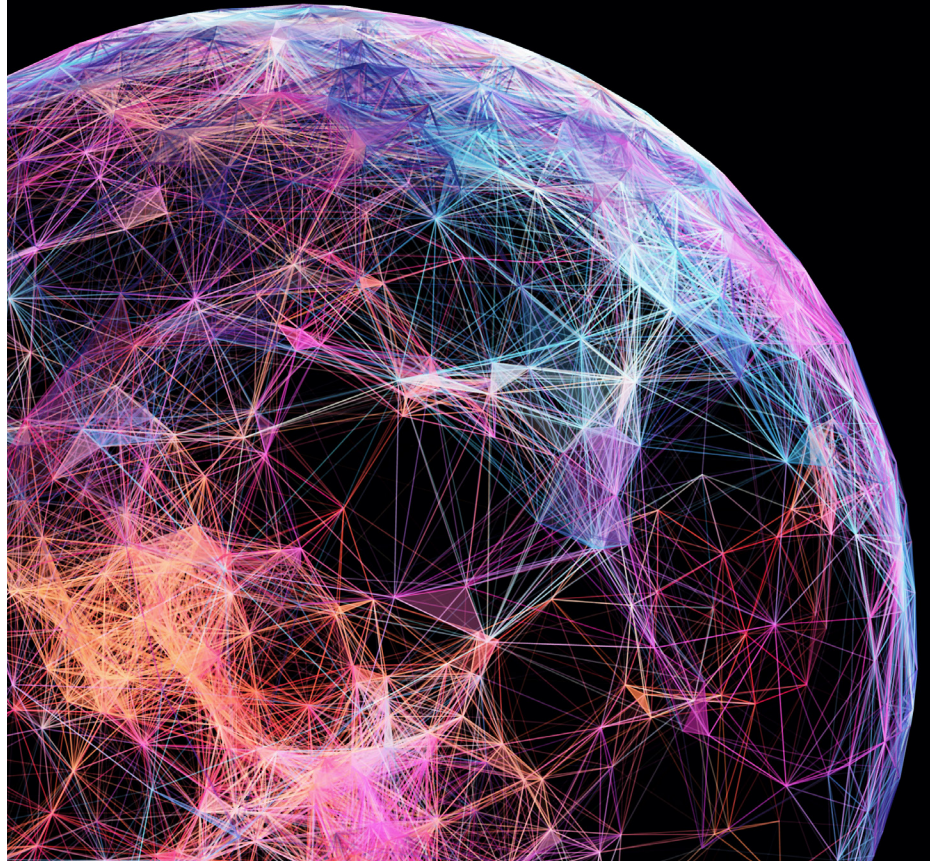
Azure NetApp Files

Azure NetApp Files brings enterprise-grade data management and storage to Azure so you can manage your workloads and applications with ease. Migrate your workloads to the cloud and run them without sacrificing performance. Azure NetApp Files removes obstacles, so you can move all of your file-based applications to the cloud. For the first time, you do not have to re-architect your applications, and you get persistent storage for your applications without complexity.

Because the service is delivered through the Microsoft Azure Portal, users experience a fully managed service as part of their Microsoft Enterprise Agreement. World-class support, managed by Microsoft, gives you complete peace of mind. This single solution enables you to quickly and easily add multiprotocol workloads. You can build and deploy both Windows and Linux file-based applications, even for legacy environments.

This service builds NetApp technology directly into the Azure data center so you can achieve extremely high performance with ultra low-latency to reach the needs of your critical workloads. With three service levels that can be changed on demand, you can fine tune your data performance to the needs of your applications and adjust performance on the fly. Performance for each volume scales with the amount of allocated capacity, so performance is not limited as your dataset grows. You can also increase and decrease the allocated capacity as needed without having to worry about adding or deleting underlying nodes.

