



**SPC BENCHMARK 2™
EXECUTIVE SUMMARY**

**SUN MICROSYSTEMS, INC.
SUN STOREEDGE™ 6130 ARRAY**

SPC-2™ V1.0

**Submitted for Review: December 14, 2005
Submission Identifier: B00002**

EXECUTIVE SUMMARY**Test Sponsor and Contact Information**

Test Sponsor and Contact Information	
Test Sponsor Primary Contact	Sun Microsystems, Inc. – http://www.sun.com Leah Schoeb – leah.schoeb@sun.com 5300 Riata Park Court AUS08 Austin, TX 78721 Phone: (877) 319-0457 FAX: (512) 266-2523
Test Sponsor Alternate Contact	Sun Microsystems, Inc. – http://www.sun.com Jason Schaffer – jason.schaffer@sun.com 500 Eldorado Blvd. BRM05 Broomfield, CO 80021 Phone: (510) 936-2979 FAX: (510) 936-2323
Auditor	Storage Performance Council – http://www.StoragePerformance.org Walter E. Baker – AuditService@StoragePerformance.org 643 Bair Island Road, Suite 103 Redwood City, CA 94063 Phone: (650) 556-9384 FAX: (650) 556-9385

Revision Information and Key Dates

Revision Information and Key Dates	
SPC-2 Specification revision number	V1.0
SPC-2 Workload Generator revision number	spc2rc8j
Date Results were first used publicly	December 14, 2005
Date FDR was submitted to the SPC	December 14, 2005
Date the TSC will be available for shipment to customers	May 18, 2005
Date the TSC completed audit certification	December 5 2005

SPC-2 Reported Data

SPC-2 Reported Data consists of three groups of information:

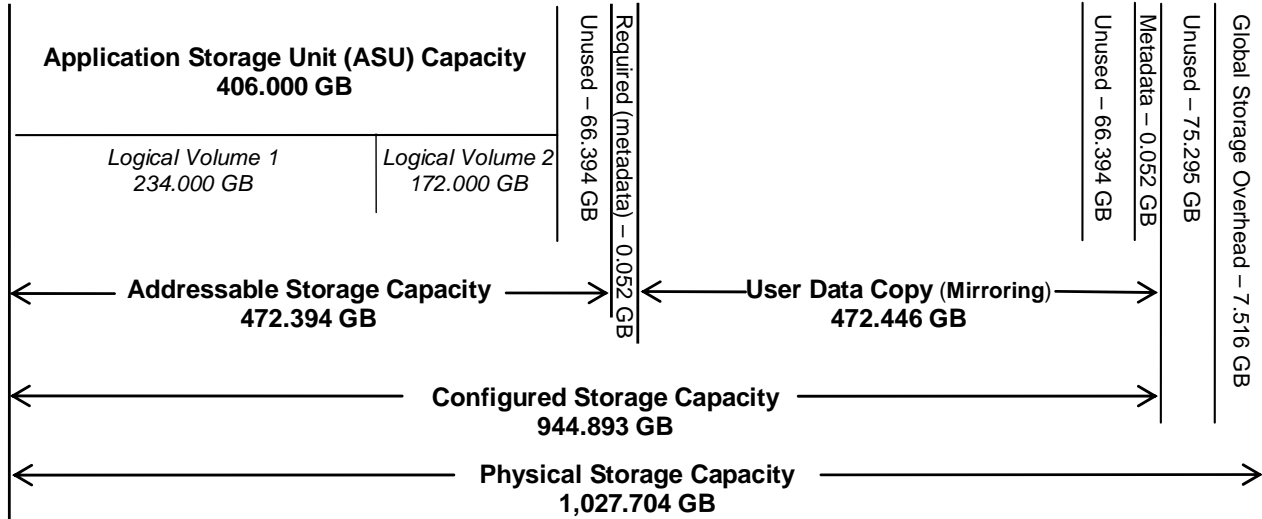
- The following SPC-2 Primary Metrics, which characterize the overall benchmark result:
 - SPC-2 MBPS™
 - SPC-2 Price Performance
 - Application Storage Unit (ASU) Capacity
- Supplemental data to the SPC-2 Primary Metrics.
 - Total Price
 - Data Protection Level

Reported Data for each SPC Test: Large File Processing (LFP), Large Database Query (LDQ), and Video on Demand Delivery (VOD) Test.

