Storage for Cloud

Tags:
cloud storage

Cloud computing as a way of delivering services over the network becomes more and more popular. Cloud architecture should ensure high availability, scalability and data safety for services operating within its environment. To prepare an effective cloud platform, providers must apply a set of carefully selected components and technologies. Without a doubt, the most important element here is storage.

Storage for cloud must meet the highest standards of quality. Among other criteria, stable operation, satisfying performance and continuous availability are priorities for such solutions.

Hardware

Storage for cloud implementations should be able to serve many users at the same time with satisfactory performance. High availability, data safety and large amount of space are a must. Here are the general requirements for hardware:

- Server platform with two quad- or six-cores CPUs for high performance
- H/W RAID controller with support for RAID 5 or RAID 6 for data safety
- SAS/SATA drives for high speed drive transfers and reliability
- 10GbE NICs or minimum one quad port 1GbE NIC for high speed network connection
- A large number of drive trays for large capacity or external storage enclosure support

Software

The software has to be field proven and easy to use. It must guarantee the security and integrity of data even in case of hardware failure. At least, it should offer a number of features to allow efficient storage management. Storage for Cloud requires software that offers:

- Support for iSCSI Target share for easy management
- Automatic Failover for high availability (Active-Active)
- Support for SAS/SATA RAID Controllers for good performance, large capacity and data safety
- Support for 10 GbE NICs or bonding for efficient network connectivity

We recommend using Open-E DSS V7 as a solution supporting storage for cloud implementations. More information about requirements for various storage solutions can be found in the system requirements section.

Related content

Solutions
- Open-E DSS V7 as a software for cloud storage
- How to Serve Thousands of Users Simultaneously?*
- Open-E DSS V7 Active-Active iSCSI Failover (How-To)

Blog posts

- What is cloud computing*
- Information about advantages and potential concerns which are related with data caching
- RAID 5, 6 and other levels
- How to reduce cost of 10GbE network infrastructure needed to Automatic Failover
- There is something about the cloud*

Webinars

- Open-E DSS V7 Active/Active iSCSI Failover QUICK START
- Open-E DSS V7 Active/Active Setup
- Active-Active HA Cluster Solution: Double Performance with Zero-Single-Point-of–Failure setup | German version

*Content refers to Open-E DSS V6. Open-E DSS V7 includes the features mentioned in this referral.