

Reduce Cloud Spend with Veritas

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Introduction

The adoption of cloud computing has introduced several new challenges and managing cloud spending is proving to be one of the most difficult. The cloud can be shockingly expensive. Recently, [IDC released research](#) showing worldwide public cloud services revenues grew to \$408.6 Billion in 2021, with 40 percent of the worldwide total on the top five public cloud service providers—Microsoft, Amazon, Salesforce, Google, and SAP. With cloud computing and moving on-prem environments to the cloud a priority for many organizations, [Gartner forecasts](#) that end-user spending will grow 20.4 percent in 2022 to total \$494.7 billion, and will reach nearly \$600 billion in 2023.

To complicate the matter further, 80 percent of enterprises moving to the cloud are likely to overspend by 20–50 percent, according to Gartner. We hear many surprising stories about giant bills, such as this example from a recent [Forbes article](#), where a small mobile app company was hit with a \$72,000 bill. Erroneous data management is just one of the components driving up overall cloud spend.

Traditionally, a cloud computing infrastructure needs to be sized for peak workloads with much of the spend associated with very low utilization of the expensive resources. This could cost the business tens of thousands of dollars per month spent on idle cloud computing.

While it might seem like a daunting task to migrate on-prem workloads to a cloud service provider, there are cost-saving benefits if done correctly. Creating a cloud data lifecycle strategy including reduction, repurposing, and retiring enables organizations to manage data more effectively across more sources.

Data Management with Veritas Technologies

Veritas provides automated preconfigured intelligent data policies that help identify the different types of data in your organization's environment, and then decide what is important. Creating a strategy around data management and eliminating stored redundant, obsolete, and trivial (ROT) data is one of the most effective steps in lowering storage costs, on-prem and in the cloud. This proactive data management allows organizations to gain visibility into their dark data, storage, and backup infrastructure, to take control of data-associated risks and make educated, confident decisions about which data can be deleted.

As noted by [Datamation](#), "Unstructured data makes up 80% and more of enterprise data, and is growing at the rate of 55% and 65% per year. And without the tools to analyze this massive data category, organizations are leaving vast amounts of valuable data on the business intelligence table." To help organizations tackle unstructured data, Veritas supports OCR in multiple languages, so digital and hand-written text across supported languages can be recognized and tagged. This tagging allows for data to be triaged and managed more effectively, improving efficiencies, and reducing costs. Veritas can quickly and automatically reclassify any data that has been changed (for example, from non-sensitive to sensitive) for further efficiency.

Once data is classified and tagged, an organization can differentiate data on tiers of priority and filters. Veritas then deduplicates their data to make sure organizations are only saving what they need at each price point. This strategy will eliminate storage waste and unnecessary duplication of data (which adds up quickly), and will ultimately optimize networks and drive efficiency across the organization.

By implementing fully automated movement and management of cloud-based workloads to lower-cost tiers of storage, either on-prem or in the cloud, you are in the driver seat on cost management.

Stop worrying about your organization's escalating cloud spend, and take control. Here are the top five ways Veritas can help your team reduce your organization's spend in the cloud.

1. Application Availability and Performance

The growth of remote workforces has accelerated the adoption of enterprise cloud services and SaaS applications. For many IT organizations, this means highly dispersed complexity.

- How do you optimize multi-cloud data and apps for always-on availability?
- How do you protect cloud-based assets against ransomware threats?
- How do you ensure rapid disaster recovery?

By moving applications from native tools with Veritas InfoScale, application performance is often improved, enabling queries to run in a timely fashion and backups to be completed within a normal window.

