



White Paper

Data Fabric Powered By NetApp

NetApp's Answer to the Data Protection Dilemma

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INTRODUCTION

Since we began creating data, whether handwritten invoices in triplicate or digital data stored on magnetic media, we have had to find ways to store and protect these assets to protect our businesses, the customers we serve, and the data collected. From the early days of digital data protection, the backup function was very much a batch process, centrally located in a primary data center. Production ceased during the evening, batch backup began, and after a period of time the production window reopened and the new workday began.

Today, most organizations no longer have the luxury of ceasing production to make room for a backup window, during which they shut down to back up their data or ensure that their data resides in a single data center. They're always on, 7/24/365, and the data is often spread across multiple geographies, clouds, and multi-cloud architectures. Data protection is a constant challenge as businesses strive to remain competitive in the market with new and innovative applications that offer the best customer experience and products. At the same time, IT is tasked with making sure that these applications, systems, data, and platforms are adequately protected and available in the event of a business interruption or disaster.

This paper looks at NetApp's response to these challenges and how strong alliance partnerships with companies like Commvault, Veeam, and Rubrik offer NetApp's customers options and choices to identify the best solution combination for their environment. The solution to the data protection dilemma lies in the data fabric, and in the data management interface that unifies the disparate platforms into a unified, integrated system.



WHAT DRIVES THE NEED FOR A DATA FABRIC?

With many of your digital assets dispersed across multiple environments—on-premises corporate-owned data centers, hybrid cloud, physical servers, and virtual machines—the challenge of protecting data from a variety of workloads can be daunting. *Data protection* has become an all-inclusive term that includes backup, disaster recover (DR) and business continuity (BC), long-term retention (LTR), cloud tiering, and copy data management. The constant expansion of digital assets has caused IT to look at these new and innovative data management approaches across multiple environments. To keep up with the speed of business, IT is constantly looking for ways to improve data protection, even if that means changing solutions. Recent research from the Evaluator Group states that nearly 60% of organizations are likely to change backup solutions within 2 years, and 60% say that those new solutions must be easy to use, because more and more IT admins are generalists.

In a previous paper, *Beyond Modern Data Protection*, we mentioned how IT needs to look not only at today's challenges but at how a solution will grow and scale with the organization in the future. Of the IT professionals surveyed by the Evaluator Group, 50% said that data protection will always be top of mind, and cloud will be an active supporting technology. So it makes sense that a data fabric, unified by a single data management platform driving all of the functions of data protection, could very well be the right choice for many organizations that are looking to reduce complexity and increase productivity. From practical and purely feature and functionality perspectives, if you are using 100% NetApp® storage in your data center, you should take a good long look at the data protection solutions that NetApp offers. If you have a heterogenous storage environment, the strategic alliances that NetApp has built with Commvault, Veeam, and Rubrik are compelling and are likely to meet your needs today and scale with you into tomorrow.

MOVING AT THE SPEED OF BUSINESS

You depend on IT to deliver solutions that help accelerate your business. Most organizations can't tolerate the downtime of the past and are asking for tighter and tighter RPO and RTO. In fact, some are doing away with the concept of RPO/RTO and just calling it *availability*. When the systems, applications, data, and platforms are more available, that creates opportunities for better business outcomes.

Business outcomes are what it's all about for most organizations, so choosing solutions to keep you ahead makes good business sense. Year after year, research firms publish reports and briefs on the state and top concerns of IT. Many have identified the biggest issues as keeping up with data growth; virtualization expansion; current backup solutions not being able to scale; and data mobility--moving data across your data fabric to make sure that it's in the right place at the right time. If you have storage outside of NetApp storage, you may be wondering how this applies to you. The good news is that when they talk about a data management platform, NetApp is not talking exclusively about its own storage. That's why NetApp has established these strong partnerships with Commvault, Veeam, and Rubrik. NetApp understands the data protection dilemma quite well, and their tight integration through these partnerships, helps you manage the flow of data across your data fabric seamlessly.



