

Gluster Storage Software Appliance

Turnkey Software Appliance for Installation on Bare Metal



Technical Overview

The Gluster Storage Software Appliance is an ISO image which installs on bare metal (ie: a non-virtualized physical machine). The Storage Software Appliance integrates GlusterFS with CentOS for deployment on any Red Hat Hardware Compatibility List (HCL) certified server and storage hardware.

The Storage Software Appliance enables enterprises to treat physical storage as a virtualized, scalable, standardized, scale-on-demand, and centrally managed pool of storage. Enterprises now have the capability to leverage storage resources the same way they have leveraged computing resources, radically improving storage economics in the process via the use of commodity storage hardware. The Software Appliance global namespace capability aggregates disk and memory resources into a unified storage volume that is abstracted from the physical hardware. The Software Appliance supports multi-tenancy by partitioning users or groups into logical volumes on shared storage.

Deploying Gluster

The Gluster Software Appliance easily deploys and scales in minutes on any Red Hat certified server and storage hardware. The Software Appliance installs in userspace and scales to petabytes of storage capacity. Gluster Software Appliances are POSIX-compliant, so the interface abstracts vendor APIs and applications do not need to be modified.

By scaling performance and capacity linearly, capacity is able to be added as required in only a few minutes across a wide variety of workloads without affecting performance. Storage can also be centrally managed across a wide variety of workloads enabling operations to more efficiently manage storage used for a variety of purposes.

Gluster Software Appliances enable users to eliminate their dependence on costly, difficult to deploy and manage monolithic storage arrays. With a Storage Software Appliance enterprises can now deploy commodity storage hardware and realize superior economics. Users can deploy and pay for storage resources when needed.

Key Benefits

- ✓ Uses any Red Hat HCL certified hardware platform
- ✓ Elastically scale storage with no downtime or application interruption
- ✓ High Availability support via N-way replication
- ✓ Automate management with an advanced console manager
- ✓ No-metadata server eliminates performance bottleneck and ensures linear scalability
- ✓ Deploys in minutes
- ✓ Works with standard backup capabilities
- ✓ Aggregate CPU, memory, network & disk resources
- ✓ Scale-out capacity and performance as needed
- ✓ For deployments that value scale-out architectures and speed

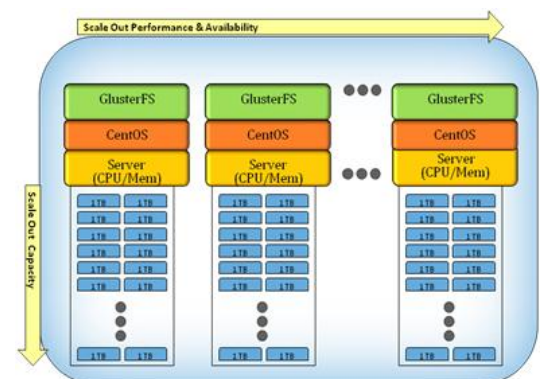


Figure 1. Gluster Storage Software Appliance

Additional Features

Optimized for the Enterprise

- ✓ Enables users to treat storage as a virtualized resource.
- ✓ A POSIX-compliant, distributed file system, designed for unlimited scalability.
- ✓ Modular, stackable design. Gluster Storage Software Appliances can be configured and tuned to deliver high performance for a wide range of workloads. Modules can be combined as necessary depending on storage requirements and workload profile.
- ✓ No metadata server. Rather than using a centralized or distributed metadata server, Gluster employs an elastic hashing algorithm to locate data in the storage pool removing this common source of I/O bottlenecks and vulnerability to failure. Data access is fully parallelized and performance scales linearly.

High Availability

- ✓ Synchronous N-way replication and Asynchronous Geo-Replication for enterprise data protection and resiliency.

Scalability

- ✓ Elastic volume management enables storage volumes to be abstracted from the hardware so data and hardware can be managed independently. Storage can be added while data continues to be available, with no application interruption. Volumes can grow across machines in the system and can be migrated within the system to rebalance capacity or add systems on-the-fly.
- ✓ A unified global namespace that aggregates disk and memory resources into a single pool, virtualizing the underlying hardware. Grow and shrink the single namespace dynamically, with no interruption to client access.
- ✓ Scale-out to petabytes

Flexibility

- ✓ Runs in userspace, eliminating the need for complex kernel patches or dependencies.

Easy to Deploy

- ✓ With just a few mouse clicks you can deploy additional storage in seconds.
- ✓ Provision and scale-out an unlimited number of nodes for multi-petabyte NFS, CIFS and GlusterFS mounts.
- ✓ Build a secure, low cost, and easily managed, thin provisioned, multi-tenant scale-out storage system in minutes, and add additional instances in seconds.
- ✓ Files can be replicated two or more times to ensure data is always available, even in the event of hardware failure. Self-healing capabilities restore data to the correct state following recovery.

Simple Management

- ✓ Simple, single command for storage management.
- ✓ Gluster Top: Presents the top 100 operations per server, providing visibility into the I/O workload pattern.
- ✓ Gluster Profile: Provides performance statistics over a user-defined time period for metrics including latency, number and type of calls, and amount of data read or written.
- ✓ Automated call-home for critical issues, 24/7/365, 2 hour response support available.
- ✓ Includes performance monitoring and analysis tools.

Try/Buy

- ✓ To learn more about a functional trial, or to purchase the Gluster Virtual Storage Appliance visit www.gluster.com/trybuy.