Part of application availability is protecting against data corruption and ransomware attacks. IT departments often have inadequate solutions in place to recover applications and systems within their SLAs and with minimum data loss. With applications deployed in multiple locations and on multiple platforms, it is crucial to have a unified solution that protects all your systems and applications across physical, virtual, and cloud environments. Veritas minimizes the disruptive potential of data corruption and ransomware by integrating data replication and recovery into a unified solution that provides multiple options for recovery in the event of a data corruption scenario or ransomware attack, including:

- Continuous data checkpoints derived from real-time data replication
- Automated recovery for individual systems, applications, and multi-tier business services

This enables maximum availability and resiliency for your applications, while providing recovery automation and the frequent recovery checkpoints needed for low recovery point objectives (RPOs), minimizing the potential for data loss. The integrated Veritas solution gives your organization the flexibility to recover any application from a ransomware attack based on RPO and business requirements, reducing data protection costs while providing confidence in recovery.

Learn more: [Availability and Resiliency for the Modern Enterprise](#)

2. Visibility Across Public Cloud Service Providers

Optimize your team's resources and simplify your organization's cloud migration with a single pane of glass that analyzes and reports on IT infrastructure across hybrid and multi-cloud environments.

To gain the most benefits from migrating to the cloud, your organization must create a solid cloud migration strategy based on insights. When you have accurate data about your organization's current infrastructure, and what needs to move, you can break your cloud migration down into a manageable plan:

- Which workloads do you want to move to the cloud?
- Which workloads should remain on-prem?
- What is the capacity of your assets and utilization of your cloud assets?
- Where are you wasting spend, and how can you reduce future cloud costs?

Veritas NetBackup IT Analytics (formerly APTARE) provides analytics for multi-cloud optimization, data center optimization, data protection, and comprehensive chargeback, regardless of asset location.

If you are just starting your organization's cloud migration journey, it is vital you have an accurate estimate on the cost of cloud migration. With Veritas solutions, learn how much it will cost to run your on-prem and virtual environments in the cloud.

With NetBackup IT Analytics, you can compare prices between virtual machines (VMs) on-prem to AWS, or even Azure versus AWS, so you know what it would cost to implement a lift-and-shift approach of moving an existing VMware environment to the cloud.

One of the key components for cloud pricing is the Power OFF/ON state metrics of VMs, which is usually not provided for measure by the native hypervisor, but which NetBackup IT Analytics does provide. Similarly, by collecting data metrics on objects such as the number of CPUs and the amount of memory configured in the on-prem VMware environment, NetBackup IT Analytics can calculate, translate, and derive pricing information for a certain type of system on the cloud, such as an m4.large system.

Read more: [IT Analytics—A Better Approach to Manage Cloud Costs](#)

3. Optimization and Storage Efficiency

Organizations must operate in the most cost-efficient and performant way possible within and across any cloud.

With NetBackup Elastic Cloud Autoscaling for AWS and Azure, an organization only pays for cloud resources when they're used. By automatically provisioning the cloud compute resources and the NetBackup services to meet surges, the required performance demands are always achieved. As the requirements subside, the cloud compute resources are automatically deprovisioned along with their associated costs. With NetBackup, cloud-native data protection never needs to be compromised due to costs, and the results speak for themselves—organizations can reduce compute resource costs by up to 40 percent.

Learn More: [Slim Down Cloud Spending—Just-In-Time Provisioning for Cloud Data Protection](#)

