Flexibility & Scalability for IaaS
LINBIT SDS® Integration with Apache CloudStack®

Executive Summary

Organizations are facing challenges to improve structured and unstructured data access whilereducing the costs to store it. Open-Source SDS and Cloud Orchestrator solutions take these challenges by separating data services from hardware and creating a new era for data access.

Combining Apache Cloudstack with LINBIT SDS creates a perfect environment for Cloud Providers, Hosting Companies, Finance Industries, ISP's and many more. LINBIT SDS provides organizations the performance, simplicity, and flexibility they need from storage infrastructures. In addition, LINBIT SDS' deep integration to Apache CloudStack offers scalability, data protection, and flexibility.
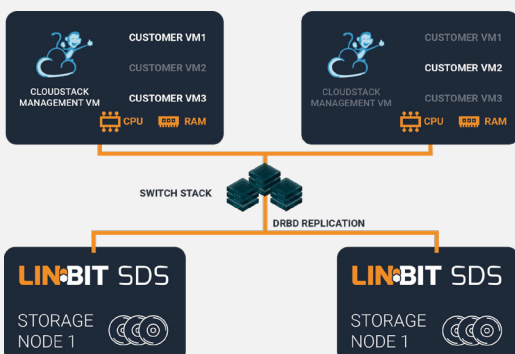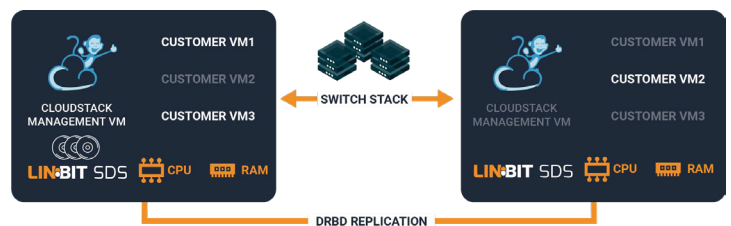
Enterprise Value Proposition

- 100% Open Source Technology Stack
- Guaranteed Data Protection
- Low CPU Utilisation
- Ultra-fast Performance
- No Single Point of Failure
- Simplicity
- High Availability
- No Vendor Lock-In
- Instant horizontal and vertical scalability

Executive Summary

Hyper Converged

With locally attached storages of HCI nodes into the HA virtual storage pool, data will be replicated and protected among the cluster.
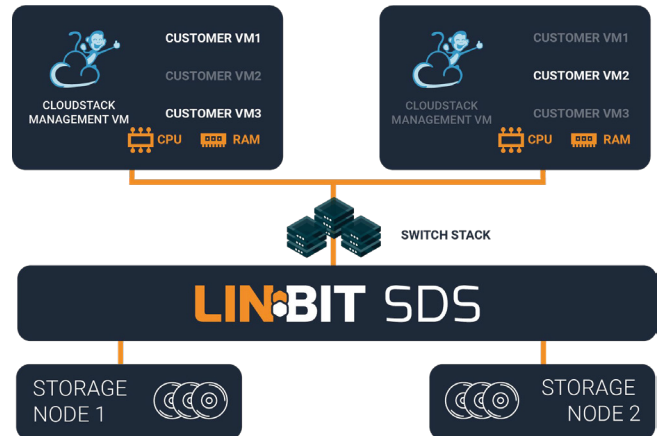

Disaggregated Storage

You can create fully replicated and protected storage nodes and bind them in to Apache CloudStack without any complex configuration.
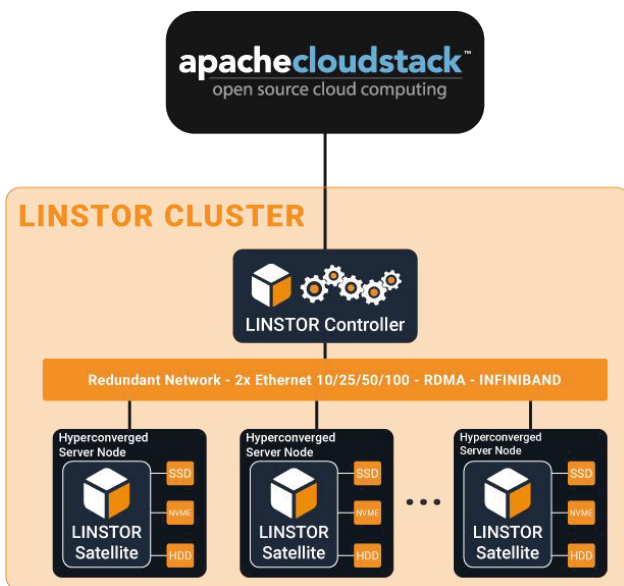
Storage Virtualization

Abstract the traditional storage architecture, and extend the life and value of the existing hardware. LINBIT SDS can be a virtual layer on top of the storage architecture.

Architectural Overview

LINBIT SDS is deeply integrated with Apache Cloudstack. It has a native driver in the OS which provides block devices to the KVM. The Cloudstack integration helps administrators to manage storage functions like snapshots, migration with the API. The **LINSTOR**® system consists of multiple server and client components:

- A LINSTOR controller manages the configuration of the LINSTOR cluster and all of its managed storage resources.

- The LINSTOR satellite component manages the creation, modification and deletion of storage resources on each node that provides or uses storage resources managed by LINSTOR.

- All communication between LINSTOR components uses LINSTOR's own network protocol, based on TCP/IP network connections.

- The integration of the Apache Cloudstack allows users to manage all resource actions within the stack. Also, via a command line utility, you can directly manage the storage system and the active LINSTOR controller.
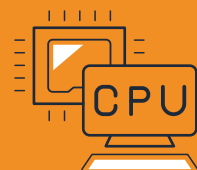
Open Source   **High Performance**   **Data Locality**   **Low CPU Utilization**

Technical Benefits

- No Vendor-Lock in
- Hyperconverged Structure Support
- Disaggregated Structure Support
- Ultra fast performance
- Low resource utilization
- Multi-tier storage support
- GUI + CLI + API Support
- Online documentation

Business Benefits

- Open Source Solution
- Data protection at any level
- Enterprise Support
- Wide Administrative Capabilities
- SME Ready
- Excellent Price/Performance Ratio
- QoS Support
- Simplicity
- Efficiency

Key Outputs

The combination of Apache CloudStack and LINSTOR® enables companies to build a fully hyper-converged cloud with state-of-the-art orchestration and storage features, using OSS components exclusively. LINBIT supports a native integration with Apache CloudStack.

Along with the extensive management and scalability capabilities, the stack gives you the ultimate Open Source solution while providing the lowest TCO, compared to the any other proprietary solution. Use the chance to talk about your special use case with us. Get in touch with one of our solution architects today!

Contact us

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