



Reduce Splunk TCO by 60% While Increasing Storage Scalability

Splunk SmartStore and Cloudian HyperStore Solutions

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Splunk's new SmartStore feature plus Cloudian HyperStore provides an exabyte-scalable, on-prem storage pool that is separate from your Splunk indexers.

The Challenge
Data growth and the need to extract timely insights from this increasingly strategic asset are two of the biggest challenges for enterprises today. The growth of machine and unstructured data is breaking the distributed scale-out mode that combines compute and storage in the same devices and limits your flexibility to choose the ideal resources for each. This drives up costs and makes it more difficult to accommodate growing data storage and analytics demands.

Solution
Splunk SmartStore and Cloudian HyperStore together let you decouple the compute and storage layers, so you can independently scale those resources to best serve workload demands.

A SmartStore-enabled index minimizes its use of expensive local storage, with the bulk of its data residing remotely on economic Cloudian HyperStore. As data transitions from hot to warm, the Splunk indexer uploads a copy of the warm bucket to Cloudian Hyperstore and retains the bucket locally on the indexer until it is evicted to make space for active datasets. HyperStore becomes the location for master copies of warm buckets, while the indexer's local storage is used for hot buckets and cache copies of warm buckets which contain recently rolled over data, data currently participating in a search or highly likely to participate in a future search. Searching for older datasets that are now remote results in a fetch of the master copy from the HyperStore.

Unlike conventional storage, Cloudian offers modular growth, letting you expand from terabytes to an exabyte without disruption. Each Cloudian node can support 10G, 25G, 50G, or 100G network connectivity. This allows customers to scale the performance of Cloudian cluster linearly by adding more nodes. Cloudian saves on space, too, with the industry's highest density: up to 1.5PB capacity in each 4U high chassis. Embedded data redundancy features provide up to 14 nines data durability, removing the necessity of a separate data backup process. Compared with traditional enterprise storage – or with storage on compute-intensive servers – Cloudian saves up to 60% on TCO.

SOLUTION BENEFITS:

- Independently scale compute and storage resources
- On-prem data lake with exabyte scalability
- Modular design for non-disruptive storage growth
- Built-in data protection; up to 14 nines data durability
- 60+% TCO savings vs Indexer-based storage
- Public cloud compatible; Integrates seamlessly with AWS, GCP, and Azure
- Hybrid cloud-ready for DR
- Faster recovery from Indexer node failure
- Simplified indexer updates; new cluster can inherit data from the original

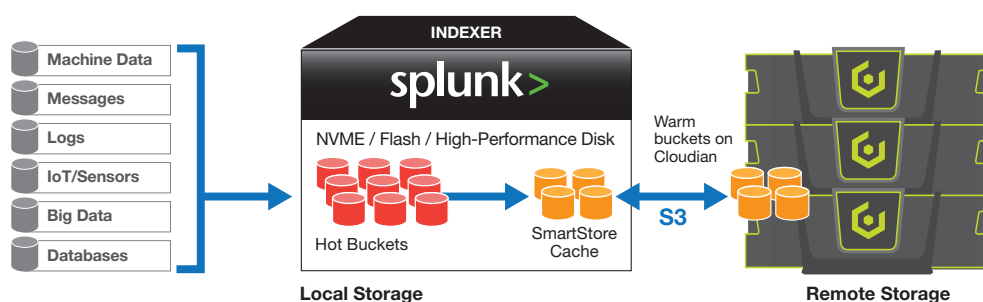
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Secure

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. In addition, Cloudian offers enhanced security features such as secure shell, integrated firewall and RBAC/IAM access controls to further protect backup copies.

Multi-tenant

Cloudian HyperStore is a scale-out, multi-tenant storage system with ability to isolate storage pools using local and remote authentication methods like Password, AD, LDAP, IAM and certificate-based authentication. Granular access control, and audit logging capabilities further enhance the logical separation of data access. Administrators can also control quality of service (QOS) limiting usage rates and setting quotas on a per-group, per-user basis.

High-speed Ingest and IO Performance

Cloudian HyperStore is built on a multi-threaded architecture. File writes are efficiently parallelized, enabling high-speed data ingest. The system also delivers high performance for IO operations, providing fast file access. Performance scales linearly with added nodes, and failure domains are limited to a single node.

Cloud Enabled

Cloudian is on-prem storage, but it integrates directly with public cloud storage services. Employ policy-based tools to replicate or tier data to AWS, GCP or Azure for offsite DR, capacity expansion or data analysis in the cloud. This built-in capability requires no additional software or licenses.

Multi-Purpose Scalable Storage

Cloudian offers the industry's most compatible S3 API, so it integrates seamlessly with S3-compatible applications. In addition to Splunk SmartStore, it also provides scalable storage for data management applications from Rubrik, Veeam, Commvault, Veritas, Pure Storage, Quantum, and others.

Deploy as Software or Appliances

Cloudian is available as preconfigured appliances, with capacities from 96TB to 1.5PB, and as software for either bare metal servers or VMs.

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