

# Autonomous Data Management

Redefining the future of enterprise data management.

## Overview

Driven by digital transformation, data has become an organization's strategic asset and hybrid, multi-cloud the preferred operational model. Yet with data scattered across multiple clouds, it's difficult to protect and truly harvest its value. Worse still, today's enterprise data management tools are not optimized for hybrid, multi-cloud environments and operational agility. The modern, digital enterprise must adopt a new approach to data management—one that operates efficiently within a cloud, delivers a consistent experience across clouds, and provides intelligent automation to deliver operational efficiency and agility at scale.

## Meeting the Challenges of a Hybrid, Multi-Cloud World

The need to cost-effectively manage and protect data has never been more important—it's also never been more challenging. Today's data management technologies suffer from at least one of these four challenges: cloud-native but not multi-cloud, functional silos that create point solutions, a passive approach to cyberthreats, and manual operations that limit agility.

**Cloud-native or multi-cloud**—Today's data management solutions are either cloud-native and work efficiently within a single cloud but won't scale across multiple clouds, or they provide multi-cloud support with centralized control but consume excessive and costly resources within each cloud. In both cases, operational costs are higher than desired.

**Functional silos create point solutions**—Today it's not uncommon for cloud architects, application developers, data scientists, and others to implement their own data management solutions, creating a proliferation of point solutions that limit centralized governance.

**Passive cyber-resiliency**—Most data protection technologies today take a passive approach to protecting data by allowing data restoration only after an attack has occurred, resulting in unplanned downtime.

**Manual operations**—Today's enterprise data management solutions offer programmability but the dominant approach to deploying and maintaining these solutions is still manual, which slows operational agility.

With 80 percent of enterprises accelerating their multi-cloud strategies, a new approach to data management is needed.



*It's easy for organizations to end up with a patchwork of piecemeal data protection solutions in the cloud, where individual workloads and applications have been deployed by new functional decision makers and managed in silos. But, over time, these add up, creating a continually growing cost and management burden that quickly becomes unsustainable at scale. To avoid this, enterprises need a long-term solution that can help to reduce the footprint of their cloud backup and automate its management."*

— Christophe Bertrand,  
Practice Director, ESG

## Autonomous Data Management

According to the Puppet “2021 State of DevOps” report<sup>1</sup>, manual operations increase IT costs by 50–90%. For years, Veritas NetBackup™ customers have used API-enabled services to automate operations. And although automation improves operational agility and efficiency, it also requires maintenance to keep pace with environmental changes.

To unlock the full benefits of the cloud, including operational scale and agility, technologies must operate autonomously. Veritas is planning for a future where data management just happens, transparently and autonomously with no human involvement and without sacrificing human oversight. By harnessing artificial intelligence (AI) and hyper-automation combined with an elastic, programmable, multi-cloud-optimized technology, NetBackup’s strategy will provide the industry’s first AI-powered autonomous data management solution delivered on an elastic, multi-cloud-optimized platform.

### What is autonomous data management?

Consider how you might discover a new application that has been deployed to the cloud. Would you know to start protecting its data with the appropriate recovery time objective (RTO) and recovery point objective (RPO)? Are the right resources being provisioned?

Without the right technology to surface such intelligence and optimize operations, we can only rely on manual oversight. And unfortunately, humans can be the weakest link, especially in environments where swift and data-driven decision-making is critical to achieving the desired business and operational goals.

The panacea for data management in a complex, hybrid, multi-cloud environment is to operate autonomously. In other words, minimizing the need for manual operations by combining data-driven intelligence with hyper-automation.

When we achieve true autonomous data management, the modern business will benefit from data management that self-provisions, self-optimizes, and self-heals in multi-cloud environments (see Figure 1).

