

Knowledge. Advice. Clarity

A Data Fabric Strategy **FOR GOVIES™**

*Become a data-centric
organization and fast-track
your digital transformation.*

Presented by **DLT** | **NetApp®**

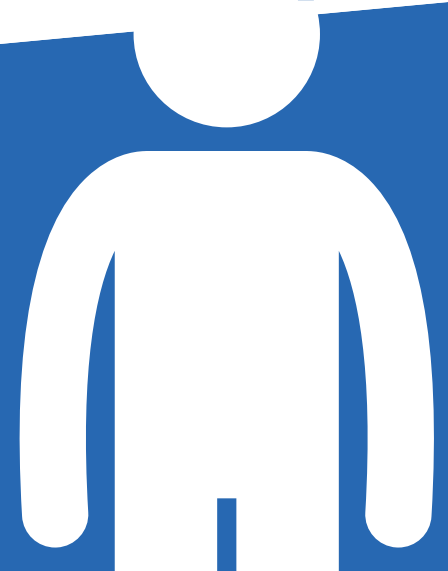
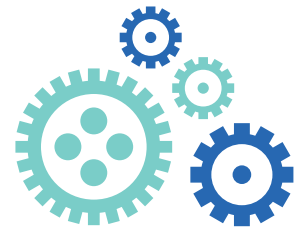


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A Data Fabric Strategy FOR GOVIES™

The NetApp Data Fabric

hybrid cloud
data services

Digital Transformation

About NetApp and DLT Solutions

NetApp is the data authority for hybrid cloud. NetApp provides a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Federal, state, and local agencies trust NetApp to store, manage, protect, and retain their most precious asset – data.

Through DLT's platinum partnership with NetApp, we can help agencies:

- Convert their explosion of data into actionable information with data storage and management solutions
- Protect and manage mission-critical data, from the core to the edge
- Meet the stringent security requirements of intelligence systems to store, protect, and enable sensitive data
- Consolidate technology, improve system performance, and free up resources to meet citizens' demands for more and improved services
- Improve the effectiveness and efficiency of law enforcement through video and digital solutions

For more information, contact DLT Solutions at 800-262-4DLT or email edm-sales@dlt.com.



Introduction

Changing Government with Data

Government leaders are under tremendous pressure to harness today's wealth of data and apply it to create new value across agencies and departments—all with limited time, skills, and budget. At the same time, data is no longer locked away on devices hidden behind firewalls. Instead, it is becoming distributed, dynamic, and diverse—and the resulting amount of data is overwhelming and incredibly difficult to manage.

Agencies have clear priorities:

- You need to know where your data is and whether it complies with policies and regulations, particularly around data security and privacy.
- You want to be able to move data easily in a heterogeneous and hybrid cloud world and know that it's protected no matter what architecture is used.
- You need to maximize the value of your data to transform the business models of government.

Thriving in this environment requires creating a data-centric organization, which is no small undertaking.

