



RED HAT GLOBAL FILE SYSTEM

WHAT IS IT?

Red Hat® Global File System® (GFS) is an open source, POSIX-compliant cluster file system and volume manager that runs on Red Hat Enterprise Linux® servers attached to a storage area network (SAN). It works on all major server and storage platforms supported by Red Hat. The leading (and first) cluster file system for Linux, Red Hat GFS has the most complete feature set, widest industry adoption, broadest application support, and best price/performance of any Linux cluster file system today.

WHAT DOES IT DO?

Red Hat GFS allows Red Hat Enterprise Linux servers to simultaneously read and write to a single shared file system on the SAN, achieving high performance and reducing the complexity and overhead of managing redundant data copies. Red Hat GFS has no single point of failure, is incrementally scalable from one to hundreds of Red Hat Enterprise Linux servers, and works with all standard Linux applications.

WHY SHOULD I CARE?

Red Hat GFS is tightly integrated with Red Hat Enterprise Linux and distributed through Red Hat Network®. This simplifies software installation, updates, and management. Applications such as Oracle® 9i RAC, and workloads in cluster computing, file, web, and email serving become easier to manage and achieve higher throughput and availability with Red Hat GFS.

FEATURES AND BENEFITS

Performance

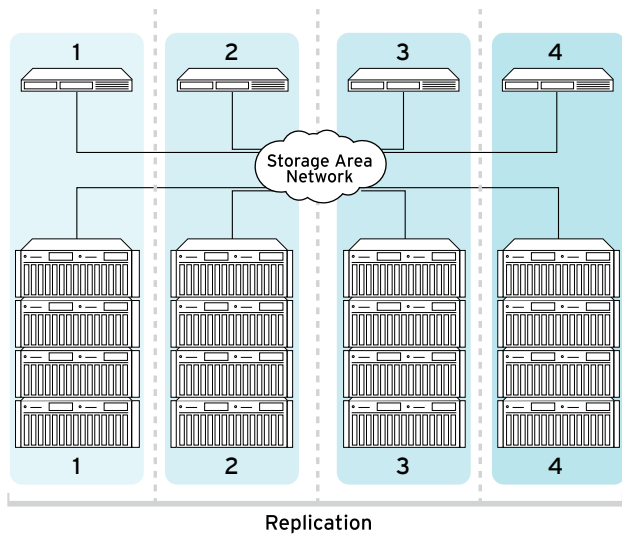
Red Hat GFS helps Red Hat Enterprise Linux servers achieve high I/O throughput for demanding applications in database, file, and compute serving. Performance can be incrementally scaled for hundreds of Red Hat Enterprise Linux servers using Red Hat GFS and storage area networks constructed with iSCSI or Fibre Channel.

Availability

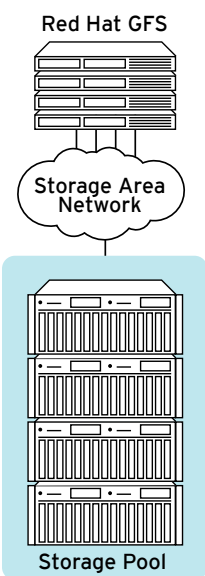
Red Hat GFS has no single point-of-failure: Any server, network, or storage component can be made redundant to allow continued operations despite failures. In addition, Red Hat GFS increases system availability by allowing reconfigurations such as file system and volume resizing while the system remains online. Red Hat Cluster Suite can be used with Red Hat GFS to move applications in the event of server failure or for routine server maintenance.

Ease of management

Red Hat GFS allows fast, scalable, high-throughput access to a single shared file system – reducing management complexity by eliminating the need for data copying and maintaining multiple versions of data to insure fast access. Integrated with Red Hat Enterprise Linux (AS, ES, and WS) and Red Hat Cluster Suite, delivered via Red Hat Network, and supported by Red Hat's award winning support team, Red Hat GFS is the world's leading cluster file system for Linux.



Separate file systems. No data sharing.



Data sharing with Red Hat GFS.

