The Evolved Cloud in State and Local Government

A better hybrid multicloud experience is here

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Roadblocks to transformation

Digital transformation continues to be a top priority everywhere in the U.S. public sector. In state and local government, the most successful organizations prioritize having access to data-rich systems that enable fast decision making, accelerate processes, and improve citizens' experience.

A hybrid, multicloud strategy is essential to this transformation. But state and local governments face challenges that can impede progress, including:

- **Cyber resilience.** As organizations expand their investments in the cloud, they need additional visibility and protection from threats and disruptions.

- **Data management.** The adoption of new cloud technologies requires new skillsets and increased management overhead.

- **Data sharing.** To take full advantage of the power of artificial intelligence and analytics, organizations must break down data silos and allow data to flow freely from edge to core to cloud.

Data storage built for the evolved cloud

NetApp is solving these challenges by enabling the next phase of cloud: the evolved cloud. The evolved cloud is a strategic approach to hybrid multicloud environments where cloud is fully integrated into your architecture and operations.

An evolved cloud state breaks down silos to simplify management, create consistency, and deliver complete observability 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 three of the major cloud hyperscalers, Amazon Web Services, Microsoft Azure, and Google Cloud, provide government customers a clear path from on-premises environments into the cloud.

2021	2021
AWS ISV Design Partner of the Year	Microsoft U.S. Partner Award for SAP on Azure
aws	Microsoft Azure

2019	2020
Google Cloud Technology Partner of the Year	Google Cloud Technology Partner of the Year
Google Cloud	Google Cloud

Cyber resilience

With NetApp® cyber-resilience solutions, data protection and security start with the data itself, providing data-centric security across your entire hybrid cloud.

Protect against ransomware with immutable and indelible backups, AI-powered threat detection and remediation, and fast recovery.

Our built-in solutions protect you from data loss and downtime, proactively detecting potential threats and quickly recovering data, applications, and workloads in minutes.

Learn more

→ **NetApp ransomware solutions**

→ **NetApp enhanced disaster recovery solutions**

Data governance, monitoring, and optimization

State and local government IT organizations must understand their data and protect it—wherever it resides—to safely keep services available to internal users and citizens.

NetApp can help you achieve data governance at scale with hybrid cloud and on-premises data discovery, mapping, and classification solutions. Rapidly identify PII, HIPAA, SSN, GDPR, and CCPA data (and more) wherever it resides.

Our infrastructure monitoring solutions track CPU utilization, memory utilization, storage utilization, IOPS, and throughput so you can rightsize and optimize your hybrid cloud infrastructure.

Learn more

→ **NetApp Cloud Data Sense**

→ **NetApp Cloud Insights**

Data storage for every workload

For over 30 years, NetApp has been the leading innovator in data storage. We offer the only portfolio in the market with a single unified operating system for file, block, and object storage.

A broad portfolio of performance flash, capacity flash, and hybrid flash lets you choose your performance and your price point without compromising on capabilities.

Automated storage tiering makes running performance workloads on high-performance flash aggregates an average of 30% more cost effective by tiering cold data to object storage on premises or in the cloud.

By decoupling storage and compute in the cloud, NetApp also makes it easy and cost effective to move data-heavy VMware workloads to the cloud of your choice and to back up on-premises VMware workloads to the cloud.

The Storage Lifecycle Program provides nondisruptive refreshes of storage controllers every 3 years at no additional cost, so you can confidently and seamlessly scale as you grow.

Learn more

→ **NetApp data storage solutions**

→ **Storage tiering with NetApp**

→ **NetApp solutions for VMware**

→ **Storage Lifecycle Program**

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Cloud data services

Leverage the cloud for faster, more dynamic delivery of services and frictionless data movement. NetApp offers solutions for file, block, and object storage in the public cloud—including FedRAMP and GovCloud compliant data management and optimization solutions—by leveraging native cloud infrastructure.

Build storage for mission-critical applications, databases, containers, and user files on the cloud of your choice. NetApp's enterprise-grade technology provides security, resilience, high availability, and cost-effective performance. Gain visibility into what data is where and whether you are using the most efficient methods to reduce your costs.

With industry-leading data efficiencies, including deduplication, compression, and compaction, you can reduce total cost of ownership (TCO) by up to 50%, both on premises and in the cloud. And you can accelerate FinOps with NetApp cloud data services. See how much you could save by using our TCO calculators for AWS, Azure, or Google Cloud.

Learn more

→ **NetApp cloud data services**

→ **NetApp solutions for FinOps**

Data lakes and artificial intelligence

AI and analytics are transforming the way organizations operate through fast, data-driven insights. These insights are built on data lakes—centralized pools of structured and unstructured data at scale.