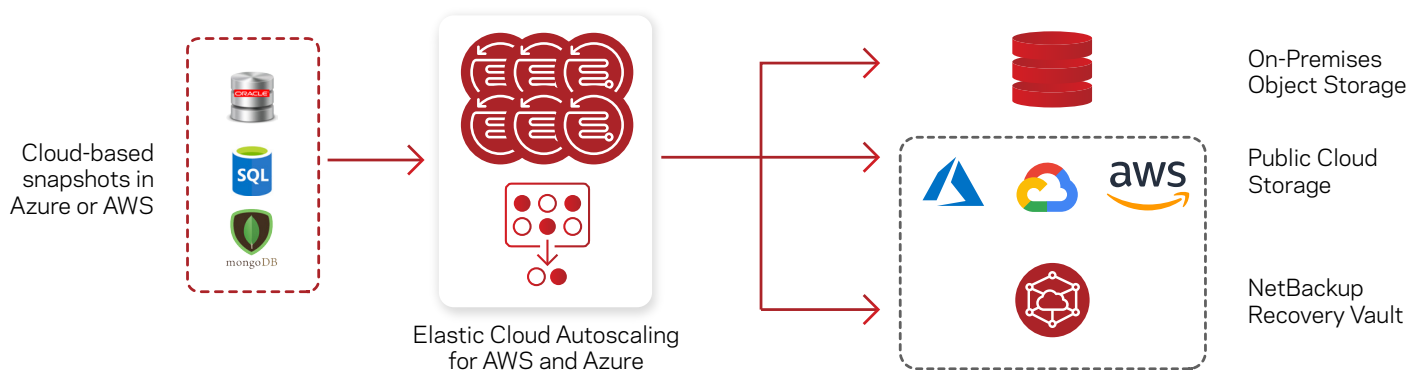


Figure 1. Elastic Cloud Autoscaling: Pay Only for What You Use

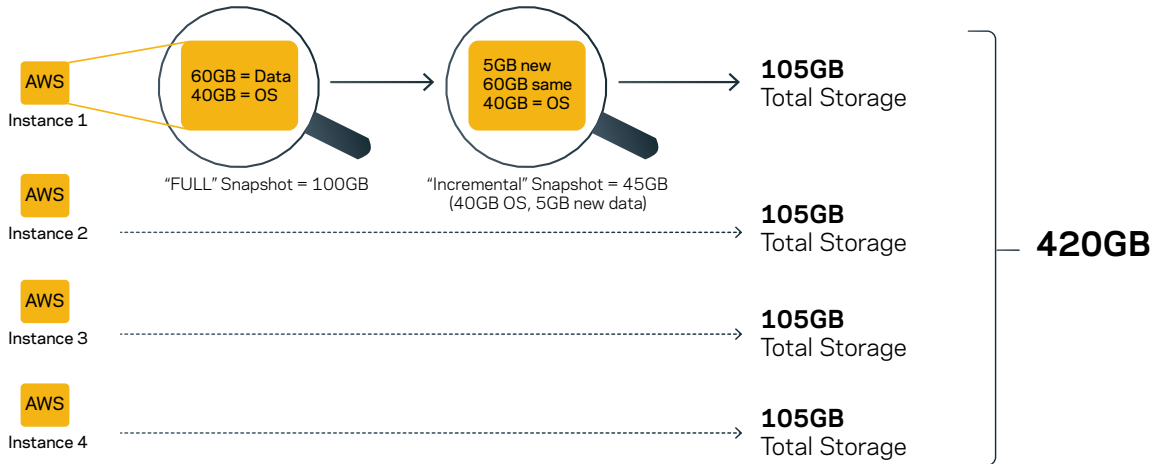
In a recent [Evaluator Group Economic Insight report](#), the economic benefits of Veritas NetBackup's autoscaling and deduplication capabilities are compared in a hybrid cloud implementation. The Evaluator Group noted, "Using resources on-demand, as they are needed, via autoscaling, and the ability to directly move or tier data into the public cloud without requiring it to be rehydrated, are two capabilities that significantly impact the total cost of using the public cloud for data protection purposes."

In addition to optimizing compute resources, NetBackup can minimize your organization's storage costs. With NetBackup deduplication technology, you can save up to 99 percent in storage costs by combining cloud-native snapshots with NetBackup's automated snapshot lifecycle management.

If your team is currently using cloud-native data protection tools, the tools were probably quick to implement when moving workloads to a cloud environment, but have you looked at total storage used by those built-in tools? Cloud providers use an incremental snapshot (snap). These snaps take a point in time copy of your organization's data. The user can decide how frequent these snaps should happen and when they should expire, but they are taken and initially stored on high-end—and costly—storage. Moving them to lower, and thus cheaper tiers of storage is possible. However, there is no deduplication technology associated with these snapshots. Meaning, even though you're storing snapshots on the least expensive storage tier, you're likely storing multiple copies of the same data—a recurring monthly cost. At enterprise scale, this problem quickly becomes untenable.

