

# Optimize your AWS experience for enterprise workloads



## Go from enterprise-grade to enterprise-great

Meet your cloud mandate for hybrid and cloud-native workloads

### The problem

The main challenge to cloud adoption is migration of tier 1 workloads. These mission-critical applications require an enterprise-scale architecture to handle high availability and performance demands.

Most organizations struggle to find cloud infrastructure and file services that meet their objectives for data protection, scalability, and resilience.

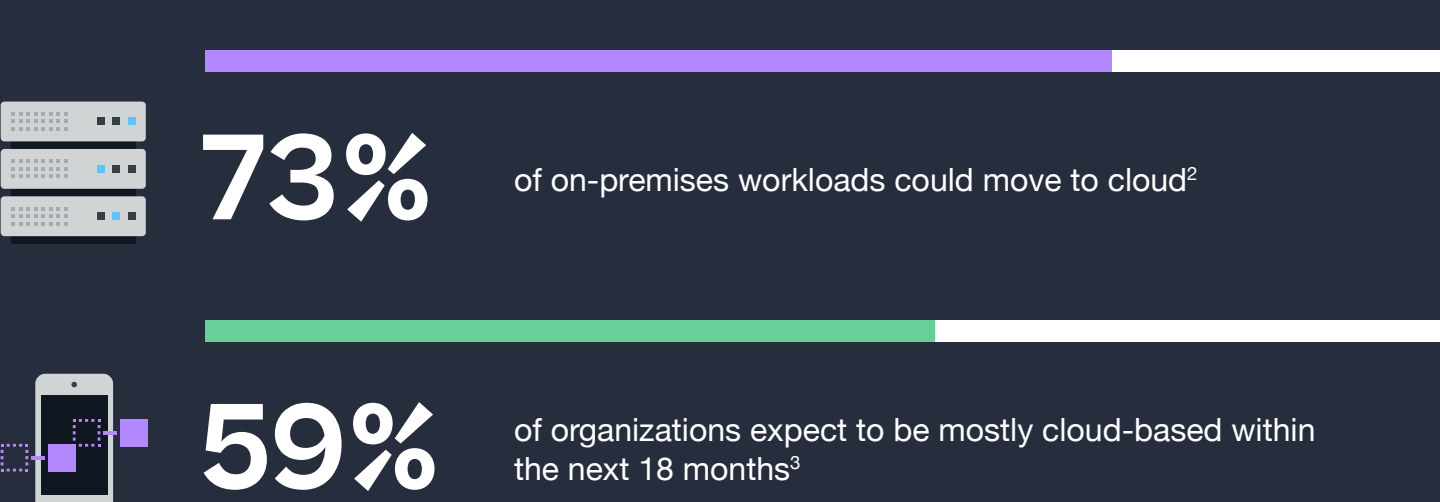
### The solution

NetApp industry-leading block and file storage has multiprotocol support for Windows, Linux, and iSCSI. Our enterprise solutions have the capabilities you need for migrating storage-heavy applications, databases, and DevOps environments to the cloud.

With NetApp® ONTAP®, you can natively run cloud workloads or swiftly lift and shift legacy apps into the AWS Cloud—all at optimized cost. You don't need to refactor code or redesign processes. And you can use ONTAP as a self-directed solution or as a fully managed service.

It's a snap to extend and migrate to AWS, because you're using the familiar file storage workflows, orchestration, and data protection capabilities that you use on premises.

