

CHOOSING A LOAD BALANCER FOR YOUR OBJECT STORAGE ENVIRONMENT



The StorageGRID load balancer is the key to achieving a cloudlike experience on premises

The cloud is built with object storage

The object storage of the cloud is simple for applications to use: It requires only an endpoint address like a URL. Behind that URL, object storage administrators can scale capacity, performance, and provide extreme durability so that the failure of drives, nodes, or even an entire data center won't affect applications.

The more you use object storage in the public cloud, the more you see the benefits of deploying it in your own data center. Object storage in the public cloud can help you optimize costs and performance, comply with regulations, and improve availability.

Why you need load balancers with the cloud

Load balancers are the key to simple cloud management on premises. They pool behind a virtual IP address that is tied to a storage endpoint, and this simplified resource pooling is what makes cloud storage possible. When storage nodes fail, applications are connected to other storage nodes within the same grid. And if you need more performance or capacity, you can nondisruptively add more nodes to the pool.

Other load balancer

Many third-party load balancers create enterprise-grade, highly available, high-performance appliances that can handle multiple applications. But, as with any powerful and flexible piece of IT infrastructure, these load balancers require expertise. Typically, only large companies can dedicate the resources required. Customers new to object storage have never needed load balancers before, so they might not want to take on the complexity and expense.



A load balancer purpose-built for StorageGRID

StorageGRID offers its own high-performance, enterprise-grade load balancer. It's incredibly simple to deploy and configure, and common tasks like creating pools of nodes, adding or removing nodes, creating health checks, and tuning are automatically set by the software. Because StorageGRID handles upgrades and hotfixes, its load balancer is essentially maintenance free.

The load balancer can be deployed as a VM or a container at no additional cost. You have the option to choose a high-performance hardware appliance; the SG1000 appliance has four 100GB interfaces. Third-party load balancers must typically be shared for several applications to justify the costs, with shared bandwidth as the downside. But by using the dedicated StorageGRID load balancer, you won't be competing for resources.

Another advantage is StorageGRID traffic classification—a QoS approach that lets you monitor and set limits on a workload identified by subnet, tenant ID, bucket name or endpoint. By creating a traffic classification rule, you get insight into a workload before applying QoS rules. For example, when you're implementing a new application with unknown characteristics, traffic classifications can

KEY BENEFITS

Flexible deployment options

- NetApp® StorageGRID® load-balancing software can be containerized, run as a virtual machine (VM) on your own hardware, or deployed as an appliance with the NetApp SG100 or SG1000 products.

Never share bandwidth

- Take advantage of ongoing enhancements to the StorageGRID Gateway Node software, including quality-of-service (QoS) and traffic classification features designed to maximize performance for multitenant object stores.

Keep it simple and reduce TCO

- By using the StorageGRID load balancer, you avoid having to manage multiple licensing and service agreements required for third-party hardware or VMs.
- When you deploy the StorageGRID load balancer as an appliance by using the SG100 or SG1000 product, you get a turnkey solution. It's easy to manage your object store without sacrificing performance.

show the bandwidth, the object size, and the functions that are being performed. When you understand the workload, you can set limits to control proper allocation of resources.

Whether you're an object storage newbie or a seasoned veteran, the StorageGRID load balancer enables you to accelerate and simplify object storage workloads. You can manage your own cloud without risking your data.



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About NetApp

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