Compared to native tools, Veritas optimizes nearly everything related to data protection. Data deduplication differs from incremental snapshots and significantly reduces storage costs, deduplication at the source, and recovery from deduplicated storage, without rehydration or staging steps, etcetera. Only Veritas sends deduplicated data directly to S3; supports locking at object level without cost overheads; and supports instant access directly out of S3 for fast, secure, and cost-optimized recovery.

Incremental Cloud Snapshots



vs. Deduplication

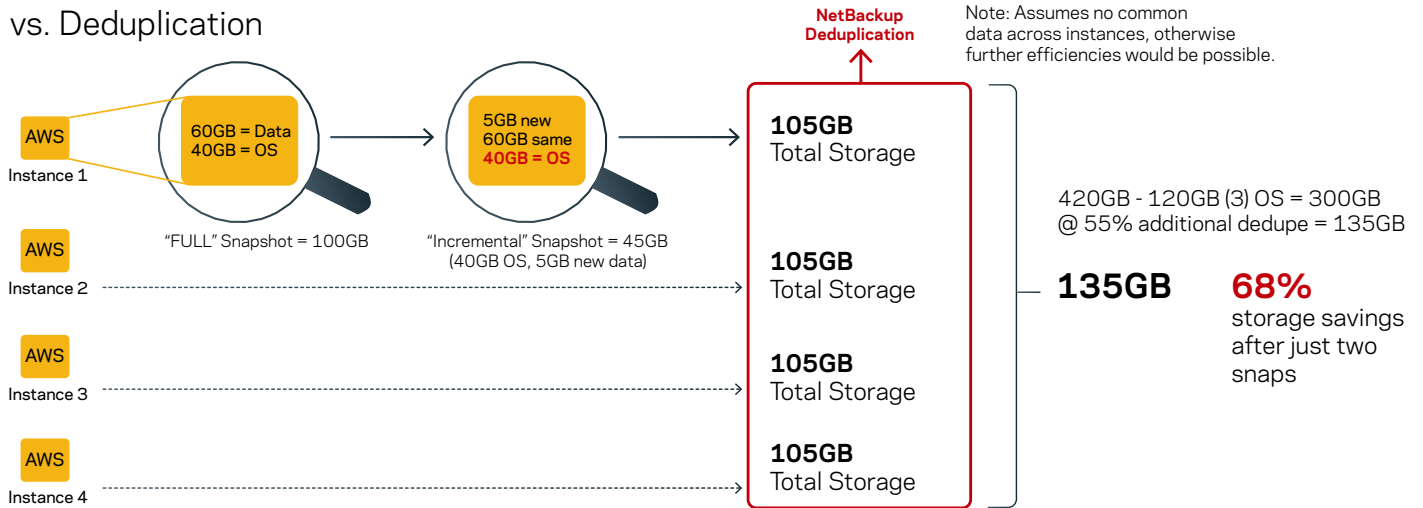


Figure 2. Incremental Cloud Snapshots Versus Deduplication

With NetBackup deduplication and compression features, the amount of data sent or retrieved from the cloud is reduced, minimizing egress and ingress costs to and from the cloud.

Read more: [Cloud-Optimized Backup from Snapshot and Autoscaling in NetBackup](#)

Storage efficiency planning would be remiss if long-term retention of data is not taken into consideration. IT teams must balance evolving data compliance regulations with broad accessibility, while providing the most cost-effective retention possible. With an improved storage cost predictability with NetBackup Recovery Vault's easy deployment across multiple clouds, low-cost object storage, industry-leading deduplication, snapshot backups, and reined-in egress costs.

