VERITAS™

Immutable Backups are Crucial to Enterprise Hybrid Cloud Security

Introduction

What if your company found itself on the receiving end of a ransomware attack? The hackers threaten to release critical data to the public if you don't pay them millions of dollars.

No matter your industry, they're putting your business at risk. For oil and gas companies, tasks such as fuel transportation become wildly unpredictable. In healthcare, private patient data is at risk. Worse, inaccessible blood type and medication data may delay life-saving medical treatment. For retailers, customer payment information could be in jeopardy.

Paying the ransom doesn't fix everything. There is no guarantee that you could restore systems fast enough to mitigate financial loss, even if you could completely restore your data.

Data corruption manifests in a variety of ways such as ransomware, natural disasters, unattended access, or accidental deletion. While ransomware and hacking are a top concern, you need to protect against a variety of threats. Anyone can manipulate data through unattended access or accidental deletion. Securing your data with immutable storage is a reliable way to restore and rebuild during recovery.

Cybercriminals are increasingly sophisticated. Traditional recovery processes are no longer enough. Criminals target both production systems and backup environments. They render them useless by deleting or stealing repositories and snapshots. Malware and corrupted data can cripple a business in an instant, and lead to costly and lengthy outages.

So how do you keep your company from being susceptible? How often are you backing up, and where should you store your backups? Protect yourself and your company's bottom line by creating predictable resiliency.

Identify Risks

Backup and recovery are the cornerstone of a good protection strategy—not a last resort in case of emergency. Detection and protection are essential, but nothing beats knowing that you have a complete and clean backup stored in an immutable location.

Consider the risks and advantages of on-site versus cloud storage. Cloud storage is incredibly useful for its ability to enable effortless access to data from any device—anywhere, anytime. This convenience does come with risks. Hackers can still breach the cloud.

Immutable storage, a type of storage that prevents data from being modified or deleted after it has been written, is a sustainable and suitable solution as a safeguard against potential disaster. If you are taking advantage of cloud-based apps and using data at the edge, Veritas protects data regardless of its location.

Veritas simplifies autonomous data management for cloud and on-prem storage. A single management platform provides AI-powered machine learning for anomaly detection, air gapping, and immutable vaults.

Reliable backups are vital to guarantee that critical data stays secure. The ability to store data without degradation or loss is essential. Immutable backups offer the greatest level of protection. Businesses need reliable backups to guarantee that critical data stays secure. Veritas creates these backups in a write-once, read-many (WORM) format to ensure no one can alter or delete the snapshot.

Immutability can make all the difference to your data integrity. Include immutable storage as part of a comprehensive security plan and cybersecurity strategy to ensure the protection of your critical data. Leverage anomaly detection and retention lock with air-gapped backups to restrict and isolate threats as soon you identify them. Consider how to safeguard your most important information. How often are you backing up, and where should you store your backups? Immutability can make all the difference to your data integrity.

Create Ultimate Immutability

Automating data protection tasks helps you stay secure and organized. Eliminating manual steps and enabling an automation process to aid with compliance and auditing and reporting capabilities minimizes your risk.

By segmenting, you can enable efficient contingency steps without manual interaction—on-prem and in the cloud. This also helps you address critical failures, allowing rollbacks on a particular container or by retrieval from an isolated recovery environment (IRE).

Centrally managing resources creates more uniformed audits. It also creates more visibility for software updates, greatly reducing the risk of errors. Easily set up backup systems incorporating deduplication, as well as cross-domain replication with built-in auto image replication (AIR). You can also integrate object lock to enhance data security and compliance across on-prem and cloud environments. This ensures third-party vendor choice.

Create robust protection against threats, ransomware, and other disruptions. Immutability provides access to dependable recovery to limit downtime and lost revenue, reduce risk levels, and meet established governance policies. Veritas leverages container technology to reduce costs and improve efficiency. This solution ensures reliability with a range of backup options including cloud-based and air-gapped IREs, as well as advanced features such as:

