

E-BOOK

The Evolved Cloud for the U.S. Federal Government

Building a data backbone for the hybrid multicloud

 **NetApp**



Welcome

The government IT landscape is becoming increasingly complex as agencies experience data proliferation, cloud sprawl, and security challenges. Organizations need to reduce IT complexity and cost so they can focus on delivering citizen services, public safety, and other important functions that enable commerce, transportation, economic output, and the stability of our great nation.

Our government CIOs, CTOs, CDOs, and their staffs are presented with ever more options for where and how to host and manage their data. They need tools that can help them to more quickly and accurately derive meaning from that data with analytics, machine learning, and artificial intelligence, all while dealing with reduced budgets and the growing threat of cyberattacks.

NetApp stands firm as your partner to meet these challenges and to provide you with a reliable, scalable data backbone that bridges on-premises, cloud, and evolved hybrid multicloud environments. The NetApp portfolio helps government agencies leverage their data in ways that bring both immediate and long-term advantages to their government mission.

This e-book provides tangible use cases and describes how NetApp enables you to build a data backbone that meets your requirements for hosting, cybersecurity, and AI and ML.

We look forward to partnering with you to modernize IT and to make cloud work for you.

Sincerely,



Michelle Rudnicki
President, NetApp U.S. Public Sector



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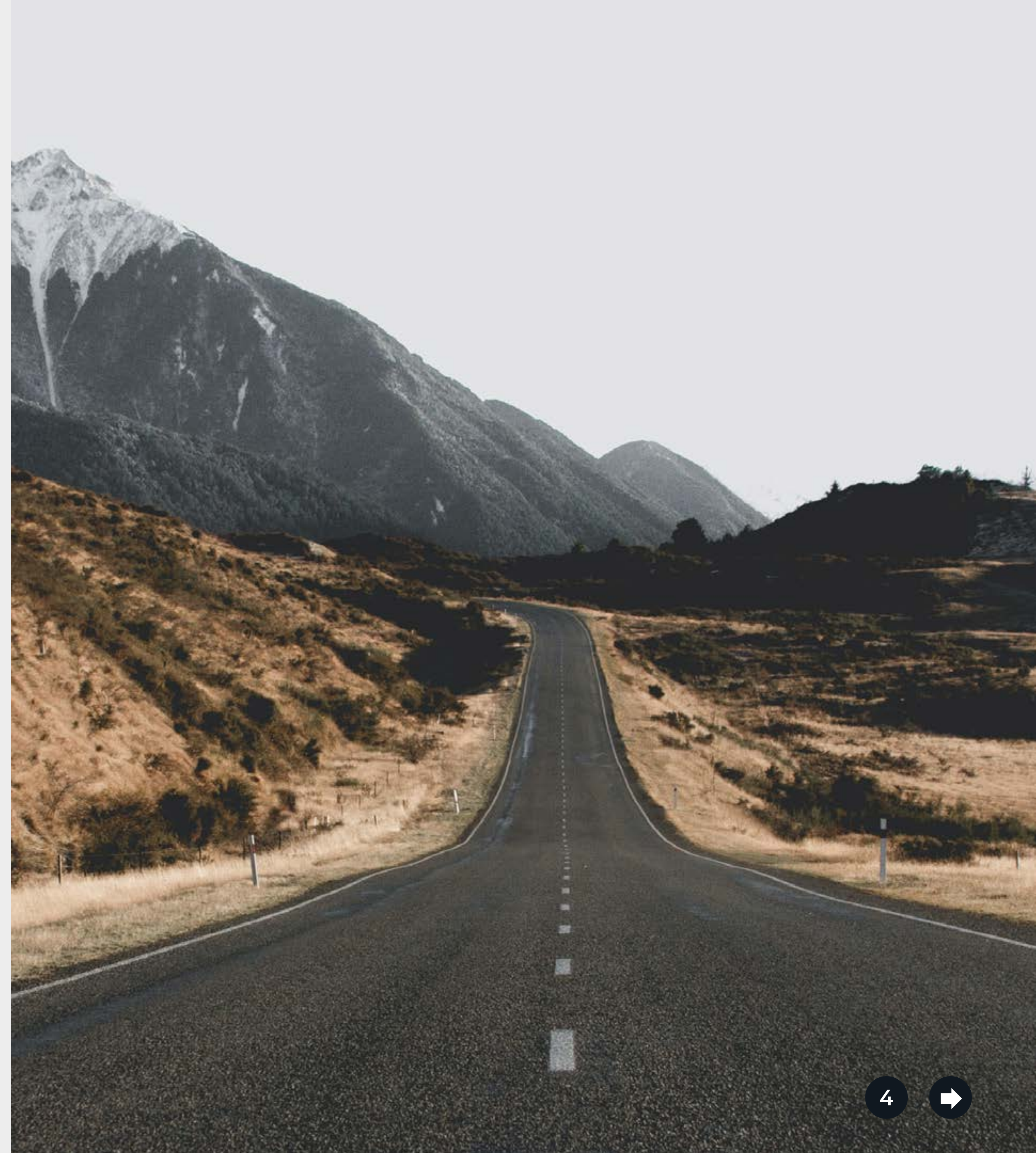
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Roadblocks to transformation