EMPOWER YOUR APPLICATIONS WITH RED HAT GFS

For customers with demanding file serving, web serving, database, and grid/technical/scientific computing applications, Red Hat GFS enables unprecedented application performance and scalability. Scaling to hundreds of servers and terabytes of storage, it lets customers utilise cost-effective, high-performance “scale out” architectures rather than expensive “scale up” architectures. GFS solves the scalability limits of traditional IP-based shared storage solutions. It achieves significant cost savings and simplifies data management by eliminating the multiple data copies associated with nonshared storage environments. GFS is the most trusted Linux file storage platform for large-scale data environments requiring continuous data availability.

DATA SHARING IN SCALE OUT LINUX CLUSTERS

Scale out Linux clusters are becoming a key component in the enterprise IT infrastructure. Red Hat Enterprise Linux, Red Hat GFS, and Red Hat Cluster Suite provide an integrated software framework for data sharing between the large number of nodes found in scale out clusters. Data sharing improves application performance and scalability, simplifies data management using low-cost Linux hardware and storage area networks, and ensures continuous data availability for mission-critical applications. Developed and supported by the open source community and Red Hat, Red Hat GFS is the trusted cluster file system for large, scale out Linux clusters.

FILE SERVING

Traditional IP-based file servers provide a single server per file system name space, which can become a performance bottleneck when accessing shared data. With Red Hat GFS, file servers can be clustered to provide, parallel access to a single file system namespace, increasing file serving performance and scalability, simplifying data management, and ensuring continuous data availability.



ORACLE RAC DATABASE CLUSTERING

Oracle databases can be clustered using Oracle's powerful Real Application Clusters software, which exploits the performance, availability, and scalability of today's storage area networking (SAN) technology. Red Hat GFS simplifies the installation, configuration, and on-going maintenance of the SAN infrastructure necessary for Oracle RAC clustering. Oracle tables, log files, program files, and archive information can all be stored in GFS files, avoiding the complexity and difficulties of managing raw storage devices on a SAN while achieving excellent performance.

GRID AND HIGH PERFORMANCE COMPUTING

Grid and high performance computing is a leading application area for Linux clusters. Red Hat GFS can be used to share data among Red Hat Enterprise Linux servers, improving application performance for I/O- and storage intensive application software by improving raw file transfer speeds, removing unnecessary data copying, and ensuring continuous data availability. Red Hat GFS combined with SAN technology can solve the data and I/O requirements of the largest grid computing clusters in production today.

EMAIL SERVING

Red Hat GFS can provide scalable performance and continuous data availability for large email server installations. Email is both mission-critical and performance-intensive. Data sharing clusters constructed with Red Hat Enterprise Linux, Red Hat GFS, and Red Hat Cluster Suite can help provide the scalability, performance, and data availability required by demanding email server environments today.

ADVANCED FEATURES

- Scalable to hundreds of Red Hat Enterprise Linux servers
- Supports Intel® X86, Intel Itanium2, AMD AMD64, and Intel EM64T architectures
- Works with Red Hat Cluster Suite to provide high availability for mission-critical applications
- Quota system for cluster-wide storage capacity management
- Direct I/O support allows databases to achieve high performance without traditional file system overheads
- Dynamic multi-pathing to route around switch or HBA failures in the SAN
- Dynamic capacity growth while the file system remains online and available
- Can serve as a scalable alternative to NFS

PRODUCT INFORMATION

- Supported on Red Hat Enterprise Linux AS, ES, and WS. Red Hat Cluster Suite support available on Red Hat Enterprise Linux
- Support for a wide variety of Fibre Channel and iSCSI storage area network products from leading switch, HBA, and storage array vendors
- Mature, industry-leading, field-proven, open source cluster file system



loftus IT

RED HAT SALES AND ENQUIRIES

Australia
+61 2-8923-2800
<http://www.apac.redhat.com/>

LOFTUS IT

175 Fullarton Road
Dulwich SA 5065
Tel: 08 8304 8888
Fax: 08 8364 2910
<http://www.loftusit.com.au>