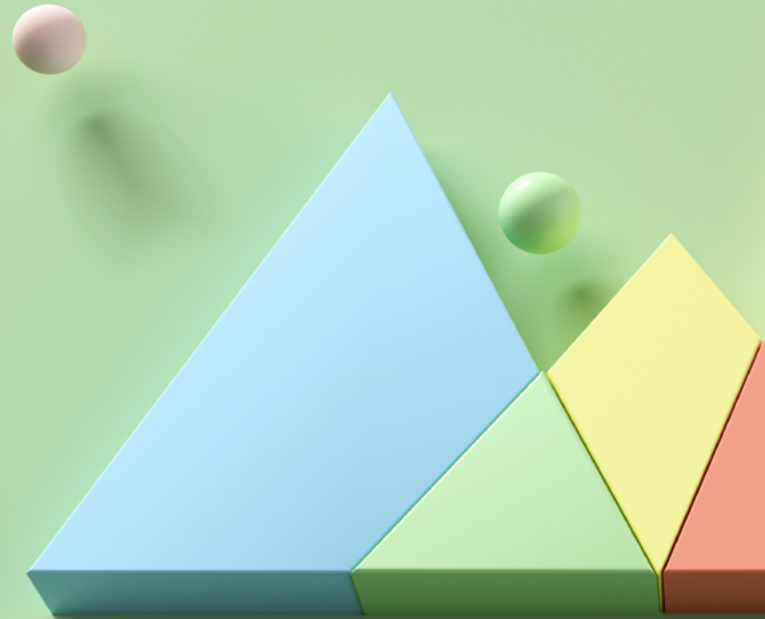


SOLUTION BRIEF

# Vertica for NetApp StorageGRID

Analytics without limits with  
a cloud-scale architecture



## Cloud architecture changed the game for analytics

Many organizations want to migrate analytics to the cloud. Object storage helps your cloud migration by providing a cost-effective place to store data and rapidly scale when your data grows. You can deploy analytics on top of object stores. This separation of compute and storage lets analytics teams run existing business intelligence (BI) and reporting workloads independent of data science projects or data loads. In addition, the teams can use the same source data without competing for CPU and memory resources.

However, migrating all of your data to a public cloud carries many risks. There might be unintended costs and complexities, and businesses often decide that certain data is too mission-critical or too private to place on a public cloud. In addition, this split between data on premises and in the cloud might strain your IT team. Your IT team needs to make progress on cloud migrations while performing analytics on all data, no matter where it is—in the cloud or on premises.

### Vertica in Eon mode

Vertica is a unified analytics warehouse built to deliver blazing-fast query performance regardless of scale or concurrency requirements. It is a highly scalable analytical database that works well in many deployment situations. When deployed in Eon mode, Vertica can use Simple Storage Service (S3), including NetApp StorageGRID as its main data repository. Vertica features powerful SQL-based analytics—and time-series, geospatial, and in-database machine learning capabilities. Vertica removes typical barriers to analytics for some of the world's most prominent data-centric organizations.

Vertica can deploy in an object-store-optimized mode, called Eon mode, which decouples compute from storage to give customers the benefits of cloud architecture for analytic workloads. Previously only available in the public clouds, Vertica now offers Eon mode with NetApp StorageGRID - superior on-premises object storage solution.

### Key benefits

- Combine a best-in-class, unified analytics platform with industry-leading, enterprise-grade object storage for a highly scalable, high-performance solution for your most demanding analytic workloads.
- Conquer your capacity- and performance-scaling problems with a cloud-scale architecture for on-premises data.
- Optimize your analytics workloads and data lifecycle based on specific use cases and the needs of your business unit.
- Perform queries 10 to 25 times faster than with conventional databases.

### NetApp StorageGRID object storage

NetApp® StorageGRID® is a software-defined object storage solution that supports industry-standard object APIs such as the Amazon Simple Storage Service (Amazon S3) API. Users can create multiple service levels with metadata-driven object lifecycle policies—optimizing durability, protection, performance, cost, and location across multiple geographies. As requirements change, users can adjust policies and realign their data landscape. Enterprises can deploy StorageGRID as an enterprise-grade turnkey solution or as a software-only solution on physical or virtual servers, using heterogeneous storage underneath. With nearly two decades of successful enterprise deployments, StorageGRID has shown that you can depend on it for your data's protection and integrity.