Data is the core currency that enables the important missions that the United States federal government performs. Whether the mission is caring for the health of our veterans, enabling airlines to transport passengers through our airspace safely, or providing citizen services through the State Department, access to high-quality, timely data is more important than ever.

But cloud sprawl, data proliferation, and application silos are causing unprecedented complexity, preventing federal government organizations from realizing the true benefits of digital transformation.



A data backbone built for your mission

NetApp is solving these challenges by reducing IT complexity across on-premises, hybrid, and multicloud environments. We call this the evolved cloud. An evolved cloud state breaks down silos to simplify management, create consistency, and deliver complete visibility across on-premises and multiple cloud environments. Everything is efficient, secure, and continuously optimized to work for you despite a world of constant disruption.

Unique partnerships with all major clouds

Unlike our competitors, we don't lock you into walled gardens or platforms. And we don't tell you which clouds you can or can't use. Our unique partnerships with the three of the major cloud hyperscalers, AWS, Microsoft Azure, and Google Cloud, give government customers a clear path from on-premises environments into the cloud.

2021

AWS ISV Design Partner
of the Year



2021

Microsoft U.S. Partner
Award for SAP on Azure



2019

Google Cloud Technology
Partner of the Year



2020

Google Cloud Technology
Partner of the Year





A better hybrid multicloud experience



Universal data environment for file, block, object, virtual machines, and containers



Single data interface for hybrid multicloud management



Consistent and API-driven services across both on-premises data centers and the cloud



Simple lift-and-shift to the cloud without refactoring or rewriting



Lower TCO on premises and in the cloud with deduplication, compression, and compaction



Simplified management and optimization of cloud expenses

Managed services for operational expenditure funding

More federal government organizations that have distributed operations or large storage environments are considering cloudlike consumption models.

NetApp Keystone[®] is our pay-as-you-grow, storage-as-a-service (STaaS) offering that delivers a seamless hybrid cloud experience for those who prefer an opex consumption model to upfront capex or leasing. By removing the IT burdens of managing storage infrastructures and going through the lengthy procurement cycle, you can better align storage costs to business needs, accelerate time to value, and focus on core business operations by managing outcomes.

With a unified management console and a monthly bill for both on-premises and cloud data storage services, Keystone lets you provision and monitor, and even move storage spending across your hybrid cloud environment, to give you maximum financial and operational flexibility.



Case study

U.S. Department of Justice

Using cloud data to fight environmental offenders

When the U.S. Department of Justice division that prosecutes environmental offenses had to move 300TB of data to the cloud in just 2 months, they turned to NetApp for maximum continuity in data security and access. The result was an exceptionally fast migration to NetApp Cloud Volumes ONTAP® in Microsoft Azure.

[→ Learn more](#)

“I have worked in IT for 32 years and I’ve done lots of storage migrations. This was the easiest storage migration that I’ve had. The transition was very simple, very seamless.”

Richard Tayman

CIO and Director of IT for the Environment and Natural Resources
Division of the U.S. Department of Justice



Case study

U.S. Department of Veterans Affairs

Using cloud to enable a hybrid workforce

When the U.S. Department of Veterans Affairs (VA) needed to rapidly expand telework for 200,000 employees during the COVID-19 pandemic, they turned to NetApp to scale on-premises workloads quickly into Azure and AWS GovCloud regions.

The VA is also working closely with NetApp to support their telehealth environment. During the pandemic, the VA experienced a surge in telehealth engagements. Telehealth is expected to continue to play an important role in delivering care to veterans who lack easy access to medical care.

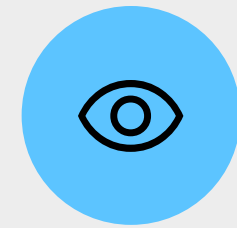
The VA worked with NetApp to standardize its telehealth environment on the FlexPod® data center solution from NetApp and Cisco, a highly scalable environment that's easy to operate, easy to grow, and can surge to the cloud when needed. The VA is now also positioned take advantage of cloud tiering to affordably meet long-term archive requirements.

