

# Sun™ QFS Software

Collaborate and share data,  
and improve time to results



Sharing information is key to getting work done. Ideal for collaborative environments with large data volumes, Sun™ QFS software provides high-performance, heterogeneous shared access to data over a storage area network (SAN). Data can be written and accessed at device-rated speeds, providing superior application I/O rates. Hundreds of heterogeneous systems gain direct shared access to data using a variety of heterogeneous file sharing protocols, such as NFS, CIFS, Apple Filing Protocol, FTP, and Samba.

## Highlights

- Share large data sets and collaborate more effectively to improve time to results
- Take advantage of a high-performance, shared file system that supports multiple heterogeneous servers
- Reduce storage management costs by consolidating file systems onto centrally managed tiered storage
- Simplify the configuration and management of file systems
- Tune file access for extreme read and write application performance
- Combine with Sun™ Storage Archive Manager and save money with a policy-based solution that puts the right information on the right storage at the right time
- Protect data and meet compliance requirements by storing data on unalterable media and setting file retention periods

### Improve collaboration

Sun QFS software lets users across the enterprise share access to large files or data sets simultaneously, speeding time to market or time to project completion. Up to 512 systems running Sun QFS software can have shared access to the same data while maintaining file integrity.

### Ingest or access large data sets quickly

Sun QFS software allows the fast movement of large files or data sets into the file system. Users and applications gain rapid shared access to that data. Indeed, the software delivers performance that matches that of direct access to raw devices and scales linearly as hardware is added — with volumes scaling up to four petabytes in size. Because metadata information is stored separately from user data, the file system can help improve high-performance RAID cache utilization, reduce access latency, and enable cost-effective mirroring of metadata.

### Store information at less cost

Sun QFS software can be combined with Sun Storage Archive Manager (SAM) to transfer processed data to lower cost, high-volume storage. The software actively manages data between storage tiers to let companies exploit the substantial acquisition and operational cost differences between high-end disk drives, SATA drives, and tape

devices. As a result, companies can put the right data on the right storage based on the business value of information to help reduce storage complexity and save money over time.

### Tune file systems for high performance

Applications place extreme demands on file systems. Sun QFS software can be tuned to maximize data access performance for applications with large sequential I/O or small file random access requirements.

Direct I/O lets data be written to or read from disk directly for improved database and random file access performance. Sun QFS file systems use an adjustable disk access unit (DAU). Users can configure the DAU to tune the file system to deliver improved performance for millions of small files as well as large systems with ultra large files.

In addition, built-in striping volume management allows multiple I/O streams to write in parallel across multiple disk systems for increased bandwidth to sequential I/O applications. Storage devices can be striped individually or in device groups, so files can be written to, and read from, a specific device group to deliver more predictable performance to specific applications.

**Protect data and meet compliance requirements**

Sun QFS software can help build long-term compliance-enabled file systems. Write Once, Ready Many (WORM) file management features let companies store data on unalterable media and set file retention periods, ensuring file immutability and managing files after expiration.

### Archive data for the long haul

With Sun QFS software, data can be archived using an open format to ease future access and avoid vendor lock-in. The software creates storage “containers” that map fully to the industry-standard UNIX® tar format for file encapsulation. Any tape or disk archive generated by Sun QFS software can be independently read and restored.

Disk and tape media have finite useful life spans that are typically much shorter than the overall lifetime of the data contained on them. Maintaining access to this vital data is key. Sun QFS software provides application transparent migration between media during hardware replacement cycles to dramatically simplify the process of moving to newer media technologies.

### Improve data availability

Keeping data available is a must for any organization. The shared Sun QFS file system structure provides excellent performance and scalability for Oracle Real Application Clusters (RAC) solutions, and Solaris™ Cluster can be added to foster even higher availability. With Solaris Cluster, users can automate the failover of Sun QFS standalone file systems to improve data availability. In addition, Sun QFS software lowers TCO by dramatically reducing database

administration workload in clustered environments.

### Simplify administration

Administrative inefficiencies increase operational costs and often result in delays. Sun QFS software includes a wide range of features to simplify the configuration, management, and monitoring of shared file systems. With a Web-based management portal, administrators can perform secure, remote management of multiple file system servers, reducing management cost and complexity.

In traditional environments, large volumes of enterprise data are spread across many file systems, causing performance bottlenecks, administrator headaches, and maintenance overhead. With Sun QFS software, administrators can consolidate files across the enterprise into fewer common file systems and manage them centrally. Administrators can grow or shrink file systems online, and software deployed in shared environments can be upgraded with no downtime, keeping data available even when configuration changes are ongoing. Administrators gain control of the storage environment and can utilize resources more effectively—without impacting performance.

### Engage the storage experts

Sun service professionals can help address storage challenges by delivering integrated services and solutions that optimize and manage storage performance over the life of data. Our recognized, world-class service and customer care can help companies rest assured that technology investments

### Learn More

For more information on Sun QFS software, visit [sun.com/software](http://sun.com/software).

Get the inside story on the trends and technologies shaping the future of computing by signing up for the Sun Inner Circle program. You'll receive a monthly newsletter packed with information, plus access to a wealth of resources. Register today at [sun.com/joinic](http://sun.com/joinic).

are protected and that the business can respond to change. Sun experts can help pinpoint opportunities to reduce costs, mitigate business risk, and better leverage information assets. Our consulting and managed services offer clear and simple solution choices that address regulatory-compliance, storage growth, resource management, and scalability challenges.

### Go with a storage leader

Choosing the right file system is critical to business operations. Sun continues to drive file system technology forward, developing innovative software that safeguards data, accelerates access, and reduces the cost of storing and managing information. By taking advantage of advancements in Sun QFS software, companies can consolidate, share, and manage the most diverse data-intensive applications and improve time to results.