Learn more: [Top Reasons for Long-Term Retention with Veritas](#)

4. Unified, Streamlined, and Autonomous Data Protection

Most backup and recovery solutions have limits—be it data size, workloads, server environments, architectures, and even which cloud providers they can protect. This typically means IT organizations need a mixture of services and vendors to cover their entire infrastructure, all with their own costs and subscriptions. Veritas protects all your organization’s data, wherever it resides—on-premises and in the cloud—and delivers fast, granular, or bulk recovery precisely when, where, and how you need it. With a reputation for reliability at scale, and a deployment model to fit any need, Veritas supports more than 800 data sources, over 100 operating systems, more than 1,400 storage targets, and more than 60 cloud platforms. The holistic cloud solutions from Veritas offer cloud native deployment; provide a single, unified platform for cross multi-cloud reporting and data management; scale elastically to meet your usage; and deliver the flexibility to run applications on any platform, with the agility to move applications between platforms to optimize costs and functionality.

Veritas Solutions

Workloads customers need. Architectures they want. Simplicity they demand.

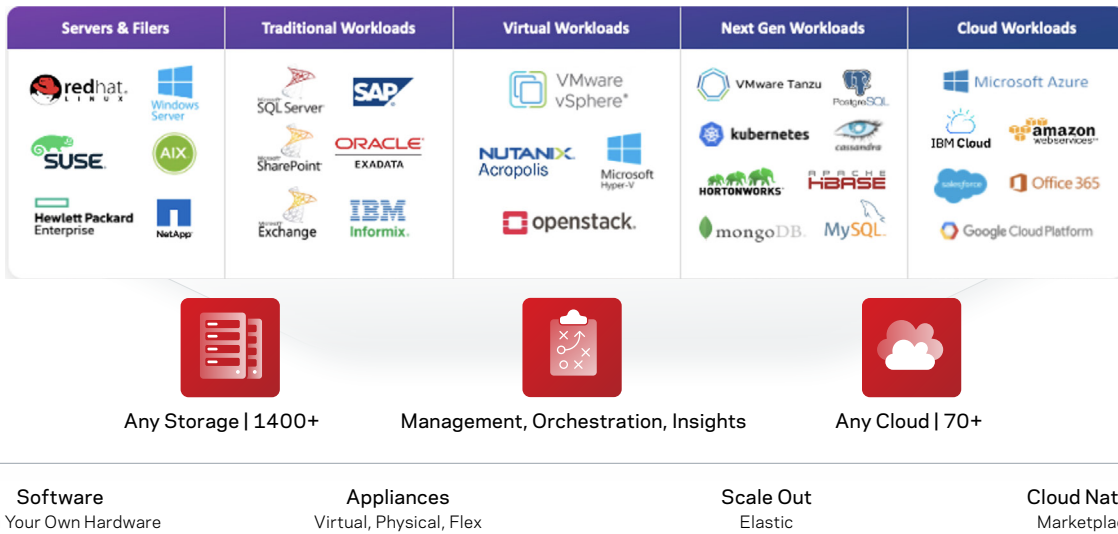


Figure 3. Overview of Veritas Solutions and Workload Support

There are a number of ways that Veritas solutions can save you time and money using repeatable, automated, and intelligent processes, removing dependency on humans for operational tasks across your organization’s cloud infrastructure. Storage Lifecycle Policies sets up an efficient data management system, automatically moving backup data through tiers of storage. This ensures that data is at the appropriate layer of storage for its lifecycle. For example, if you have a backup that you took today, and you want it available at a very fast recovery rate for the following week, because that data is very relevant for the next seven days. Or perhaps you need to keep data for 30 days because you’re worried about a ransomware attack, and perhaps you have to go back more than a week to get to clean data—you can move to cloud immutable storage for 30 days. Lastly, let’s say company policy is to keep all backup data for three years—we can move those long-term backups to the slowest and most affordable storage, thereby saving money. With a storage lifecycle policy—all of this is done automatically.

NetBackup has long supported the concept of storage lifecycle management by placing less-accessed data on longer-term storage to assist in long-term retention costs. Adopting a similar approach to cloud, NetBackup supports multiple storage tiers in the cloud, and supports storage lifecycle policy (SLP) management of backup copies going from one tier (such as hot) to another tier (such as Glacier). Additionally, NetBackup can put a pause on objects flagged as malware infected, to ensure good backups do not expire, and bad backups are not replicated.

