Seagate and Scality
Reference Architecture Data Sheet

Data Sheet

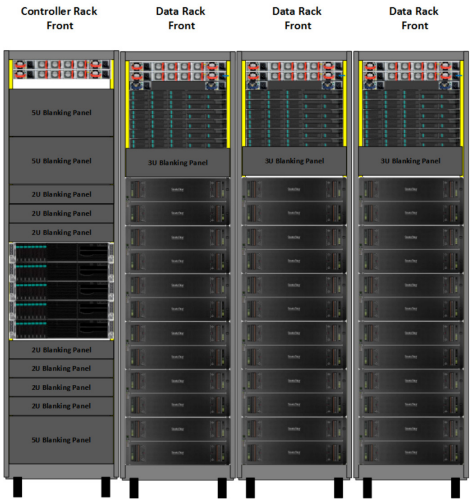
NEARLY UNLIMITED OBJECT STORAGE FILES, VOLUMES AND NAMESPACE

- High availability, reliability and data protection with very low overhead
- Multi-workload performance for multiple use cases on the same platform
- Petabyte scalability while reducing administration
- Hardware platform validated to industry environmental and regulatory standards
- Ease of integration and quick deployments into existing environments
- Extremely cost efficient, with low overall operational costs

Based on a jointly developed, tested and supported reference architecture, Seagate and Scality provide cost efficiency, ease of use and simplicity of deployment for petabyte-scale needs including Active Archives, Content Distribution, Distributed Computing and Web & Cloud Services. Seagate reference hardware architectures are tested solutions that allow for a simple and proven hardware selection, while enabling the nearly unlimited object storage files, volumes and namespace features and performance abilities that Scality solutions provide to the storage market.

This includes Scality RING software that has native interfaces for file, object, and VM applications, along with the performance to serve a broad array of data center storage workloads, eliminating silos and overhead, and enabling new applications. The combination of software flexibility, multi-workload and application consolidation, as well as high scale and availability reduces total costs.

Seagate Rack-Scale solutions combined with Scality RING software supports efficient data protection that can replicate or erasure code dynamically at an object-by-object level, and support multiple geographies for geo-redundancy and high availability. Erasure coding technology provides extremely efficient data protection and resilience at scale. It represents a better alternative than RAID, providing protection against simultaneous failures at the disk, server and network levels, and greatly reducing the overhead and cost concerns associated with large-scale deployments. Multi-Geo facilitates synchronous and asynchronous geo-distribution across multiple, geographically distributed data centers, allowing users to access distributed data centers from one central data center, reducing user response times and ensuring faster disaster recovery.



SEAGATE

Seagate and Scality Reference Architecture

Specifications	
Scality RING	
Scality RING Functionality	• Fully distributed data and metadata model • Auto-tiering, self-healing and self-balancing • Erasure coding and replication data protection • Multiple Geo-redundancy • Full API support, including HTTP REST, S3, SWIFT, CDMI • File interface support with native NFS and FUSE, as well as CIFS and HDFS for Hadoop
Control Rack	• Supervisor server provides control and management of deployed RING infrastructure • Core connectivity to quickly and easily join cloud storage system to an existing network infrastructure • High available aggregation switches connect top-of-rack (TOR) switches to Data Racks
Data Storage	
Rack Raw Storage Capacity	Up to 2 PB per 42U data center rack
Storage Server Modules	Up to 6 Storage Server Modules per 42U data center rack
Cloud High-Density Enclosures	Up to 6 Enclosures (5U-84 Drive Bay) per 42U data center rack
Storage Server Module	
Processing Capability	Each Storage Server Module contains dual processors with a total of 8 cores, 16 threads, 2.7GHz clock, and 20 MB Smart Cache
Per Server Memory Size	From 128 GB up to 512 GB
Management Interface	1 GbE
Data Center Network Connectivity	10 GbE
Dual Boot SSD Drive Size	120 GB each
System Availability	
Hot Swappable Components	Disk drives, power supply units (PSUs), cooling modules and SBB I/O Modules
Cloud High-Density Enclosure	
Disk Drive Types	Dual ported 6 Gb/s SAS drive (4 TB capacity per drive)
Operating Environment	
Operational Altitude	-30 to 3,048m (-100 to 10,000')
Operating Temperature	5°C to 35°C
Temperature Variance	5° to 35°C (de-rate 5°C above 2,133m, 7,000')
Humidity	20% to 80% non-condensing
Heat Dissipation and Power Consumption (depending on drive type used)	
Heat Dissipation Range	37,500 to 47,800 BTUs per hour
Power Consumption Range	11 to 14 KW
Dimensions	
Height	1,991mm (78.6")
Width	600mm (23.62")
Depth	1,200mm (47.24")
Weight	1,093 Kg (2,410 lbs.)
Warranty Information	
Enclosures with Drives	One year standard warranty. Optionsavailable for extended support. Please contact. Seagate for detailed warranty information.
Environmental Standards	
Disk enclosures 80 PLUS® Gold Certified power efficiency with adaptive cooling. Seagate is registered through BSI to the international environmental management systems standard ISO 14001:2004, and holds certificates or each of its three manufacturing sites at Havant, UK; Guadalajara, Mexico; and Seremban, Malaysia.	

Take the Next Step:

To learn more about Seagate® Cloud Systems and Solutions, visit

http://www.seagate.com/solutions/cloud-systems-and-solutions/scale-out-storage-systems/

seagate.com

SCALITY

50 California Street, Suite 3200
San Francisco, CA 94111
Telephone: (650) 356-8500
Toll Free: (855) SCA-LITY / (855) 722-5489
Email: sales.us@scality.com

AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000
ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16–18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00