USE CASE EXAMPLES

Azure NetApp Files supports and expedites the deployment of any workload through your Azure portal and your Microsoft EA. This means no separate marketplace products or licenses to worry about. It takes about 5 minutes to fully provision your Azure NetApp Files volume for your workload.

The primary use cases to consider when using Azure NetApp Files are file services, analytics, DevOps, and databases.

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File Services

Azure NetApp Files is a highly available and enormously scalable platform for creating cloud-based file-share environments. By virtue of NetApp's long-running experience of delivering enterprise, on-premises NAS solutions, Azure NetApp Files comes with a complete range of supporting features, such as read-only and read-write client access control, Linux file environments including connections over both NFSv3 and NFSv4.1*, Windows applications via SMB* with Active Directory integration, and together with NetApp data replication services, customers can easily get their data in and out of their Azure NetApp Files environments with ease. This helps users easily migrate existing applications to the cloud and provides an excellent platform for moving, developing and maintaining file storage solutions in the cloud. All of these features save users both time and budget, reducing expenditure on hardware, maintenance, power, cooling, and physical space. By using file services on Azure NetApp Files, organizations can focus technical resources on other projects that bring more value to their businesses.

"What you just showed me with Azure NetApp Files in 5 minutes is taking us months to do, if we can do it at all."

Senior Director, Global Retailer, at Microsoft Ignite

Analytics

Azure NetApp Files can be used to create data lakes in the cloud and synchronize data with on-premises systems or other data sources in the cloud. Advanced solutions for analytics and machine learning can access data in Azure NetApp Files through our integration with HDInsight and Azure blobs. Azure NetApp Files is embedded in the Azure data center, which means performance is premium.

"Azure NetApp Files is extremely fast, and I have the ability to manage my data with my current agreement. I plan to start this as soon as it's available."

IT Director at Microsoft Ignite

DevOps

One of the major benefits of using Azure NetApp Files is the ability to create clones of existing datasets without adversely affecting the source data. This feature makes it easy to set up development, test, and continuous integration / continuous delivery (CI/CD) environments that include access to an up-to-date copy of production data.

A clone is based on a Snapshot copy. To create a more up-to-date clone, users can simply use a more up-to-date Snapshot copy. A single Azure NetApp Files storage volume can support many simultaneous clones*, allowing DevOps engineers to provide cloned storage for multiple environments at the same time.

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Databases

As companies shift to web-based applications and e-commerce, they increasingly rely on open-source databases to manage and serve their business data. These databases are often at the heart of online transaction processing (OLTP), which can include banking, retail sales, and online purchases. Slow response times often send customers looking elsewhere. Will your customers wait for your application or web pages to load? Will they return to a slow website? Most customers won't do either. Reliable, high-performance storage is where Azure NetApp Files can help. Whether you're accessing the primary database or a Snapshot copy, you can expect excellent, consistent performance from Azure NetApp Files Service.

Azure NetApp Files supports different levels of performance* for each file system. Database administrators can allocate individual storage pools for hot or cold data, giving them fine-grained control over the use of high-performance storage or more cost-effective capacity storage. Azure NetApp Files makes file systems highly available and resilient against system failures, so setting up highly available database services in the cloud has now become easy.

If the success of your business depends on performance, availability, and reducing operational costs, consider the value that Azure NetApp Files provides. With Azure NetApp Files, you can be confident that your data is protected, encrypted, highly available, and high-performing.

"We are making a major shift to the cloud across the organization. As we start moving our apps to Azure, we will realize that our architecture is a mess. Azure NetApp Files will be the solution."

Senior Director, Global Bank, at Microsoft Ignite

Conclusion

Azure NetApp Files enables organizations to remove the complexity associated with implementing cloud-based file systems, allowing them to get up and running quickly and easily.

To learn more about the service, visit:

https://azure.microsoft.com/en-ca/services/storage/netapp/

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation, and optimize their operations.

For more information, visit **www.netapp.com**. #DataDriven

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*Cloning, multiple service levels, SMB and NFS v4.1 support coming soon.