- Policy-driven retention locks
- Role-based access control (RBAC)
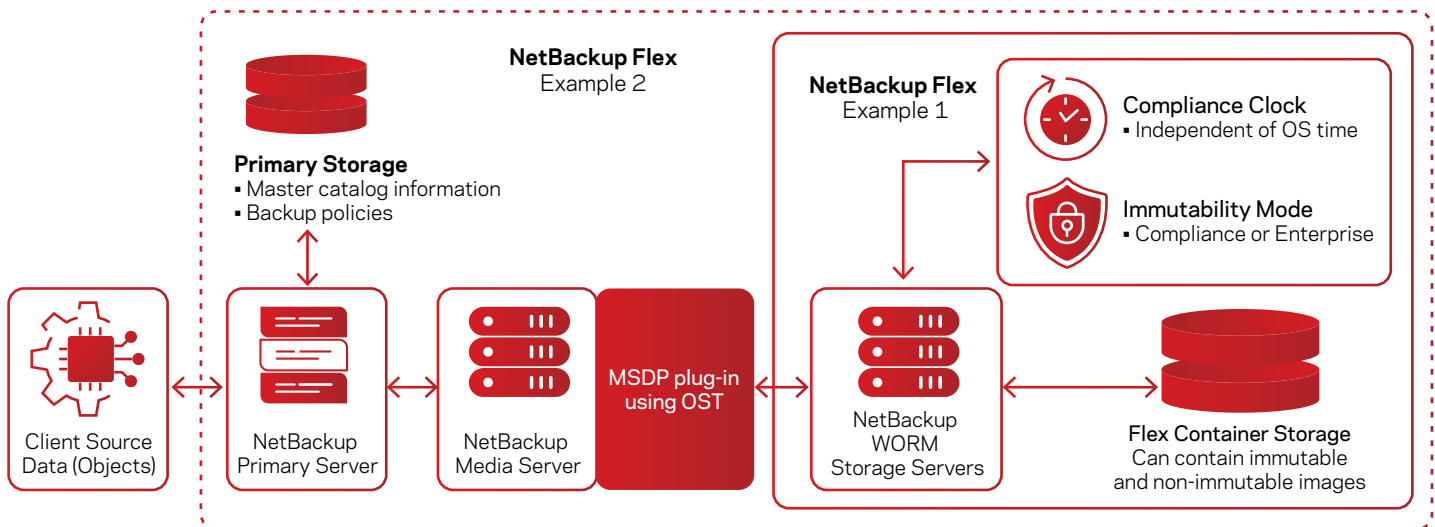- Password policy management
- STIG-hardened appliances

Figure 1. Veritas Flex Appliance comes with a wide variety of security features

Create complete immutable storage and compliance with *enterprise lockdown mode*, which allows you to select the best immutability strength to meet your needs. With this mode enabled, users (including root) cannot delete or change data without dual authorization permission, which restricts data modification or deletion within a certain time limit.

One Size Fits Many

There is no one-size-fits-all architecture for data security. With the vast complexity of applications and environments, you need to look for effective ways to safeguard data across the entire infrastructure. Veritas offers immutability on-prem and in the cloud, as well as AI-powered anomaly detection and malware scanning to create an impenetrable vault. To further ensure security, you can configure Veritas appliances to create a WORM storage server IRE, and allow a copy of critical and protected data in an air gap without extra effort.

Reasons to Use Immutable Storage

Compliance

Organizations in heavily regulated industries such as healthcare, government, and financial services are mandated to maintain data for a fixed duration (data retention) without modification. Immutable storage using an IRE allows you to preserve records to comply with regulatory obligations.

Disaster Recovery

Immutable storage is invaluable during a disaster. Having immutable backup copies in a cloud can minimize the impact of interruption when it is crucial to have data available within specific recovery time and recovery point objectives (RTOs and RPOs). For example, first responders, military, and defense cannot afford to have data offline for any length of time. It is crucial that they have uncompromised data available at all times.

Data Security

Shielding data from unauthorized access is critical to protect confidential information. An ever-growing list of regulations such as GDPR, HIPAA, CCPA, and PCI DSS mandate protection of customer data.

Auditing

Immutable storage offers a tool for auditing data. Because it logs everything, administrators can more easily trace the history of changes. It records every alteration, which allows reconstruction of the data's history.

NetBackup™ and NetBackup Flex use OpenStorage Technology (OST) API; a flexible, storage-agnostic immutable backup manager. Using Veritas or any third-party storage, your organization can support primary, secondary (deduplication), and cross-domain replication with auto image replication (AIR). This provides unlimited configuration options across any backup storage tier. It keeps your data secure and compliant on-prem and in the cloud, and works with Amazon (AWS) S3 Object Lock. Manage immutable image policies, use third-party appliances, and remain vendor-agnostic.

