

# PAC Storage PS Family Product Line 2025 SAN & NAS Enterprise Data Storage

## PS Features:

### High Performance and Scalability

- Massive sequential throughput of up to 45GB/s read, 20GB/s write per appliance
- Scalable up to 896 Drives with recommended up to 4 expansion JBODs for best performance and capacity
- Up to 240TB Read Write Cache Option with up to Qty 8 SSDs per controller on all form factors or NVMe Cache Options on the 40/60/90 bay models

### Easy to Use and Manage

- Single namespace for easier data access
- Auto-balancing to reduce the burden of storage management for IT staff

### High-Density Design

- Reduce hardware footprint with 4U 40/60/90 bay models

### Lower Total Cost of Ownership

- Maximize budgets by using a few NVMe drives for cache to reach near all-flash system performance, in both SAN and NAS environments

### Nondisruptive Operations

- High Availability with 5 9 s uptime ensures non-stop operations with a near-zero RTO (recovery time objective)

*PAC Storage PS Product Line 2025 brings new 5000 hardware along with enhanced software features. This new combination offers the ultimate of high-performance solutions for enterprises with its unprecedented advantages in performance, flexibility, and high expandability. Supporting hybrid environments that integrate SAN, NAS, and cloud services, the PS series includes a wide range of models and connectivity options. The systems master requirements from performance-hungry application needs, general enterprise workloads and storage solutions requiring high-density hardware design.*

**High Performance** The PS Product Line provides high throughput to handle large amounts of I/O and file transfers, even under heavy workloads. The G3 models, which feature high-speed transmission interfaces and protocols, deliver up to 45GB/s read, 20GB/s write throughput on a single appliance.

**Simple IT Management** Users can access shared folders in a single root directory under a single namespace, without having to worry about where the data is stored. Auto-balancing is also supported to achieve load balancing, which relieves the burden of manual planning and configuration for IT personnel.

**Complete Data Protection and Backup** PAC Storage's unique RAID technology manages your data to keep it intact in the event of a drive or system failure. With the flexibility of snapshot, you can back up locally by schedule on the PS storage system and revert to a previous version when needed. Remote replication is also available to backup to a remote PS system or to a cloud account utilizing the cloud gateway feature. The object storage function can be used to safeguard against ransomware attacks in conjunction with WORM technology. PS storage systems also offer encrypted drives as an option.