To unleash the potential of AI and analytics, data must be allowed to flow freely from the edge to the core to the cloud.

NetApp enables you to harness the power of AI by removing data silos to create a global unified data repository without sacrificing security or governance at scale.

Learn more

→ NetApp solutions for data lakes

**→ NetApp solutions for artificial intelligence**

Case study

State transportation agency stops ransomware in its tracks

When a state transportation agency was hit with ransomware throughout their environment, only the data residing on NetApp storage survived the attack. Because the organization was taking frequent, immutable copies using NetApp Snapshot™ technology included in the NetApp ONTAP® operating system, they were able to quickly restore back to the last-known-good state with zero data loss.

• Enable recovery from ransomware in seconds

• Prevent corruption with read-only data copies

• Improve recovery point objectives from uninfected data
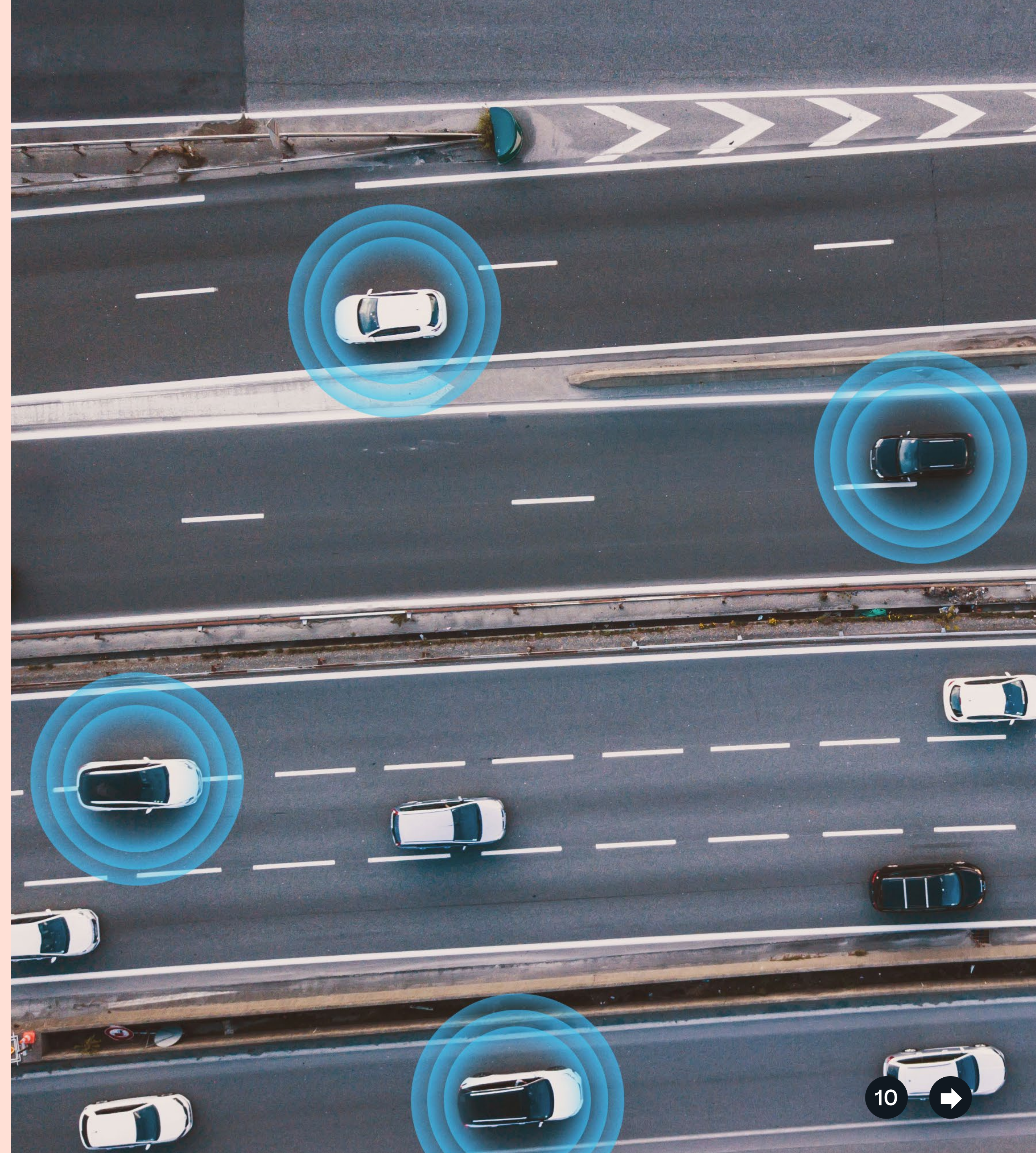
Case study

State transportation agency accelerates contactless fare payments

This state agency leverages NetApp all-flash storage in the data center to enable contactless fare payments through contactless cards, smartphones, and wearables. Riders tap their card or device on the reader and their payment is instantly processed. Transactions must happen in an instant. NetApp all-flash storage provides the speed and reliability needed to make sure that riders don't get hung up at the turnstile.