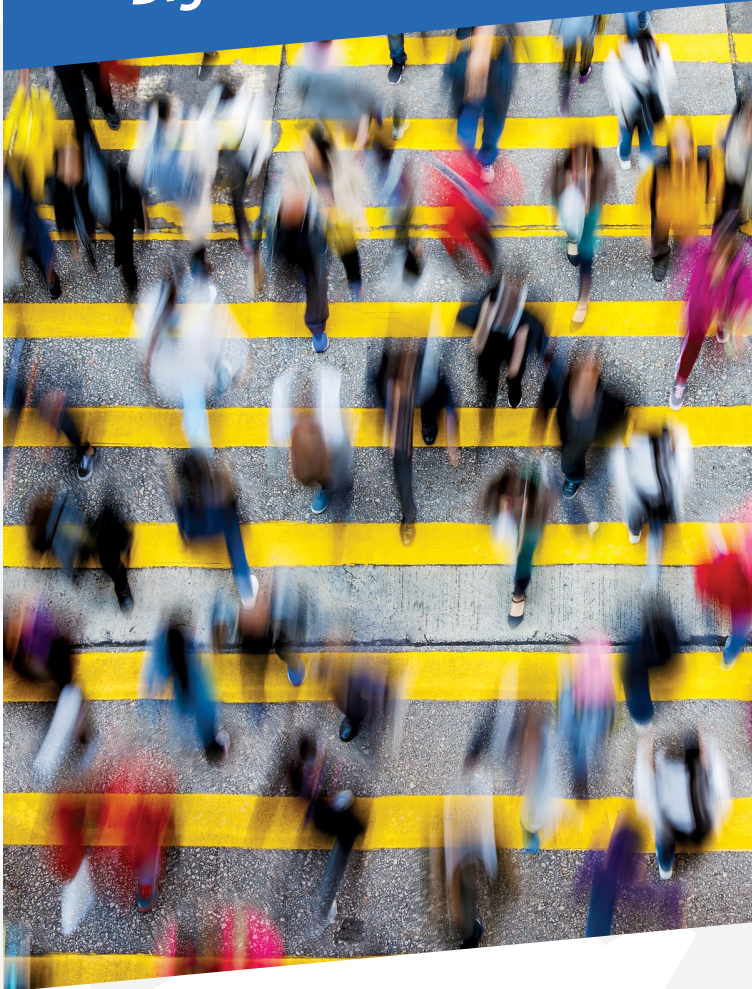
In this eBook, you'll learn about adopting a holistic approach to managing data that is secure, efficient, and future-proof, and provides freedom of choice.

The result? The ability to unleash the power of data to meet mission demands, better harness the power of hybrid cloud, build a next generation data center, and modernize storage through data management.



CHAPTER 1:

Data is the Fuel of Digital Transformation



Government organizations are inundated by data coming from sensors, videos, call logs, social media, mobile devices, and more.

The amount it harvests will only grow as it pays more attention to the collection and analysis of data and more devices come online.

In fact, the federal government is *expected to spend* \$4.6 billion on big data and analytics solutions and services this year.

All this data is a problem and a challenge, but it's also an opportunity.

Data is quickly becoming the life blood of government organizations and critical to their digital transformation strategy. When data is connected and correlated it can seamlessly flow through an organization to:

- Enable new citizen touchpoints through technology
- Break down silos and reorganize operations and delivery around policy issues
- Innovate and scale with new application development tools
- Deliver better services in the cloud
- Better leverage analytics to make better decisions
- Power agile development
- And more

In a 2015 *report*, IDC stressed that “... *information is at the core of the new digital ecosystem, the ability to manage and retain the usable data and exploit retained information to fuel the enterprise's digital transformation has become a key to success in this fast-changing environment.*”

Imagine if your agency could find a way to connect and correlate its data? The payoff could be huge – greater strategic insights, improved decision-making, the ability to engineer more precise solutions with greater responsiveness to change, and greater collaboration.

Becoming a Data-Centric Organization is No Small Undertaking

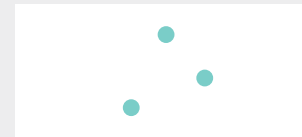
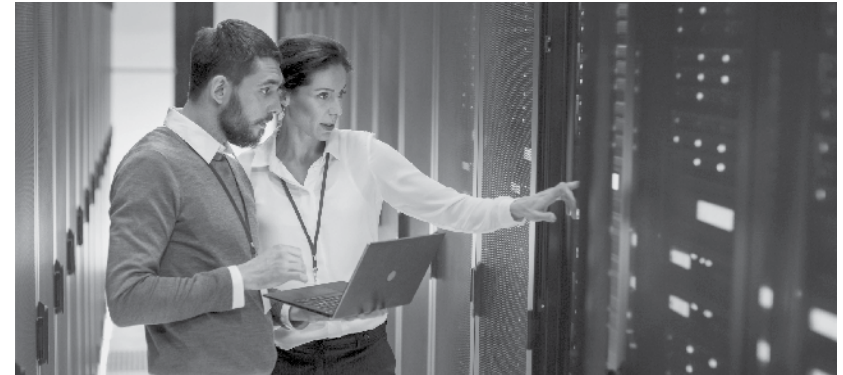
Empowering data through digital transformation can be more challenging than expected. The promise of the cloud can lead organizations to view digital transformation as a simple process that they can outsource. The reality is that, to become a data-centric organization, you need to think about your data differently and treat it differently.

