Cloudian® and Veeam® offer an integrated backup solution to help reduce the risk of data losses including those associated with ransomware. It is used by large organizations managing data growth at scale, with stringent RPO/RTO objectives and in need of protection from malicious attacks.

While Cloudian and Veeam are both market leading providers, together they can only deliver the very best high availability solution when using Loadbalancer.org. Because the load balancer is an essential component for bringing resilience, guaranteeing uptime, intelligent health monitoring and traffic distribution in the storage system.

**Key Benefits**
- Highly available backups
- Quicker recovery
- Performance at scale
- Multisite resilience

**Key Features**
- Robust, feature-rich ADC
- Built on Open Source technology
- Easy to use & maintain
- Flexible licensing & pricing
- Free platform migration
- Seamless integration - Validated by vendors
- Consultative & tierless support
- Cloudian HyperStore deployment guide

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**Load balancing Cloudian with Veeam**

An essential component of the solution that protects against ransomware
Veeam delivers backup, recovery and replication for all workloads. Cloudian HyperStore® serves as the on-prem storage target for Veeam backup and is a multi-tenant distributed storage platform that is 100% compatible with Amazon Web Services (AWS) S3 storage protocol. The S3 Object Lock on Cloudian HyperStore allows backup data copies to be made unchangeable for a set period of time, which prevents hacker encryption or deletion and ensures a clean data copy for reliable recovery.

Loadbalancer.org sits in front of the Cloudian deployment and manages the traffic distribution between Veeam and Cloudian for high availability (HA).

The architecture contains both a primary backup repository as a performance tier and the S3 object storage as a capacity tier - the latter being Cloudian HyperStore. The backup meta-data produced by Veeam is kept locally in the performance tier for intelligent search and browse capability. Then Veeam moves or copies the backup data from the performance tier to Cloudian HyperStore - an extension of the primary repository used for longer data retention periods and/or to store immutable backup copies.

Both performance and capacity tiers can be load balanced as they are storage systems. Depending on which performance tier is chosen (for example Cloudian HyperFile or Qumulo), we can load balance the traffic for HA.

As for the capacity tier, Cloudian HyperStore architecture supports HA clustering by putting a load balancer in front of it. The load balancer ensures that traffic is distributed evenly across the nodes optimizing the load on each node. It also monitors and performs health checks on a node to ensure traffic is routed correctly to healthy nodes. Without the use of a load balancer, an offline or failed node would still receive traffic, causing failures.

For deployments that are distributed across multiple sites, the GSLB functionality of a load balancer can provide the failover required when one or more sites are down. It uses DNS to provide HA across multiple sites and provides optional location affinity to ensure clients connect to their local HyperStore service.

Above is an illustration of a typical on-site environment with Loadbalancer.org.
Why Loadbalancer.org
The business value

**Highly available & resilient backup solution**
Resiliency ensures continuity of operations, better performance and lower infrastructure costs. Adding Loadbalancer.org to the Cloudian and Veeam solution helps ensure that backups always succeed so in the event of a disaster, you have immediate access to your backups and can confidently restore your systems.

**Multisite failover**
GSLB - an added feature of load balancers - enables efficient handling of object storage across data centers and public clouds eliminating downtime. With its topology feature, GSLB allows matching the source subnets to locations, helping users access their resources locally. When a site failover occurs, users are rerouted to a different location, thus ensuring uninterrupted data access.

**Quicker 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. With Loadbalancer.org, your backups will be more reliable, thereby accelerating your Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO).

**Performance at scale**
While most object-based data storage vendors promise unlimited scalability, load balancing is the driving force behind it. It evenly distributes traffic to nodes optimizing the load and easily adds HyperStore nodes to a cluster as data demands increase.

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**THE LOADBALANCER.ORG ADVANTAGE**

**First choice for storage expertise**
Loadbalancer.org is at the vanguard, helping object-based storage providers prepare for change. We’re the experts in creating dedicated load balancing offerings which are tailored to the needs of storage solutions. We work closely with Cloudian and end-users developing high performing yet scalable solutions which support highly available, future-proofed storage systems.