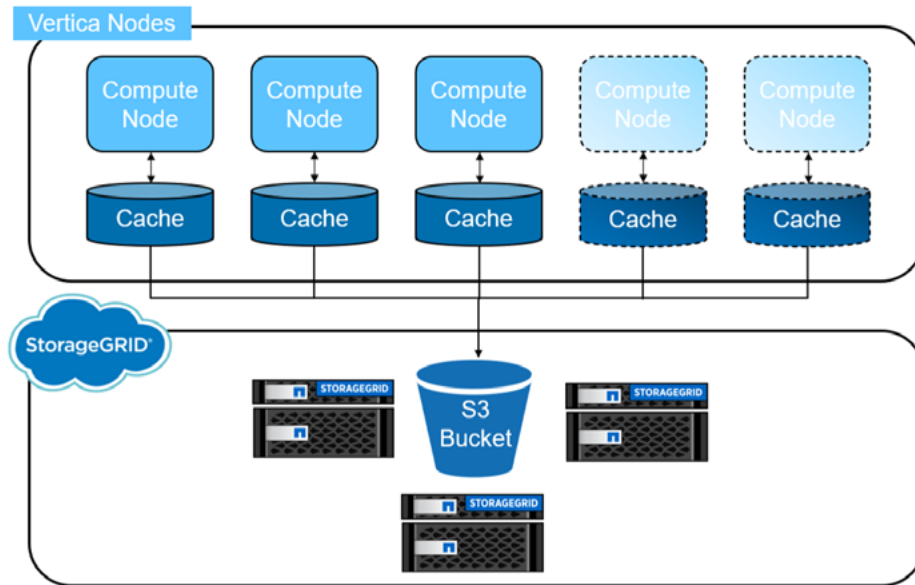


Figure 1: Vertica and NetApp StorageGRID

## How Vertica and NetApp work together

Most companies plan to embrace a multicloud and hybrid approach to infrastructure and keep many data volumes on premises. However, cloud architecture should not be available only to data that resides in a public cloud. NetApp StorageGRID has partnered with Vertica to deliver Eon mode, bringing cloud innovation to your data center as a highly scalable and high-performance solution for your most demanding analytic workloads.

Vertica for NetApp StorageGRID gives customers the freedom to employ cloud innovation for analytics wherever their data resides, without assuming the risks, costs, and complexities of cloud migration.

NetApp StorageGRID gives customers the flexibility to deploy object storage as an appliance-based solution or in a software-defined model to fit the organization's performance and financial requirements.

By using Vertica as your analytics engine and NetApp StorageGRID as your object store, we provide customers with a solution they can trust with their most critical data assets.

### Flexible deployments at your fingertips

Every Vertica deployment's requirements are unique. StorageGRID aligns with your environment, whether that includes nodes as virtual machines (VMs), as hardware-based appliances, as bare-metal servers with Docker containers, or as a combination of virtual and physical environments. No matter what your requirements, your deployment of StorageGRID is a centrally managed, streamlined process that allows rapid deployment of petabytes of storage. And with the range of StorageGRID appliances, you can choose the appliances that meet your needs.

### Speed

Accelerate your object workloads with the industry's first scale-out all-flash object appliance, the SGF6024. You can add it to existing grids to provide pools of fast object storage, or you can use it to build all-flash grids with three or more appliances. With densities that range from 800GB SSDs to 15.3TB SSDs, you have options for speed not previously available to object workloads.

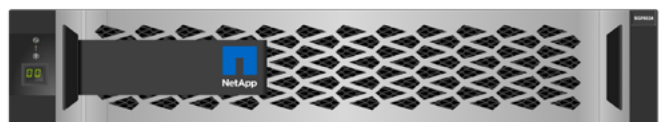


Figure 2: StorageGRID SGF6024 all-flash appliance

## Scale

The StorageGRID SG6060 appliance is a thriving member of the StorageGRID family. Now it can scale to new heights with multishelf deployments. That means you can buy a single SG6060 appliance and add one or two expansion shelves either before or after installation. The SG6060 appliance balances cost and speed with the most cost-effective performance-to-scalability ratio in the StorageGRID portfolio.

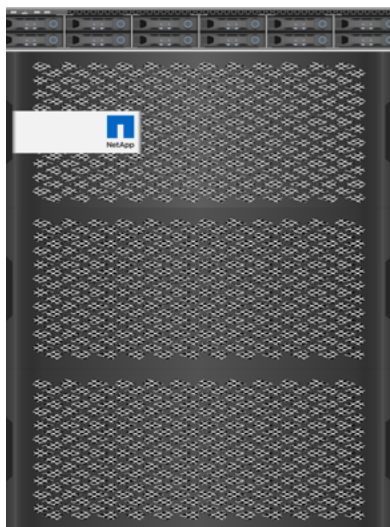


Figure 3: StorageGRID SG6060 appliance with expansion shelves

## Simplicity

SG100 and SG1000 are StorageGRID services appliances, streamlining small to large deployment by providing both high availability (HA) load balancing and improved grid administration on a single set of nodes. When deployed in pairs, the services appliances can provide high availability across sites while still offering the flexibility to operate as a load balancer, an administrative node, or both simultaneously. With a services appliance, you can deploy an all-appliance grid.



Figure 4: StorageGRID SG1000 services appliance

## Do you want to see how these appliances stack up with the rest of the StorageGRID family?

Check out the specs on the [datasheet](#) or the [StorageGRID webpage](#), where you can learn about the additional StorageGRID software capabilities.

## About Vertica

Vertica is the unified analytics platform, based on a massively scalable architecture with the broadest set of analytical functions, including event and time series, pattern matching, geospatial, and end-to-end in-database machine learning. Vertica enables you to easily apply these powerful functions to the largest and most demanding analytical workloads, arming you and your customers with predictive business insights faster than any analytics data warehouse in the market. Vertica provides a unified analytics platform across major public clouds and on-premises data centers and integrates data in cloud object storage and Hadoop Distributed File System (HDFS) without forcing you to move any of your data.

## About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. [www.netapp.com](http://www.netapp.com)