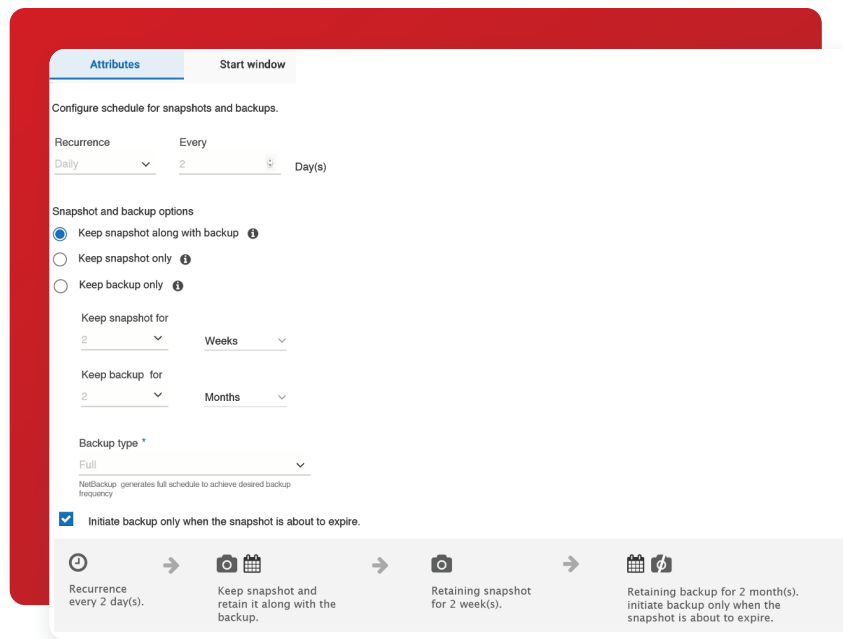


Figure 4. Storage Lifecycle Policy Management—Setting Backup from Snapshot in the NetBackup Web UI (Source: V1510)

Efficient management of data across the storage lifecycle also includes end-of-life planning. To further reduce cloud spend, organizations can use Veritas solutions to automatically archive, expire, and delete old data.

To meet the accelerated pace of cloud adoption, Veritas delivers Autonomous Data Management, which allows enterprises to unlock full cloud benefits, including operational scale and agility.

Consider how you might discover a new application that has been deployed to the cloud. Would you know to protect its data with the appropriate recovery time objective (RTO) and recovery point objective (RPO)? Are the right resources 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 achieve the desired business and operational goals.

Veritas believes that data management self-provisions, self-optimizes, and self-heals in multi-cloud environments.

- **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 artificial intelligence (AI) and machine learning (ML)
- **Self-heal**—The ability to identify, predict, and repair data management service faults or performance issues

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.

Autonomous Data Management & Protection

Redefining data protection for the next decade Powered by the Cloud & Kubernetes.

