

RED HAT GLUSTER STORAGE

DATASHEET

FEATURES

Single global namespace

Aggregates disk and memory resources into a single trusted storage pool.

Object access to file storage

Filestore can be also accessed using an object-API.

Replication

Supports synchronous replication within a data center and asynchronous replication for disaster recovery.

Erasure coding

Enhance data protection by using information stored in the system to reconstruct lost or corrupted data.

Bit-rot detection

Help preserve the integrity of data assets by detecting silent corruption.

Tiering

Automatically move data between fast (SSD-based) and slow (HDD) tiers based on access frequency.

Security

Support SELinux enforcing mode with SSL-based in-flight encryption.

AN OPEN, SOFTWARE-DEFINED STORAGE PLATFORM FOR PHYSICAL, VIRTUAL, AND CLOUD ENVIRONMENTS

DESCRIPTION

Red Hat® Gluster Storage is an open, software-defined scale-out storage platform to easily manage unstructured data for physical, virtual, and cloud environments. Red Hat Gluster Storage combines both file and object storage with a scale-out architecture, designed to cost-effectively store and manage petabyte-scale data growth. Red Hat Gluster Storage delivers a continuous storage fabric across physical, virtual, and cloud resources so customers can transform their big, semi-structured, and unstructured data from a burden to an asset.

Red Hat Gluster Storage is used for storing various kinds of unstructured data including:

- Rich media content like videos, images and audio files
- Backup-images and Nearline archives
- Big data – Log files, RFID data, and other machine-generated data
- Virtual machine images

Built on the industry-leading Red Hat Enterprise Linux® operating system, Red Hat Gluster Storage lets customers deploy cost-effective and highly available storage without compromising scale or performance. Red Hat Gluster Storage eliminates storage silos by enabling global access to data through multiple file and object protocols. It is also designed to work seamlessly with industry-standard x86 commodity servers.

Red Hat Gluster Storage can easily be deployed on-premise, in public cloud infrastructures, and in hybrid cloud environments. It is optimized for storage-intensive enterprise workloads such as archiving and backup, rich media content delivery, enterprise drop-box, cloud and business applications, virtual and cloud infrastructure storage, as well as emerging workloads such as co-resident applications and big data Hadoop workloads.

BENEFITS TO THE ENTERPRISE

Today, enterprises are often faced with disparate storage silos, geographically dispersed among many datacenters around the globe. Red Hat Gluster Storage lets enterprises eliminate their silos and unify their data by provisioning and managing storage regardless of whether it is on-premise, virtualized, or in a public cloud infrastructure.



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FEATURES (CONTINUED)

Snapshots

Assure data protection through cluster-wide filesystem snapshots. User accessible for easy recovery of files.

Elastic hashing algorithm

No metadata server layer eliminates performance bottlenecks and single points of failure.

Easy online management

- Web-based management console
- Powerful and intuitive CLI for Linux®-admins
- Monitoring (Nagios-based)
- Expand/shrink storage capacity without downtime

Industry standard client support

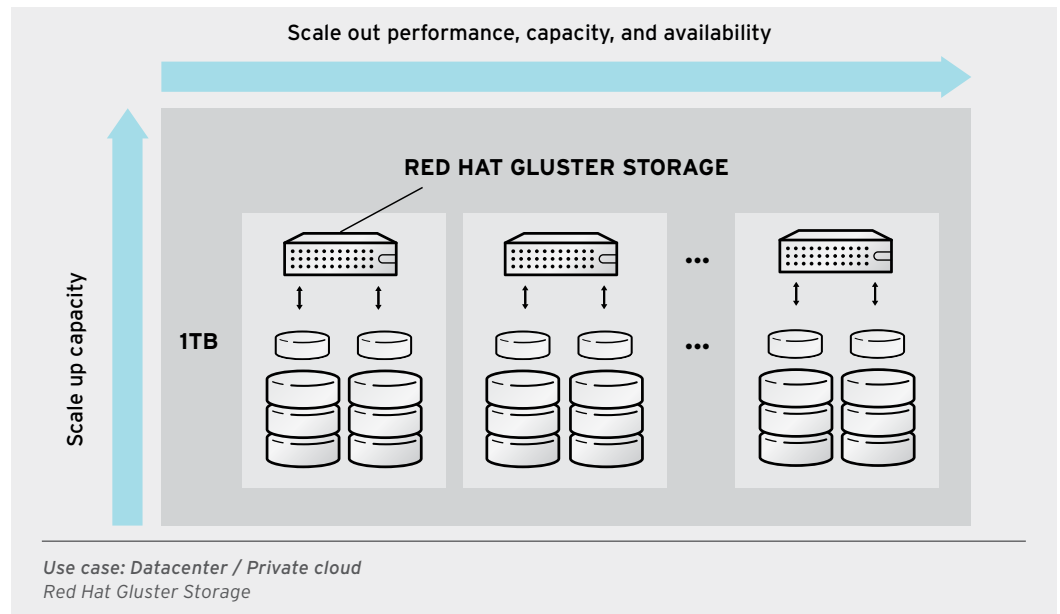
- NFS, SMB protocols for file-based access
- NFSv4 multi-headed support for enhanced security and resilience
- OpenStack® Swift support for object access
- GlusterFS native client for highly parallelized access