## The state of enterprise application migration



“Because our customers are media and financial institutions, downtime is not an option. NetApp's highly available storage in AWS provides nonstop operations and business continuity.”  
**Lorenzo D.**  
 Lead Infrastructure Engineer, EidosMedia  
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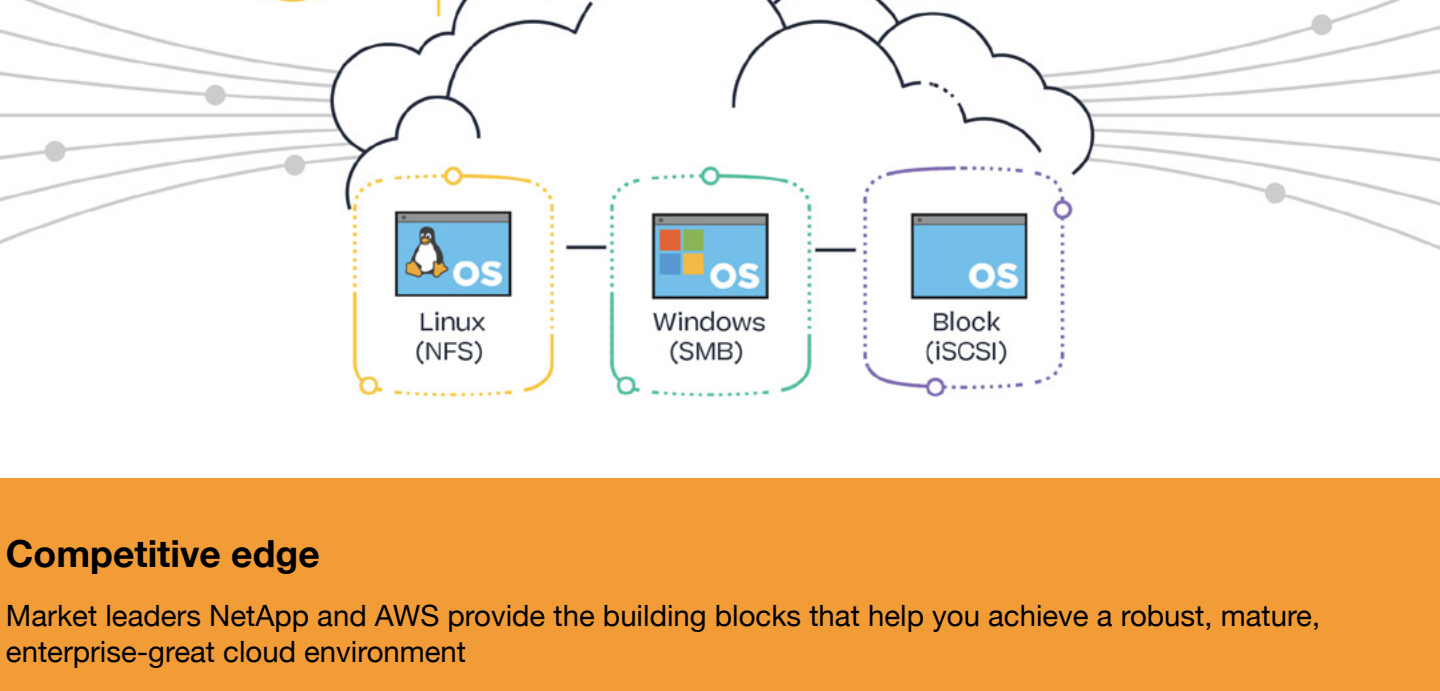
“Using NetApp Cloud Volumes ONTAP from AWS Marketplace, we have achieved recovery times in testing that are almost instantaneous, and with as little as 10 minutes of data loss.”  
**Peter Raettig**  
 Head of Technical Operations, Reach plc  
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## 5 ways NetApp and AWS support you

- We're the specialists**  
 Proclaimed market leader by Gartner<sup>1</sup> and GigaOm<sup>6</sup> and IDC<sup>5</sup>, NetApp is the choice for block and file storage in hybrid and cloud-first environments.
- NetApp + AWS = enterprise-great**  
 As partners for over a decade, NetApp and AWS have continued to migrate, build, and manage enterprise-scale Linux, Windows, and iSCSI workloads with ease.
- Continuous optimization**  
 When you extend mission-critical applications from the premises to AWS, you retain the data efficiencies and optimizations found in the data center—they're readily available on AWS.
- Durability and availability**  
 You can meet uptime and availability SLAs with simple and fast replication across AWS Availability Zones and get highly durable daily backups that are incremental forever and block based.
- Flexible data management**  
 NetApp ONTAP enterprise-grade data services combine with the agility and scalability of AWS to provide consistency across the hybrid cloud. You get a unified data experience whether you use the self-directed NetApp Cloud Volumes ONTAP or the native AWS-managed service in Amazon FSx for NetApp ONTAP.