You need to apply new *skills*, which can be hard to find in a competitive market. You need *time* to learn how to apply the data correctly, and, of course, you need the *budget* for these initiatives.

Data is no longer locked away or behind a firewall on-premises. Instead, it's becoming:

- **Data is now distributed:** Public sector organizations can store data in multiple on-premises and cloud locations, and move it in between. Just as farmers direct irrigation systems to crops that need water, you need to deliver data to the places where it can be most effective.
- **Data is now dynamic:** The velocity of information from sensors, citizen attributes, and so on are constantly fluctuating. If you can understand where the data is coming from, you can deliver precise and relevant answers to these internal and external audiences in real time—creating dialogue with the people who matter most to your agency.
- **Data is now diverse:** It's great that you can now acquire data from multiple sources, contractors, and the Internet of Things (IoT). But to digitally transform, agencies must blend structured, unstructured, and streaming data with machine-learning data to gain holistic views, actionable insights, and optimize operations.

Because the location, flow, and structure of your data is constantly changing, you can expect your strategy and tactics to constantly change, as well.



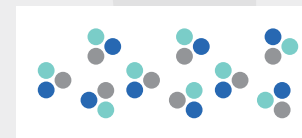
Distributed

Stored in multiple locations — on-premises, and multiple cloud locations



Dynamic

An influx of constantly changing data that requires you to know where the data is and its source



Diverse

Structured, unstructured, machine learning, and streaming — generated in and outside the organization

A Holistic Approach to Hybrid Cloud Data Services is Needed

To effectively manage data that is distributed, dynamic, and diverse, agencies need to develop a holistic approach that checks the following boxes.

SECURE YOUR DATA



Data needs to be secure and recoverable wherever it is located. Attack vectors are increasing, and as agencies become more dependent on their data, it is more critical to ensure that data is secure. At the same time, you need to manage and apply the data—again, wherever it is stored

CREATE EFFICIENCIES



As you transform, the quantity of data that you create and collect is increasing dramatically, making it more important than ever to stimulate maximum efficiency. To be more efficient, you need processes that allow you to invest greater resources in higher-value work automatically and seamlessly, enabling you to analyze and manage your data at the speed your mission demands.

FUTURE-PROOF YOUR DATA



You need to invest in data architectures that provide the resources you need today, enabling you to continually adopt new technologies to capitalize on tomorrow's opportunities.

OPEN YOUR DATA ARCHITECTURE



You need to manage applications and tools across any type of cloud, without lock-in or compatibility issues.



CHAPTER 2:

