

SOLUTION BRIEF

NetApp hybrid cloud solutions

Delivering modern, flexible
technology environments to help
you adapt to change more quickly



Today's rapid changes in work and business priorities demand new levels of flexibility—especially when it comes to the applications that drive your business and their underlying infrastructure. Achieving flexibility means continually modernizing your infrastructure to better support your existing apps along with future cloud-native apps. It means using elastic public clouds and storage resources to augment your on-premises footprint. With elastic storage, you can quickly and easily move data to wherever it needs to be—on premises, at the edge, or in a public cloud—for better access by the users and applications that need it. If architected right, modern infrastructure that affords this flexibility offer great advantages to your business: the ability to move quickly, to compete better, and to pivot dynamically with change.

Yet managing applications and data across distributed environments, while also maintaining availability, resilience, performance, and security, isn't a simple undertaking. Integrating diverse public, private, and edge environments is complex, and can cause interoperability and management challenges that create operational risk.

NetApp® hybrid cloud solutions remove that complexity and risk, giving you the freedom to use the most appropriate resources at any point in time, regardless of physical location and cloud provider.

“It's all about how much data we can generate, how fast we can understand what the results mean—and that's all about getting data from cloud compute back to the factory and pulled together in a way that we can draw conclusions really very quickly and cleanly. And that's pretty much what NetApp enables us to do.”

—Jon Marshall, Aston Martin Cognizant Formula One Racing Team, Head of Vehicle Science

Key benefits

- **Constantly innovate.** An agile hybrid cloud lets [Siemens](#) Healthineers' developers access storage to speed up innovation. They expanded their data center to the cloud without refactoring or reducing application functionality.
- **Pivot quickly for competitive gain.** [Dow Jones](#) created a hybrid environment to eliminate data silos and give stakeholders access to data when and where they need it. This environment helped them create game-changing customer experiences and boost competitive differentiation.
- **Respond to customers, and deliver new experiences, faster.** Using a hybrid cloud to activate data from around the world helped [Ducati](#) optimize motorcycle performance and elevate its customer experience.
- **Make decisions faster.** A hybrid cloud let [Aston Martin](#) integrate data from the trackside to factory—supporting faster, more confident decision making that translated to a winning edge on the track.

With this freedom, you can dynamically support your existing enterprise apps and new apps—all in the same integrated environment.

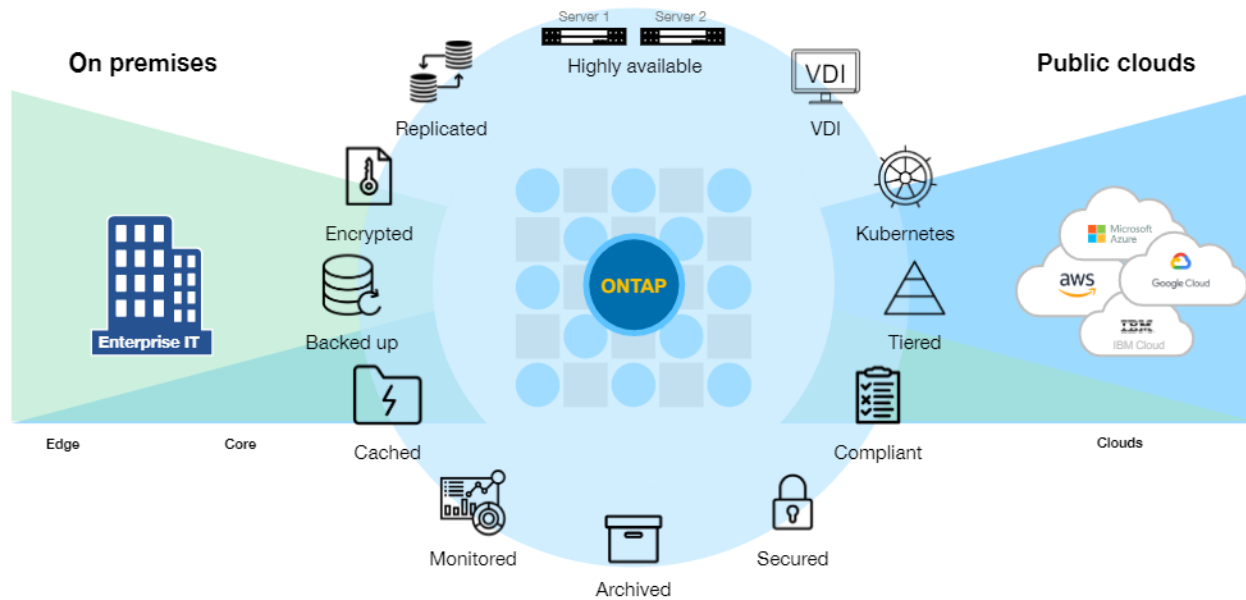
The ultimate flexibility

NetApp helps you build and evolve a unified hybrid cloud that seamlessly integrates your data center with your choice of public clouds. A unified hybrid cloud provides a common storage layer with a consistent set of tools and processes to manage, protect, and move your enterprise data and applications without requiring additional staff or skills. With NetApp's application-driven infrastructure and capabilities, you'll realize greater cost optimization, security, resilience, performance, and manageability across your entire footprint—supporting all of your workloads.

