

NATIVELY LAUNCH, RUN, AND SCALE APPS ON AWS WITH EASE

THE PROBLEM

Companies across all industries are looking to the cloud to provide common file shares for Windows and Linux workloads. Some general-purpose file services options may seem attractive, but they tend to be siloed, complex, slow, and risky.

Legacy vendors offer “cloud” as an afterthought, often leaving out basic functionality. Worse yet, their offerings can be costly, difficult to scale and to provision, and badly integrated with their applications. Don't get left behind.

THE SOLUTION

Trusted in thousands of data centers, NetApp® ONTAP® software provides a powerful set of storage and data management features that are the same on premises and in the cloud. Amazon FSx for NetApp ONTAP brings the full capabilities of ONTAP to a native AWS-managed service, enabling you to easily power primary workloads and quickly build modern applications.

Get full support for block, file, and object storage for Windows and Linux workloads. It's the first time these multiprotocol capabilities have been available as a fully managed service—all integrated with the complete NetApp portfolio. Now you can get data center-quality performance, control, and reliability in the cloud—sold, managed, and supported by AWS.

The future of cloud migration

82%

Management of cloud spending is the number one challenge for 82% of surveyed decision makers.¹

74%

On average, 74% of the applications that still reside in on-premises centers are candidates for transition to the cloud.²

50%

50% of surveyed business leaders cite IT infrastructures optimization as their top initiative for 2023.³

¹Flexera, 2023 State of the Cloud Report.
²ESG, NetApp Removes Hurdles to Cloud Adoption, 2020.

³Insight, The Path to Digital Transformation, 2023.

Five ways Amazon FSx for NetApp ONTAP offers the best of AWS and NetApp



1

Get the best of both worlds

Amazon FSx for NetApp ONTAP is delivered as an AWS service and powered by ONTAP, the industry-leading block and file storage system that lets you access data over NFS, SMB, iSCSI, and Amazon Simple Storage Service (Amazon S3) object protocols. It has never been easier to extend or to lift and shift Linux and Windows workloads into the hybrid cloud or AWS Cloud. With the NetApp BlueXP™ observability service, which uses [NetApp Cloud Insights](#), you can plan a smooth migration.



2

Bring your own preferred capabilities

Set up, manage, and monitor your data with the combined capabilities of the AWS Management Console and [NetApp BlueXP](#). FSx for ONTAP is the only cloud service that supports both AWS and NetApp APIs. So, configure away with ONTAP features like [NetApp Snapshot](#)™ copies, [NetApp FlexCache](#)® remote data caching software, and [NetApp FlexClone](#)® thin cloning. And integrate your favorite AWS services, such as Amazon CloudWatch, Amazon Elastic Kubernetes Service (Amazon EKS), and Red Hat OpenShift Service on AWS (ROSA).



3

Achieve AWS submillisecond response times

Migrate more performance-intensive apps to AWS and support submillisecond response times with the second-generation FSx for ONTAP file systems. Add HA pairs and adjust their throughput capacity, allowing you to scale your system from a single 2-node pair to up to 24 nodes delivering up to 72GBps of read throughput, up to 12GBps write throughput, up to 2.4 million SSD IOPS, and 1PiB of SSD storage for Windows and Linux file systems. And when it's time to migrate third-party data, ditch the kitchen sink for [NetApp BlueXP copy and sync](#).



4

Optimize price and performance

Get the cost-saving storage efficiencies of ONTAP: data deduplication, compression, compaction, and thin provisioning. By using elastic capacity pool tiering, automatically tier data from SSD storage to capacity pool storage, such as Amazon S3, based on access patterns. Proactively scale compute resources to maximize use for up to 90% lower cost with [Spot Elastigroup by NetApp](#).



5

Get data protection and security that doesn't quit

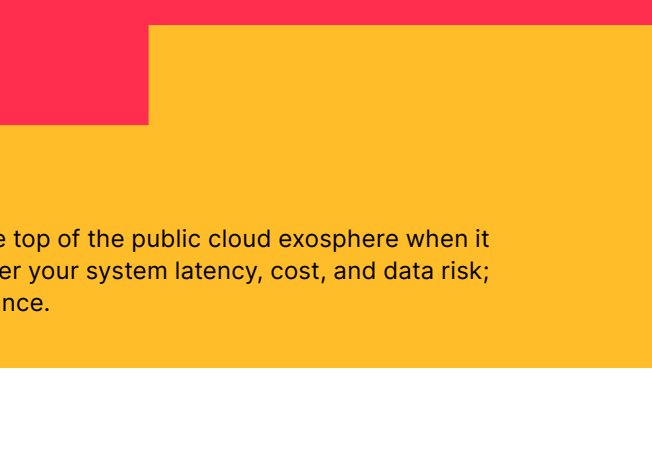
If data loss, ransomware, or data inconsistency occurs, instantly restore data with zero-impact Snapshot copies. Protect against file system unavailability with automatic [NetApp SnapMirror](#)® replication. With highly durable daily data backups powered by [NetApp BlueXP backup and recovery](#), you get simple and cost-effective incremental-forever, block-based backups—an outstanding solution for large NAS datasets. Support for [NetApp SnapLock](#)® Compliance on FSx for ONTAP provides immutable file storage to keep your electronic records both unalterable and rapidly accessible.