The NetApp Data Fabric – Built for a Data-Centric Government

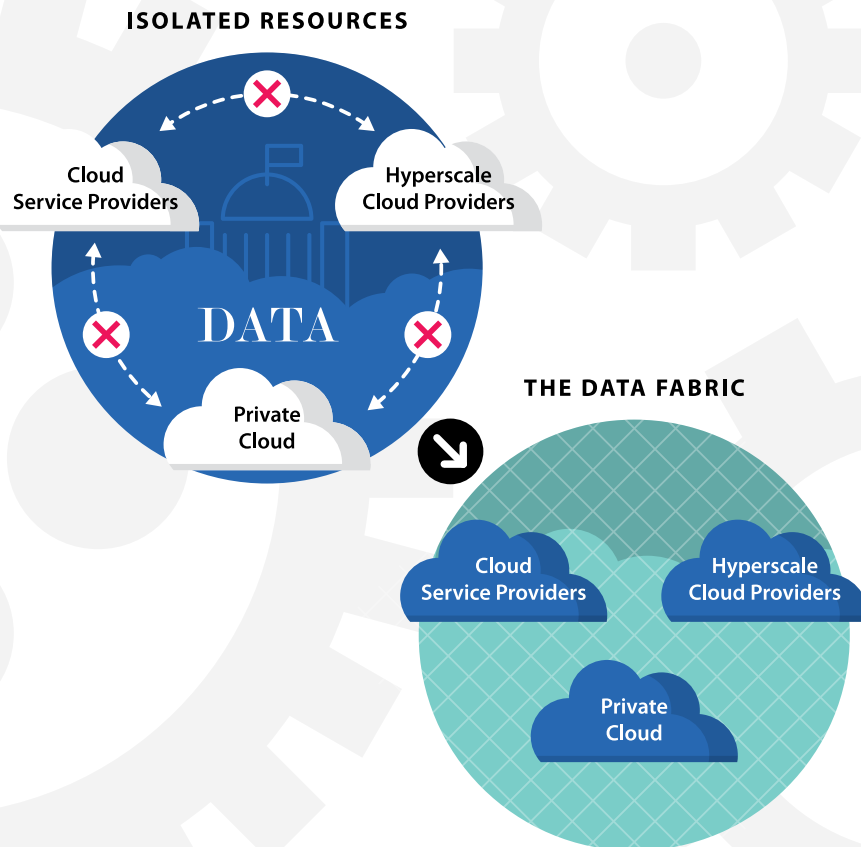
YOU'RE STUCK:

On one hand, you need to maintain control over your agency's data. On the other, you need to be flexible enough to enable innovation. Imagine if you could do both.

That's the promise of Data Fabric, NetApp's vision for the future of data management. Here you can manage your data seamlessly as it flows to wherever you need it most—and always make the best possible decisions for both you and your organization.

What is a Data Fabric?

Data Fabric is a software approach and vision for data movement and management, providing a consistent set of capabilities and services which span a choice of endpoints and application ecosystems connected across the cloud and on-premises.



Already an integral part of over 300,000 systems and software deployments, the NetApp Data Fabric simplifies and integrates data management across cloud and on-premises environments to accelerate digital transformation. The NetApp Data Fabric delivers consistent and integrated hybrid cloud data services for data visibility and insights, data access and control, and data protection and security.

NetApp products, services, and partnerships help customers seamlessly manage their data across their diverse IT resources, spanning flash, disk, and cloud. IT has the flexibility to choose the right set of resources to meet the needs of their applications and the freedom to change them whenever they want.

"NetApp's belief is that customers need a more unified view of enterprise data so that they can store, access, protect, share and archive data in consistent and predictable ways across multiple internal and external data centers.

In addition, data management consistency and predictability should be extensible across multiple environments including multiple private and public clouds and remote offices. In this way, a public cloud provider (AWS, Microsoft Azure, Google Cloud Platform) becomes an extension of the enterprise data center."

JOHN WEBSTER, **FORBES MAGAZINE**

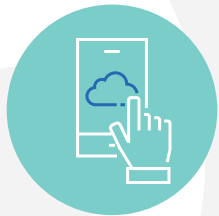
The 5 Principles of a Data Fabric

A true data fabric delivers on five major design principles, the NetApp Data Fabric architecture is designed to support these:



1. CONTROL

Securely retain control and governance of data regardless of its location: on premises, near the cloud, or in the cloud.



2. CHOICE

Choose cloud, application ecosystem, delivery methods, storage systems, and deployment models, with freedom to change.



3. INTEGRATION

Enable the components in every layer of the architectural stack to operate as one while extracting the full value of each component.



4. ACCESS

Easily get data to where applications need it, when they need it, in a way they can use it.

