PetaStor™ Video Storage Array

High Performance Networked Storage
Built for IP Surveillance Video Archive

Various factors ranging from legal requirements to customer's need for retention, drive demand for archiving surveillance videos. QS3 PetaStor Video Archive Storage (PS-VS) has been designed to provide highly scalable storage archive for medium to large scale IP Video Surveillance environments.

Power-packed Performance

PetaStor-VS designed as a video optimized storage archive for medium to large scale IP Surveillance environments. When storing video, a lot of importance is given to performance and so did we when designing PetaStor. With up to 550K IOPS and 5,500 MBps throughput PetaStor is one of the best performing storage system in the industry.

Scalable on demand / Pay-as-you-grow

Whether it is law enforcement or customer requirement, retention of huge volumes of video means the archive has to scale up on demand. PetaStor expands to 2 PetaBytes using a total 316 drives via expansion enclosures. This scalability on demand translates to "Pay-as-you-grow" scalability to the customer.

High Availability

With hot-swappable Dual controllers and redundant power supplies, PetaStor provides fast failover performance and high data availability

Fault tolerance

PetaStor provides some of the best-of-breed features that any other can match. These fault tolerance features include Intelligent Drive Recovery (IDR). IDR constantly checks for data integrity at the block level and repairs them. This gives customer peace of mind that their recorded videos are always in available for re-play.

Guaranteed Protection

The videos archived in PetaStor are protected at every step. The protection starts with the videos in the controller-cache and the customer has a choice to select either hot-swappable flash module BBU (backup battery unit) or Super Capacitors with flash module to keep data saved in cache live and accessible during power outages and other disruptions. With both options cached data remains powered for extended periods of time to ensure recovery even after prolonged outages.

For protection at the drive level, we give the customers the choice of using Self-encrypting drives (SED).

Green and Future ready

PetaStor has incorporated various technologies that can help customers achieve their goals on carbon emission. We have included highly energy efficient components which includes SoC processor for monitoring their performance, 80 PLUS power supplies which are the most energy efficient available in the world. We have also used intelligent drive and fan spin down features that goes a long way in controlling energy consumption.

Ease of use

PetaStor features a very simple and easy to use graphical user interface (GUI), yet it is highly intuitive and integrates all major functions of the system

Standard Technical Specifications

Host Ports	Eight 1Gb/s iSCSI ports (4 per controller)
Controller	Dual redundant controllers (Active)
Cache Memory	Default DDR3 4GB (2x2GB), up to 8GB (4x2GB), 16GB (4x4GB) or 32GB (4x8GB)
Cache Protection	Battery Backed (hot-swappable) + Flash module
Drives supported	SSD, SAS and SATA. Max: 316 Drives per array controller
Drive level features	• S.M.A.R.T. support • Automatic bad-sector reassignment • Dedicated bandwidth to each connected drive
RAID Levels	0, 1, 3, 5, 6, 10, 30, 50 and 60
RAID Functionality	• Global, dedicated or enclosure hot-spare • Online expansion • RAID migration • Configurable stripe size and write policy per system • Intelligent drive handling
Other features	• Thin provisioning • SED (Self-encrypting drives) • Snapshot • Volume copy/ mirror
System Management	• Web based management • Telnet • SSH • Temperature, fan, voltage, PSU sensor monitor • Module status LED indicators • SNMP support • Email notifications
OS Support	• Windows Server 2008, 2008 R2, 2012, 2012 R2 (including Hyper-V) • RedHat Enterprise Linux • SUSE Linux Enterprise • Sun Solaris • Mac OS X • HP-UX • IBM AIX • VMware • Citrix XenServer • OpenStack Cinder
Agency approvals	CE, UL, BSMI, CB, EAC, FCC, KC
Environmental limits	Operating temp range: 0°C to 35°C, humidity range: 5% - 95%, altitude: sea level to 12000ft

Model Specifications

PetaStor-VS	PS-VS-316-D	Expansion EJB-316-SAS-D	Expansion EJB-460-SAS-D
Drive bays built in	16	16	60
Dimension in mm (W x D x H)	448 x 500 x 130	448 x 500 x 130	446 x 882 x 176
Power	500 watts (1+1)	500 watts (1+1)	1600 watts (1+1)
Gross Weight (without hard disks)	22 kgs	15 kgs	69 kgs
19" Rack mount units	3u	3u	4u

All specifications are subject to change without notice.

Company Profile

The company was established with the objective of providing technologies aimed at solving customer challenges, yet at affordable prices. Technological innovation is our core strength drawn from the immense engineering expertise of the founders of the company. A truly global company, with principal office in the USA and associate offices in India and Taiwan, we proudly bear the pioneering American spirit of enterprise in providing our products and solutions to the world. PetStor is a purpose designed storage array for archiving video and preferred by customers in the Media-Entertainment and Video Surveillance industries. Our product offering include EpsiServ Video Storage Server, MegaServ for Big Data Analysis and for Hyper-Converged Infrastructure. We have also recently launched our all-flash storage. Innovation continues....