A strong, flexible foundation with ONTAP

NetApp ONTAP® data management software is the heart of the NetApp hybrid cloud. ONTAP gives you the same rich enterprise-grade data services on premises and in the cloud, for full interoperability and consistent data storage, management, and protection in any environment.

The same rich data services—in the enterprise and in the cloud



It's the only data management software running both on premises and natively in the world's biggest public clouds. Because ONTAP supports a hybrid cloud architecture that isn't tied to a location or cloud vendor, you avoid cloud vendor lock-in and can move and store your data where needed. And ONTAP supports file, block, and object data storage, so it satisfies multiple use cases and enables application and data mobility with no refactoring or replatforming of applications.

Simplified data management

NetApp provides a full suite of application-driven infrastructure and data management services to help you consistently manage, analyze, and optimize your data and underlying hybrid cloud infrastructure. These services provide a consistent approach to legacy, monolithic workloads as well as cloud-native and container-based workloads.

- **Infrastructure and data management.** NetApp Cloud Manager provides a consistent way to manage, secure, and protect your data more efficiently across distributed hybrid cloud environments without the need for new skills or staff, while NetApp's extensive set of APIs let you automate infrastructure and application management by using your preferred automation and orchestration frameworks. Cloud Backup Service delivers seamless and cost-effective backup and restore capabilities for protecting and archiving cloud and on-premises ONTAP data.

- **Infrastructure analytics.** NetApp artificial intelligence for IT operations (AIOps) tools create a more proactive, predictive environment, reducing administration and downtime costs. NetApp Active IQ® uses AI to proactively protect and optimize your infrastructure, and NetApp Cloud Insights gives you complete visibility into your infrastructure and applications. You can monitor, troubleshoot, and optimize all your resources and applications across your entire technology stack, whether it's on premises or in the cloud. Cloud Secure, a feature of Cloud Insights, analyzes data access patterns to identify risks from ransomware attacks.
- **Data analytics.** Driven by powerful AI algorithms, NetApp Cloud Data Sense (formerly Cloud Compliance) provides hybrid cloud and on-premises data discovery, mapping, and classification. It offers automated controls and reporting so that you can always stay on top of your data.
- **Optimization.** Spot by NetApp is a cloud automation solution that uses advanced analytics to continuously optimize your cloud infrastructure resources.
- **Cloud-native application management.** NetApp Astra provides application storage management and data provisioning for stateful cloud native applications powered by NetApp's trusted data protection technology. Astra presents a consistent data management experience across a hybrid cloud.

“We will have one provider, one operating model, one unified architecture. It helps us automate, so overall complexity goes down significantly.”

—Rohit Agrawal, Global Head of Cloud and Data Center, Siemens Healthineers

“As a service” flexibility

The NetApp Keystone™ portfolio enables you to get consistent public-cloud-like consumption and experience across your entire hybrid cloud. You can buy and deliver infrastructure to your organization “as a service,” regardless of whether the infrastructure is in the public cloud or on premises.

Expert data services

Trust NetApp and our partners to help you execute your ideal hybrid cloud strategy. From workshops and consulting to implementation and support, our specialists draw on NetApp’s nearly 30 years of data management innovation to help you design, build, and optimize the right solution for your business.

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. www.netapp.com

Hybrid cloud use case	Description	Benefits
Data protection	Backup and restore of secondary data from on-premises data centers to public clouds, consolidated datastores for client-side user access, and the creation of disaster recovery environments in one or more public cloud locations.	Provides additional infrastructure resources to handle scale and protect data through location diversity, all with minimal architecture changes.
Data tiering	Automated movement of infrequently accessed (“cold”) data or archives from on-premises storage to cloud storage.	Frees up real estate space and reduces infrastructure management and cost.
Hybrid production	Integration of public cloud and on-premises storage to support the same workload (for example, databases, ERP/CRM, AI, analytics, web hosting).	Can address latency, data sovereignty, or scaling requirements, or can be used to take better advantage of specific capabilities provided by cloud providers (for example, new artificial intelligence and machine learning services).
Data security and compliance	Storing data in specific cloud locations to meet sovereignty, security, and compliance requirement. May also involve achieving a consistent approach and tools for data visibility, encryption, ransomware protection, and governance.	Provides strong safeguards and complete visibility and control regardless of where the data is located.
Hybrid clouds for DevOps	Creating infrastructure as a service (IaaS) and platform as a service (PaaS) integrations of on-premises and cloud resources. Application development is faster, unhampered by infrastructure limitations or the need to retool apps when they move between clouds.	Speeds application development, enabling you to release new applications and customer experiences faster and support continuous integration and continuous deployment (CI/CD).
Burst for cloud processing	Temporarily moving data (or clones of data) from on-premises environments to the cloud, or between clouds, for data processing.	Enables dynamic workload flexibility: Data center resources can be complemented by immediately available, on-demand cloud compute resources.

