

Glusterfs and Ceph - Who is the winner in the file storage war?

Ceph and GlusterFS are good data storage options, let's compare these two systems and make your own decisions.

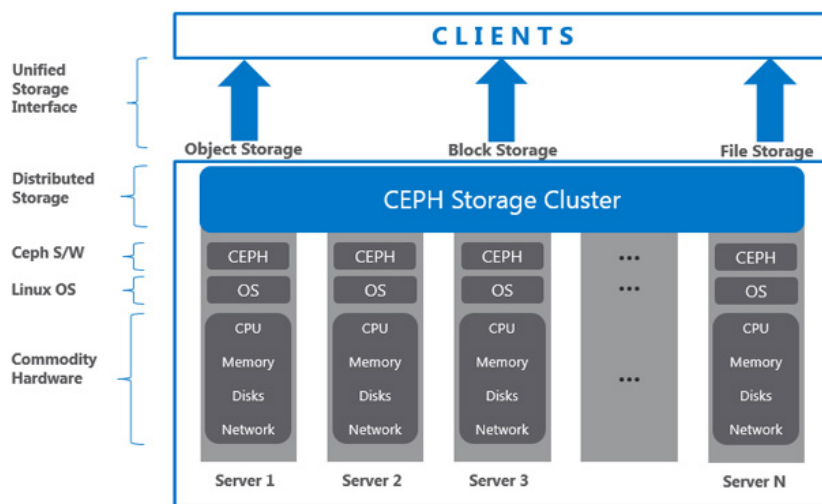
Large-scale data storage is not the same as saving a file on your hard drive. It requires the software manager to keep track of all the bits that make up the files. That's why distributed storage management systems like Ceph and Gluster were born.

Ceph and Gluster are systems used to manage distributed storage. Both of these storage systems are software controlled, independent of hardware. They organize the bits that make up your data with its own infrastructure. So which hosting system should you choose?

The decision lies in the type of data you need to store, how data is accessed and where it comes from. Ceph and GlusterFS are all good choices, let's compare these two data storage systems and make your own decisions.

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Ceph - Object-based storage system for unstructured data



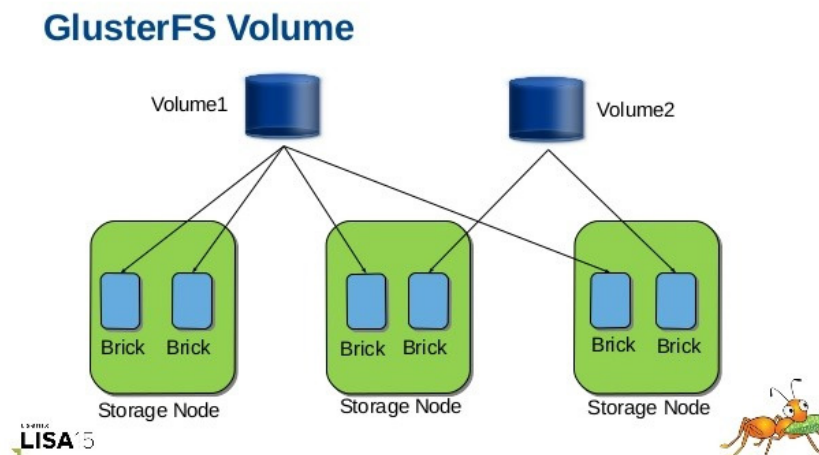
Ceph is an object-based system, which means it manages data stored as objects instead of file hierarchy, dispersing binary data on clusters (clusters). This method of storing objects is also used by Facebook to store

images and Dropbox used for storing client files. In general, object storage supports unstructured data, so it is suitable for large-scale data storage. The system is maintained by a network of daemons in the form of cluster tracking tools, metadata server and log storage. These things combine to make Ceph more features but more complex than competitors.

Ceph uses its tools to manage storage on its systems, so system administrators need to become familiar with Ceph's tools. Basically you need to learn how to do it so you can use it as well as take advantage of this file storage system. Self-management and self-healing system will help reduce operating costs continuously over time. In addition, Ceph can run on industry standard server hardware.

The system can also create block storage, providing access to block duplicated device images across the cluster. Applications that can access Ceph Object Storage through the RESTful interface support the Amazon S3 API and Openstack Swift. In short, this Ceph file storage system is high-performance, large-capacity and compatible with the old code.

GlusterFS - Data-based, hierarchical storage system



GlusterFS, also known as Gluster, is a media file storage system. GlusterFS is easy to set up and you can use the properly compiled build on any system with a directory. Flexibility and ease of use are the biggest advantages of this system. Going against the flexible scalability is the performance tends to decrease. This system is suitable for storing medium sized files (more than 4 MB) and sequential access. The cluster can be spread across cloud, virtual servers and physical servers, allowing flexible virtualization (storage virtualization).

Gluster uses block storage, which means that data blocks are stored in open space on connected cluster devices. Gluster uses a file system to streamline data. It collects geographically different servers via Ethernet to create a scalable parallel network file system. Essentially, Gluster is a cluster-based version of FUSE and NFS, so administrators will be familiar with this structure. In general, Gluster file storage system is simple, maintainable, and widely used but not as fast as Ceph.

Conclude

Ceph is suitable for quick access to unstructured data while Gluster is for sequential data access like video streaming, data backup.

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