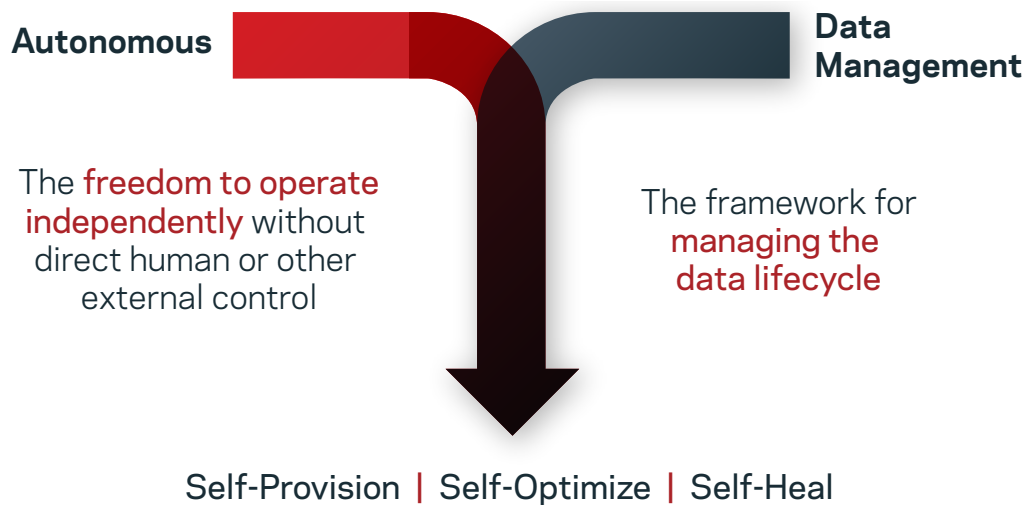


Figure 1. An overview of autonomous data management’s features and benefits.

- **Self-provision**—The ability to assign appropriate protection policies and deploy data management applications and services without human involvement
- **Self-optimize**—The ability to adapt and adjust protection policies and data management services based on the environment using AI and machine learning (ML)
- **Self-heal**—The ability to identify, predict, and repair data management service faults or performance issues

Putting this strategy into practice, the example in Figure 2 follows an App Developer who has a new application to deploy. Today's enterprise data management solutions may have automated some workflows but they still require manual intervention and handoffs throughout the process that are inefficient, time-consuming, and open the door for human errors. Autonomous operation eliminates the manual steps and protects the application without any additional steps required by the App Developer or the Data Protection team, creating a more performant and secure environment.

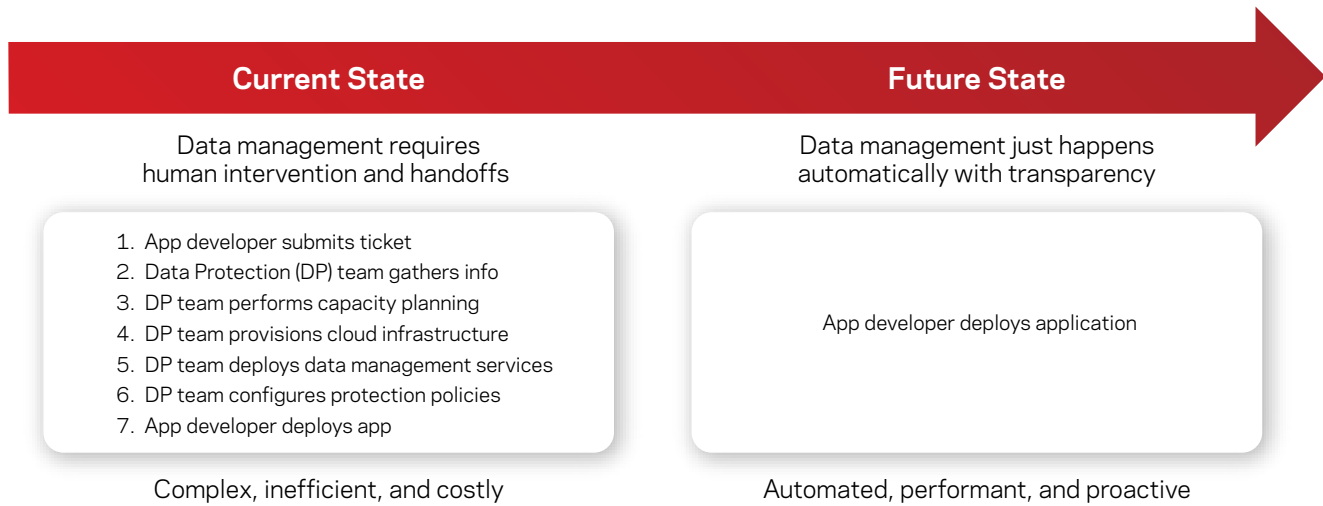


Figure 2. An example of the future of enterprise data management in a hybrid, multi-cloud world.

