

## Data Immutability based on industry standards for protection against ransomware

### Challenge: More Data and New Threats

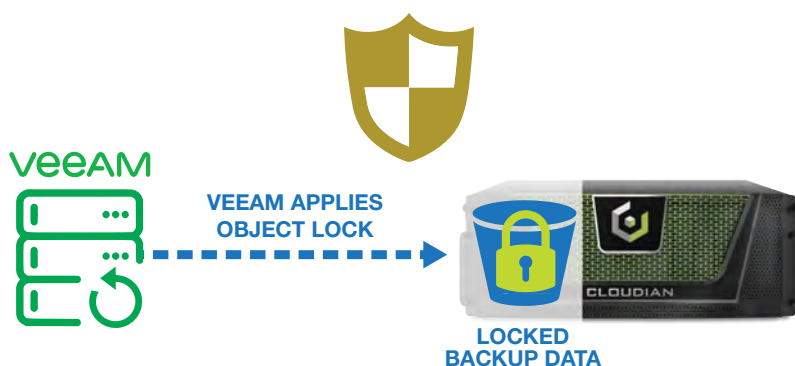
IT and IS managers at the world's largest multi-nationals must manage data growth at enterprise scale, meet stringent RPO/RTO objectives, and protect data from loss or malicious attacks. Your choice of backup target is critical to meeting these data protection objectives. Traditional hardware backup targets are expensive and lack scalability. Public cloud targets can limit bandwidth, resulting in lengthy restore times. Wherever your backup data resides, a ransomware attack could render that data useless, potentially shutting down operations.

Making matters more urgent, the US Department of the Treasury's Office of Foreign Assets Control (OFAC) and Financial Crimes Enforcement Network (FinCEN) published advisories stating that making or facilitating ransomware payments may violate sanctions and be in violation of anti-money laundering (AML) regulations. This makes you liable for penalties for making ransomware payments even though you are doing so to maintain business continuity.

It is therefore not surprising that a solution that keeps your data immutable has become a requirement for many enterprises to obtain and maintain a cyber insurance policy. This is because integrated, end-to-end data immutability—protecting the very backup data cybercriminals most target—can reduce your risk of losses due to a business-crippling cyber event such as a ransomware attack.

### Solution

Cloudian HyperStore enterprise storage complements Veeam Availability Suite with a fast, on-premises disk-based storage and built-in ransomware protection. At 70% less cost than public cloud or traditional enterprise storage, Cloudian offers an innovative solution for better backup storage.



"Object Lock" protects data from ransomware by making it unchangeable for a specified period, thus preventing encryption by malware.

### High Speed Backup and Recovery

Cloudian provides a local, disk-based object storage target for Veeam backups over your local, high-speed network. The solution lets you backup and restore large data sets in a fraction of the time required for public cloud storage, leading to enhanced Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO). To further ensure high performance, the solution supports recovery directly from HyperStore without the need to rehydrate an intermediate storage tier.

## SOLUTION BENEFITS

### Data Immutability for Ransomware Protection

- Object Lock feature protects backup copies from encryption by ransomware
- Assured restore in event of an attack
- A must-have for Cyber Insurance

### Superior RPO/RTO

- Fast restore from on-prem, disk-based backup target

### Highly Secure

- Most security-certified on-prem object storage
- Hardened storage ships with secure shell, RBAC/IAM and Integrated firewall
- Root Disable for tamper resistance at the OS level

### Modular and Limitlessly Scalable

- Start small and expand without downtime

### Cloud Compatible

- Replication to public cloud for DR
- Compatible with AWS, Azure, GCP

### Trouble-free Integration

- Veeam Ready Object with Immutability certified
- Proven in Veeam deployments worldwide

### Lowest TCO

- 1/3 the cost of public cloud or traditional enterprise storage
- 30% lower TCO than tape



## Data Immutability and Cyber Insurance

With the OFAC and FinCEN issuing alerts about potential exposure by making ransomware payments, data immutability has become a must have feature to obtain cyber insurance and maintain business continuity.