Unlock the best of AWS

FSx for ONTAP makes app migration, bursting, backup, and recovery of mission-critical workloads as easy as pie. Start with the agility and scalability that you expect from AWS, then extend from enterprise-grade to enterprise-great with NetApp's comprehensive suite of data services baked in. Always on, always available, and easily consumed—this is not your average AWS experience. Now that's tasty, no matter how you slice it.

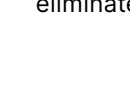
“By fully supporting NetApp ONTAP APIs and features like SnapMirror and SnapVault, Amazon FSx for NetApp ONTAP enables NetApp customers to seamlessly replicate their data from on premises to the AWS cloud.”

Tom DeCoster, Vice President of Hybrid Infrastructure at CDW



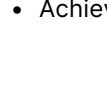
Competitive edge

More choice, more options, better public cloud—AWS is at the top of the public cloud exosphere when it comes to options for customers. Get FSx for ONTAP, your lower your system latency, cost, and data risk; streamline management; and get benchmark-tested performance.



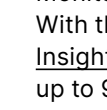
Full-featured ONTAP capabilities

- Effortlessly lift and shift from on-premises ONTAP deployments into AWS with just a few clicks.
- Extend your enterprise cloud on AWS by optimizing scale, time, and latency. No painful refactoring or code changes required.
- Simplify cloud storage management—across on premises and the cloud. The single-pane-of-glass [BlueXP](#) interface eliminates needless complexity.



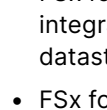
Service that's built in AWS, powered by ONTAP, sold through AWS

- Experience the agility, scalability, and reliability of running your applications on AWS with the same ONTAP capabilities, APIs, and high performance that you expect on premises.
- Simplify file distribution, reduce WAN latency, and lower WAN bandwidth costs with [FlexCache](#).
- Achieve always-on productivity with four nines availability.



Real-time infrastructure management with analytics

- Monitor and analyze with complete infrastructure visibility. With the [BlueXP](#) observability service that uses [Cloud Insights](#), you can reduce the mean time to resolution by up to 90%.
- Optimize resource costs for containers. Scale compute resources and achieve up to 90% lower costs with [Spot Ocean](#).
- Run cloud infrastructure without the hassle of managing the servers while [Spot Elastigroup by NetApp](#) provisions, scales, and rightsizes your workload requirements.

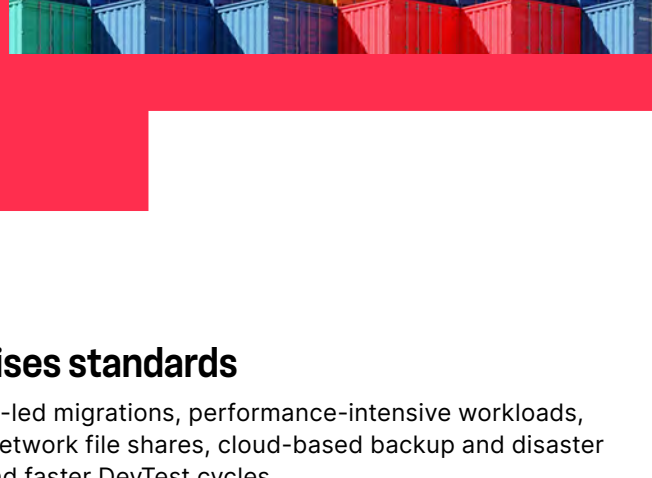


Tested and trusted service with more integrations and certifications

- FSx for ONTAP is certified for [SAP HANA](#) and is the only integrated, certified, and supported supplemental NFS datastore for [VMware Cloud on AWS](#).
- FSx for ONTAP obtained [Federal Risk and Authorization Management Program \(FedRAMP\) Moderate and High Authorization](#) and Department of Defense (DoD) Cloud Computing Security Requirements Guide (SRG) Impact Level 2 (IL2), IL4, and IL5 authorization. Government agencies know that FSx for ONTAP meets rigorous standards for security and risk assessments.
- Certified by Cohasset Associates, FSx for ONTAP supports [SnapLock Compliance](#) to reinforce the permanence and integrity of your data.
- FSx for ONTAP is integrated with many native AWS services, including [AWS DataSync](#) and [AWS Backup](#).

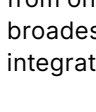
“Amazon FSx for NetApp ONTAP makes it easy for organizations to extend the power of ONTAP into AWS, enabling teams to easily use the NAS features and capabilities in AWS that they've come to love on premises.”

