



Product Brief - Facilis Technology TerraBlock version 4.5, January 2010

TerraBlock is the dedicated Post Production and Digital Intermediate shared storage system that outperforms the competition, and undercuts traditional high-performance SAN pricing.

Now with the Facilis Shared File System, TerraBlock shared storage delivers high performance volume-level sharing over fibre channel and total collaborative multi-user write access over fibre channel or Ethernet, still with no per-seat license fees.

Back to Basics. Why shared storage?

The client experience in a centralized facility is completely different than in a non-centralized facility. Traditional local storage via SCSI or Firewire has immediate limitations in capacity and protection. Scaling a job up to a second and third room causes pain for the facility engineers and assistants, and your clients will feel that pain through scheduling difficulty and potential delays due to workstation downtime. Today, shared storage is more cost effective than ever. If your facility has more than one room that could ever collaborate on the same job, there's no reason to spend thousands of dollars on local attached RAID solutions. It just doesn't make sense anymore.

File-level and Volume-level - Pros and Cons

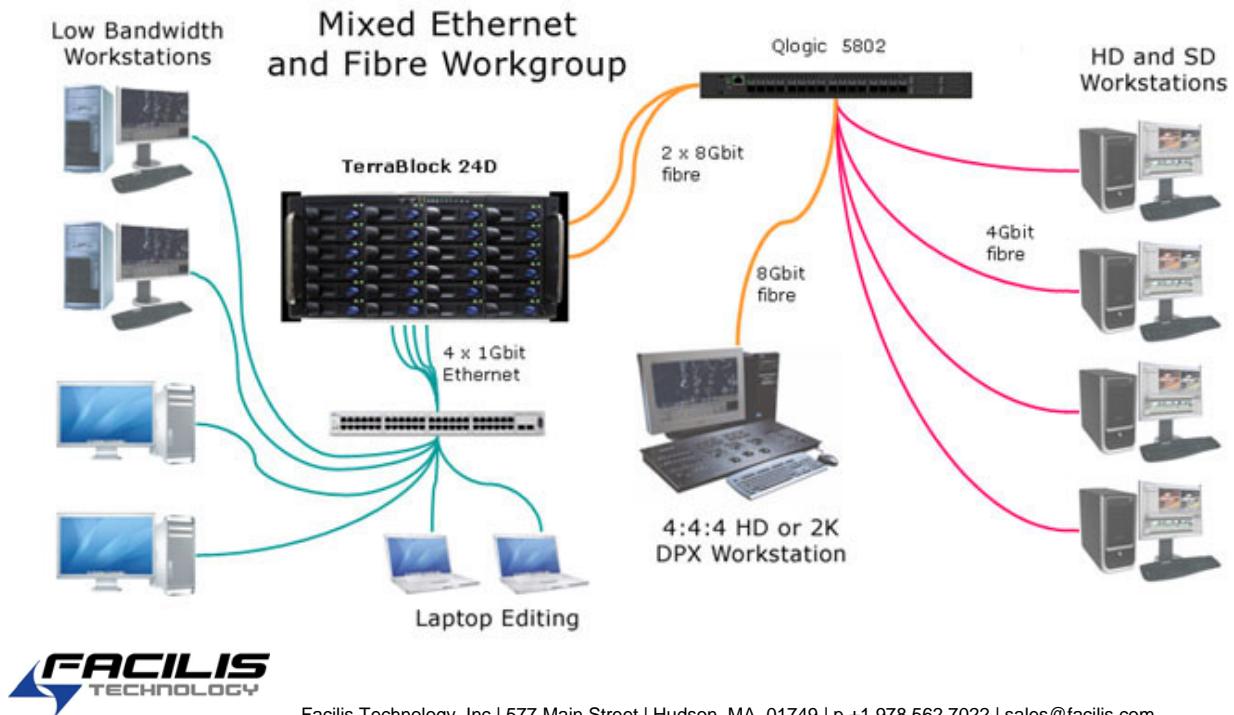
You can share data two ways. The first is by writing to a project or job-based volume (virtual drive, drive letter or location) and having that volume available as read-only to other workstations. Since video editorial isn't a destructive process, you can use the read-only data in a timeline, to composite effects, etc. When you need to render the effects, or capture more data, you can either change the write access to the workstation that required write access, or simply create another volume and allocate write access. This method is called volume-level sharing.

The second method is having a single volume that is writable to many workstations, and managing the data for multiple projects within that volume. This method is called file-level sharing. The benefits for file-level sharing are obvious – fewer volumes, less access permissions management, and easier client-side configuration. However, file-level comes with a penalty in performance and complexity. Volume-level systems are always faster, simpler to configure, and usually cost less per client. File level systems tend to be more scalable, more flexible with connectivity options and integrate better into a storage management scheme (asset management, data movement, and archive). Luckily, a Facilis customer is not forced to make this tough decision.

