



ActiveScale
P100 System

Highlights

- ▶ **Easy to Deploy:** Rack space, power and network connections are all that is needed
- ▶ **Easy to Scale:** Increase capacity with both scale-up and scale-out configurations
- ▶ **Extreme Data Durability:** Data protection with BitDynamics, BitSpread, versioning, and advanced erasure coding
- ▶ **System Availability:** Geo-spread system protects data without replication
- ▶ **Excellent TCO:** Low acquisition cost, power/TB, and operating costs
- ▶ **Management:** ActiveScale SM & CM manage your entire namespace for efficient petabyte-scale storage management

Applications/Environments



Media & Entertainment

- Production Media Archive
- On-premises S3 Media Target



Life Sciences and Health Care

- Genome data banks
- Medical imaging



Backup and Archive

- Tape consolidation
- Active data repository



Analytic Storage Tier

- Data lake repository



Cloud Service Providers

- Backup as a Service
- Storage as a Service

The ActiveScale™ P100 is a modular object storage system that allows you to scale out or geo-spread to 6PB, so you can easily keep up with data growth, storage management needs and deliver on business objectives. For large-scale data that requires long-term retention with easy and fast retrieval, the ActiveScale P100 is designed to facilitate a "Data Forever" architecture for investment protection and ease of operation.

Simple to Install and Use

For large-scale data, the ActiveScale P100 presents an Amazon S3™-compliant object interface that can easily integrate with existing S3-aware applications. Real-time system management is provided by ActiveScale SM which manages your entire namespace, not just one rack, and combined with ActiveScale CM cloud-based analytics which provides historical and predictive capabilities to better manage large-scale storage efficiently and effectively.

Simple Scalability

The ActiveScale P100 is based on a modular storage node architecture that starts with 720 terabytes (TB) of raw storage and scales up in increments of 720TB to over 2PB. Additionally, the system can scale out or geo-spread to over 6PB. Each system delivers up to 8GB/sec throughput for high productivity. Grow your system without re-balancing and avoid forklift upgrades with dynamic data placement. IT staff can easily add capacity and performance to keep up with high data growth rates, and manage it with ease.

Outstanding Availability and Durability

Advanced data availability and integrity are essential for a world-class cloud infrastructure. The ActiveScale P100 can be deployed in a 3-site configuration to geographically disperse data for extreme availability. Even with a data center outage, the 3-site configuration delivers continuous data availability for uninterrupted operations. Data durability comes from patented **BitSpread®** technology. In addition, **BitDynamics™** provides high data integrity using background verification and assurance. For ransomware attacks, object versioning provides the ability to quickly recover data to minimize impact. Finally, with the ActiveScale's strong consistency, in contrast with eventual consistency found in many other object storage systems, you don't have to worry about stale data impacting business decisions.

Changing the Economics of Storage

Through vertical integration and innovation, ActiveScale P100 delivers large-scale capacity and growth at less than a DIY cost for significant CAPEX savings. Utilizing our patented helium-filled hard drives, ActiveScale benefits from low power and significantly less cooling than traditional drives, providing a lower OPEX. Value is more than low TCO, you can increase the value of your data by utilizing the portfolio of solution partners available for ActiveScale.

ActiveScale™ P100 System

Specifications

	Base Configuration	Scale-Up Module	Standard (Base+2 Scale-up Modules)
Capacity¹			
Configuration capacity (raw/usable)	720TB	720TB	2.16PB
Maximum multi-part object size		50TB	
Software			
Operating system software	ActiveScale OS 5.x		
Management interfaces	Real-time System Management Console, CLI, RESTful API		
System analytics	ActiveScale CM, a cloud-based storage analytics service		
Security	Data encryption in flight SSL/TLS using AES-256, Data encryption at rest (AES-256)		
Data protection	BitSpread: Advanced Erasure Coding and Dynamic Data Placement		
SW/FW upgrades	Nondisruptive rolling upgrades		
Characteristics			
Performance	Client throughput performance up to 8GB/sec		
Data durability	Up to 17 nines (99.99999999999999%)		
Connectivity			
Protocols	RESTful S3		
Client connectivity	60Gbps/base (6x10Gb/sec)		
Physical Size²			
Rack space requirements (rack units)	12RU	6RU	24RU
Configuration weight (kg/lbs)	274 kg/605 lbs	191 kg/421 lbs	656 kg/1,447 lbs
Power			
Power consumption - typical/max (W)	1.85/2.03 KW	1.38/1.51 KW	4.61/5.08 KW
Power consumption - typical/max (KVA)	1.89/2.06 KVA	1.39/1.53 KVA	4.67/5.12 KVA
Power characteristics	208-240V, single-phase or three-phase with redundancy and intelligent power		
Environmental²			
Cooling	Redundant high efficiency fans		
Temperature range- operating	5°C to 35°C		
Temperature range- non-operating	-40°C to 65°C		
	8% to 90% (non-condensing)		
Compliance	FCC/ICES-003, CE, VCCI, CISPR 22, CISPR 24, KN22, KN24, EN60950-1 2nd edition, UL60950-1 2nd edition		
BTUs/hr (typical/max)	6.31/6.92 K BTU/h	4.70/5.15 K BTU/h	15.71/17.22 K BTU/h
Carbon footprint (max)	0.001 Metric Tons	0.001 Metric Tons	0.003 Metric Tons

¹ One MB is equal to one million bytes, one GB is equal to one billion bytes, one TB equals 1,000GB (one trillion bytes) and one PB equals 1,000TB when referring to storage capacity. Usable capacity will vary from the raw capacity due to object storage methodologies and other factors.

² Rack not included, customer must supply rack and PDU



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