PAC Storage All Flash

NEXT GENERATION & GENERATION 1
DATA STORAGE

PAC Storage All Flash Next Generation and Generation 1 series forms the backbone of high performance solutions for enterprises with its powerful performance, flexibility, and high expandability to efficiently boost overall productivity. These arrays can handle large amounts of I/O and file transfers even under high workloads, and are especially suitable for hybrid environments adopting SAN, NAS, and Cloud integration. It is perfect for those who want performance, capacity, and a high port count while at the same time achieving competitve pricing.

APPLICATIONS

Media & Entertainment	Virtualization	Database	Surveillance	Backup	Exchange
Tiger Technology	vmware	ORACLE DATABASE	milestone	VERITAS	Exchange Server
AUTODESK Flame Certified	CITRIX	SQL Server	Genetec	veeam	Exchange
AJA VIDEO SYSTEMS	Microsoft Hyper-V		File Server	COMMVAULT	Hybrid Cloud

KEY FEATURES

- Enterprise-Class Unified Systems

- Integrated SAN/NAS with Cloud Gateway Option

- Dual Active-Active Controllers

- Scalable to 896 SSD enterprise drives

- Dual Active-Active Controllers

- High Availability & IDR

- No Single Point of Failure

- Centralized GUI Firmware with remote replication, SSD caching, Auto Tiering, Snap Shot, Thin Provisioning, Build in Cloud Gateway

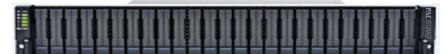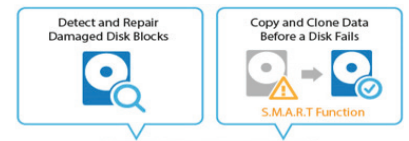- 3 Year Warranty and Support included and up to 10 years

Symmetric active-active controllers

PAC Storage All Flash Next Generation offers symmetric active-active controllers for performance and high availability. Hosts can access the same LUNs simultaneously via both controllers. I/O are more equally distributed across both controllers and all paths, effectively minimizing costly path management time. In the event of a path failure, I/O can automatically continue through the remaining paths with little or no failover.

Comprehensive Data Protection and Security

PAC Storage All Flash Next Generation series ensures that risk is minimal with its integrated backup functions such as Intelligent Drive Recovery (IDR), snapshot, local replication, remote replication, and file-level rsync.

Detect and Repair Damaged Disk Blocks

Copy and Clone Data Before a Disk Fails

S.M.A.R.T Function

RAID 6 Protection

Purpose Built with SSD Optimization

The PAC All Flash extends SSD lifespan, lowers latency and raises performance. The SSD optimization allows less data is to be re-written and more free space is available giving higher throughput as the drive runs faster. The remaining life of every SSD is recorded to help users estimate the number of years and months of SSD availability. An alert message is issued with the remaining SSD life reaches a user-defined threshold.

New:
900K IOPS

32Gb FC, 25GbE Connectivity

Up to 512GB Cache Memory

UP TO	**896 Drives, 13.4 PB**
UP TO	**12 Core Intel CPU**
UP TO	**512GB Cache Memory**
UP TO	**900K IOPS**
UP TO	**24 Host Ports**

