

Solution Brief

Finally, an Enterprise-Grade Object Storage Solution Built for OpenStack

Automate S3 and Swift object storage services at industry-leading cost, quality, and speed

What's Included in NetApp StorageGRID Webscale 11

Swift API enhancements:

- Keystone authentication
- Swift access control lists (ACLs)

Support for bare-metal servers with Docker containers:

- Red Hat Enterprise Linux and CentOS

Multitenancy improvements:

- Capacity quota enforcement
- Identity federation for each tenant
- New tenant dashboard and tenant administrator role

Information lifecycle management (ILM) enhancements:

- New policy editor UI with an ILM policy simulator
- Faster ILM execution

With the availability and proliferation of external IT cloud services, the expectations on corporate IT are now higher than ever before. For IT to remain relevant, it must deliver a catalog of standard, automated IT services at a cost, quality, and speed comparable to those provided by the best external cloud providers. To meet these demands, IT organizations are turning to OpenStack to streamline and automate the delivery processes to provision virtual and physical open compute environments (OCEs) for their business units in a few hours.

Each OCE includes the access controls, server monitoring, and application storage space for the required platform and business application. These combined elements must be delivered on demand, in a predictable and repeatable way with self-service. With automation, IT can coordinate processes across different functions and make the initial delivery and ongoing support of the OCEs easier to manage.

OpenStack is an increasingly important and popular choice by enterprises for OCE private cloud solutions. For example, a major Asian airline with a strong focus on OpenStack actively contributes to the OpenStack community as it continues to grow its private cloud deployment. Over the past year, NetApp and this airline have worked together. Their goal was to enable enterprise applications to consume secure, durable storage that is optimized for scale in an OpenStack environment with NetApp® StorageGRID® Webscale as the object store.

NetApp StorageGRID Webscale 11 is an object storage solution that is flexible and highly scalable and that supports multiple RESTful APIs for storing and managing data. It supports both OpenStack Swift APIs and Amazon Simple Storage Service (Amazon S3) APIs at the same time: one object store, two object protocols. This capability enables OpenStack users to develop applications for both environments without compromising efficiency.

StorageGRID Webscale 11 contains features that give customers more options in deploying object storage that are compatible with the OpenStack platform. With StorageGRID Webscale 11, support is provided for deploying a grid with OpenStack and Docker containers. As a result, StorageGRID Webscale can be deployed on bare-metal servers without the requirement of a hypervisor such as kernel-based virtual machine (KVM).

StorageGRID Webscale 11 also supports Keystone v3 token authentication for Swift API users so that Swift account creation is automatic and maps to a Keystone project account. StorageGRID tenants can therefore integrate with Keystone multitenancy, providing secure and automated account creation. Additional benefits include Keystone project maps to an account and support for universal unique identifier (UUID) and Fernet tokens with token caching (optimized for multisite).

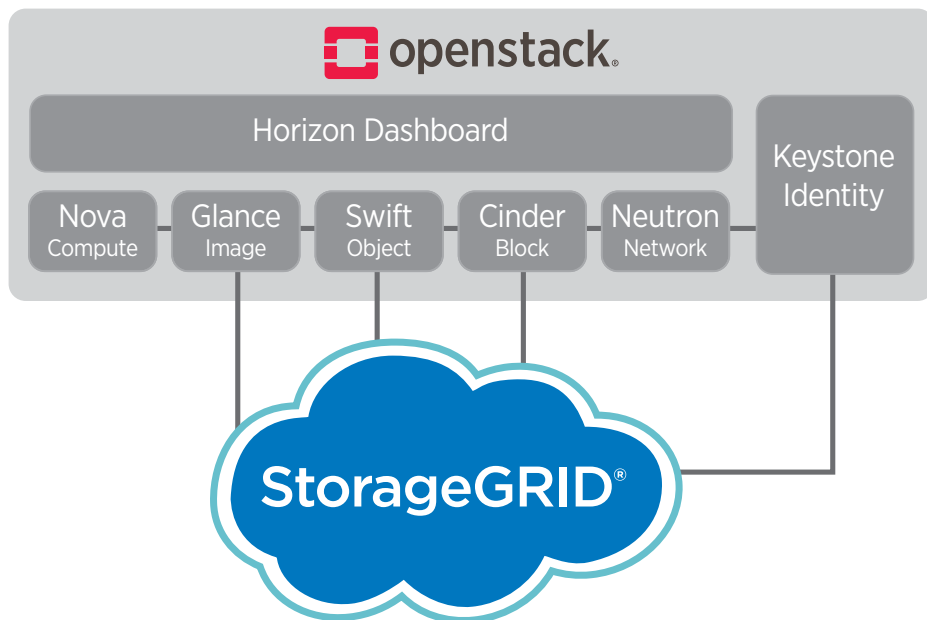


Figure 1) OpenStack architecture.

Customers such as the major Asian airline use StorageGRID Webscale for their OpenStack object store back end because of the dual object storage protocol support and because of other key factors such as:

- Flexible deployment options, including software only and appliances engineered by NetApp, fully integrated by one company with one support organization
- ILM policy capabilities: autonomous data placement on the right tier and the right location
- Enterprise-proven OpenStack support, including Keystone, Cinder, Swift, and Glance in some of the most demanding environments: hosting service providers, healthcare, financial services, and so on
- Backing by the largest independent storage provider in the world: NetApp

By deploying OpenStack with StorageGRID Webscale and creating OCE environments, companies such as the Asian airline can greatly accelerate provisioning of new compute environments. What used to take weeks now takes just a few hours. The impact on the business is tremendous, and infrastructure services are provided on demand with a catalog of standard, automated IT services at a cost, quality, and speed that compare with those provided by external cloud alternatives.

To learn more about all the benefits NetApp StorageGRID can deliver for your next object storage deployment, visit <http://www.netapp.com/us/products/data-management-software/object-storage-grid-sds.aspx>.

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit www.netapp.com. #DataDriven