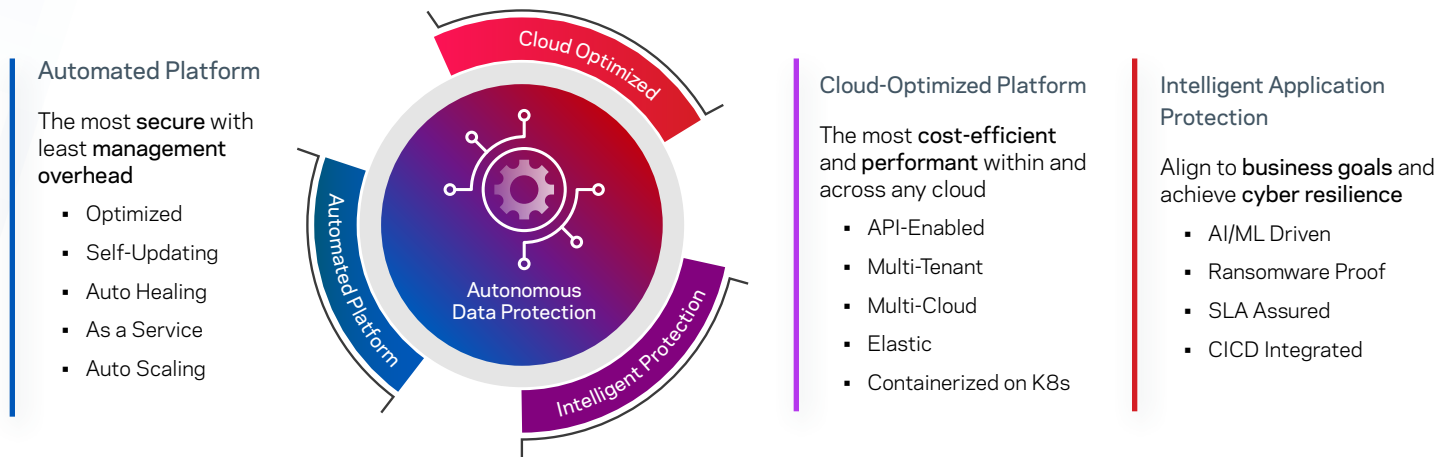


Figure 5. Veritas Autonomous Data Management and Protection

Read more: [Autonomous Data Management](#)

5. Resiliency and Recovery

One of the most important things that every IT professional should do immediately to prevent the costly and devastating impact of a cyberattack is to optimize their entire IT environment for recovery. This is achieved by having solutions such as Veritas in place to provide many flexible and hybrid options for recovery—from the object level, all the way to an entire data center—and to also facilitate orchestrated recovery rehearsals.

Having a reliable backup and recovery solution is the most vital step toward building a reliable ransomware prevention plan. Today, companies often rely on several backup paradigms, including traditional backup as well as replication and continuous data protection (CDP). Each of these methods is valuable for creating copies of data. In the case of replication, moving copies to local or remote storage is a notable benefit in the effort to create distance, or air gap, between backup data and the organization's network.

However, each backup paradigm has pros and cons that organizations must consider when developing a ransomware recovery plan. With replication, data is often replicated in real time, reproducing the ransomware virus as part of the process. By defining frequency, timing, and storage parameters for replication guided by the goal of protecting data in the case of an attack, organizations can ensure a dependable, network-disconnected version of backup data.

CDP supports point-in-time and version-based file recovery by taking periodic or timed snapshots, giving organizations the ability to roll back to a time prior to the ransomware attack. CDP has the disadvantage of using significant disk space due to the number of managed snapshots, although it may be a small price to pay for ready ransomware recovery.

Organizations also benefit from setting standards for a recovery point objective (RPO) and recovery time objective (RTO). RPO defines a company's loss tolerance, or the amount of data that can be lost before significant harm is done to the business. The objective is expressed as a time measurement from the loss event to the most recent preceding backup. RTO refers to how much time an application can be down without causing significant damage to the business. Some applications can be down for days without significant consequences, but many cannot. Both metrics play an important role in developing a baseline from which an organization can build a ransomware recovery plan that addresses the needs of the business while remaining attentive to its IT realities.

Veritas helps you architect an optimized and simplified recovery experience that will help you get up and running in minutes instead of hours and days, regardless of scale. Additionally, Veritas solutions run non-disruptive, cost-effective recovery rehearsals, which include

Tier-0 to Tier-N application recovery with varying RPO. Flexibility is vital under the stress of a cyber security attack, as no two attacks are the same (as well as human error or natural disaster). Sometimes everything is impacted and you may need to recover an entire data center in the cloud and on demand, while other times you may only need to recover a portion of your VMs back to production. Veritas recovery is intelligently automated and orchestrated to remove the challenges of manual human oversight and meet your recovery time objective (RTO) and recovery point objective (RPO). Additionally, recovery can come directly from deduplicated data stored in the cloud or multi-clouds. Veritas offers many recovery solutions, including granular file recovery, bulk/instant recovery, instant rollback of VMs, continuous data protection, and bare metal recovery, to name a few.

