

AZURE NETAPP FILES (ANF): DELIVERING ON-PREMISE PERFORMANCE IN THE CLOUD



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Data, applications, workloads – these are at the heart of the modern enterprise. Effective performance and management of such huge volumes and types of files have become a priority for organisations.

At the same time, many organisations are migrating more of their workloads to the cloud – 2020 alone has seen a huge acceleration in cloud adoption.

The use of Windows Virtual Desktop (WVD) tripled in the first quarter of 2020 as organisations deployed virtual desktops and apps on Azure to enable secure remote work.¹ Elsewhere, customers are embracing the DevOps approach by first moving their test and development systems into the cloud.

Performance, reliability and security of data and workloads have therefore become critical. However, this is something that organisations have struggled with in a public cloud environment – until now. In this guide we will examine how Azure NetApp Files (ANF) from CDW can deliver on-premise performance to your organisation, without the costs or hassle.

The challenges

One of the biggest barriers to cloud adoption in the past was the potential for storage bottlenecks. These spanned simple shared directories of data to more complex issues with enterprise applications, and even high-performance computing environments.

This problem once saw customers forced to build large on-premise file servers with expensive disks attached to gain high-level performance for such file shares. But that requirement has been eliminated by the introduction of Azure NetApp Files (ANF), a Microsoft Azure service that offers a fully managed, highly available solution for provisioning file services in Azure.

ANF removes the need for time-consuming and expensive architectural changes, making it much easier to seamlessly provision workloads in Azure, helping you meet your cloud requirements quickly. Delivering high-performance 'as-a-service', ANF can be used for migrating and running the most demanding enterprise file-workloads in the cloud including virtual desktops, SAP applications, and mission-critical databases – all with no code changes.

High performance

First introduced in 2019, ANF delivers the performance customers still require in the cloud, especially for complex, performance-intensive and latency-sensitive applications.

ANF is widely used as the underlying shared file-storage service for:

- Migration ('lift-and-shift') of POSIX compliant Linux and Windows applications
- SAP HANA
- Databases
- HPC infrastructure and applications
- Enterprise web-applications

Reduces costs

However, ANF not only delivers on performance, but helps you reduce costs and introduce greater flexibility to your IT usage. For example, there's no need to spin up any expensive infrastructure. Being a service in Azure, you can provision high performance file shares on demand, scaling or shrinking in line with your requirements.

Elsewhere, CDW has helped deliver ANF to our clients to push data out of the traditional datacentre. This has allowed customers to use a smaller percentage of their IT budget on renewing expensive SANs, as much of the data has been pushed into Azure.

Purchase ANF through CDW and get support through your existing Azure agreement, with no up-front or separate term agreement.

Ease of use

ANF is powerful, simple to use and reliable.

Shifting workloads to the cloud – whether part or wholesale – can be a daunting prospect for some organisations. But ANF enables easy migration of data across on-premise and cloud infrastructures. This simplifies 'lift and shift' and DevOps scenarios with capabilities like instantaneous snapshot, restore, and Active Directory integration that work the same way in the cloud and on premise.

Unlike any other cloud storage, ANF reduces customers' risk by offering on-demand, in-place service level changes, so the service level can be changed in seconds without requiring a time-consuming data copy. The service also brings support for both Linux and Windows files so you can choose the protocol and performance that best match your application requirements.

ANF comes with three performance tiers: Standard, Premium, and Ultra. This allows you the flexibility to choose a performance tier aligned with the workload requirements and optimise your IT budget. There is also no need to spend time procuring services as these can be provisioned in minutes, allowing unmatched flexibility.

You can use Azure NetApp Files to create an on-demand snapshot for a volume or restore from a snapshot to a new volume. Elsewhere, the cross-region replication disaster recovery capability means you can replicate your ANF volumes from one Azure region to another in a fast and cost-effective way, protecting your data from unforeseeable regional failures.

ANF also complies with leading industry certifications like GDPR. This, along with a default 99.99 percent availability for ANF means that you can migrate and securely run industry applications in Azure, with confidence.

Security

Microsoft invests more than \$1 billion annually on cybersecurity research and development – and Azure has more certifications than any other cloud provider.

ANF is built and operated in line with Azure's leading standards and processes for security, and benefits from the multi-layered security provided by Microsoft across its physical datacentres, infrastructure, and operations. ANF provides FIPS-140-2-compliant data encryption at rest, role-based access control (RBAC), Active Directory authentication and export policies for network-based access control.



ANF: Summary of features

- Support for multiple protocols enables 'lift & shift' of both Linux & Windows applications to run seamlessly in Azure
- Multiple performance tiers allow for close alignment with workload performance requirements
- Deep integration into Azure enables a seamless and secure Azure experience, with no learning or management overhead
- Leading certifications include use with SAP HANA, and is GDPR, and HIPAA-compliant to enable migration of the most demanding workloads to Azure
- ANF is now available to government agencies, making it the preferred solution to meet cloud-first mandates

Why CDW?

ANF is a first-party service, so it is built on NetApp Technology, but it is sold and supported by Microsoft. CDW's close relationship with both manufacturers has provided us with intimate access to the development process behind ANF, including exposure to many new preview features. This relationship means CDW's knowledge of the service is unparalleled.

CDW has now delivered ANF to customers across several industries to help drive down costs and increase efficiency.

"For me, of the services introduced by Microsoft to Azure in 2019, ANF AGM was probably one of, if not the most important service they brought forward."

– Azure Solution Architect, CDW

With ANF and CDW, you can leverage the best services on offer in the cloud, without the hassle or costs associated with running the IT on-premise. This also frees up your IT team to focus on other revenue-generating activities across the organisation. And of course, CDW can help you get the most out of all the updates and new features that you receive as soon as they are available.

CDW understands that ANF is a true Platform as a Service (PaaS). This means you're not simply moving your workloads to a different environment but can use the migration to modernise and innovate within your workloads. And importantly, as a cloud service, it enables you to do more with less.

Transitioning from custom-built datacentres to the cloud may be challenging, especially for applications that weren't born in the cloud. However, CDW is helping organisations globally navigate the complexities of cloud and unlock the value of their data.



Email us, or speak to your Account Manager today to see how CDW can deliver the perfect fit solution to help you adopt cloud services in a time- and cost-effective way, enabling you to optimise and manage your most demanding file workloads.



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¹ <https://news.microsoft.com/en-gb/2020/09/08/for-remote-working-to-be-a-success-the-first-thing-we-need-to-change-is-how-we-think-about-it/>