PAC STORAGE

Email: sales@pacstorage.com
Phone: 949.360.1796

PAC Storage All Flash

PHYSICAL SPECIFICATIONS		All Flash 2000	All Flash 4000
Form Factor	2U 24-bay	v	
	2U 25-bay		v
Controller		Dual-redundant	
Max. SSD cache pool		3.2TB	
Cache backup techniques		Super capacitor+Flash module	
Power supply unit	Power supplies	Redundant / hot-swappable: 460W x 2 (80 PLUS Bronze)	(3000/4000): 530W x 2 (80 PLUS Bronze)
	(Redundant/hot-swappable)		1200W x 2 (80 PLUS Platinum)
	AC voltage (with PFC(auto-switching))	100VAC @ 8A to 240VAC @ 4A	(PS 3000/4000) 100VAC@10A to 240VAC@5A; 100-127VAC@12.47A, 200-240VAC@7.08A
	Frequency	50-60 Hz	47-63Hz
CPU		2x Intel Broadwell-DE (Pentium) GS 2000/GS 2000T: 2 Core/4 Core	2x Intel® Xeon® 8-Core
Cache memory		16GB upgradeable to 128GB	32GB upgradeable to 512GB
Max. host board number		4	4
Onboard SAS expansion ports		2 x 12Gb/s SAS wide ports	4 x 12Gb/s SAS wide ports
Expansion board		2	2
Onboard ports (10GbE SFP+)			8
Onboard ports (1Gb RJ-45)		8	
Host board ports (per controller)		4 x 16Gb/s FC ports	4 x 16Gb/s FC ports
		4 x 1Gb/s iSCSI ports	2 x 32Gb/s FC ports
		2 x 10Gb/s iSCSI ports (SFP+)	2 x 10GbE ports (SFP+)
		2 x 10GbE ports (RJ-45)	2 x 10GbE ports (RJ-45)
		2 x 25GbE ports (SFP28)	2 x 25GbE ports (SFP28)
		2 x 40 Gb/s iSCSI ports (QSFP)	2 x 12Gb/s SAS ports
		2 x 56Gb/s InfiniBand ports	
		2 x 12 Gb/s SAS ports	
		Note: 1. The two controllers must have identical slot settings. 2. Fiber Channel supports point-to-point and switch mode.	
Host board + onboard ports (max.)		24	24
Max. 8Gb/s FC ports		16	32
Max. 16Gb/s FC ports		16	16
Max. 1 GbE/iSCSI ports		24	16
Max. 10 GbE ports (SFP+)		16	16
Max. 10 GbE ports (RJ-45)		8	8
Max. 25 GbE ports (SFP28)		8	8
Max. 32 Gb/s FC ports			8
Max. 12Gb/s SAS ports		8	8
Max. logical drives number		32	
Max. logical drives capacity		512 TB	
Configurable stripe size		16KB, 32KB, 64KB, 128KB, 256KB, 512KB, or 1024KB per logical drive	
Configurable writes policy		Write-Back or Write-Through per logical drive. This policy can be modified.	
Max. pool size		2PB	
Max. pool number		32	
Max. volume size		2PB	
Max. volume number (per pool/per system)		1024	
Max. host LUN mapping number		4000	
Max. reserved tag number per host-LUN connection		Up to 256	
Max. Initiators (per controller)		832	
Max. host connection number (per FC)		128	
File Level	Max. file system size	2PB	
	Max. number of user accounts	20000	
	Max. number of user groups	512	
	Max. number of folder sharing	2048 (NFS/CIFS/FTP)	255 (AFP)	
	Max. number of rsync jobs	1024	
	Max. number of rsync concurrent processes	64	
	Max. number of concurrent connections (NFS/CIFS/AFP/FTP)	• 16 GB memory: 200 • 32 GB memory: 512; • 64 GB memory: 1024 • 128 GB memory: 2048	
RAID Options		RAID 0, 1, 3, 5, 6, 10, 30, 50, 60	
Protocol Support		File Level Protocol: CIFS/ SMB: Version 2.0/3.0, NFS: Version 2/3/4, AFP, FTP, FXP, WebDAV; Block Level Protocol : FC, FCoE, iSCSI, SAS, InfiniBand	
PS Cloud Gateway		Support the integration with following cloud providers: Amazon S3, Microsoft Azure, Alibaba AliCloud, OpenStack, Baidu Cloud, Tencent Cloud and Google Cloud	

PHYSICAL SPECIFICATIONS			
All Flash Series		2000 All Flash	4000 All Flash
Form factor		2U 24-bay	2U 25-bay
Supported drives		2.5" SSD	
Max. drives number		896(with expansion board)	
Rack Support		2U, 19-inch rackmount	2U, 19-inch rackmount
Dimensions (without chassis ears/protrusions)		447(W) x 88(H) x 500(D) mm	447(W) x 88(H) x 500(D) mm

SOFTWARE SPECIFICATIONS			
Self-encrypting drives		Unique factory encryption secures data plus makes deletion simple and complete	
Thin Provisioning (default included)		"Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space	
Local Replication	Snapshot	Snapshot images per source volume	Standard License: 64 / Advanced License: 256
		Snapshot images per pool	Standard License: 128 / Advanced License: 4096
	Volume Copy/Mirror	Replication pairs per source volume	Standard License: 4 / Advanced License: 8
		Replication pairs per system	Standard License: 16 / Advanced License: 256
Remote Replication(Block level)(optional)		Replication pairs per source volume: 8; Replication pairs per system: 64; Note: The maximum number of replication pair per source volume is up to 8, regardless of remote asynchronous/remote synchronous/local volume pairs.	
Remote Replication(File Level)		Support Rsync with 128-bit SSH encryption	
Automated Storage Tiering(optional)		2 or 4 storage tiers based on drive types; SSD supports; Automated data migration with scheduling options	
SSD Cache(optional)		• Accelerating data access for random read-intensive environments, such as OLTP; • Supports up to four SSDs per controller; • Recommended DIMM capacity for SSD Cache pool: DRAM:8GB — Max SSD Cache Pool Size: 400GB; DRAM:16GB — Max SSD Cache Pool Size: 800GB; DRAM:32GB — Max SSD Cache Pool Size: 1,600GB; DRAM:64GB — Max SSD Cache Pool Size: 3,200GB; DRAM:128GB — Max SSD Cache Pool Size: 3,200GB; DRAM:256GB — Max SSD Cache Pool Size: 3,200GB	
PAC Cloud Gateway	File- level	Cache Mode: A copy of frequently accessed file is kept on a local storage and all files are also uploaded to cloud; Sync Mode: Synchronizing files between local storage and cloud.	
	Block- level	Cache Mode: A copy of frequently accessed data is kept on a local storage and all data are also flushed to cloud; Backup Mode: All data are kept on local storage and all data are also flushed to cloud; Tiering Mode: Frequently accessed data is kept on local storage and infrequently accessed data is migrated to cloud	