Learn more: [Ransomware Best Practices](#)

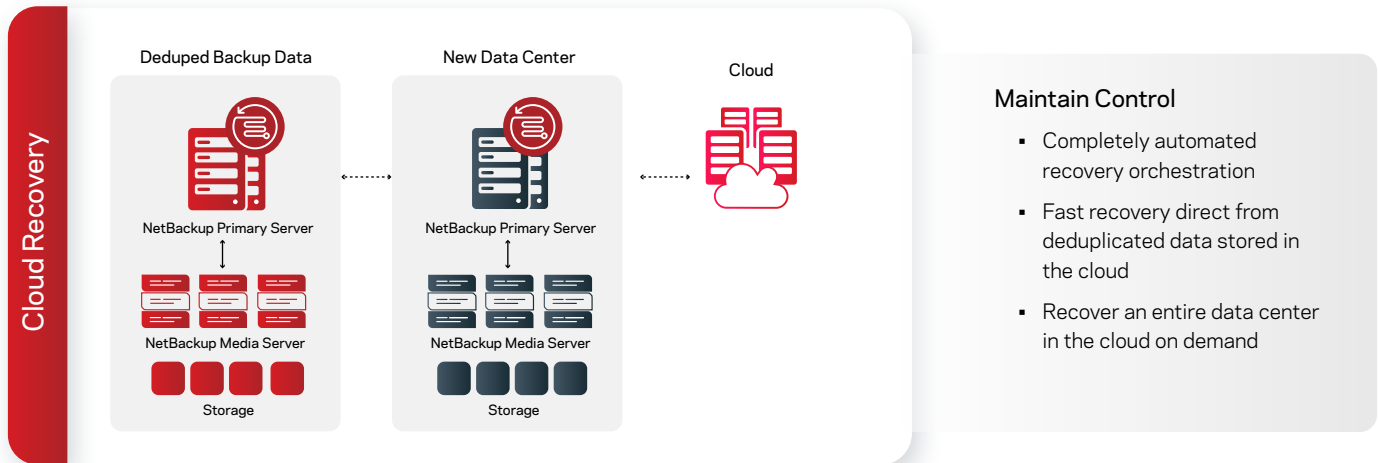


Figure 6. Veritas Cloud Recovery Architecture

Veritas also offers additional data safeguards to ensure business resiliency and therefore prevent costly downtime, fines, lost revenue, and reputational damage. The additional security features include Immutable Storage (BYO, appliance, cloud, & SaaS), zero trust fundamentals, anomaly detection, malware scanning, data visibility, isolated recovery environment, and other air-gap solutions.

Conclusion

Veritas is uniquely equipped to help organizations of all sizes conquer the complexity of managing and protecting their business-critical data on its way to, and then stored in the cloud. Through our integrated product portfolio, we provide a unified data management experience that delivers unmatched performance and versatility—edge to core to cloud.

Complexity leads to costs—it's a simple equation. You can see it at work in the scattershot approach of our competitors, with their third-party dependencies, add-on licenses, and extra infrastructure requirements. Conversely, Veritas offers a unified data management experience with native integrations across all operating environments. The result is greater efficiency of scale and resources, which ultimately translates into long-term savings.

With Veritas data management solutions, reduce your cloud total cost of ownership:

- Only pay for resources as needed
- Move data to lower-cost storage tiers
- Eliminate redundant data and reduce storage needs with powerful deduplication
- Dynamically provision cloud compute resources
- Ensure protection requirements are always met

With less management time and a unified, agnostic view of your cloud environment providing the needed insights to optimize your data footprint, Veritas will help reduce your cloud spend and plan for the future.

More Information

- [Cloud Optimization in NetBackup 10](#)
- [AWS Cloud Storage with Veritas NetBackup](#)
- [Veritas InfoScale + AWS for Application Performance and Availability in Hybrid-Cloud Deployments](#)
- [Unlock Transformation Possibilities While Reducing Cost and Risk](#)

About Veritas

Veritas Technologies is a global leader in data protection and availability. Over 80,000 customers—including 95 percent of the Fortune 100—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. Follow us on Twitter at [@veritastechllc](https://twitter.com/veritastechllc).

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