Integration with Red Hat Enterprise Virtualization

- Centralized visibility and unified management of storage and virtual infrastructures through Red Hat Enterprise Virtualization Manager console.
- Live migration of virtual machines

RED HAT GLUSTER STORAGE: IDEAL FOR PRIVATE CLOUDS

AN OPEN, SOFTWARE-DEFINED, SCALE-OUT STORAGE PLATFORM THAT DEPLOYS ON INDUSTRY-STANDARD X86 HARDWARE IN MINUTES



SCALABILITY AND FLEXIBILITY WITHOUT DISRUPTION

Red Hat Gluster Storage is designed for unlimited scalability; storage can be added or removed while data continues to be available. Bit-rot detection helps ensure the integrity of that data. Additionally, the elastic, scale-out architecture of Red Hat Gluster Storage lets users seamlessly grow storage to meet the dynamic needs of virtual environments.

EASY TO DEPLOY

An ISO image installs on a server or supported hypervisors (e.g., Red Hat Enterprise Virtualization and VMware vSphere/ESXi) for quick deployment.

HIGH PERFORMANCE AT A LOWER COST

Red Hat Gluster Storage uses an elastic hashing algorithm to locate data in the storage pool (by calculating a hash on the filename), removing a common source of I/O bottlenecks and vulnerability to failure. This, coupled with its large-capacity scalability, gives users better performance at a lower cost. Also lowering costs is erasure coding, which reduces capacity requirements for archives and cold storage at a lower cost per gigabyte.

BENEFITS TO THE ENTERPRISE

Enterprises can eliminate their dependence on costly, monolithic storage arrays that are difficult to scale. With Red Hat Gluster Storage, enterprises can easily deploy commodity hardware in minutes for scalable, high-performance storage in their datacenters, or in hybrid cloud environments.

FEATURES (CONTINUED)

Deep Hadoop integration

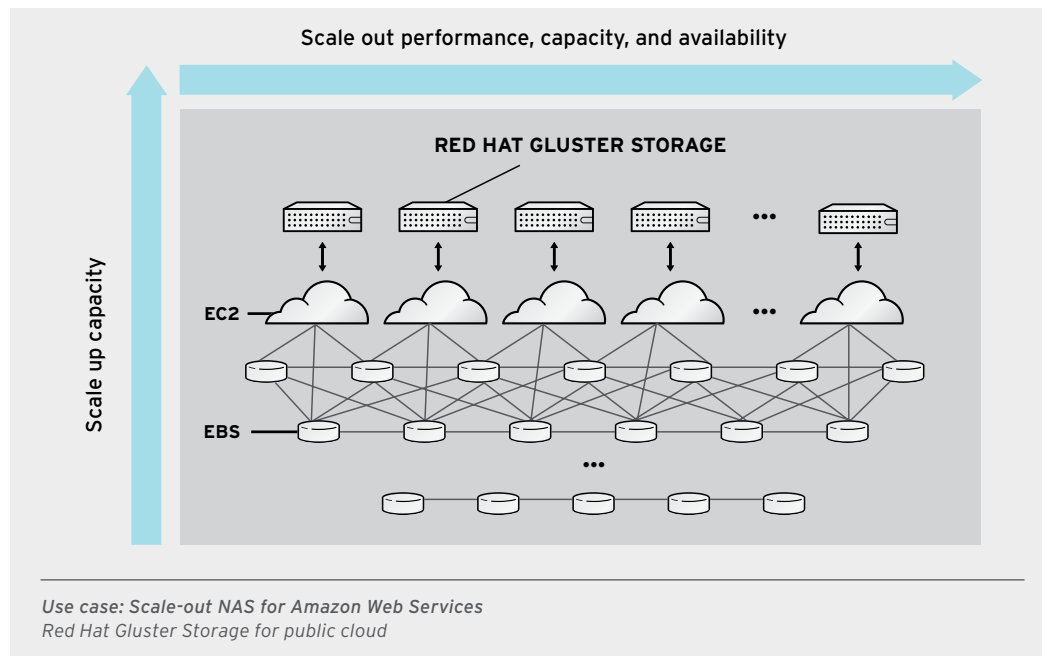
- HDFS-compatible filesystem eliminates overhead of data movement
- No single point of failure
- NFS and FUSE based data ingestion

REQUIREMENTS

- Intel x86-64 Xeon CPU
- min. 16 GB RAM
- min. 50 GB disk for system software
- min. 1x 1GBE or 1x 10GBE NIC
- Up to 60 SAS or SATA disks per RHS node for data
- Flash/battery-backed RAID controller that supports RAID-6 and RAID-1+0
- Includes all software to deploy on bare-metal physical and virtualized servers (e.g. Red Hat Enterprise Virtualization or VMware vSphere/ESXi)

RED HAT GLUSTER STORAGE FOR PUBLIC CLOUD

A HIGHLY AVAILABLE, HIGH-PERFORMANCE STORAGE SOLUTION FOR AMAZON WEB SERVICES (AWS)



SINGLE GLOBAL NAMESPACE

AWS users can aggregate both Amazon Elastic Block Storage (EBS) and Amazon Elastic Compute Cloud (EC2) instances within AWS environments, creating a highly available, virtualized storage pool.

