Product Hardware Specification

Scala Storage Scale Out Clustered Storage is a scalable storage solution designed to resolve current storage requirements of unstructured data. Intended to large-scale, data-intensive, high concurrency applications, Scala Storage developed a fully POSIX-compliant parallel file system (ScalaFS) and other software components to tackle the most demanding, mission critical environment. Scala Storage scale out solutions provides the best price and performance storage solution, with its pay as you growth model, predictable linear performance growth and easy management for lower TCO. Scala Storage has proven customer successes in Internet, oil & gas, life sciences & bioinformatics, media & entertainment, video surveillance, education and government for high performance computer (HPC) storage solutions.

Product Highlights

- Performance Linear Scale Out

- Capacity increase within the same namespace

- Auto-Load Balance

- Preventive Failure Detection with Auto Self-healing

- Start with 144TB to hundreds of PB of storage

- Energy efficient and easy management

Scala Storage Hardware Specification:

- MetaData Controller (MDS)

- Intelligent Storage Node (iStore)

- Network Switches

MetaData Controller (MDS)

Scala Storage Scale Out Solutions use a minimum of 2 (up to 128) MDS depending on the number of files in the storage system. MDS stores critical information about the data store in iStore. Metadata is distributed across multiple metadata servers to provide high redundancy.

Intelligent Storage Node (iStore)

Scala Storage iStore stores data and provides I/O services directly to application servers. Data is replicated and distributed across multiple iStores to maintain high availability and performance. There is a minimum of 3 iStores with no limit on the maximum amount.

Network Switches

Network Switch provides interconnections between MetaData Controllers (MDS) and Storage Nodes (iStore). This network switch also connects to application servers, performing MetaData updates and actual data transfers. Scala Storage uses an industry standard 10G interconnection, in either 10G Base-T Ethernet or SFP+ in 24 ports or 48 ports. Infiniband is also available.

MetaData Controller Hardware Specification

Rackspace	1 RU per controller
Processor	Intel Xeon CPU
Memory	64 GB ECC Memory
Data Networking Port	Dual 10G SFP+ port or Dual 10GBASE-T port
System Management Port	IPMI Gigabit Ethernet for System Management
MetaData Storage	Dual 240GB SSD, mirrored protections
Power	500W Redundant High-efficiency Platinum Level (94%+)
Minimum Controller requirement	2 Controllers

iStore Node Hardware Specification

Rackspace	2 RU per node
Storage Bays	12 SAS Hard Drives Storage Bays
Processor	Intel Xeon CPU
Memory	64 GB ECC Memory
Data Networking Port	Dual 10G SFP+ port or Dual 10GBASE-T port
System Management Port	IPMI Gigabit Ethernet for System Management
iStore Data Storage	12 x SAS Hard Drives (4TB or 6TB per drives storage)
Power	920W Redundant High-efficiency Platinum Level (94%+)
Minimum Node requirement	3 nodes

Data Network Switches Hardware Specification

Rackspace	1 RU
Networking Port	3 options: 48 x 10GBASE-T ports / 4 x 40G QSFP+ ports / 2 Gigabit ports 48 x 10G SFP+ ports / 4 x 40G QSFP+ ports / 2 Gigabit ports 24 x 10G SFP+ ports
LAN Switching	Layer 3
Power	48x 10GBASE-T or 48x 10G SFP+: 400W Hot-swappable redundant. (Power Consumption: 375W) 24x 10G SFP+: 300W Hot-swappable redundant. (Power Consumption: 175W)
Minimum Switches requirement	1 Switch