SPC-2 Reported Data				
Sun StorEdge 6130 Array				
SPC-2 MBPS™	SPC-2 Price-Performance	ASU Capacity (GB)	Total Price	Data Protection Level
263.02	\$137.52	472.394	\$36,171.00	Mirroring
<i>The above SPC-2 MBPS™ value represents the aggregate data rate of all three SPC-2 workloads: Large File Processing (LFP), Large Database Query (LDQ), and Video On Demand (VOD)</i>				
SPC-2 Large File Processing (LFP) Reported Data				
	Data Rate (MB/second)	Number of Streams	Data Rate per Stream	Price-Performance
LFP Composite	221.66			\$163.19
Write Only:				
1024 KiB Transfer	126.35	12	10.53	
256 KiB Transfer	126.33	12	10.53	
Read-Write:				
1024 KiB Transfer	185.94	12	15.50	
256 KiB Transfer	186.72	12	15.56	
Read Only:				
1024 KiB Transfer	352.01	12	29.33	
256 KiB Transfer	352.59	12	29.38	
<i>The above SPC-2 Data Rate value for LFP Composite represents the aggregate performance of all three LFP Test Phases: (Write Only, Read-Write, and Read Only).</i>				
SPC-2 Large Database Query (LDQ) Reported Data				
	Data Rate (MB/second)	Number of Streams	Data Rate per Stream	Price-Performance
LDQ Composite	323.60			\$111.78
1024 KiB Transfer Size				
4 I/Os Outstanding	350.82	12	29.24	
1 I/O Outstanding	348.76	12	29.06	
64 KiB Transfer Size				
4 I/Os Outstanding	245.65	12	20.47	
1 I/O Outstanding	349.18	12	29.10	
<i>The above SPC-2 Data Rate value for LDQ Composite represents the aggregate performance of the two LDQ Test Phases: (1024 KiB and 64 KiB Transfer Sizes).</i>				
SPC-2 Video On Demand Delivery (VOD) Reported Data				
	Data Rate (MB/second)	Number of Streams	Data Rate per Stream	Price-Performance
	243.79	310	0.79	\$148.37

Storage Capacities and Relationships

The following diagram documents the various storage capacities, used in this benchmark, and their relationships.



Tested Storage Configuration Pricing (*Priced Storage Configuration*)

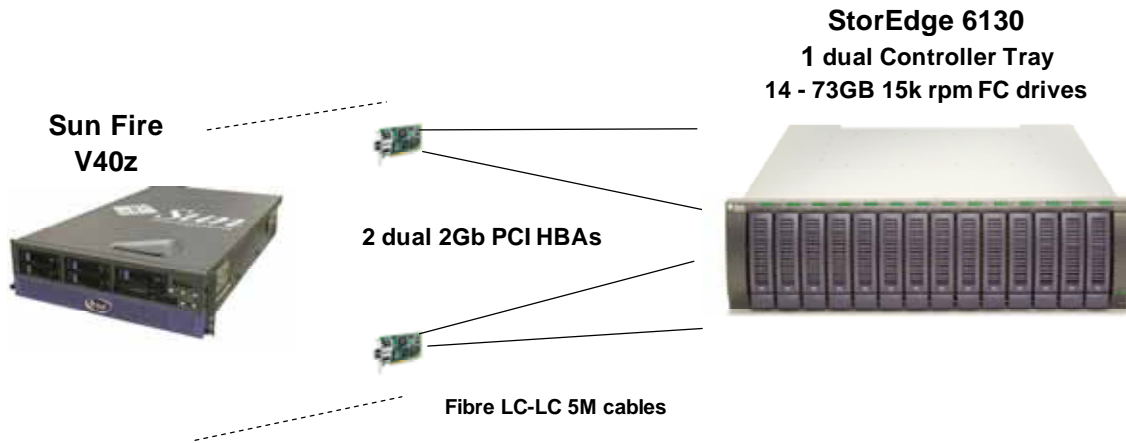
Part Number	Description	Quantity	US List	Total	discount	Ave. Price
XTA6130R11A2V1022	Dual Controller with 1022G-1x1x14x73G V-RR	1	\$53,695	\$53,695	38%	\$33,291
	- 2 Controllers w/ 1GB each					
	- 14 73GB 15k rpm drives					
	- 4 host ports					
	- 4 Fibre cables					
	- 2 ethernet cables					
	- 2 power cords					
	- rack mount kit					
X6767A	2Gb PCI Dual FC Host Based Adapter	2	\$2,400	\$4,800	40%	\$2,880
Total			\$56,095	\$58,495		\$36,171

The above pricing provides maintenance/support for 24 hours per day, 7 days per week for three years with four hour acknowledgement and four hour subsequent response (support engineer onsite or customer replaceable part available).

Differences between the Tested Storage Configuration (TSC) and Priced Storage Configuration

There were no differences between the Tested Storage Configuration (TSC) and the Priced Storage Configuration.

Benchmark Configuration/Tested Storage Configuration Diagram



Host System(s) and Tested Storage Configuration Components

Host Systems:	Tested Storage Configuration (TSC):
UID=HS-1	2 – 2Gbs Dual FC PCI HBAs
SunFire V40 4 – AMD Opteron 2.4 GHz CPUs 1 MB Level 2 cache per CPU	UID=SC-1: Sun SE6130 – 1 Dual Controller with 2GB cache
4 GB main memory	4 – LC-SFF Fibre Channel host ports
Solaris 10 FCS	14 – 73 GB, 15K RPM FC disk drives
WG	