ZENSTOR

Smart Storage System



Zenstor advanced storage array is a petabyte-scale, rack- mounted block storage enclosure with self-healing technology, advanced data protection, and software value delivering super efficient mass-capacity storage for conventional data centres and cloud infrastructure.

Product Highlights

- Self-healing storage technology, ADAPT and ADR
- Deliver unfettered data access with dual redundant controllers capable of achieving superior sequential read and write performance
- Expand a data centre seamlessly with flexible SSD, HDD, and hybrid configuration options
- Efficiently manage hot and cold data with real-time data tiering
- Save space and maximise capacity by stacking 10 Enclosures for 120 drives of data storage

Key Advantages

Reliable and Self-healing Zenvault features self-healing storage technology, Advanced Distributed Autonomic Protection Technology (ADAPT) and Autonomous Drive Regeneration (ADR). Field-proven design with five nines (99.999%) availability. AXL ADAPT erasure code data protection software dramatically reduces array rebuild overhead. Unique AXL ADR reduces human intervention and e-waste by automatically renewing hard drives "in situ" and on the fly.

Built for speed and resilience. Up to 2 times the performance of the previous generation with redundant active-active controllers powered by the ASIC-based VelosCT controller architecture. Streamline your overhead, with improved throughput, management and recovery.

Easy to Set Up, Maintain, and ExpandAll system components — the enclosure, the controller, the firmware, and the drives — are developed and optimised by our engineers to work together seamlessly. The modular architecture makes components interchangeable between systems, and upgrades are simple due to common FRUs, PCMs, controllers and software.

Gain and Scale Capacity with Consistent High Performance. The Zenvault enables even the smallest business with maximum speed and throughput. Additionally, businesses can expand the system as data requirements grow, with 12 drive slots of storage capacity in a 2U rackmount enclosure. Connect up to ten 2U12 enclosures together for a total of 120 drive slots.

Build In Security at the Foundation of the Data Life Cycle. Protect the most valuable business assets with AXL data security features and intelligent firmware — such as SFTP, SED support, and administrator access controls — that provide built-in measures for reliable and safe file access, transfer and management.