To protect data from ransomware attacks, Cloudian HyperStore and Veeam Availability Suite support Object Lock for air-tight data immutability all the way up to the operating system root level. This permits backup data copies to be made tamperproof for a set period of time, which prevents hacker encryption or deletion and ensures a clean data copy for reliable recovery. The resulting security is comparable to offline storage.

## Industry-Leading Security

Cloudian is a hardened object storage system and ships with enhanced security features such as secure shell, integrated firewall and RBAC/IAM access controls to protect backup copies against malware. In the WORM mode, the storage system has system root disabled to avoid breaches below the storage layer. To ensure data security, Cloudian supports AES-256 server-side encryption for data at rest and SSL for data in transit (HTTPS). Fine-grained storage policies – including encryption at object and bucket-levels – permit security settings to be individually configured for different users or data types in a shared-storage environment.

## Hybrid Cloud-Ready

For DR purposes, Cloudian's data management functionality lets you create a remote data copy. Replicate backup data to a second Cloudian site, or to low-cost deep archive storage such as AWS Glacier. With policy-based management, your offsite copy will be automatically kept up to date.

## Multi-tenancy

Increase efficiency by allowing multiple users to share a single backup and storage infrastructure, without compromising security. Both Veeam and Cloudian support multi-tenancy, ensuring that multiple clients may be supported within a single system while maintaining full data security. Integrated billing simplifies management, and QoS controls help you deliver consistent service levels.

## Lowest TCO

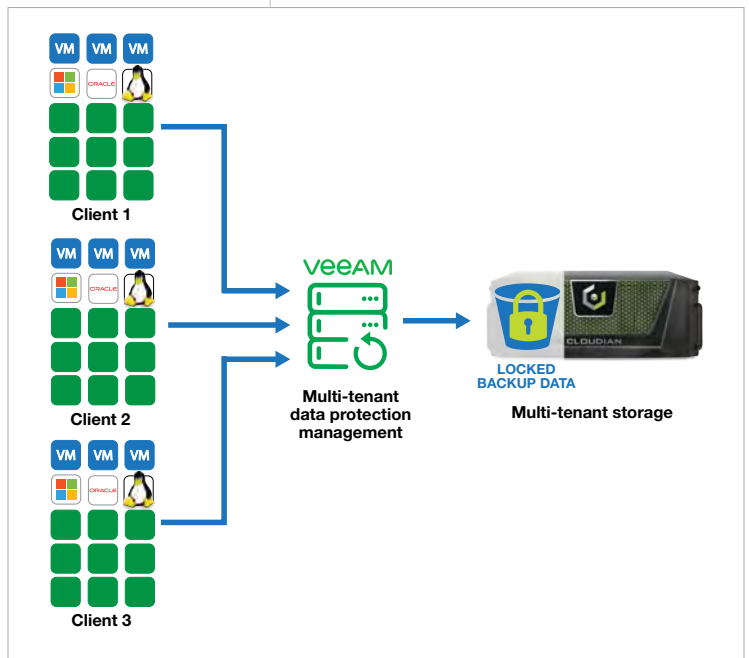
Cloudian HyperStore is a scale-out object storage system that provides a fast, cost-effective backup and archive storage platform at 70% less cost than public cloud storage or traditional storage options. The scale-out architecture lets you start small and grow, rather than buying capacity long in advance. A software-defined-storage model gives you the option of deploying on the hardware of your choice or on Cloudian's pre-configured storage appliances.

## Veeam-Certified

Cloudian is Veeam-certified to ensure trouble-free integration. Veeam's native support for the S3 API via the Cloud Tier enables seamless integration with Cloudian HyperStore.

## USE CASES

- **Data Protection:** Integrated backup and archive solution
- **Disaster Recovery:** Policy-based replication to cloud or remote site for DR
- **Ransomware Protection:** Immutable data for compliance, governance or legal hold
- **Regulatory Compliance:** HIPAA, GDPR, SEC Rule 17a-4



Multi-tenancy support lets you create multiple backup workflows within a single infrastructure without compromising security.

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