Storage Services for OpenStack Clouds

nimblestorage

Flash Storage for Cinder, Swift, and Glance

Deliver Fast, Reliable, Storage Services More Efficiently

Choosing the right storage for your OpenStack cloud is more important than you think. Homegrown solutions using commodity hardware and open source software may seem appealing at first, but in reality they are inefficient, difficult to manage, and rarely meet the performance and reliability needs of enterprises.

The Nimble Storage Predictive Flash platform provides an OpenStack Cinder driver for block storage and also enables flash storage for Swift object storage and Glance image services:

Cinder

Accelerate and automate block storage. Provide flash performance and automate block storage provisioning and offload storage operations using native efficient snapshots and cloning features.

Swift

Reduce costs and latency for object storage. Remove the overhead of three copies through array-based HA and resiliency and achieve better latency performance with flash storage.

Glance

Rapid deployment and space savings for image services. Efficient snapshots and clones allow you to deploy hundreds or thousands of virtual machine images rapidly without needing to make full copies and without consuming extra storage capacity.

Build an Enterprise-class OpenStack Cloud for Less

Efficiency. Remove the overhead of three copy policies typical of Ceph and Swift with array-based HA and resiliency. Achieve up to 5X data reduction from features like inline compression and deduplication, while data is protected with space efficient snapshots, replication, and clones.

Enterprise Service Levels. 99.9999% measured uptime and performance up to 1.2 million IOPS ensures your OpenStack cloud will exceed uptime and performance SLAs.

Security and Multitenancy. Provide tenant level encryption and data shredding. Further isolate tenants with multitenancy at the storage network and volume levels. Provide Quality of Service to prevent rogue workloads from monopolizing resources and ensure everyone gets their fair share.

Manage OpenStack, Not your Storage. Nimble InfoSight™ Predictive Analytics helps predict and prevent issues across the infrastructure stack. Native driver integration automates storage provisioning through OpenStack. InfoSight allows you to focus on cloud orchestration and spend less time managing your storage and infrastructure.

Partner Certifications

Nimble has been a contributor to the OpenStack community since 2013. We also work with distribution partners to ensure our storage is easy to deploy and works with supported and stable releases.

SOLUTION OVERVIEW

- Accelerate and automate Cinder
- Reduce costs and latency for Swift
- Rapid deployment and fewer copies for Glance

BENEFITS

- **Efficiency beyond commodity storage.** Drastically reduce storage footprint and costs by up to 5X or more with space saving and data protection features.
- **Deliver enterprise SLAs.** Meet and exceed uptime and performance SLAs.
- **Secure and isolate tenants** with tenant level encryption, multitenancy, and Quality of Service features.
- **Simplify storage management.** InfoSight Predictive Analytics and driver integrations automate storage management and predicts and prevent problems before they occur.

Nimble OpenStack Driver Features

Volume Operations	Volume Stats / Attributes
Volume create/delete	Driver version
Volume attach/detach	Free capacity
Snapshot create/delete	Reservation (%)
Create volume from snapshot	Total capacity
Get volume stats	Volume backend
Copy image to volume	
Copy volume to Image	
Clone volume	
Extend volume	

openstack CLOUD SOFTWARE

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