The same agency uses cost-effective hybrid flash storage systems to store large volumes of license plate images from bridges, tunnels, and toll plazas. Images must be stored indefinitely and remain easily accessible. NetApp FAS storage provides reliable file-based storage at an optimum price-to-performance ratio.

• Leverage a broad portfolio with a single, unified operating system

• Enable speed and responsiveness for high-performance workloads

• Depend on reliable, cost-effective hybrid flash storage

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Case study

State transportation agency stops anomalous user behavior

NetApp Cloud Insights, a cloud infrastructure monitoring tool that offers complete visibility across the hybrid multicloud landscape, alerted this state transportation agency to a potential insider attack. Cloud Insights provided dashboards and emails alerting the customer to an administrator's anomalous behavior. An immutable and indelible Snapshot copy was triggered, protecting the data from loss or corruption.

• Detect and classify threat patterns early

• Bridge the cybersecurity skills gap

• Protect data from loss or damage

State transportation agency simplifies and accelerates procurement

This state transportation agency pursued a cloud-first strategy for a critical project management application in Azure. To get the high performance they needed, they chose NetApp Cloud Volumes ONTAP in Azure. NetApp Cloud Backup service backs up their cloud and on-premises environments to Azure. Cloud Backup was easier, faster, and more cost-effective to deploy than other options, allowing the agency to quickly protect their new cloud workload without lengthy procurement cycles.

• Enable high-performance in the cloud for critical application

• Quickly protect new cloud workloads

• Simplify backup for on-premises and cloud workloads with a single solution

• Bypass procurement hurdles for a new backup solution with an approved solution in Azure

Case study

State fire protection agency protects mission-critical dispatch app

This forestry and fire protection agency refreshed their mission-critical computer-aided dispatch application, deploying NetApp entry-level all-flash storage at remote sites with midrange flash for failover. NetApp Cloud Insights provides application and infrastructure monitoring and enhanced troubleshooting to make sure that their critical dispatch application never goes down.

• Balance price and performance with more all-flash options

• Simplify backup and disaster recovery for key Oracle workload

• Enable application and infrastructure monitoring

Case study

 Syracuse University

Syracuse University enables Nobel Prize-winning research

Research computing at Syracuse University is a collaborative effort between the campus research community and technology groups from across campus. Information Technology Services consolidated IT across the campus with a comprehensive infrastructure-as-a-service solution. A combination of NetApp all-flash and hybrid flash storage supports diverse customer needs, including critical ERP and database systems and computationally intense research computing. Data tiering reduces costs by routing data automatically to the appropriate storage tier based on performance requirements.

• Reduce storage footprint with 6:1 storage efficiency ratio

• Improve IT budget sustainability

• Improve data availability and accessibility

Read the case study to learn more.

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Case study

Yale New Haven Health accelerates research with a modern data lake

During the pandemic, Yale New Haven Health needed a flexible and agile research environment to enable COVID-19 research, including research into treatment efficacy, and to quickly identify patients at highest risk. The customer was hampered by petabytes of data locked and siloed into Hadoop HDFS clusters. NetApp created a modern data lake design based on the NetApp StorageGRID® object-based storage solution, creating a single shared location for all data.

• Aid in early detection of disease with real-time data enrichment

• Combine data coming from EHR and clinical systems with research data

• Effortlessly stream structured and unstructured data

For more information, read the IDC Perspective exploring Yale's next-generation data lake reference architecture from NetApp and NVIDIA.

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Case study

State government uses NetApp to assist with CJIS compliance for police data

This state agency consolidated IT operations from more than 50 executive agencies into a single, centralized service to improve operational efficiency, enhance cyber resilience, and standardize performance across agencies. However, the state police required Criminal Justice Information Services (CJIS) audit controls in place before they could migrate their data and operations to the centralized IT service.

NetApp Cloud Secure provided the assurance the police organization needed. With Cloud Secure, the IT services organization can offer agencies like the state police data usage reporting to satisfy auditing requirements for CJIS compliance.

• Monitor user activity in near real time

• Detect ransomware and trigger an automatic, immutable NetApp Snapshot copies

• Customize reporting for compliance

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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**

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