**Symmetric Active-Active Controllers** PAC Storage PS Family 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.

# PHYSICAL SPECIFICATIONS

Product Series		PS 3000 G3	PS 4000 G3	PS 5000
Form Factor	2U 12-bay	PS 3012R3/S3	PS 4012R3/S3	
	3U 16-bay	PS 3016R3/S3	PS 4016R3/S3	
	4U 24-bay	PS 3024R3/S3	PS 4024R3/S3	
	4U 40-bay	PS 3040R3/S3 PS 3040R3C/S3C	PS 4040R3/S3 PS 4040R3C/S3C	
	4U 60-bay	PS 3060R3/S3 PS3060R3C/S3C	PS 4060R3/S3 PS 4060R3C/S3C	
	4U 90-bay	PS 3090R3/S3 PS 3090R3C/S3C	PS 4090R3/S3 PS 4090R3C/S3C	PS 5090R3/S3 PS 5090R3C/S3C
Note: R: Dual redundant controllers S: Single upgradeable to dual redundant controllers 3: G3 C: NVMe cache				
Controller	Dual redundant or single upgradeable to dual redundant			
Cache Backup Technology	Super capacitor + flash module			
CPU	Intel® Xeon® D 4-Core	Intel® Xeon® D 6-Core	Intel® Xeon® Scalable 12-Core	
Cache Memory	Single Controller	<ul style="list-style-type: none"> <li>2U 12-bay/3U 16-bay/4U 24-bay: Default DDR4 8GB, up to 192GB</li> <li>4U 40-bay/4U 60-bay: Default DDR4 12GB, up to 192GB</li> <li>4U 90-bay: Default DDR4 16GB, up to 192GB</li> </ul>		<ul style="list-style-type: none"> <li>4U 90-bay: Default DDR5 64GB, up to 512GB</li> </ul>
	Redundant Controller	<ul style="list-style-type: none"> <li>2U 12-bay/3U 16-bay/4U 24-bay: Default DDR4 8GB, up to 192GB</li> <li>4U 40-bay/4U 60-bay: Default DDR4 12GB, up to 192GB</li> <li>4U 90-bay: Default DDR4 16GB, up to 192GB</li> </ul>		<ul style="list-style-type: none"> <li>Default DDR5 128GB, up to 1024GB</li> </ul>
Supported Drives	<ul style="list-style-type: none"> <li>2.5" SAS SSD</li> <li>2.5" 12Gb/s SAS 10,000 RPM HDD</li> <li>3.5" 12Gb/s NL-SAS 7,200 RPM HDD</li> <li>2.5" SATA SSD, 3.5" 6Gb/s SATA 7,200 RPM HDD (for single-controller models only)</li> <li>2.5" NVMe SSD (for SSD cache models; must be purchased from PAC Storage)</li> </ul>			
Note: For the latest compatibility details, refer to our official website for the latest Compatibility Guide.				
Max. Drive Number	Via Expansion Enclosures, per Appliance	896		
	Via Scale-out with Other Series of Appliances, per Cluster	3584		
Max. SSD Cache Pool (Block-level)	4TB			
Onboard 25GbE Ports (SFP28)	4	0		
Onboard SAS Expansion Ports	4			
Max. Host Board Slots	4			
Host Board Options	<ul style="list-style-type: none"> <li>16Gb/s FC x 4</li> <li>32Gb/s FC x 2</li> <li>32Gb/s FC x 4</li> <li>10GbE (SFP+) x 2</li> <li>25GbE (SFP28) x 2</li> <li>25GbE (SFP28) x 4</li> <li>12Gb/s SAS x 2</li> <li>100GbE (QSFP28) x 1, RDMA (for 40-bay/60-bay/90-bay models only)</li> <li>100GbE (QSFP28) x 2, RDMA (for 40-bay/60-bay/90-bay models only)</li> <li>5000 HBAs: 32Gb/s FC x 4, 25GbE (SFP28) x 2 or 4, 100GbE (QSFP56) x1 or 2, RDMA</li> <li>200GbE (QSFP56) x 1, RDMA</li> </ul>			