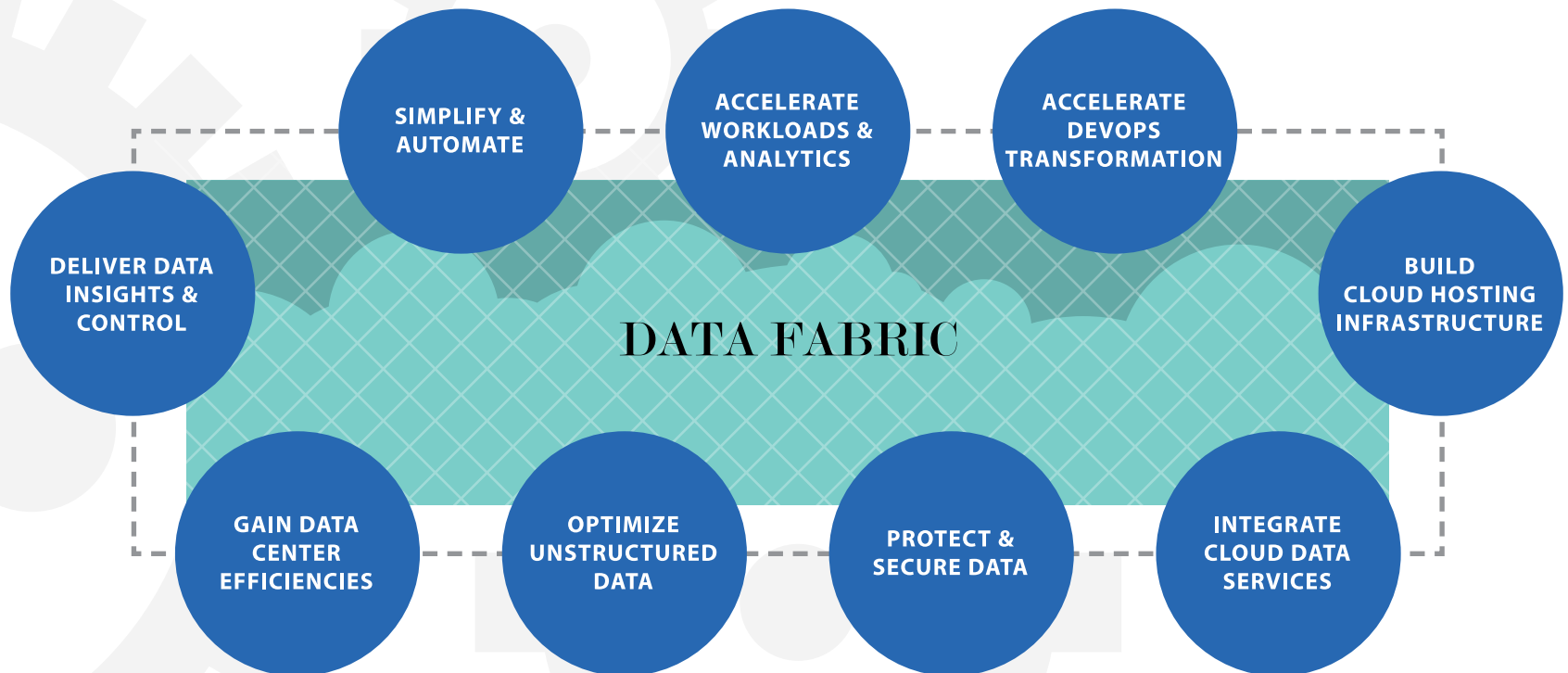


5. CONSISTENCY

Manage data across multiple environments using common tools and processes regardless of where it resides.

Proven Use Cases to Accelerate your Data Journey

NetApp Data Fabric enabled solutions can manage data across diverse use cases. They offer a choice of endpoints and application ecosystems and connect data between on-premises and cloud environments.



How NetApp Simplifies and Integrates Data Management with the Data Fabric

The NetApp Data Fabric ultimately helps your organization unleash the power of data to meet mission demands and power digital transformation. It allows your IT organization to better harness the power of hybrid cloud, build a next-generation data center, and modernize storage through data management.

