Oceanspace S6800T Storage System

Huawei Symantec

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Huawei Symantec's enterprise storage systems Oceanspace S6800T is new generation of enterprise high end storage products. Based on powerful hardware specification, it consolidates multiple industry leading technologies including TurboModule that provides the ability of high density and hot swap I/O modules, and TurboBoost that provides triple performance boost, and energy saving technologies that provides three kinds of power saving technologies. The S6800T products can meet the requirements of large scale database including OLTP/OLAP, HPC, digital media, internet service providers, backup, disaster recovery, data migration and other scenarios.

Product Features

High Performance and Scalability

- **Industry Leading Hardware:** Equipped with 64bit multicore processors and high capacity data caches, maximum of 36GB/s internal bandwidth, supporting 6Gb SAS 2.0 back-end ports, totally eliminating hardware bottleneck
- **Disk Chose on Demand:** FC/SAS/SATA/SSD
- **Optimal Scalability & Flexibility:** Up to 12 I/O modules or 48 I/O ports(including both frontend and backend ports), supporting 4/8Gb FC, 1/10GbE and 6Gb SAS2.0 ports. Self developed TurboModule technologies can significantly increase the density of I/O modules and ports in a single enclosure, and provide a flexible number proportioning and slots layout of front-end and back-end I/O modules, significantly reducing maintenance cost
- **TurboBoost Technology:** Performance boosting empowered by high performance hardware components of latest technologies; SmartCache monitors hotspot data and cache them to SSD automatically, achieving several times of performance boosting; Further boosting the performance by using the all SSD RAID group configuration to increase the performance to an ultra high level. With these three level performance boosting mechanisms, users can upgrade the system performance on demand, lowering the TCO

High Reliability & Availability

- **TurboModule Technology:** TurboModule technology provides the ability to swap Controller, I/O, Disk, Fan, Power supply ,Battery modules without powering off the controllers, totally transparent to hosts. Supporting online expansion and maintenance
- **Cache Data Protection:** The internal battery modules ensure that data in the cache is written to the coffer in case of a power failure, increasing overall reliability
- **Disk Pre-copy Technology:** Faulty disks are detected in advance and data on the faulty disks is migrated to normal disks to avoid the raid reconstruction and extend disk life
- **Bad Sector Repair:** Repair bad sectors with best effort, reducing the disk failure rate
- **Rich Data Protection Technologies:** HyperImage provides snapshots, HyperCopy provides heterogeneous LUN copy and HyperMirror provides synchronous and asynchronous remote replication

Efficient, Flexible, Easy

- **Unified IO Modules:** All the products use the same series IO modules, which reduces TCO
- **Enclosure with 24 Disk Slots:** 2U/4U high density disk enclosure(24 disks per enclosure), holding 12 2.5 inch disks in average 1U, reducing the expansion cost by 60% compared to low density enclosures
- **Friendly Management and Maintenance:** Using ISM for management, only 5 steps needed for initial configuration. supporting alarm through sound, light, texting or mail, supporting online upgrading firmware

Green

- **Disk Spin Down:** Based on RAID group workload, the system can spin down the disks in a specified RAID group, reducing power costs by 40%
- **Intelligent 16-step Fan Speed Tuning:** Based on the current system temperature, the system can adjust the fan speed to reduce power costs and noises
- **Intelligent CPU Speed Adjusting:** Based on system workload, the system can adjust the CPU speed and reducing power costs

Technical Specifications

Model	S6800T
Hardware Specifications	
Storage Processor	64bit multicore processor
Number of controllers	2
Cache Capacity	48GB/96GB/192GB
Frontend port type	8Gb FC and 1/10GE(iSCSI)
Backend port type	4Gb FC or SAS2.0 wide port
Onboard IO port	None
Maximum IO modules	12
Maximum disks	1440
Supported disk types	SSD/SAS/SATA/FC
Software Features	
Supported Raid types	0,1,3,5,6,10,50
Host quantity	1024
Lun quantity	4096
Snapshot quantity	2048
TurboBoost	Supported
TurboModule	Supported
Functions	HyperImage(snapshot), HyperCopy(Lun copy), HyperMirro(remote replication), HostAgent(host side application aware snapshot and replication managing module), UltraPath(Multipath software), DiskGuard(host side volume protection), SmartCache(SSD cache technology in TurboBoost)
OS	AIX/HP-UX/Solaris/Linux/Windows
Physical Specifications	
Size	Control Enclosure(H*W*D): 502mm*446mm*175mm
	2U Disk enclosure(height x width x depth): 412mm × 446mm × 86.1mm 4U Disk enclosure(height x width x depth): 412mm × 446mm × 175mm
Weigh	Control Enclosure≤43.6kg
	2U SAS Disk enclosure≤14.9kg 4U SAS Disk enclosure≤25.2kg 4U FC Disk enclosure≤24.9kg
Power Supply	AC: 100V ～ 127V or 200V ～ 240V DC: -48V ～ -60V
Electrical power kva	Control Enclosure ≤830W(without disks) 2U disk enclosure(with 24 300GB SAS): 300W 4U disk enclosures (with 24 600GB SAS): 550W