



**LINBIT**  
**STORAGE**  
**DAY**

## 2. CloudStack & LINBIT SDS Integration

**LINBIT** SDS + `apachecloudstack`

# Speakers



**Andrija Panić**  
Cloud Architect



**Rene Peinthor**  
LINSTOR Developer



# Building Next-Generation IaaS

## The Process:

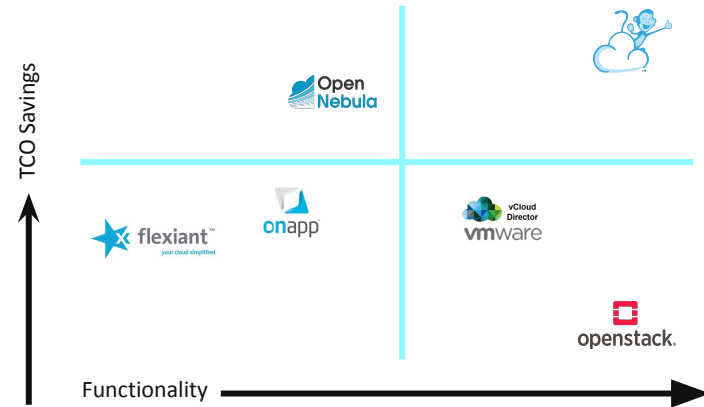
- Define objectives and requirements
- Planning capacity and scalability
- Architecture design including choice of technology:
  - Storage
  - Virtualization Management
  - Hypervisor
  - Networking Design, etc.
- Costs analysis
- Security and disaster recovery

## Considerations:

- Scalability
- Performance
- Avoiding vendor lock-in
- Cost-efficiency
- TCO in the long-term

# Choosing an IaaS Platform

- Open-source vs. proprietary
- Features/Capabilities/Release cycles
- Cost-efficiency
- Support



# Choosing a Storage Solution

## Traditional Storage:

- Proven in production
- Well supported
- High upfront cost
- Not always flexible scaling

vs.

## Software-Defined Storage:

- Runs on “commodity” HW
- Scales very well
- Storage selection
- Free / low cost
- Can require in-house expertise