Edward Naim, General Manager of File Storage, AWS



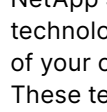
Ease migration to AWS while keeping on-premises standards

With Amazon FSx for NetApp ONTAP, you get capabilities for data-led migrations, performance-intensive workloads, petabyte-scale datasets, and data protection. You can use it for network file shares, cloud-based backup and disaster recovery, primary applications, born-in-the-cloud applications, and faster DevTest cycles.



Variety of file shares

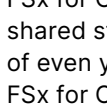
User shares, department shares, home directory shares, home directories and group shares require reliable and scalable data access for thousands of users. FSx for ONTAP is compatible with all popular client operating systems, and it integrates with [FlexCache](#) to give you low-latency access from on-premises environments. Take advantage of the broadest global infrastructure and full range of AWS service integrations.



Data protection and replication

Backup, archiving, and disaster recovery from on premises and across regions

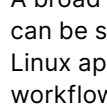
Managing backups and long-term data retention on premises can be complex, time-consuming, and costly. With FSx for ONTAP, you get centralized, policy-based [NetApp Snapshot](#), [SnapVault](#), and [SnapMirror](#) technology for easy backup, archiving, or replication of your on-premises workloads to AWS regions. These technologies can help you meet regulatory, data retention, and disaster recovery requirements.



IT databases and applications

SAP HANA, Oracle Database/RAC, SQL Server, CRM, ERP, VMware

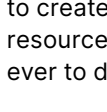
FSx for ONTAP delivers high-performance, low-latency shared storage that meets the operational requirements of even your most demanding enterprise applications. FSx for ONTAP is certified for VMware Cloud on AWS and SAP HANA workloads, and it supports highly available database workloads such as Oracle RAC and Microsoft SQL Server, as well as virtual infrastructure.



Line-of-business applications

Automotive, manufacturing, financial services, energy, and semiconductor

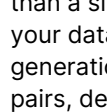
A broad set of industries depend on fast storage that can be shared across latency-sensitive Windows and Linux applications. Get multiprotocol support for complex workflows with the flexibility to burst on-premises data to AWS. FSx for ONTAP supports [SnapLock Compliance](#), which provides immutable file storage for enterprise workloads in regulated industries.



Faster application development

Ability to run cloud-native apps, full support for microservices and container management

Automate within minutes, then combine infrastructure as code, flexible compute bursting, and FSx for ONTAP storage to create, to clone, and to replicate your configuration and resources with just a few clicks. It's faster and easier than ever to develop and to test new applications.



Performance-intensive workloads

AI and generative AI (GenAI), electronic design automation, VFX production and film editing, statistical computing and analytics

These workloads need more performance or SSD storage than a single file system can provide. Instead of spreading your data and I/O across multiple file systems, second-generation FSx for ONTAP supports up to 24 nodes in HA pairs, delivering up to 72GBps of read throughput, up to 2.4 million SSD IOPS, and 1PiB of SSD storage for Windows and Linux files systems.

Simplify

Satisfy General Data Protection Regulation (GDPR) and other audit and compliance requirements with the [BlueXP classification](#) service. Thwart ransomware and other external threats with the Storage Workload Security feature of [NetApp Cloud Insights](#). Cloud-native FSx for ONTAP supports both AWS and NetApp APIs from the AWS Management console or NetApp BlueXP control plane.

Economize

Control your hybrid cloud data from the [NetApp BlueXP](#) control plane to unify siloed storage systems and data services on a single UI. Embrace “speed is the new scale”—what you expect in the cloud—without one iota of administrative overhead. Get access to important metrics to help you slash troubleshooting time, predict performance needs, and control infrastructure costs.

Protect

Provide disaster recovery for your on-premises and cloud data with [SnapMirror](#), along with automated data synchronization from [NetApp BlueXP copy and sync](#). Reduce backup times and instantly restore your data with zero-impact Snapshot copies. Get built-in automation to replicate copies across AWS Availability Zones and to gain control with cost-effective, incremental-forever, block-based backups.

Reduce

Significantly reduce your costs by up to 70% with the built-in efficiency features, including tiering, deduplication, and compression.

Optimize

Extend your resources. Build applications faster with multiprotocol support, hybrid caching, and bursting capabilities. Continually optimize your storage and compute resources with [Spot by NetApp](#) and reduce costs by up to 90%.

Licensing

With Amazon FSx for NetApp ONTAP, you don't pay for resources that you don't want. You pay only for the resources that you use, with no minimum commitments, licensing costs, or up-front fees. You're billed by the second for your FSx for ONTAP file systems, and you're billed monthly for any separately licensed NetApp portfolio services that you have enabled.

Additional resources

[Amazon FSx for NetApp ONTAP overview](#) >

[AWS overview of FSx for ONTAP](#) >

[Talk to a specialist](#) >

[See pricing details](#) >

[Get started](#) >

[View the user guide](#) >



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About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities.

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