## Unlock the best of AWS

Seamlessly create hybrid cloud storage on AWS

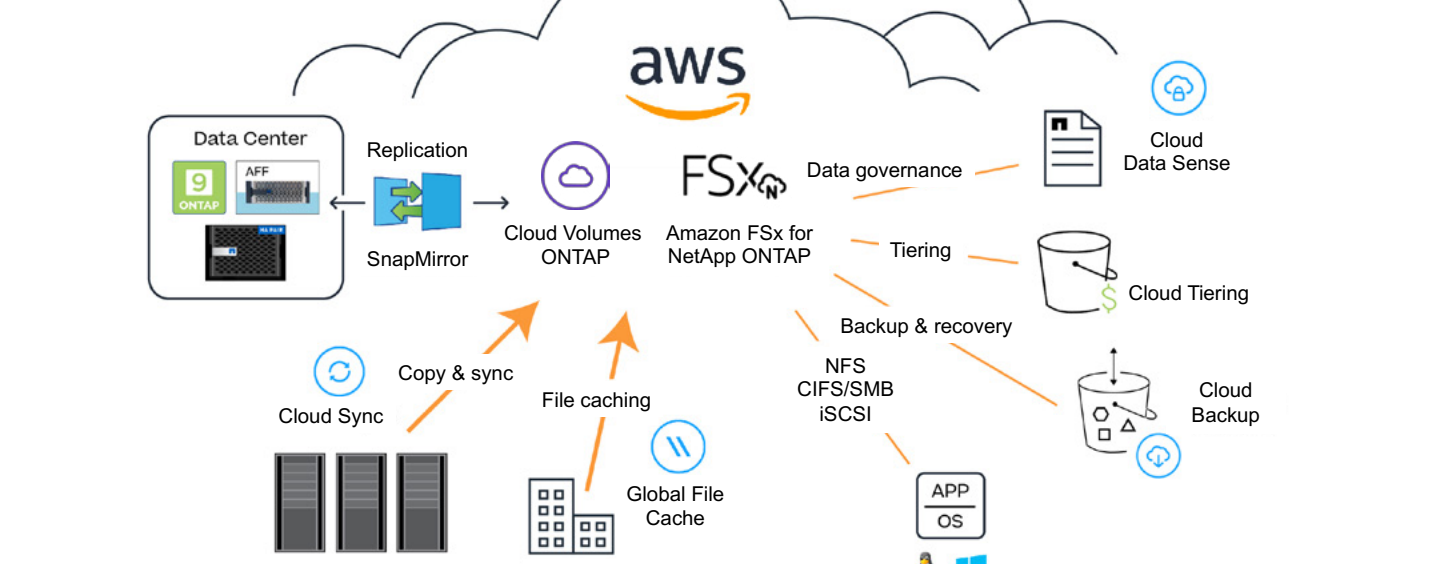


## Competitive edge

Market leaders NetApp and AWS provide the building blocks that help you achieve a robust, mature, enterprise-great cloud environment

- Supports your DevOps and application-driven infrastructures**
  - Increase DevTest agility with a cloud-native shared file system to shorten release cycles. Enable persistent data and state from containers and serverless functions like Amazon ECS, Amazon EKS, and AWS Lambda.
  - Enable availability across AWS Availability Zones.
  - Provide DevOps with common storage to organize and share code and files securely.
- Run file shares on AWS**
  - Launch, run, and scale NFS and SMB shared file storage for your business apps. Address storage-heavy workloads by connecting to Amazon EC2, Amazon ECS, VMware Cloud on AWS, Amazon WorkSpaces, and Amazon AppStream.
  - Meet the scalability, elasticity, availability, and durability required for enterprises.
  - Migrate storage-heavy apps, ERP, CRM, Microsoft Exchange, and SQL Server, and take advantage of Microsoft Active Directory integration.
- Lift and shift your enterprise workloads**
  - Migrate and build enterprise-scale architectures and hybrid cloud workloads. Support software-as-a-service (SaaS) applications with a multiprotocol file system. Optimize cost, time, and latency to streamline your migration without rearchitecting or sacrificing performance and reliability.
  - Automate data replication and failover, simplifying shared storage to host your database.
  - Easily migrate your Oracle and SAP HANA workloads to AWS with SAP-certified FSx for ONTAP and store database backups for protection during updates or DevTest.
- Get data protection for cloud workloads**
  - Get 3-2-1 data backup with incremental-forever, block-based backups. Take advantage of built-in storage efficiencies for cloud-based disaster recovery with drag-and-drop simplicity, nondestructive testing, compliance, security, and data sovereignty features.
  - Protect, repurpose, and easily manage your data by using NetApp Snapshot™ copies, rapid copies, and data synchronization.
  - Create data copies on AWS, and then lower disaster recovery costs with cold-storage tiering to Amazon S3.