Note: 1. One 100GbE x 2 host board delivers a maximum throughput of 100Gb/s. 2. At least 24GB of memory is required per controller to use 100GbE RDMA. 3. It is strongly recommended that you refer to the latest Host Board and Memory Guide on our website for complete information, including supported combinations and important notes, before purchasing any host board for your model.				
Max. 16Gb/s FC Ports	16			0
Max. 32Gb/s FC Ports	16			16
Max. 10GbE Ports (SFP+)	8			0
Max. 25GbE Ports (SFP28)	16			16
Max. 12Gb/s SAS Ports	8			8
Expansion Enclosures (JBODs)	JB 3012A, JB 3016A, JB 3060L, JB 3090			
Dimensions (Without Chassis Ears and Protrusions) (W x H x D)	<ul style="list-style-type: none"> <li>2U 12-bay: 449 x 88 x 509.8 mm</li> <li>3U 16-bay: 449 x 130 x 509.8 mm</li> <li>4U 24-bay: 449 x 174.6 x 509.8 mm</li> <li>4U 40-bay: 443.2 x 176 x 735.8 mm</li> <li>4U 60-bay: 443.2 x 176 x 849.8 mm</li> <li>4U 90-bay: 435 x 176 x 1088.8 mm</li> <li>5000 90-bay: 435x175.8x1063mm</li> </ul>			
Package Dimensions (W x H x D)	<ul style="list-style-type: none"> <li>2U 12-bay: 780 x 379 x 588 mm</li> <li>3U 16-bay: 780 x 423 x 588 mm</li> <li>4U 24-bay: 780 x 465 x 588 mm</li> <li>4U 40-bay: 625 x 460 x 1032 mm</li> <li>4U 60-bay: 620 x 460 x 1140 mm</li> <li>4U 90-bay: 620 x 585x 1370 mm</li> </ul>			
Power Supply Unit	Power Supplies (Redundant and Hot-swappable)	Global	EU	
		<ul style="list-style-type: none"> <li>2U 12-bay/3U 16-bay/4U 24-bay: 530W x 2 (80 PLUS Bronze)</li> <li>4U 40-bay/60-bay: 1200W x 2 (80 PLUS Platinum)</li> <li>4U 90-bay: 1600W x 2 (80 PLUS Titanium)</li> </ul>	<ul style="list-style-type: none"> <li>2U 12-bay/3U 16-bay/4U 24-bay: 800W x 2 (80 PLUS Titanium)</li> <li>4U 40-bay/60-bay: 1300W x 2 (80 PLUS Platinum)</li> <li>4U 90-bay: 1600W x 2 (80 PLUS Titanium)</li> </ul>	
AC Voltage	Frequency	Global	EU	
		<ul style="list-style-type: none"> <li>2U 12-bay/3U 16-bay/4U 24-bay: 100-240VAC @10-5A</li> <li>4U 40-bay/60-bay: 100-127VAC @10A, 200-240VAC @8A</li> <li>4U 90-bay: 100-127VAC @12A, 200-240VAC @10A</li> <li>5000 90-bay: 13.5A-16</li> </ul>	<ul style="list-style-type: none"> <li>2U 12-bay/3U 16-bay/4U 24-bay: 100-127VAC @10A, 200-240VAC @5A</li> <li>4U 40-bay/60-bay: 100-127VAC @10A, 200-240VAC @8.5A</li> <li>4U 90-bay: 100-127VAC @12A, 200-240VAC @10A, 5000 90-bay 13.5A-16.0</li> </ul>	
Safety Standards	<ul style="list-style-type: none"> <li>Electromagnetic Compatibility: CE, BSMI, FCC</li> </ul>		<ul style="list-style-type: none"> <li>Safety: UL, BSMI, CB</li> </ul>	

