Flexibility & Scalability for IaaS

LINBIT SDS® Integration with Apache CloudStack®

Executive Summary

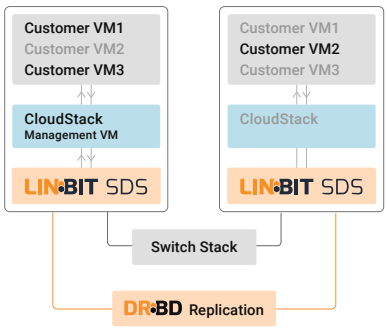
rganizations are facing challenges to improve structured and unstructured data access while reducing the costs to store it. Open-Source SDS and Cloud Orchestrator solutions take these challenges by separating data services from hardware and creating a new era for data access.

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

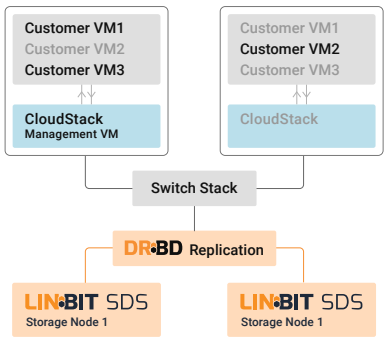
- 100% Open Source Technology Stack
- Guaranteed Data Protection
- Low CPU Utilisation
- Ultra-fast Performance
- High Availability
- No Single Point of Failure
- No Vendor Lock-In
- Instant horizontal and vertical scalability

Deployment Scenarios:



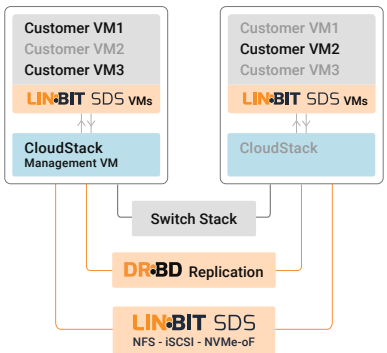
Hyperconverged

Direct attached storage in an HCI architecture provides great performance while also enabling HA using DRBD's synchronous replication.



Disaggrigated Storage

Separate your storage from compute to scale each individually. The DRBD kernel module and LINSTOR satellite process will bridge compute to storage over the network using DRBD's client mode.



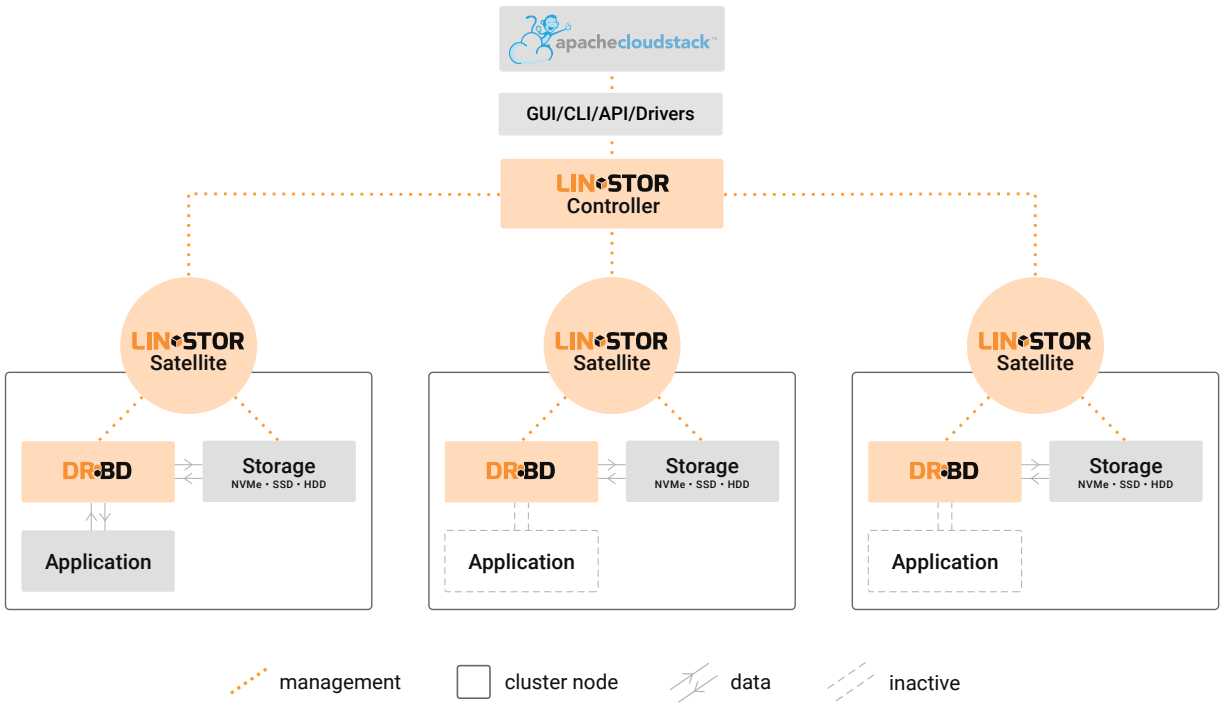
Storage Virtualisation

Deploy LINBIT SDS as a virtual appliance within the hypervisor cluster, and share the now HA storage back out as NFS, iSCSI, or NVMe-oF network attached storage.

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 and 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

LINBIT

INT: +43-1-817829-0
USA: +1-503-573-1262
sales@linbit.com

Apache CloudStack

https://cloudstack.apache.org/
marketing@cloudstack.apache.org

TAA COMPLIANT