The Challenge
With organizations experiencing explosive data growth, managing data storage platforms for production and backup workloads is more complex than ever before. When backing up data, IT managers have to consider the following challenges in the production environment:

• The high cost of hardware storage associated with using only traditional file and block storage
• Limited protection of backup data
• The need to use primary storage rather than backup for application workloads

The Solution
NetApp StorageGRID solves all of these challenges. Choosing NetApp StorageGRID as your Veeam cloud tier provides an enterprise grade, hybrid cloud object storage solution. It can be deployed across many sites, on either a purpose-built appliance or as a software-defined deployment.

StorageGRID enables you to establish data management policies that determine how data is stored and protected. When developing and enforcing policies, the object store examines a wide range of characteristics and needs, including performance, durability, availability, geographic location, longevity, and cost. Your data is fully maintained as it moves between locations and ages over time, preventing corruption.

Optimize workflow
With the StorageGRID intelligent policy engine, you can choose to either erasure code your backup data across sites for georesiliency or copy your object to remote sites to minimize WAN latency and cost. When an object is stored, it is accessed as one object, regardless of where it is or how many copies exist. This is crucial for disaster recovery, because even if your backup data is corrupted, StorageGRID is able to heal the data and assist you in recovering your system.

Reduce the cost of hardware storage
Retaining backup data in primary storage can be expensive. By using NetApp StorageGRID, you can free up space on your primary storage by migrating inactive backup data into StorageGRID while leveraging the numerous features available in StorageGRID.

The value of backup data changes over time, as does the cost of storing it. StorageGRID can minimize the cost of your hardware storage while increasing the durability of your data over time.
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](http://www.netapp.com) #DataDriven

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### Cloud integration
- Cloud-integrated object storage solution, with metadata search integration
- Amazon S3 compatible platform, with support for self-service, enabling developers and end users to use object storage efficiently

### Interfaces
- RESTful HTTP APIs include Amazon S3 and OpenStack Swift

### Scalability
- Billions of objects
- Hundreds of petabytes

### Data integrity
- Creates a digital fingerprint as data is ingested
- Offers multiple interlocking layers of integrity protection, including hashes, checksums, and authentications
- Provides data object integrity verification on ingest, retrieval, replication, and migration, and at rest; suspect objects are automatically regenerated
- Provides geodistributed erasure coding for cost-effective data integrity protection across sites

### Data availability
- Fault-tolerant architecture supports nondisruptive operations, upgrades, and infrastructure refreshes
- Load balancing automatically distributes workloads during normal operations and failures
- NetApp AutoSupport® technology automatically alerts NetApp Support engineers for proactive issue resolution
- Node-level erasure coding further improves single-node availability (with NetApp E-Series Dynamic Disk Pools)

### Deployment options
- Software-defined running on VMware or bare metal deployments, and managing either NetApp or third-party storage arrays
- NetApp appliances with node-level erasure coding, Dynamic Disk Pools, and AutoSupport, providing five 9s of availability at the storage-array level
- For more on deployment options, go to [www.netapp.com/storagegrid](http://www.netapp.com/storagegrid)

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![Diagram](image-url)

Figure 1) StorageGRID integration with Veeam scale-out backup repository.

Table 1) StorageGRID technical specifications.