The Data Fabric provides a natural extension to your IT departments in three ways:

- 1. Harness the Power of Hybrid Cloud:** Freely and securely manage and move data anywhere, on any cloud. NetApp Hybrid Cloud solutions provide agility, accessibility, and control over the data that you have in the cloud.
- 2. Builds a Next-Generation Data Center:** Get the scale and quality of service modern applications require. NetApp dramatically simplifies IT operations with solutions that feature “cloud-like” capabilities such as simple scaling, guaranteed application performance, and near-zero management. NetApp adds hyper converged infrastructure solutions to run and scale multiple applications with guaranteed performance on a simple and easy-to-use infrastructure.
- 3. Modernizes Storage Through Data Management:** Upgrade infrastructure to bring modern data services to existing applications. NetApp matches the pace of your mission needs with the All-Flash FAS. NetApp leverages its powerful OnCommand Insight tool to easily gather advanced analytics and reporting on data center operational capabilities.



Harness the power of the hybrid cloud

Freely and securely manage and move data—anywhere, on any cloud



Build a next-generation data center

Get the scale and quality of service modern applications require



Modernize storage through data management

Upgrade infrastructure to bring modern data services to existing applications

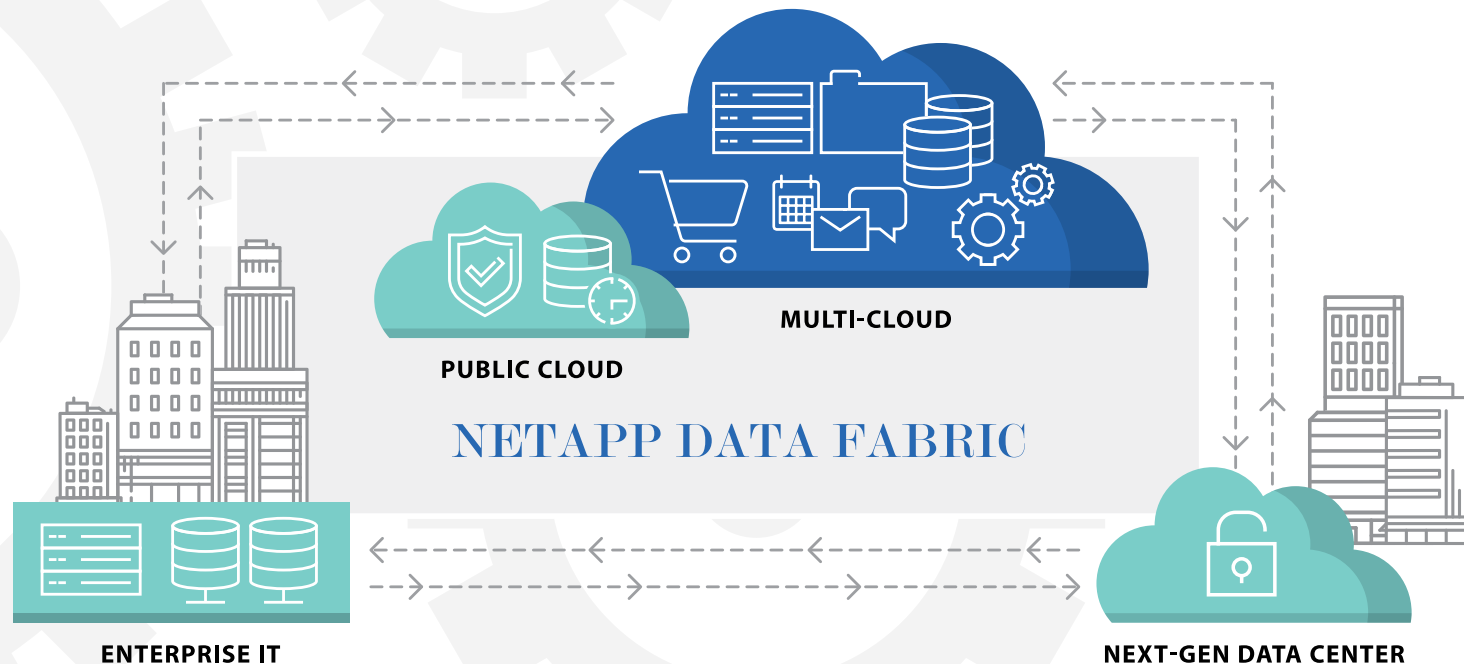
The Data Fabric Ecosystem – “It Takes a Village”

The universe of services your agency needs today and will need tomorrow is so large that no single vendor could efficiently – or feasibly – build and deliver them. Meeting this critical need calls for a platform and an ecosystem.

