

Concurrent File Sharing

INTRODUCTION

Workgroup collaboration and workflow applications are now fast and easy with cross-platform, shared storage. Many applications including publishing, web development, video editing, healthcare, data acquisition and imaging have a need for access to a common set of large files. Transferring copies of the same file to each user wastes time, bandwidth and storage and creates a version control headache. Traditional native file sharing creates an Ethernet bottleneck at the shared server and pre-empts normal LAN traffic – with severe consequences for the remaining users. Now with FlashShare files can be accessed from many servers simultaneously with a direct high speed SCSI or Fibre Channel connection rather than an Ethernet connection.

With FlashShare, users enjoy high speed access to common pools of files, often very large numbers of very large files found frequently in digital content creation, medical imaging, pre-press, physics laboratories, medical research and other environments where a common pool of information must be accessible to a group of individuals.

FlashShare is fully transparent and compatible with Windows, Linux and MAC OS running standard applications. It enables multiple users to share data files using native files system formats and access rights. FlashShare offers a high level of granularity by arbitrating access to individual files, rather than entire volumes, to ensure that no two servers attempt to write to an individual file simultaneously. This capability actually enables a cluster of servers to work on a shared storage pool. In applications with a large amount of analysis, a "compute cluster" can be created to process a set of data from many servers simultaneously. In a workflow environment, individuals can pass files to the next step in the process without physically moving the file such as in pre-press applications.

WHY SHARE COMMON FILES

- Workgroup collaboration
- Workflow expediting
- Need to share large files
- Avoid lengthy data transfer
- Clustered file system required

REQUIREMENTS

- Disk array with multiple SCSI or Fibre Channel ports
- FlashShare software
- Windows, Linux, MAC OS servers

TYPICAL ENVIRONMENTS

- Workflow applications
- Collaborate workgroups
- Backup

BENEFITS

- Data inexpensively shared
- Saves substantial storage capacity and cost
- Eliminates data transfer delays
- Easy to install and manage
- Save time – meet deadlines

HOW IT WORKS

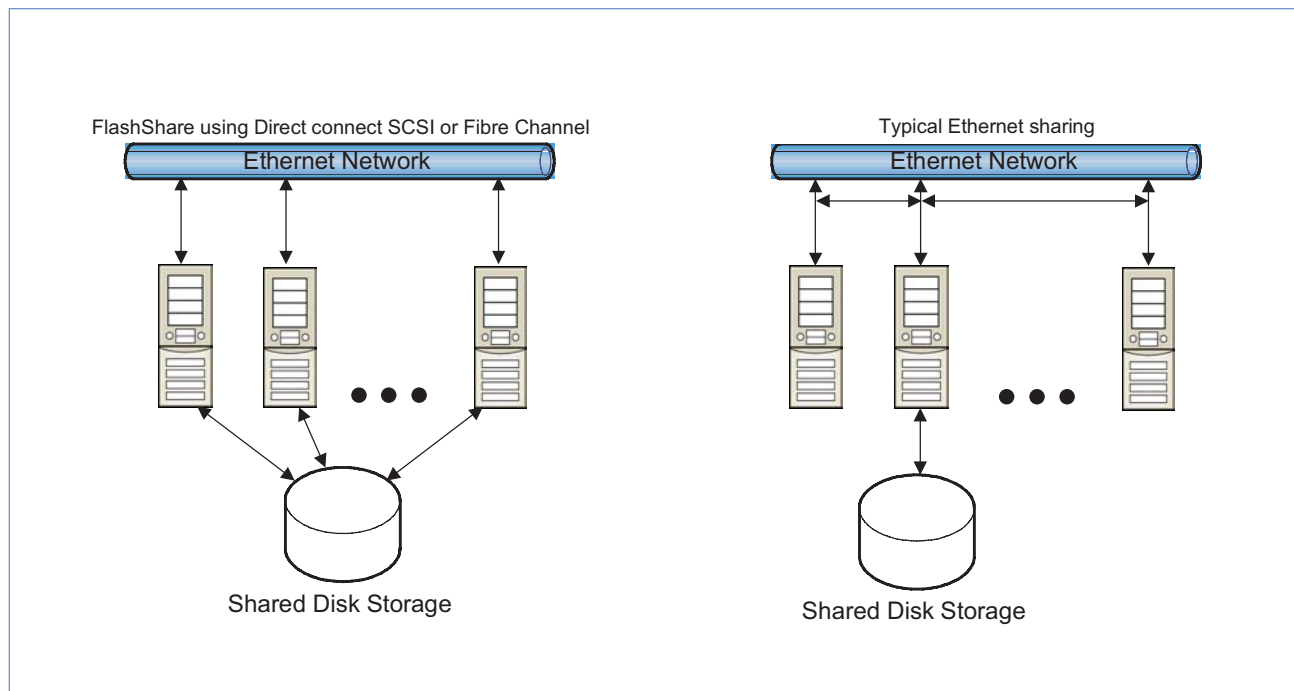
FlashShare software resides on each server connected to a common storage pool. The storage is connected to each server via high-speed SCSI or Fibre Channel connections directly or via a switch.

One server is the master and coordinates access to the data. The master server is protected by automated failover to another server if the master server fails.

After a simple installation, each server and user sees the shared data as an ordinary local drive. There is no special formatting and the master server coordinates file access.

Network administrators use standard tools to grant file access privileges. Data is stored in native OS format. Windows, Linux and MAC OS are currently supported.

File sharing is truly transparent and makes it possible for doctors to call up MRI images when needed, for publishers to edit many files simultaneously to meet a deadline, for network administrators to bring down individual servers for maintenance or for groups of film editors, publishers, web designers or researchers to work in parallel to rapidly iterate towards superior final products.



Typical file sharing configurations requires an extra level of data transfer over Ethernet to obtain information for the target device – thus making it painfully slow to share files in an active environment.

FlashShare allows all users connected to any of the connected servers to access shared files via high-speed SCSI or Fibre Channel connection and manages write privileges to avoid conflicts.