

ClusterStor™ Secure Data Appliance

SECURE DATA APPLIANCE
Data Sheet

Problem Physically Separate Systems For Separate Security Classifications



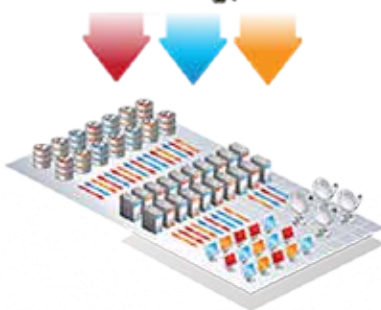
Solution ICD 503 (DCID 6/3 PL4) Compliant Scale-Out Parallel File System Data Storage Solution

Combining Security-Enhanced Linux (SELinux) with the Lustre® file system, the ClusterStor™ Secure Data Appliance is designed to deliver the industry first compliant and secure scale-out parallel file system solution, providing the means to implement all the necessary Mandatory Access Control (MAC), explicit audit logging / tracking, encryption and support capabilities to enforce “least privilege” access control.

With security compliance, low-latency and high throughput performance, ClusterStor Secure Data Appliance provides the means to manage multiple data types (SigINT, HumINT, GeoINT, and more) and classifications in a single file system on a single network, supporting high speed ingest and massively scalable processing. This enables unprecedented joint-mission effectiveness and efficiency under compressed timelines, to accelerate collaborative responsiveness and expedite actions with resilience in the face of threats.

Intelligence organizations no longer need to install, maintain and manage separate hardware stovepipes for different security classifications. ClusterStor Secure Data Appliance securely consolidates resources and reduces capital expenditures by multiple times (depending on how many separate hardware installations an organization deploys). Reducing operational expenditures, ClusterStor Secure Data Appliance decreases data center floor space utilization, system power / cooling, data management / administrative overhead, and cost associated to tedious manual steps to manage multiple security classifications on multiple disparate legacy systems.

ClusterStor Secure Data Appliance expands resource use and effectiveness, to help organizations do more with their existing budget and realize substantially more results. ClusterStor Secure Data Appliance enables teams with the right tools at the right scale, to help end users gain optimum productivity processing massive unstructured data sets including full motion video and images with different security classifications.



Delivers Multilevel Security (MLS) with massive linear data storage performance and capacity.

Field proven installations of up to 25PB data storage capacity and 1TB/sec performance, all with a single globally concurrent name space.

ClusterStor™ SDA Rack Configuration



Specifications			
General Information		Dimensions	
File System Performance	Up to 42 GB/s per rack sustained reads and writes	Height	1,991 mm (78.4 in)
		Width	600 mm (23.62 in)
File System Capacity(raw)	Up to 3,444 TB per rack using 6TB SAS HDDs (available 3Q14)	Depth	1,200 mm (47.24 in)
		Weight	1,141 Kg (2,510 lbs)
Scalable Storage Unit (SSU)	Up to 6 in base rack (first) Up to 7 in storage expansion racks (second and greater)	System Availability	
		Hot Swappable	Disk Drives, Power Supplies, Fans, Power Cooling Modules and Server Modules
Object Storage Servers	Up to 12 in base rack (first) Up to 14 in storage expansion racks (second and greater)	Power	Redundant Power Supplies and Power Cooling Modules
Cluster Management Unit (CMU)	High availability server attached to storage enclosure	SSU Power Cooling Modules	5 redundant fan modules per SSU, each with dual fans
CMU Server	2U four node server	Power Options	
CMU Storage	2U 24 drive enclosure or 5U 84 drive enclosure	High Power US	208V AC 50A, 3 Phase delta, 4 Circuits/Rack, Hubbell CS8365C
Client Access	InfiniBand QDR or FDR, or Ethernet 10GE or 40GE	US	208V AC 24A, 3 Phase delta, 6 Circuits/Rack, NEMA L21-30P
Operating System	SELinux	EMEA	415V AC 32A, 3 + N + E Phases, 4 Circuits/Rack, IEC60309 32A
Management Network	1 Gigabit Ethernet (single or dual management network)	Power Consumption	
File System	Lustre® 2.1 + Seagate supported enhancements	Base Rack Configuration	0 to 3,000m (0 to 10,000')
Maximum Files	Up to 2.4 Billion	Storage Expansion Rack Configuration	-300 to 12,192m (-1000 to 40,000')
Maximum Usable Capacity per Single File System	Up to 93.4 PB	Heat Dissipation	
Disk Drives		Base Rack Configuration	Nominal 39,416 / Max 49,271 BTU
SSU Hard Disk Drive	Dual ported 6Gb/s SAS drives (4 or 6 TB capacity per drive)	Storage Expansion Rack Configuration	Nominal 40,336 / Max 50,420 BTU
CMU Hard Disk Drive	Dual ported 6Gb/s SAS drives (300 or 600 GB capacity per drive)	Altitude and Temperatures	
Solid State Disk	SLC dual ported SAS drives	Operational Altitude	-30 to 3048m (-100 to 10,000ft)
Scalable Storage Unit Drive Configuration	2 SSDs, RAID 1, 1+1 80 HDDs, 3.5" 7.2K RPM, RAID 6, 8+2 2 Global Hot Spare drives	Operational Temperature Range	5°C to 35°C
CMU Storage 2U 24	2 SSDs, RAID 1, 1+1 20 HDDs, 2.5" 10K RPM, RAID 1 & 10, 2 Global Hot Spare drives	Temperature Variance	De-rated by 1°C/300m above 900m below the specified maximum temp.
CMU Storage 5U 84	2 SSDs, RAID 1, 1+1 80 HDDs, 2.5" 15K RPM, RAID 1 & 10, 2 Global Hot Spare drives	Humidity	20% to 80% non-condensing
CMU - MDS/MGS RAID	RAID 1, 10	Warranty Information	
		Hardware	1 Year
		Software	90 Days
		Environmental Standards	
		Seagate is registered through BSI to the international standard for environmental management systems ISO 14001:2004 and holds certificates for each of its three manufacturing locations at Havant UK, Guadalajara Mexico and Seremban Malaysia.	

www.seagate.com

AMERICAS
ASIA/PACIFIC
EUROPE, MIDDLE EAST AND AFRICA

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

© 2014 Seagate Technology LLC. All rights reserved. Printed in USA. Seagate, Seagate Technology and the Wave logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Seagate ClusterStor is either trademark or registered trademark of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors. The export or re-export of hardware or software containing encryption may be regulated by the U.S. Department of Commerce, Bureau of Industry and Security (for more information, visit www.bis.doc.gov), and controlled for import and use outside of the U.S. Seagate reserves the right to change, without notice, product offerings or specifications. DS SDA, July 2014