Lenovo Storage Solution for SAP HANA Powered by SUSE Enterprise Storage™

While the focus of SAP HANA has been the beneficial performance increase of an in-memory database; the cost and complexity of the storage infrastructure is often one of the most significant financial hurdles to adoption.

Solution at a Glance:
The Lenovo Storage Solution for SAP HANA is an SAP HANA Software-Defined Storage (SDS) Tailored Datacenter Integration (TDI) solution that has been SAP ICC certified. This distributed software-defined storage cluster is suitable for SAP HANA data, logs and backups.

+ Distributed Software Defined Storage
+ Consolidated solution for Block, Object and File storage
+ Linear scalability

Products:
- SAP HANA
- Lenovo System x
- SUSE Enterprise Storage
- SUSE Linux Enterprise Server

Addressing the SAP HANA Storage Challenge
While the in-memory capabilities of SAP HANA create tremendous value in business agility and performance improvements, the persistent storage requirements of an SAP HANA environment demand a scalable, reliable, and fail-safe architecture. Often these requirements push the solution towards expensive proprietary storage arrays which utilize expensive flash technology to overcome the traditional spinning disk bottle neck. In addition to persistent storage, the growth of data logs and system backups can increase the storage requirements to 3x the size of your SAP HANA database, thereby increasing the total cost of acquisition.

SOLUTION
SUSE Enterprise Storage™ redefines how businesses can architect and deploy SAP applications based on SAP HANA to meet their ever-growing storage requirements and challenges. Built on the open-source Ceph project and integrated with SUSE® Linux Enterprise Server, this software-defined storage solution can deliver innovations including:

- Block, file, and object data access capabilities in a single cluster, simplifying administration and reducing operational costs.
- Multisite object replication and asynchronous block mirroring providing uninterrupted serviceability.
- New open source management framework for simplified management and improved cost efficiency

BENEFITS
This storage solution, architected and supported by Lenovo engineers and certified by SAP, can simplify and scale the storage of large data on Lenovo enterprise systems. Using industry standard servers and software infrastructure, hyper-scale SDDCs reduces costs by 40% versus proprietary hardware. See IT Brand Pulse SUSE Enterprise Storage Spotlight: http://bit.ly/2xdIkFJ
Lenovo is offering three configuration options to meet the infrastructure needs of SAP customers.

- **HDD**—An all hard disk drive configuration for cost conscious infrastructure, (includes FlashCache)
- **Flash**—A performance optimized solution built on enterprise capacity SSDs
- **Capacity**—A solution designed to maximize node capacity with Lenovo storage expansion units.

**Architecture Details**

The Lenovo Storage Solution for SAP HANA powered by SUSE Enterprise Storage allows you to introduce a flexible and linearly scalable software-defined storage solution based on the Ceph open source project. Stop using tiered storage as a “stop gap” and embrace a more tested, certified, effective, and manageable software-defined storage (SDS) solution.

“95% of respondents say they are ‘very interested’ or ‘quite interested’ in Software-Defined Storage.”

LOUDHOUSE SOFTWARE DEFINED STORAGE
SUSE Commissioned Research
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