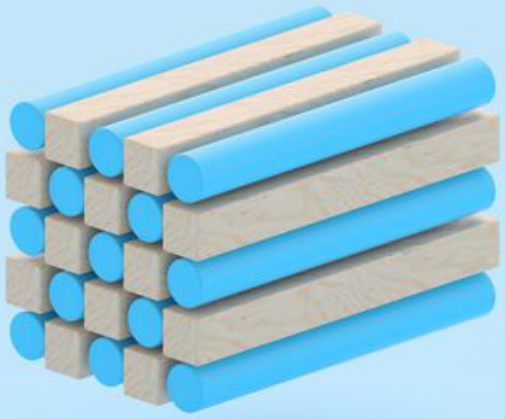
NetApp | Google Cloud

Microsoft Windows on Google Cloud

Strategize for migration, optimization, and modernization



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By the numbers

78%

of SMB workloads are running in the cloud.[1]

79%

of enterprise workloads are running in the cloud.[1]

75.5%

file storage market growth from 2019 to 2020.[2]

Why are businesses migrating to Google Cloud?

From replacing soon-to-be defunct Windows Server editions to modernizing and optimizing Windows file services, there are several benefits to businesses that move to Google Cloud.

Among many other benefits, a successful migration allows businesses to consolidate their Windows servers at a lower cost, improve data protection and general security, and gain agility.

Optimize your cloud operations

Meet your cloud mandate for hybrid and cloud-native workloads. Gain the freedom to run Windows-based applications anywhere across the hybrid cloud without redesigning your code, your processes, or your teams. Harness cloud advantages faster, and at lower costs. And get peace of mind, knowing that your data is always available and secure.

NetApp: Proclaimed industry leader by Gartner and IDC for block and file storage

Freedom from having to refactor or rearchitect tier 1 apps on Google Cloud

Integrate and run complex, performance-intensive, and latency-sensitive applications with submillisecond response times and 450K IOPS

With the automated data management features built into NetApp technology on Google Cloud, you can reduce build time and cost, compared with cloud-native solutions. This reduction is enhanced further when you're deploying and managing multiple applications. Administrative tasks such as data copies, backup and restore management, and monitoring can easily be automated. And our Active Directory integration doesn't require any manual administration.

These features let you dynamically adjust performance levels according to the needs of your workload within an hour, so you can increase performance when you need it, and decrease it when you don't.

For enterprises, NetApp® Cloud Volumes for Google Cloud provides NetApp Snapshot™ copies and clones, which dramatically reduce the time, cost, and complexity associated with application lifecycle management. Snapshot copies enable you to reduce backup and restore times from hours to minutes. Cloud Volumes also eliminates loads on CPU and networking during backup, and can reduce recovery time by up to 90%[3].

Lower your risks

Highly available and resilient databases help minimize disasters and infrastructure failures. NetApp Cloud Volumes for Google Cloud is built on industry-leading, enterprise-class hardware and software. You're protected against network failures by redundant network ports and paths all the way up the stack and across cloud connections.

Snapshot copies and rapid clones help protect against data inconsistency, improve data protection, and achieve fast recovery time. When a Snapshot image is created, it exactly matches the base volume. The first write to any block or set of blocks on the base volume causes the original data to be copied to the reserved capacity before new data is written to the base volume.

NetApp Cloud Volumes for Google Cloud uses storage encryption to provide full disk encryption without compromising storage application performance.

Customer data is encrypted with its own unique key, maintaining compliance with industry and government regulations without affecting the user experience.

Data managed by NetApp technology is protected against multiple drive failures. It's also protected against numerous types of disk errors that could otherwise affect data durability and data integrity. Cloud Volumes for Google Cloud is able to deliver four nines of availability and eight nines of durability.

Case study 1

Improving retail analytics with Cloud Volumes for Google Cloud

Internet of Things (IoT) devices are helping retailers track crucial variables such as inbound and outbound foot traffic and in-store shopping patterns. This data can give retailers better insight into revenue conversion rates.

"The cloud is a boon to the agility of our retail analytics platform. Tasks that formerly took months to complete now take minutes, which translates into cost savings."

A global retail analytics company is working with traditional retailers to help seize key profit opportunities with its IoT devices and comprehensive analytics suite. The data from the IoT devices is contained in millions of small files that are processed by the company's analytics engine running on Google Cloud. The company recognized that it needed to move these IoT data files to Google Cloud to improve processes.

The company selected NetApp Cloud Volumes for Google Cloud to improve the efficiency of its cloud operations and reduce overhead costs. It migrated its NAS workloads, which included both NFS and SMB/CIFS, to Google Cloud by using NetApp Cloud Sync.