## NetBackup Redefines Data Management for the Next Decade

Veritas is redefining enterprise data management for hybrid, multi-cloud environments. To address these challenges, we have introduced Veritas Cloud Scale Technology as the foundation for powering NetBackup to enable autonomous operations in the future.

Veritas Cloud Scale Technology is a new generation of the proven NetBackup architecture. Cloud Scale Technology employs technologies commonly found in modern web-scale services to provide elastic service that is also programmable and portable. By containerizing Cloud Scale Technology's services such as backups, snapshots, and deduplication, Cloud Scale Technology enables NetBackup services to grow and shrink based on load. In addition to service elasticity, containers also enable portability to work consistently within multiple clouds and provide greater service resiliency. Combined with automation, multi-tenancy, and subscription-based services, Cloud Scale Technology enables NetBackup to operate more efficiently (see Figure 3).



**NetBackup™**

*Powered by Cloud Scale Technology*

- 40% savings in compute costs by using elastic snapshots and backups
- 95% savings in storage costs by combining cloud-native snapshots with NetBackup's automated snapshot lifecycle management
- Proactive identification of potential threats using event-driven, automated malware scanning

Figure 3. The benefits of NetBackup with Cloud Scale Technology.

Although operating more efficiently in multi-cloud environments controls costs and improves ROI, proactively delivering cyber-resilience reduces the chance and impact of cyberattacks. NetBackup combines AI-powered anomaly detection with event-driven malware scanning to proactively identify potential threats. If an attack occurs, NetBackup reduces recovery time by offering flexible recovery options to restore to alternate clouds as needed.

Powered by Cloud Scale Technology, NetBackup enables enterprises to operate cost-effectively within and across multiple clouds while also providing higher levels of cyber-resilience. But it doesn't stop there. To achieve operational agility and efficiency goals, IT organizations must invest in automation.

## Conclusion

Enterprises in pursuit of digital transformation are accelerating their multi-cloud strategies. Yet, today's enterprise data management solutions are ill-equipped to meet the challenge of managing and protecting their data in multi-cloud environments. Veritas NetBackup, powered by Cloud Scale Technology is delivering the industry's first AI-powered autonomous data management solution delivered on a cyber-resilient, multi-cloud-optimized, and ultimately autonomously operated platform (See Figure 4).



Figure 4. The core characteristics for the future of data management.

## Learn More

Veritas has been ranked a Leader in the Gartner Magic Quadrant for Enterprise Backup and Recovery for 16 years running. We've helped the largest companies protect their data from the edge to the core and across multiple clouds, and we welcome the opportunity to work with you.

With 100 exabytes of information currently under management, NetBackup gives enterprises a simple and powerful way to ensure the integrity and availability of their data.

Join us on the journey as we redefine data management for the next decade: visit [www.veritas.com/netbackup](http://www.veritas.com/netbackup).

1. <https://puppet.com/resources/report/2021-state-of-devops-report>

## About Veritas

Veritas Technologies is a global leader in data protection and availability. Over 80,000 customers—including 87 percent of the Fortune Global 500—rely on us to abstract IT complexity and simplify data management. The Veritas Enterprise Data Services Platform automates the protection and orchestrates the recovery of data everywhere it lives, ensures 24/7 availability of business-critical applications, and provides enterprises with the insights they need to comply with evolving data regulations. With a reputation for reliability at scale and a deployment model to fit any need, Veritas Enterprise Data Services Platform supports more than 800 different data sources, over 100 different operating systems, more than 1,400 storage targets, and more than 60 different cloud platforms. Learn more at [www.veritas.com](http://www.veritas.com). Follow us on Twitter at [@veritastechllc](https://twitter.com/veritastechllc).

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