# Why Apache CloudStack and LINBIT



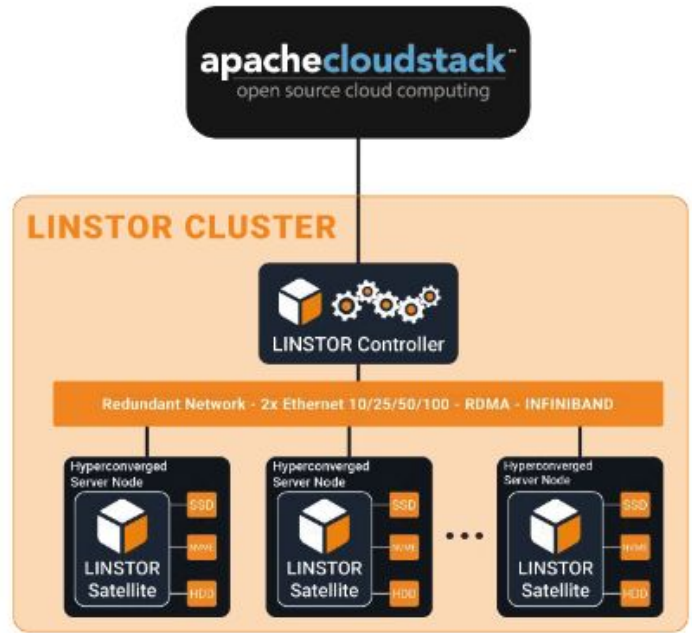
## Technical Benefits

- 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



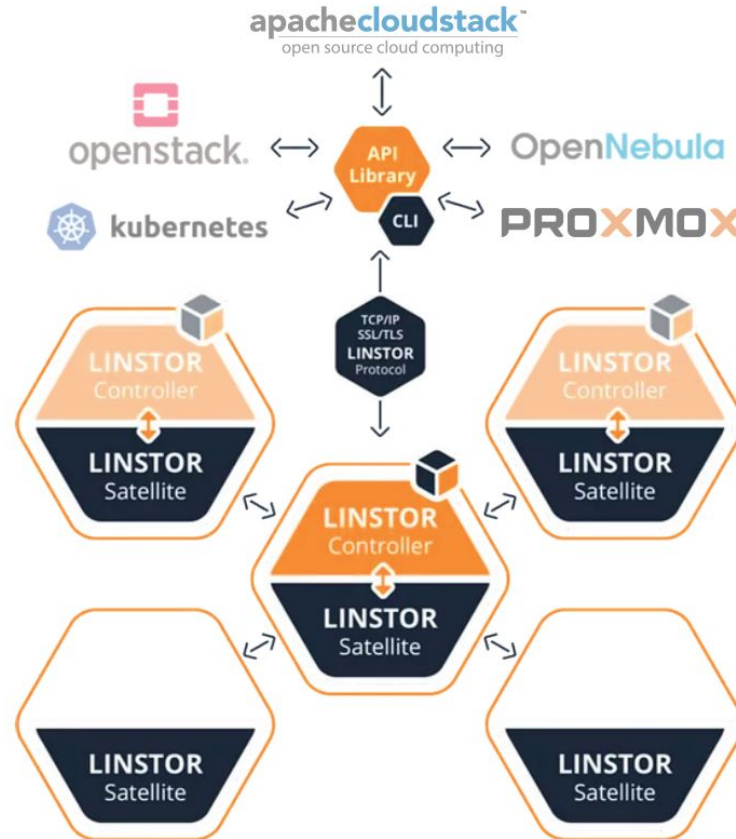
## Business Benefits

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



# LINBIT SDS

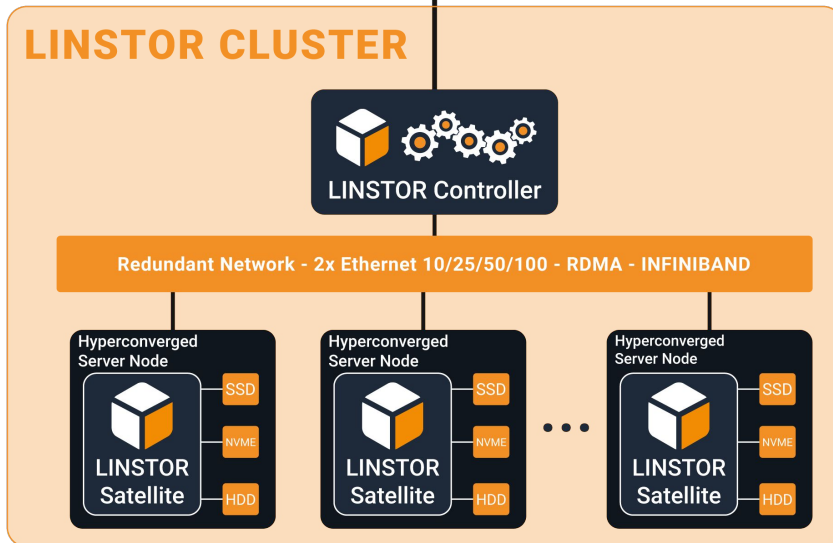
- LINSTOR Satellite's installed on each node
- LINSTOR Controller is independent and can be anywhere in the cluster. (HA capabilities)
- Apache CloudStack plugin connects Apache CloudStack with LINSTOR Controller
- Resource-Volumes in LINSTOR reflected as a backend disk in Apache CloudStack
- VM's can be "Migrate" between hosts
- LINBIT SDS Supports Apache CloudStack perfectly



# Cluster Set-up

apachecloudstack™  
open source cloud computing

## LINSTOR CLUSTER



- Install LINSTOR in to all hypervisor nodes
- Form a cluster out of LINSTOR nodes with the CLI (command line interface)
- Install the LINSTOR plugin to Apache CloudStack
- Connect the LINSTOR controller to the Apache CloudStack
- Modify the storage pools, definitions replica counts etc.



# New planned Linbit - Cloudstack features

- Optional backup snapshot to secondary storage (PR#8067)
- VM Snapshots (if all volumes on Linstor) + revert
- Optional copy template provisioning, instead of faster cloning

# Q&A

# Contact Us

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