DATA PROTECTION FOR YOUR DATA FABRIC

When you think of NetApp you probably think primary storage, but NetApp is much more than that. As mentioned earlier, the software partners aligned with NetApp bring an integrated value chain that helps organizations take control of their all-inclusive data protection needs: NetApp as secondary storage, NetApp StorageGRID® object-based storage, and NetApp on S3, not to mention supported cloud vendors like Azure, AWS, Google, and Alibaba, are leveraged hybrid or multi-cloud architectures that support your entire data fabric.

NetApp's integrated solutions can protect virtually any primary storage across any workload, on the premises and in the cloud, through a combination of NetApp and partner-provided software solutions. And when protecting NetApp primary storage, the integrated solutions offer significant performance and efficiency benefits. NetApp secondary storage becomes key to reducing storage silos, maximizing performance, and optimizing data copies on the premises and in the cloud. These benefits include not only backup and DR, but archive, LTR, dev/test, analytics, and much more.

NetApp Snapshot™ copies deliver near-zero performance impact to production, which means that you can take more copies more often to protect your environment based on business needs and desired availability. You may think that taking more copies would increase storage costs down the road. However, NetApp is very efficient, so you won't be faced with a big storage space impact due to the number of copies that you take throughout the day. Plus, restoring from a Snapshot copy is faster than restoring from a traditional backup.

Using Snapshot copies can make a huge difference in the time to market for most organizations. For example, you can create a dev/test environment from Snapshot copies, providing fresh production data to your developers to test against, without affecting performance, and at the same time improving development productivity. Using the same approach, you can test patches against your cloned-production environment without affecting your production. We all know that patching is part of IT life, but occasionally patches can do odd things to the environment, causing a business interruption. You can avoid this hassle by leveraging the Snapshot copies you already manage. For DR and BC, Snapshot copies enable you to create a copy of your environment at a remote site via replication.

Take full advantage of the benefits to lower your RPO, increase availability, leverage cloud as a tier of storage or a recovery site, and create a copy of your backup at a replicated site for DR and BC.

One thing that isn't mentioned as often as it should be is the ability to mitigate ransomware when it infiltrates your environment. When you take more frequent Snapshot copies, if you are hit with ransomware, your recovery opportunities are improved by having the option to "rewind" back to a point in time before the ransomware hit your ecosystem. With Snapshot copies, you can do this with near-zero production impact.



CONCLUSION

Whether you have a 100% NetApp storage environment or a heterogeneous environment with NetApp storage, you will find solutions to protect your data fabric. I have found the NetApp story to be quite compelling, with the software partnerships they have established. The fact that you, the consumer, have options and choices based on your own specific needs, goals, and objectives is a huge factor. Fortunately for IT, you are no longer locked into a single vendor solution, thanks to companies like NetApp. NetApp solutions, fully integrated with software partners, give you the tools you need to better manage your homogeneous or heterogeneous data infrastructure.

NetApp offers its customers a wide range of data protection solutions. Here are a few for your consideration.

- Cloud Volumes ONTAP®
- MetroCluster™ high-availability and disaster-recovery software
- NetApp Data Availability Services
- SnapCenter® software
- SnapMirror® and SnapMirror Synchronous replication technology

In addition to those solutions from NetApp, there are partner solutions that expand capabilities in heterogeneous environments, further extending the NetApp value. These are offerings like automation and orchestration for DR, copy data management, tiering and migration, tape support and management services, and more granular recoveries for VMs, apps, and individual files. Let's not forget the heterogeneous storage support for all industry-leading platforms. And probably most importantly for companies operating in a heterogeneous environment, central management and a unified interface provide visibility and management across the data fabric, whether on the premises or in the cloud.

To learn more about the information presented in this paper, visit the [NetApp website](#), or contact your reseller, system integrator, or NetApp representative, who can provide you detailed information based on your own unique environment, needs, and desired outcomes.

Check out the other papers in this series, *The Beat Goes On: Why Data Protection Presents So Many Challenges*, and *Beyond Modern Data Protection*.



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