- Accelerate the user experience with highly performant all-flash storage
- Seamlessly integrate with cloud services to optimize costs
- Gain visibility into personal and private data for compliance

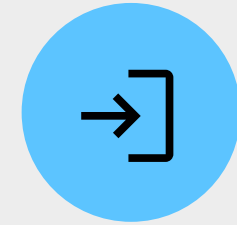




AI and analytics in the evolved cloud



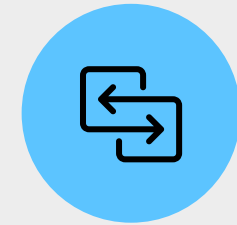
Increased visibility of operations across the supply chain



Access to the latest and greatest fraud detection models



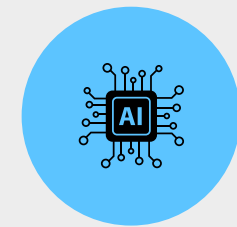
More responsive investigative queries over large volumes of data



No data silos or performance bottlenecks—just free-flowing data from edge to core to cloud



Faster big data processing speed



Preconfigured solutions and reference architectures built in partnership with NVIDIA and our ecosystem of AI partners



Fraud, waste, and abuse prevention

Preventing fraud, waste, and abuse (FWA) is important for federal government agencies to make sure that valuable taxpayer dollars are spent wisely and to maintain trust in public institutions. Data analytics and artificial intelligence solutions are helping the federal government modernize the detection of FWA. Some antifraud systems can now prevent fraud before it's even committed.

NetApp provides innovative, industry-leading modern [data analytics solution strategies](#) to help you manage and move big data to take advantage of FWA solutions on premises or in the cloud. Seamlessly take your models from prototype and research to operation with support for Kafka, Spark-based streaming, and integrated partnership with Snowflake.



Snowflake

The Snowflake Data Cloud is software as a service that runs on AWS, Google Cloud, and Microsoft Azure infrastructures, eliminating the need to select and manage hardware and software in a data center. With Snowflake External Tables, users can query data stored in files in external storage as if it were inside Snowflake itself. By integrating with NetApp StorageGRID® object-based storage solution, Snowflake lets you add Amazon Simple Storage Service (S3) on-premises object storage as a data source while keeping the ease of use and governance that Snowflake provides. Enabling [Snowflake on StorageGRID](#) is as simple as giving Snowflake access credentials for the S3 bucket that contains your data files.

Cyber resilience in the evolved cloud



Instant backup, recovery, cloning, and versioning



Data encryption at rest or in motion



Role-based access controls and audit logging



Microsegmentation for Zero Trust



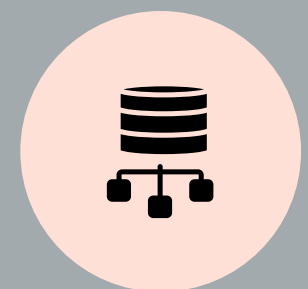
Automated protection and recovery against corruption or manipulation of data, including ransomware



User behavior analysis



Automated detection of personally identifiable information (PII) boundaries and data spills across hybrid ecosystems



Enable big data operations for threat hunting

App modernization

Cloud-native application environments are becoming mainstream. They're used for development, and also to deploy enterprise applications. As you modernize your applications, it's increasingly important to have reliable, secure, performant access to your data.

NetApp simplifies how you protect, move, and store Kubernetes workloads across hybrid and multicloud environments:

- [NetApp Astra™](#) Control offers stateful Kubernetes workloads a rich set of storage and application-aware data protection and mobility services powered by NetApp's trusted data-protection technology.
- NetApp Astra Trident provides orchestration and data connectivity for Kubernetes applications. It is a Kubernetes Container Storage Interface (CSI) driver and is deployed as a free open source offering from NetApp.
- Persistent storage for data-rich Kubernetes workloads with [NetApp Cloud Volumes Service for Google Cloud](#), [Google Persistent Disk](#), [Azure NetApp Files](#), [Azure Disk Storage](#), and [NetApp ONTAP®](#).



Take the next step

You're there to serve; we're here to modernize. Modernize your infrastructure and take the next step toward an evolved cloud with NetApp.

➔ [NetApp solutions for the U.S. public sector](#)

➔ [Cyber resilience solutions for the U.S. public sector](#)



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.



 NetApp



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