## SOFTWARE SPECIFICATIONS

Max. Logical Drive Number	30	
Max. Logical Drive Capacity	512TB	
Stripe Size	16 B, 32 B, 64 B, 128 B, 256 B, 512 B, or 1024 B (per logical drive)	
Write Policy	Write-Back or write-through per logical drive.	
Max. Pool Size	2PB	
Max. Pool Number	30	
Max. Volume Size	2PB	
Max. Volume Number	1024	
Max. Host LUN Mapping Number	4096	
Max. Reserved Tag Number	256 (per Host-LUN connection)	
Max. iSCSI Initiators	416 (per controller)	
Max. Host Connection Number	128 (per FC)	
RAID Options	RAID 0, RAID 1, RAID 3, RAID 5/5F, RAID 6/6F, RAID 10, RAID 30, RAID 50, RAID 60	
Supported Protocols	File Level	CIFS/SMB (Version 2.0/3.0), NFS (Version 2/3/4), AFP (Version 3.1.12), FTP/FXP (vsftpd 2.3.4), WebDAV (httpd package 2.4.6)
	Block Level	FC, iSCSI, SAS
	Object Level	RESTful API
File Level	Max. File System Size	2PB
	Max. Number of User Accounts	20000
	Max. Number of User Groups	512
	Max. Number of Shared Folder	2048 (NFS/CIFS/FTP) 255 (AFP)
	Max. Number of Rsync Jobs	1024
	Max. Number of Concurrent Rsync Processes	64
	Max. Number of Connections	2048 (NFS/CIFS/AFP) 1024 (FTP)
Management	<ul style="list-style-type: none"> <li>• Web-based EonOne management software</li> <li>• User account management</li> <li>• Group management</li> <li>• Folder management - folder access control</li> <li>• Quota management</li> <li>• Folder encryption with AES</li> </ul>	<ul style="list-style-type: none"> <li>• Integration with Microsoft Active Directory (AD) and Linux LDAP</li> <li>• Storage Resource Management to analyze history of resource usage</li> <li>• Multi-factor authentication login mechanism</li> <li>• File-level QoS (network traffic control)</li> <li>• SMI-S standard interface for hypervisor management applications</li> </ul>
Availability and Reliability	<ul style="list-style-type: none"> <li>• Immutable object storage</li> <li>• Hot-swappable hardware modules</li> <li>• Device mapper</li> <li>• Antivirus</li> <li>• Trunk group</li> </ul>	<ul style="list-style-type: none"> <li>• Cache safe technology</li> <li>• UPS</li> <li>• WORM (file level only)</li> <li>• SMB Multichannel</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>• Inline compression</li> </ul>	<ul style="list-style-type: none"> <li>• Offline deduplication</li> </ul>
Notification	<ul style="list-style-type: none"> <li>• Email</li> </ul>	<ul style="list-style-type: none"> <li>• SNMP traps</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Anti-virus</li> <li>• Backup Server</li> <li>• Docker</li> <li>• LDAP Server</li> <li>• Mail Server</li> <li>• Nextcloud</li> </ul>	<ul style="list-style-type: none"> <li>• Project Server</li> <li>• Proxy Server</li> <li>• Syslog Server</li> <li>• VPN Server</li> <li>• Web Server</li> </ul>
Supported Cloud Services	Cloud Gateway supports integration with the following cloud providers: Amazon S3, Microsoft Azure, Alibaba Cloud, OpenStack, Baidu Cloud, Google Cloud, Tencent Cloud, Wasabi Cloud, etc.	
Supported OS	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise, Sun Solaris, Mac OS X, VMware, Citrix XenServer, OpenStack Cinder.	
	Note: For supported OS versions, please refer to the Compatibility Guide.	

## DATA SERVICES

Thin Provisioning	Block Level	Default	"Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space.		
Local Replication	Snapshot	File Level	Optional Snapshot images per folder: 1024		
		Block Level	Default	Snapshot images per source volume: 64	Snapshot images per pool: 128
	Optional		Snapshot images per source volume: 256	Snapshot images per pool: 4096	
	Volume Copy/Mirror	Default	Replication pairs per source volume: 4	Replication pairs per system: 16	
		Optional	Replication pairs per source volume: 8	Replication pairs per system: 256	
Remote Replication	File Level	Default	Support Rsync with 128-bit SSH encryption		
	Block Level	Optional	Replication pairs per source volume: 8      Replication pairs per system: 64		
Note: The maximum number of replication pairs per source volume is 8, whether they are remote asynchronous pairs, remote synchronous pairs, or local volume pairs.					
Automated Storage Tiering		Optional	Storage tiers per pool: 4		
Scale-out	File Level	Default	Appliances per cluster: 1		
		Optional	Appliances per cluster: 4		
	Block Level	Default	Appliances per cluster: 4		
HA Service	File Level	Optional	Delivering continuous availability and eliminating downtime for mission-critical workloads that require non-stop operations		
SSD Cache	File Level	Optional	Accelerating file operations and data access performance for both read and write Max. SSD number per controller: 8		
			Accelerating data access for random read-intensive environments (e.g. OLTP) Max. SSD number per controller: 4		
	Block Level	Optional	Recommended DIMM capacity per controller for SSD Cache pool		
			DRAM:8GB	Max SSD Cache Pool Size: 0.5TB	
			DRAM:12GB	Max SSD Cache Pool Size: 0.75TB	
			DRAM:16GB	Max SSD Cache Pool Size: 1TB	
			DRAM:24GB	Max SSD Cache Pool Size: 1.5TB	
			DRAM:32GB	Max SSD Cache Pool Size: 2TB	
			DRAM:48GB	Max SSD Cache Pool Size: 3TB	
DRAM:64GB and up	Max SSD Cache Pool Size: 4TB				

## WARRANTY AND SERVICE

Service and Support	3-year hardware warranty upgradeable to 10 years
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