TerraBlock Does Both

TerraBlock is the only turn-key shared storage solution to offer fibre channel file-level and volume-level access, as well as Ethernet file-level access to the same Virtual Volume based on software attribute and connectivity method. If you bought your SAN to power a data-intensive HD workflow over fibre channel, there's no need to purchase a different network to support your offline craft editorial. Carve a portion of the SAN off and use it as your offline shared storage over Ethernet. The fibre clients can still mount and write to that volume, as well as the high-performance Single-user Write volumes they've been using in an HD workflow.

No other SAN on the market has this functionality.



Justifying Shared Storage

The ROI of infrastructure is difficult to ascertain, so TerraBlock offers certain valuable features that are hard to find.

- **No Client Software Licenses** – TerraBlock is different from other SAN products. Standard connection for up to 100 clients comes with no additional costs in client licensing. This adds up to big savings both in initial cost and year-on-year support.
- **Platform and Application Agnostic** – TerraBlock can work with most any application and operating system. Build on your current workstation investment by adding new platforms and applications with very few compatibility issues.
- **Data Integrity and Security** – The reliability of your infrastructure is a high priority. DynaRAID protects against drive failure through selectable RAID5 or Mirroring of volumes. Fibre channel is a closed network, but even when used as Ethernet-attached, TerraBlock volumes are not open to access outside the Shared File System workgroup, adding a security factor.
- **Low Installation and Upkeep** – The architecture of the TerraBlock system lowers initial build-out costs, and fiber or Ethernet direct connectivity lowers support overhead compared to solutions that require multiple network layers to operate.
- **Efficiency of Centralization** – When your SAN can perform like local storage, there's no need to buy local storage. Local hard drives offer no flexibility; result in wasted space and data duplication. With TerraBlock, virtual volumes can be allocated:
 - *Per Project* – Any size volume can be allocated to a project, and this volume can be mounted in any or all rooms as Single-user or Multi-user Write. More volumes may be created or volume size expanded to increase the project storage.
 - *Per Room* – Any room may be given access to more or less storage, based on the jobs being done. TerraBlock Virtual Volumes have the same performance characteristics regardless of size, so smaller volumes are still high performance.
 - *Per User* – A user can move their projects from suite to suite to access additional features, input/output capability or simply to accommodate scheduling needs. User account permissions are accessed through login to the workstation OS.

Work Now; Grow Later

Unlike many SAN systems, there is no prohibitive initial buy-in, and the SAN can grow as large as your facility requires.

- **Scale Capacity Internally:** The 24EX model allows for expansion within the server chassis, allowing any direct-connect clients to be maintained. Cost of internal expansion is lower than adding additional server chassis.
- **Scale Capacity Externally:** Servers work together, but remain independent. Utilize virtually unlimited scalability and the ability to physically partition server chassis for added security and portability. Servers can go on-location and rejoin later.
- **Scale Client Count:** TerraBlock offers fibre channel and Ethernet connectivity with no per-seat licenses. 1Gbit Ethernet is virtually a no-cost connection, with 1Gbit ports on most every platform sold today. 8Gbit fibre delivers unmatched bandwidth.

Migrate and Collaborate

Facilis has tools for use when data movement is necessary, and features that enable cooperative editorial on existing media.

- **Move:** With Facilis Technology's Migration application, file-based media can be moved with blazing speed whether the source location is inside or outside the SAN environment. Facilis Migration is also file sequence-aware for DI workflow.
- **Capture:** When capturing video to the TerraBlock network directly, multiple workstations on various applications and connections share the Multi-user Write volumes; easing administration and management and improving productivity.
- **Collaborate:** TerraBlock users access native project sharing features through the Facilis File System Emulation mode. Laptop editors may access video captured by fibre clients with dedicated hardware, and share the same scratch disk.

Below is a description of TerraBlock models and stream count for a single server environment. Multiple servers may be joined together to provide well above this level of capability, and client count can scale to 100 between fibre and Ethernet clients.

Product	Single Server Stream Count	Capacity Range	Single Server Potential Configurations
BXS	<ul style="list-style-type: none">• 18 streams of 35Mbit HD• 6 streams of 220Mbit HD• 1 stream of 1:1 HD 1080i	4TB to 12TB	2-3 high-bandwidth fibre clients at 145Mbit or 220Mbit HD; 10+ fibre or Ethernet clients at 25Mbit or 35Mbit video.
24EX	<ul style="list-style-type: none">• 25 streams of 35Mbit HD• 8 streams of 220Mbit HD• 2 streams of 1:1 HD 1080i	6TB to 24TB	3-6 high-bandwidth clients at 145Mbit or 220Mbit HD; 20+ Ethernet clients at 25Mbit or 35Mbit video; or 1 client at 4:2:2 or 4:4:4 HD.
24D	<ul style="list-style-type: none">• 50 streams of 35Mbit HD• 15 streams of 220Mbit HD• 4 streams of 1:1 HD 1080i	12TB to 48TB	6-9 high-bandwidth clients at 145Mbit or 220Mbit HD; 30+ Ethernet clients at 25Mbit or 35Mbit video; 2 clients at 4:2:2 or 4:4:4 HD.

For More Information:

Web Site: www.facilis.com

Facilis Sales: sales@facilis.com or +1.978.562.7022