Based on container technology, NetBackup Flex and Flex Scale extend data protection with multi-tenant capabilities. Take advantage of:

- An air-gapped solution with multi-point backup repositories including cloud
- Policy-based retention locks, role-based access control, and password policy management
- STIG-hardened cybersecurity

Veritas appliances meet FIPS 140-2 data encryption certification and have completed the Cohasset Associates immutability assessment[1] (in compliance mode), specifically:

- Securities and Exchange Commission (SEC) in 17 CFR § 240.17a-4(f)
- Financial Industry Regulatory Authority (FINRA) Rule 4511
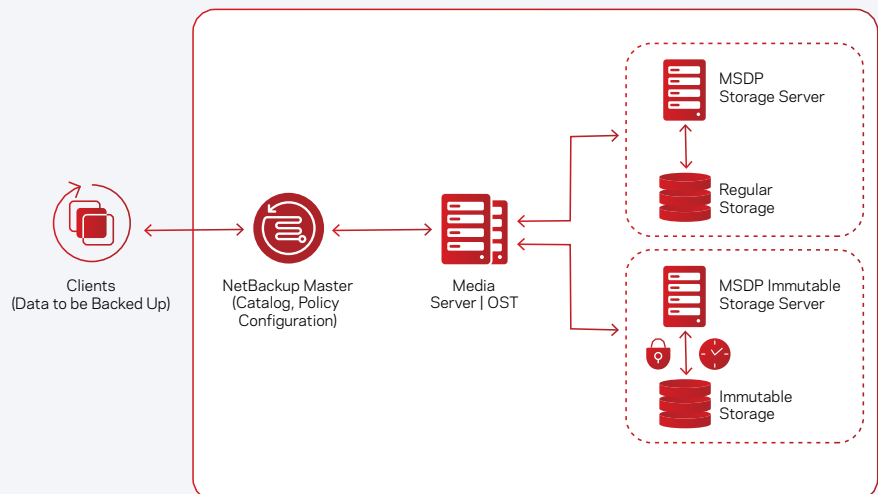- Commodity Futures Trading Commission (CFTC) in regulation 17 CFR § 1.31(c)-(d)

Figure 2. How Veritas protects your IT services against Ransomware attacks.

Designed to work across multiple environments, Veritas gives you flexibility to define your recovery strategy. Veritas integrates a wide range of built-in technology to support a variety of options to keep backup data in check and up to date. We offer maximum reliability and performance with a number of options for visibility and reporting.

For added compliance assurance, Veritas appliances have a built-in proprietary system clock based on the Veritas File System. Because administrators can't tamper with it, you gain valuable control over retention periods.

Why Veritas?

Veritas enables you to build an infrastructure that incorporates immutability and indelibility, ensuring protection against the risk of accidental deletion of intentional modification. Our technology removes the complexity from data backups so you can be confident in your cybersecurity strategy, and assured that you avoid downtime. Using a hardened OS, container isolation, and appliances built on a Zero Trust architecture simplifies navigating and managing your data. We help you protect backup data and files, so you can be more efficient and effective for a more secure hybrid and multi-cloud environment.

More Information:

- Read the full NetBackup Immutability Assessment from Cohasset Associates
- Learn more about air gap solutions with a NetBackup Isolated Recovery Environment
- Explore appliance best practices and sizing recommendations
- Review the NetBackup Flex integration and API guide
- Get more detail about installation and configuration with NetBackup Flex Appliance Security

Visit the NetBackup Flex Appliance page to learn more

1. veritas.com/form/whitepaper/cohasset-associates-immutability-assessment-for-netbackup

About Veritas

Veritas Technologies is a leader in multi-cloud data management. Over 80,000 customers—including 95 percent of the Fortune 100—rely on Veritas to help ensure the protection, recoverability, and compliance of their data. Veritas has a reputation for reliability at scale, which delivers the resilience its customers need against the disruptions threatened by cyberattacks, like ransomware. No other vendor is able to match the ability of Veritas to execute, with support for 800+ data sources, 100+ operating systems, 1,400+ storage targets, and 60+ clouds through a single, unified approach. Powered by Cloud Scale Technology, Veritas is delivering today on its strategy for Autonomous Data Management that reduces operational overhead while delivering greater value. Learn more at veritas.com. Follow us on Twitter at @veritastechllc.

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