BIS CERTIFIED

Specifications

Specifications	
Controller Model	4006 VELOSCT (2 per enclosure)
Controller Performance	Up to 12 GB/s read throughput, 10 GB/s write throughput, 725K IOPS (Random Read)
Advanced Software Features	Auto-Tiering, Snapshots, Asynchronous Replication
Base Array Software Features	Virtual pools, Thin provisioning, ADAPT, SSD read cache, Encryption
High-Availability Features	Redundant hot-swap controllers, Redundant hot-swap drives, fans, power, Dual power cords, Hot standby spare, Automatic failover, Multi-path support
Device (Drive) Support	SAS HDD, NL-SAS HDD, SAS SSD (2.5 or 3.5 Form Factors)
Data Protection	ADAPT and RAID levels supported: 0, 1, 5, 6, 10
Self Healing Technology	Autonomous Drive Regeneration (ADR)
System Maximum Expansion	2U12 Arrays, Up to 12 drives per enclosure, 10 enclosures maximum including the master, totalling 120 Drives 2U24 Arrays, Up to 24 drives per enclosure, 10 enclosures maximum including the master, totalling 240 Drives 5U84 Arrays, Up to 84 drives per enclosure, 4 enclosures maximum including the master, totalling 336 Drives
Physical	2U: Height: 87.9 mm/3.46 in, Width: 443 mm/17.44 in, Depth: 630 mm/24.8 in, Width w/ear mounts: 483 mm/19.01 in, Weight: 17 kg/38 lb, Weight (with drives): 30 kg/66 lb
Hosts	
External Ports	4 per Controller, 8 per System
Fibre Channel Models	Host speed: 32/16 Gb/s Fibre Channel, Interface type: SFP+/SFP28
iSCSI Models	Host speed: 10 Gb/s, 25 Gb/s iSCSI, Interface type: SFP+/SFP28
Ethernet Models	10GBASE-T (auto-negotiation to 1Gb)
SAS Models	Host speed: 12 Gb/s, 6 Gb/s SAS, Interface type: HD Mini-SAS
System Configuration	
System Memory	48 GB per system
Volumes per System	1,024
Cache	Mirrored cache, Supercapacitor cache backup, Cache backup to flash – non-volatile
Management	
Interface Types	10/100/1000 Ethernet, Micro USB
Protocols Supported	SNMP, SSL, SSH, SMTP, HTTP(S), Redfish
Management Consoles	Web GUI, CLI
Management Software	Systems storage management console, Remote diagnostics, Non-disruptive updates, Volume expansion
Power Requirements — AC Input	
Input Power Requirements	100 VAC-240 VAC, 50 Hz/60 Hz
Max Power Output per PSU	580W
Environmental/Temperature Ranges	
Operating/Nonoperating Temperature	ASHRAE A2, 5°C to 35°C (41°F to 95°F), derate 1°C / 300m above 900m, 20°C / hr max rate of change / –40°C to 70°C (–40°F to 158°F)
Operating/Nonoperating Humidity	–12°C DP and 8% RH to 21°C DP and 80% RH, max DP 21°C / 5% to 100% non-condensing
Operating/Nonoperating Shock	5 Gs, 11 ms, half sine pulses/15 Gs, 7 ms, half sine pulses
Operating/Nonoperating Vibration	0.18 Gs rms 6 Hz to 500 Hz random / 0.5 (Z-axis) and 0.25 (X&Y-axis) Gs rms 6 Hz to 200 Hz random
Standards/Approvals	
Standard Marks/Approvals	United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, Germany, South Korea, Taiwan, India
Safety Certifications	UL 62368-1 | CAN/CSA-C22.2 No.62368-1- 19 | CE to EN 62368-1 | CB IEC 62368-1 | Power Supplies CCC & BIS
Emissions (EMC)	FCC CFR 47 Part 15 Subpart B Class A | ICES/NMB-003 Class A | EN 55032:2015 Class A |AS/NZS CISPR 22/CISPR 32 Class A | VCCI Class A | KN 32/KN 35 Class A | CNS 15936 Class A
Harmonics & Flicker	EN 61000-3-2 | EN 61000-3-3
Immunity	EN 55032 | KN 32/KN 35
Environmental Standards	The RoHS Directive (2011/65/EU) | The WEEE Directive (2012/19/EU) | The REACH Directive (EC) No. 1907/2006 and WFD Directive (EU) 2018/815
Power Supply Units	
Power Supply	Ecodesign (Part SP-PCM01-HE580-AC/Model FS580FS104G-XX) – Gold Power Efficiency: 115 VAC/60 Hz 10% Load = >80%; 20% Load = >87%; 50% Load = >90%; 100% Load =>87%; Power Efficiency: 230 VAC/50 Hz 10% Load = >80%; 20% Load =>88%; 50% Load = >92%; 100% Load =>88% Power Factor Conditions (PFC): 10% Loading = N/A; 20% Loading = >0.90; 50% Loading = >0.90; 100% Loading = >0.95
Power Supply	Ecodesign (Part SP-PCM4-PT580-AC/Model SGT-S-0580ADU003) – Platinum Power Efficiency: 115 VAC/60 Hz 10% Load = >80%; 20% Load = >90%; 50% Load = >92%; 100% Load =>89%; Power Efficiency: 230 VAC/50 Hz 10% Load = >80%; 20% Load =>90%; 50% Load = >94%; 100% Load =>91% Power Factor Conditions (PFC): 10% Loading = N/A; 20% Loading = >0.90; 50% Loading = >0.95; 100% Loading = >0.95

Let **AXL** help guide you to the New Style of IT. **AXL** Services delivers confidence, reduces risk, and helps you realize greater agility and stability.

- Our Consulting services provide advice and guidance to safely move your workloads to newer technologies.
- AXL implementation and installation services enable faster, more reliable startup of your new **AXL** Storage systems, and our support portfolio allows you to get connected and get back to business fast.
- Our support technology lets you tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

© 2025 AXL INFOTECH. All rights reserved. Information is subject to change without notice. Warranties for AXL products and services are as stated in official documents. AXL is not liable for technical or editorial errors.

Trademarks: SAP, Microsoft, Windows, ENERGY STAR, Citrix, Intel, Intel Xeon, SD, and micro SD are trademarks of their respective owners.