



Melio 1.0 FS Product Sheet

Melio FS (*Meglio* means *better* in Italian) is a file system specifically designed for high performance, high reliability storage network environments, with an emphasis on the core SAN environment. Melio FS can be used across all servers attached to the centralized storage. Melio FS greatly simplifies the access to and administration of data and storage. It improves computing resource flexibility and scalability of applications.

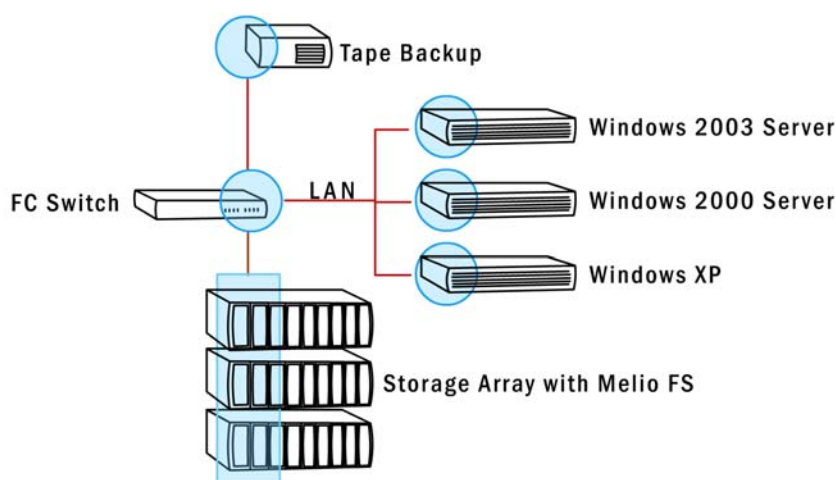


Fig. 1 Melio FS in a Storage Area Network

Melio FS has demonstrated the potential of shared file systems in mixed SAN and NAS environments using a mixture of 1Gb and 2Gb fibre channel as well as iSCSI.

Melio FS is designed for easy installation and use and addresses customer needs in enterprise data center and cluster or grid computing applications as well as in workgroup environments. Melio FS is designed to support both Windows and Unix requirements and is now commercially available with Windows drivers.

Melio FS in Data Centers

Melio FS provides a fundamental solution to simplify data center complexity. Melio FS presents a single shared storage pool across all servers attached to the centralized storage. This greatly simplifies the management and administration of storage. There is no need to set up a LUN for each server as is commonly done. It allows multiple servers or NAS heads to share a single SAN volume, allowing decisions on block versus file service. Protocol independence provides the option or mix of fibre channel, iSCSI, and Gbit Ethernet. The structure of storage volumes, and operating system platform can be driven by application requirements and economics, rather than by limitations of the hardware.

Full journaling and recoverability to guarantee data integrity is designed into the file system architecture. Compatible with existing hardware, Melio FS enables integration of the heterogeneous data center, and allows the customer to match hardware with performance needs. It provides a single platform on which to build advanced storage management applications. It can be introduced incrementally into a data center, and provide a migration path to integrate all data storage over time. By using primarily existing disk administration tools, the learning curve effect is minimized. Storage architecture simplification is fundamentally the solution to improve reliability and cost position.

Melio FS in Cluster Computing

Melio FS improves computing resource flexibility and scalability of applications by allowing multiple clustered computers in a shared storage environment to process and solve compute- or data-intensive problems and tasks such as analyzing seismic data, or in the financial industry, pharmaceutical companies, risk analysis, or data mining, and telecommunication services. Melio FS supports the requirements of intense cluster computing, requiring shared data access including heavy volumes of transactions meaning either the processing of enormous amounts of small files, transfer of data through hundreds of parallel data paths, transfers of large files, or a combination of these. This is possible because of Melio's

- Locking mechanisms – cascadable locks make it possible to lock down to the byte range sector of a file
- Fast access to data due to the design of the file system and meta data within the file system
- Random file access that allows multiple concurrent reads/writes from different parts of the storage or from the same file.

Cluster computing using Melio FS increases the utilization of computers (applications can be scaled by having multiple computers simultaneously processing data, Networks (existing networks can be used as Melio FS supports different protocols, data and communication transfer is handles separately) and storage (one storage pool available to all servers).

Melio FS in Workgroup Environments

Melio FS can be used in workgroup environments such as digital content creation, imaging, prepress, broadcast, and postproduction. Melio FS is designed to provide support for file sharing, high performance and a smooth workflow, and support for heterogeneous operating systems, which are important in these applications. Using Melio FS in small to medium size SANs eliminates the need for volume or file sharing software for simultaneous read and write access of files on the common storage, and significantly improves performance.

Melio FS:

- Improves the workflow as it transparently handles operations that optimize the use of the SAN, making data available to whomever needs to access it.
- Provides a single view of the storage allowing better allocation and utilization.

The throughput required by the large file applications is directly related to the performance of the hardware and is not reduced by the file system. Melio FS does not limit the performance as the workstations are connected directly to the storage. The design of the file system enables quick access to files, and the random file access serves the files to the users with the required speed independently of file size and amount of streams.

Availability

Selected partners worldwide distribute Melio FS: OEMs, distributors, resellers and system integrators.

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