SUPERIOR AMAZON EC2 EXPERIENCE

Red Hat Gluster Storage for public cloud eliminates capacity limitations of a single device and levels out performance variations across the pool, so Amazon EC2 customers experience superior availability and performance.

HIGH AVAILABILITY

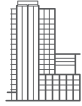
Red Hat Gluster Storage for public cloud provides synchronous replication and asynchronous geo-replication, so data is synchronously mirrored across availability zones and asynchronously across regions within AWS.

NO APPLICATION RE-WRITES

Migrate existing POSIX applications to the cloud without making modifications.

BENEFITS TO THE ENTERPRISE

As enterprises struggle with the explosive growth of unstructured data and the accelerating virtualization of computing environments, Red Hat Gluster Storage for public cloud provides an ideal solution for cloud storage. It simplifies the task of managing unstructured file data, whether users have a few terabytes of storage or multiple petabytes, without acquiring new hardware.



ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 70 offices spanning the globe, empowering its customers' businesses.

NORTH AMERICA
1 888 REDHAT1

**EUROPE, MIDDLE EAST
AND AFRICA**
00800 7334 2835
europe@redhat.com

ASIA PACIFIC
+65 6490 4200
apac@redhat.com

LATIN AMERICA
+54 11 4329 7300
info-latam@redhat.com

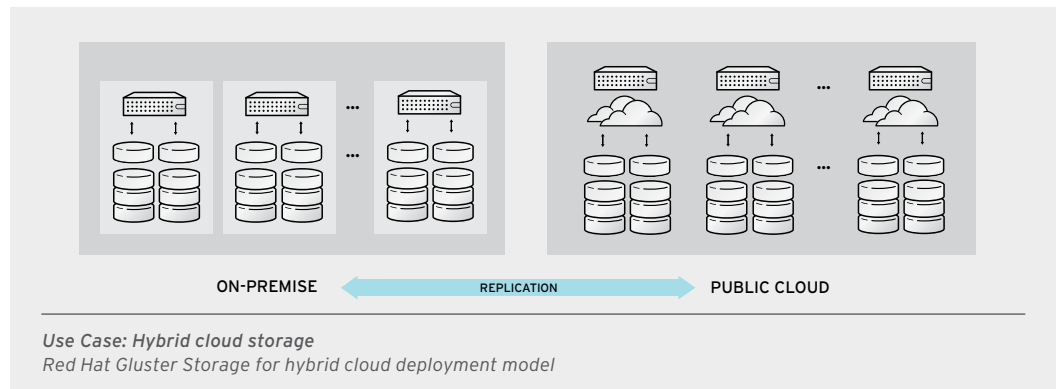


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RED HAT GLUSTER STORAGE FOR HYBRID CLOUD

OPEN, SCALE-OUT STORAGE SOFTWARE FOR HYBRID CLOUD ENVIRONMENTS

Red Hat Gluster Storage for hybrid cloud brings enormous flexibility to enterprises considering deployment in both public and private clouds.



BUILT-IN REPLICATION FOR DATA PROTECTION

Red Hat Gluster Storage for hybrid cloud uses replication to provide high availability across the datacenter and public cloud. Synchronous file replication provides local data replication to support business continuity. Asynchronous replication provides long-distance data replication for disaster recovery.

EASY MIGRATION TO THE CLOUD

Red Hat Gluster Storage for hybrid cloud is POSIX-compatible, so there's no need to rewrite your applications when moving data or applications from your on-premise datacenter to the public cloud.

SIMPLE, COST-EFFECTIVE DATA ACCESS

With Red Hat Gluster Storage for hybrid cloud, files and objects can be created and extracted simultaneously by various application environments.

Store as a file and instantly retrieve it as an object, and vice versa. This drastically reduces the cost for file and object storage and eliminates the need for separate storage silos. NFSv4 integration enhances data access with broad client support.

BENEFITS TO THE ENTERPRISE

More and more enterprises are embracing hybrid cloud environments, using external clouds to host non-critical IT services and internal clouds for business-critical applications. With Red Hat Gluster Storage for hybrid cloud, enterprises can easily extend their datacenters to the cloud and achieve increased flexibility, unified data accessibility, enhanced security, and simplified management—all while minimizing cost.