NetApp's Data Fabric is made possible by bringing industry-leading products to market and enabling them for managing data across multiple environments and providers. In addition, NetApp's Data Fabric strategy includes alliances with leading cloud and technology vendors to provide clear and accessible pathways to and from the cloud, including:

- Leading hyperscalers such as Amazon Web Services (AWS), Azure, and Bluemix
- Regional and specialized service providers all over the globe
- Colocation and connectivity partners such as Equinix

This combination of technology plus alliances, gives your agency the freedom and choice to build an infrastructure that is tailored to your specific needs, so you can focus on the innovation, optimization, and application of data and not the day-to-day management of it.



CHAPTER 3:

10 Good Reasons for NetApp Data Fabric



NetApp helps organizations to excel in a world where data is more distributed, dynamic, and diverse. NetApp enables you to manage your data however and wherever. NetApp Data Fabric converts disconnected, disjointed data silos into connected clouds providing the freedom, mobility, and speed to realize the full potential of the hybrid cloud.

Here are 10 good reasons for NetApp Data Fabric:



1. CLOUD READY

NetApp's vision for the future of data management enables you to build a foundation for the hybrid cloud today, and then use it to connect with a variety of services in the public cloud based on your agency's needs.



2. FREEDOM OF CHOICE

NetApp helps IT organizations build a Data Fabric for the hybrid cloud that seamlessly connects resources and allows data management, movement, and protection across internal and external cloud services.



3. GOVERNANCE

Ensuring that you can maintain required data governance, with the ability to rapidly adapt your hybrid cloud when current regulations change or new ones come into focus.



7. COMPLETE FLEXIBILITY

An overarching data management component for storage services makes it possible to readily move data to and from hyperscale clouds such as AWS, Azure, or near to them with NetApp Private Storage (NPS).



4. SEAMLESS DATA MANAGEMENT

A Data Fabric enables you to securely manage data across different clouds as easily and seamlessly as consumers can manage data across personal devices.



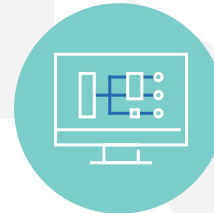
8. BACKUP & RECOVERY

Consistent management across a data fabric makes it possible to employ efficient data transfers for cloud-based backup and recovery, disaster recovery, and archiving.



5. UNIFIED ARCHITECTURE

NetApp provides a unified Software Defined architecture so that data management remains consistent across cloud services.



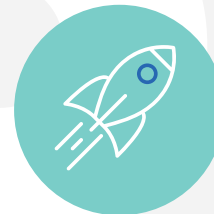
9. CONTROL

A single control panel that monitors and controls the flow of data throughout the cloud enables you to maintain stewardship of your data regardless of where it is stored.



6. MOBILITY

Eliminate silos by enabling data to flow as applications are moved, whether from legacy platforms to cloud services with nearly unlimited scale, or from the public cloud back to IT-managed, private cloud environments.



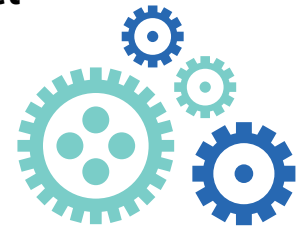
10. FASTER RESPONSE

Enable your agency to respond to citizens and stakeholders faster by accelerating IT cycle times from development and testing through to production.

The Future

NetApp's data fabric vision is continually evolving. Over time, the Data Fabric will expand to cover more environments. With each new wave, the Data Fabric becomes more textured, more expansive, and more capable.

To learn more about NetApp Data Fabric or hybrid cloud solutions for the Data Fabric, contact DLT Solutions at 800-262-4DLT or edm-sales@dlt.com.



Presented by