## Unmatched solutions for your enterprise cloud



Optimize your AWS experience for enterprise-scale apps and meet your cloud mandate for hybrid and cloud-native workloads. Amplify your cloud storage infrastructure and data services through a unified control plane that helps to:

- Simplify.**  
 Deploy, discover, manage, and optimize data and its infrastructure from the comfort of [NetApp BlueXP™](#), a unified control plane delivering a simplified hybrid multicloud experience.
- Protect.**  
 Use the compliance dashboard with the BlueXP classification service using [NetApp Cloud Data Sense](#) to meet unstructured data standards and adhere to GDPR and other regulations by locating personally identifiable information (PII).
- Monitor.**  
 Take advantage of the BlueXP observability service using [NetApp Cloud Insights](#) to prevent ransomware and other external threats with the NetApp Cloud Insights Data Security feature.
- Optimize.**  
 Optimize capacity resources with fully elastic storage tiering with the BlueXP tiering service using [NetApp Cloud Tiering](#) to move cold data to Amazon S3. Scale compute resources to maximize use for up to 90% lower cost with [Spot by NetApp](#).

## Questions to guide your AWS journey

- Would you like to manage your data with the same set of features, no matter where it's stored?
- Do you have applications “stuck” on premises that you'd like to move to the cloud?
- Would you benefit from a lift and shift of Linux and Windows workloads to AWS that avoids a need to refactor?
- Can you take advantage of storage efficiencies that minimize your storage footprint and maximize your cost savings, while protecting against downtime with high-availability?
- Does the lack of performance or visibility across your hybrid cloud environment keep you from moving more workloads to the cloud?

## Licensing: Cloud Volumes ONTAP

Free Edition	Essential	Professional
Deploy Cloud Volumes ONTAP (single node or high availability) from NetApp BlueXP	Deploy Cloud Volumes ONTAP (single node or high availability) from NetApp BlueXP	Deploy Cloud Volumes ONTAP (single node or high availability) from NetApp BlueXP
Up to 500GB free of charge	Capacity minimum: 4TB	Capacity minimum: 4TB
Upgrade to Essential or Professional for more capacity	Purchase from the AWS Marketplace or bring your own license (BYOL)	Purchase from the AWS Marketplace or bring your own license (BYOL)
Limited support	Pay monthly or pay in fixed terms with discounts: 1, 2, or 3 years.	Pay monthly or pay in fixed terms with discounts: 1, 2, or 3 years.
		Bundles with the BlueXP backup and recovery service using Cloud Backup

Start with NetApp BlueXP, a unified control plane delivering a simplified hybrid multicloud experience for storage and data services across on-premises and AWS Cloud environments.

[NetApp Cloud Volumes ONTAP pricing](#)

## Licensing: Amazon FSx for NetApp ONTAP

With Amazon FSx for NetApp ONTAP, you don't pay for resources that you don't want. You pay only for the resources 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've enabled.

[Amazon FSx for NetApp ONTAP pricing](#)

## Additional resources

<a href="#">Talk to a specialist</a>	<a href="#">Cloud Volumes ONTAP overview</a>	<a href="#">Cloud Volumes ONTAP Quick Start</a>
<a href="#">FSx for ONTAP overview</a>	<a href="#">FSx for ONTAP user guide</a>	<a href="#">NetApp services portfolio for AWS</a>

Sources:  
 1 Dataintelo, The cloud migration forecast: Cloudy with a chance of clouds, TMT Predictions 2021  
 2 FSC, ESGI Master Survey Results, 2019 Technology Spending Intentions Survey, March 2019  
 3 IDC, 2020 IDC Cloud Computing Survey  
 4 NetApp, NetApp is Recognized as a Magic Quadrant Leader...Again!, September 2019.  
 5 GigaOm, GigaOm Radar for Cloud File Systems, September 2021.  
 6 NetApp, IDC MarketScape: NetApp a Leader in Scale-Out NAS (File-Based Storage), January 2020