



Highlights

- **Ready to Deploy:** Power and network connections are all that is needed
- **Easy to Scale:** Increase capacity in line with data growth by scale-up or scale-out
- **Extreme Data Durability:** Data protection with BitDynamics, BitSpread, versioning, and advanced erasure coding
- **System Availability:** Geo-spread system and local or AWS™ asynchronous replication to protect data
- **Excellent TCO:** Low acquisition cost, power/TB, and operating costs with high density
- **Management:** ActiveScale SM and CM manage your entire namespace for efficient petabyte-scale storage management

Applications/Environments



Finance

- Data lakes for analytics
- Fast recovery from outages



Media & Entertainment

- Production Media Archive
- On-premises S3 Media Target



Life Sciences and Health Care

- Genome data banks
- Bioimaging



Backup and Archive

- Tape consolidation
- Active data repository



Analytic Storage Tier

- Data lake repository

The ActiveScale™ X100 system is an integrated cloud object storage solution that allows you to scale-up from 1PB to 7PB (raw) and scale out to over 63PB (raw), so you can easily keep up with data growth and deliver on business objectives. For large-scale data that requires extreme data durability with easy and fast retrieval, the ActiveScale system is designed to facilitate "Data Forever" architecture for investment protection and ease of operation.

Simple to Install and Use

The ActiveScale X100 system addresses the challenges of a DIY approach by delivering an integrated system that can be up and running quickly. Each system is vertically integrated with software, networking, and hardware. Once installed the ActiveScale presents an Amazon S3™-compliant object interface. Management for large-scale storage requires real-time system tools like ActiveScale SM and a cloud-based storage analytics tool, ActiveScale CM for effective and efficient system monitoring.

Extreme Scalability

Start with the base configuration and as storage requirements grow, simply add scale up modules to increase capacity. Each rack delivers up to 8GB/sec throughput for high productivity and supports a performance option for even better performance. The ActiveScale X100 system also supports scale-out for up to nine racks delivering a raw capacity of over 63PB. Grow your system without re-balancing and avoid forklift upgrades with patented dynamic data placement.

Outstanding Availability and Durability

Outstanding system availability and data integrity are essential for a world-class infrastructure. The ActiveScale X100 system can be configured across three locations to disperse data for extreme availability with patented **BitSpread®** technology, which delivers continuous data availability with strong consistency. Even with a data center outage, the 3-site configuration delivers continuous data availability for uninterrupted operations at a lower price than traditional replicated system architectures. Where 3-site configurations are not appropriate, 2-site asynchronous replication is available as an eventual consistency option with replication to another ActiveScale system or in a hybrid cloud configuration with Amazon Web Services™. In addition, **BitDynamics™** provides high data integrity with data verification and self-healing performed in the background.

Changing the Economics of Storage

The ActiveScale X100 system's vertical integration and innovation delivers a complete solution at less than DIY cost for significant CAPEX savings. Utilizing our patented helium-filled hard drives, the ActiveScale system requires less power, significantly less cooling, providing a low OPEX. Increase the value of your data with some of the many solution partners available to ActiveScale. With Pay as You Grow utility pricing, IT staff no longer needs to buy ahead of consumption capacity, and can better match budget and capacity needs. The outstanding economics, simplicity of use and easy growth make the ActiveScale system a wise storage investment.

Specifications

	Base Configuration	Scale-Up Module	Standard Instance (base+6 scale-up modules)
Capacity¹			
Configuration capacity (raw/usable) 12TB HDDs	1,008TB/707-783TB	1,008TB/707-783TB	7.05PB/4.94-5.48PB
Maximum Namespace (raw/usable) 12TB HDDs		63.50PB/44.53-49.32PB	
Maximum number of objects	0.7B	0.7B	45B
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 19 nines (99.999999999999999%)		
Connectivity			
Protocols	RESTful S3		
Client connectivity	60Gbps/base (6x10Gb/sec)		
Physical size			
Rack dimensions (mm/in)	2060 × 600 × 1200 mm (81 × 23.6 × 52.6 in)		
Configuration weight (kg/lbs)	713 kg/1572 lbs		1010kg/2227 lbs
Power			
Power consumption – typical/max (W)	2.5/3.3 KW		6.4/7.4 KW
Power consumption – typical/max (KVA)	2.6/3.4 KVA		6.6/7.6 KVA
Power characteristics	208–240V, single-phase or three-phase with redundancy and intelligent power		
Environmental²			
Cooling	Redundant high efficiency fans		
Temperature range- operating (C, F)	10°C to 35°C (50°F to 95°F) derated 1°C per 300m over 950m altitude increase		
Temperature range- non-operating	-40°C to 66°C (-40°F to 151°F) derated 1°C per 300m over 3000m altitude increase		
Humidity-operating	20–85% relative humidity		
Compliance	FCC/ICES-003, CE, VCCI, CISPR 22, CISPR 24, KN22, KN24, EN60950-1 2nd edition, UL60950-1 2nd edition		
BTUs/hr (typical/max)	8.53/11.26 K BTU/h		21.83/25.25 K BTU/h
Carbon footprint	0.001 Metric Tons		0.003 Metric Tons

¹ One megabyte (MB) is equal to one million bytes, one gigabyte (GB) is equal to one billion bytes, one terabyte (TB) equals 1,000GB (one trillion bytes) and one petabyte (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 Environmental data shown is for the full configuration only

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