The company found that managing the data from its IoT devices in the cloud, rather than in NAS, increased the efficiency of its retail analytics platform.

Read the case study

Case study 2

Migrating enterprise workflow management to Google Cloud

Having the right tools and processes in place can help enterprises improve speed and quality, maximize efficiency, and increase information visibility. To be effective, these tools and processes must offer high availability and high performance.

This software-as-a-service (SaaS) enterprise workflow management company provides project and portfolio management, resource management, and individual task management. It needed a durable, proven, high-performance storage solution. Its goal was to move approximately 154TB of NAS workload to Google Cloud. One of its key requirements was to rapidly lift and shift its data center applications with minimal impact to its customers.

The company's engineers decided to use NetApp Cloud Volumes for Google Cloud as an alternative to Google Cloud Filestore. They liked the higher performance that Cloud Volumes delivered for their NFS workloads. They also wanted to continue using Snapshot copies in their application stack and workflows on premises after moving to the cloud.

The NoOps nature of Cloud Volumes enabled the company to focus and streamline its application design in its compute engine. It also helped the company take advantage of the elasticity of Google Cloud.

More use cases and example workloads

Supporting finance

A finance application company needed Windows and SMB environments to test its software. Moving the SMB data and metadata to a NoOps environment in Google Cloud increased flexibility and lowered costs.

Boosting healthcare services

A major healthcare services provider wanted to migrate SMB workloads to the cloud with high availability and encryption. Using Cloud Volumes, it was able to move its applications to Google Cloud 10 times faster.

Supporting oil and gas

A seismic analysis software company needed to move its 3D application that runs on Windows to Google Cloud. Using multiple GPUs within Google Cloud helped it to accelerate 3D processing.

Cloud virtual desktops

A company needed to move home directories, group share, and libraries to Google Cloud. It was able to get a fully managed service for NFS/CIFS that's secure and encrypted. It also gained instant pointer-based Snapshot copies to deliver protection from attacks and support archiving with end-user self-service restores.

Questions to consider

Are you looking to move legacy Windows applications to the cloud? Here are the three questions you should ask:

How do I get my application to the cloud?

Getting a legacy application to the cloud can be a challenge. Workloads with shared files often require rearchitecting the application, which can take months.

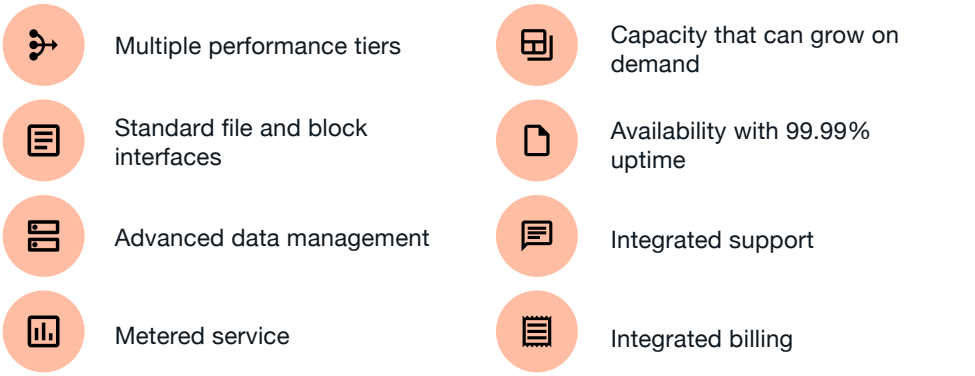
How will it perform in the cloud?

Some applications just won't run or perform well in a cloud environment. You want your application to run better in the cloud, not worse.

How am I going to support it in the cloud?

Companies don't have unlimited IT budgets or resources. You need something that's simple to operate and maintain, and that lowers your risk of failure.

Shared file services can help you solve these problems. They can let you quickly and easily lift and shift your applications to the cloud without refactoring. They also help your applications run up to 3 times faster in the cloud by speeding up certain operations. And shared file services can be delivered in a hybrid cloud environment where you can replicate workspaces up to 10 times faster, and reduce build times by a factor of 30.



Learn more

Migrate Windows workloads to Google Cloud with ease

- Run apps faster
- Migrate Windows applications without rearchitecting
- Reduce complexity
- Deploy and scale workloads with performance that is 3 times higher
- Manage your data across multiple locations

NetApp can support your migration to Google Cloud.

Get started

1. RightScale: RightScale 2019 State of the Cloud Report from Flexera
2. WW IDC Public Cloud IaaS Basic Storage 2020Q3
3. NetApp: Windows Applications on Google Cloud Platform: A Cloud Volumes Service for Google Cloud SMB Story and NetApp Cloud Volumes Service for Google Cloud: Benchmarks

About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere.

Learn more at www.netapp.com

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