Big Data Applications
The major problem facing organizations today is the explosion in the amount of data required for immediate retrieval. Large scale scientific, healthcare, e-discovery, financial, e-mail archive and database applications as well as unfathomable numbers of photo, video, audio, Word, Excel, PowerPoint and social media files used in daily office automation create huge storage demands. This is the “big data” problem. The enormity of this situation, especially with multiple backup copies, demands a solution that addresses all of these critical facets:

- Scalable capacity
- Simple management
- Easy-to-service
- Scalable performance
- Flexible configurations

Scalable Capacity
Designed for high density, FlashDisk PetaStore offers up to 600 disks in 40U of rack space totalling 4.8 Petabytes (PB) in a single cabinet, using 8 TB disk drives. As the capacity of each 3.5” drive continues to increase, these cabinet capacities will continue to grow and continue to provide higher storage density - storing more data in less physical space.

Scalable Performance
FlashDisk PetaStore offers outstanding performance because the purpose-built disk controllers are fine-tuned for “big data.” A single PetaStore cabinet with two controller shelves delivers up to 6 GB/sec. write and 11 GB/sec. read throughput - actual measured end-to-end usable performance. These high-speed disk controllers are the true engine of PetaStore, outperforming competing platforms that have even more spindles. Now in its 13th generation, FlashDisk delivers superior access and transfer rates for your mountain of “big data”.

Simple Serviceability - Three top-loading drawers with 20 drives each!
The ability to easily service a unit, especially units of the scale that “big data” environments require, is paramount in cost-reduction. This unit is designed for self-service, offering significant operating cost savings. All PetaStore components are redundant, easily accessible and hot-swappable including controllers, drives, power supplies and fans. A special PetaStore feature is that front-loading, lightweight drive drawers slide forward from shelves and operate while being serviced. The design is superior to potentially unsafe competitive top-loading designs that require the entire shelf, which is very heavy, to be completely retracted.

Simple Management
Being able to easily configure, re-configure, and manage all of this hardware is key to a low-cost implementation. FlashDisk PetaStore utilizes the FlashDisk Global Manager which enables organizations to use a “single pane of glass” to manage and control an unlimited number of PetaStore cabinets. All the wealth of FlashDisk PetaStore software functionality is available in this one application.

Flexible Configurations
FlashDisk PetaStore allows configuring the system to specific needs and permits scaling of capacity and performance independently as required. FlashDisk PetaStore supports both SAN block storage and NAS file storage. The NAS option supports CIFS and NFS file storage in any combination. FlashDisk PetaStore supports Fibre Channel and iSCSI data transport protocols. Thus FlashDisk PetaStore works in your infrastructure of choice to meet your unique requirements.

Purpose-Built
FlashDisk PetaStore is unique in its ability to provide for all of these important facets at the same time, while other solutions are only strong at a few. PetaStore is the “Purpose-Built” storage solution designed to be the best value for your “big data” needs.
**FX-4U60 RAID Base Unit**

- **Dual-redundant RAID Controllers**
- **Drive canisters**
- **RAID levels supported**
- **Host interfaces**
- **Drive interface**
- **Max # of drives/Total capacity**
- **Cache memory capacity**
- **Hot spare drives**
- **Non-volatile cache**
- **Maximum LUN size**
- **Maximum number of LUNs**
- **LUN masking**
- **Port mapping**
- **Multipathing (MPIO)**

- Dual redundant 64-bit, 13th generation controllers
- 3, each holding 20 (3.5”/2.5”) SAS disks or SSDs
- 0, 1(0+1), 3, 5, 6, 10, 30, 50, 60
- 1GbE, 10GbE (copper or fiber), SAS 6Gb, FC 8Gb, FC 16Gb
- 6 Gb/s SAS
- 360 drives/2,880 TB maximum capacity (via expansions)
- Max. 16 GB per controller, included standard
- User configurable
- Optional battery backup, flash-based backup module
- 512 TB
- 1024 LUNs
- Configurable for each host LUN on FC SAN
- Map ports to servers for direct attach environments
- MPIO supported for all major operating systems and Hyper-V, Citrix XenServer and VMware hypervisors

**FX-4U60 General**

- **Power supplies**
- **AC input**
- **Power consumption**
- **RAID unit dimensions (WxHxD)**
- **RAID unit weight**
- **Temperature**
- **Humidity**
- **Compliance**

- 2 x 1,600 Watts
- 200-240 VAC, 47-63 Hz
- 600 Watts typical draw
- 17.53” x 6.93” x 34.70”
- 266.8 lbs. fully loaded (HDDs)*
- 0° to 35° C operating; -40° to 60° C non-operating
- 5-95% (non-condensing - operating and non-operating)
- UL approved; FCC & CE pending

**EX-4U60 Expansion Shelf**

- **Drive canisters**
- **Power Supplies**
- **AC input**
- **Power consumption**
- **Expansion dimensions (WxHxD)**
- **Expansion weight**
- **Temperature**
- **Humidity**
- **Compliance**

- 3, each holding 20 (3.5”/2.5”) SAS disks or SSDs
- 6 Gb/s SAS
- 2 x 1,600 Watts
- 200-240 VAC, 47-63 Hz
- 500 Watts typical draw
- 17.52” x 6.93” x 34.70”
- 266.8 lbs. fully loaded (HDDs)*
- 0° to 40° C operating; -40° to 60° C non-operating
- 5-95% (non-condensing - operating and non-operating)
- UL approved; FCC & CE pending

**Controls and Indicators**

- **Firmware embedded manager**
- **Indicators**
- **Access via front-panel LCD, RS-232 port, Ethernet**
- **Front panel power and status indicators**

**Compatibility**

- **Operating systems**
- **Platforms supported**
- **Remote monitoring ports**
- **Supports industry standard operating systems**
- **Supports Fibre Channel and embedded FPGA hosts**
- **RS-232 and 10/100 Ethernet**

**Storage Management**

- **Event notification**
- **FlashAlert call home service**
- **Manage out of band**
- **FlashDisk Global Manager GUI**
- **Automatic event and problem alert notification**
- **24-hour call center available for immediate action**
- **Manage storage services of multiple FlashDisks from any web browser**

**Warranty & Service**

- **Standard warranty**
- **Service contracts**
- **Secure site**
- **Installation and service**
- **Three year factory warranty and toll free hotline during business hours**
- **Optional on-site service, spare parts and advance parts replacement**
- **Customizable service programs for classified sites**
- **On-site installation; 24x7 service available**

*High-density storage such as FlashDisk PetaStore may require special reinforcement in a raised floor environment. Ensure floor loading capacity is not exceeded.*