SPC Benchmark 1™

Executive Summary

Fujitsu Limited
ETERNUS DX200 S4
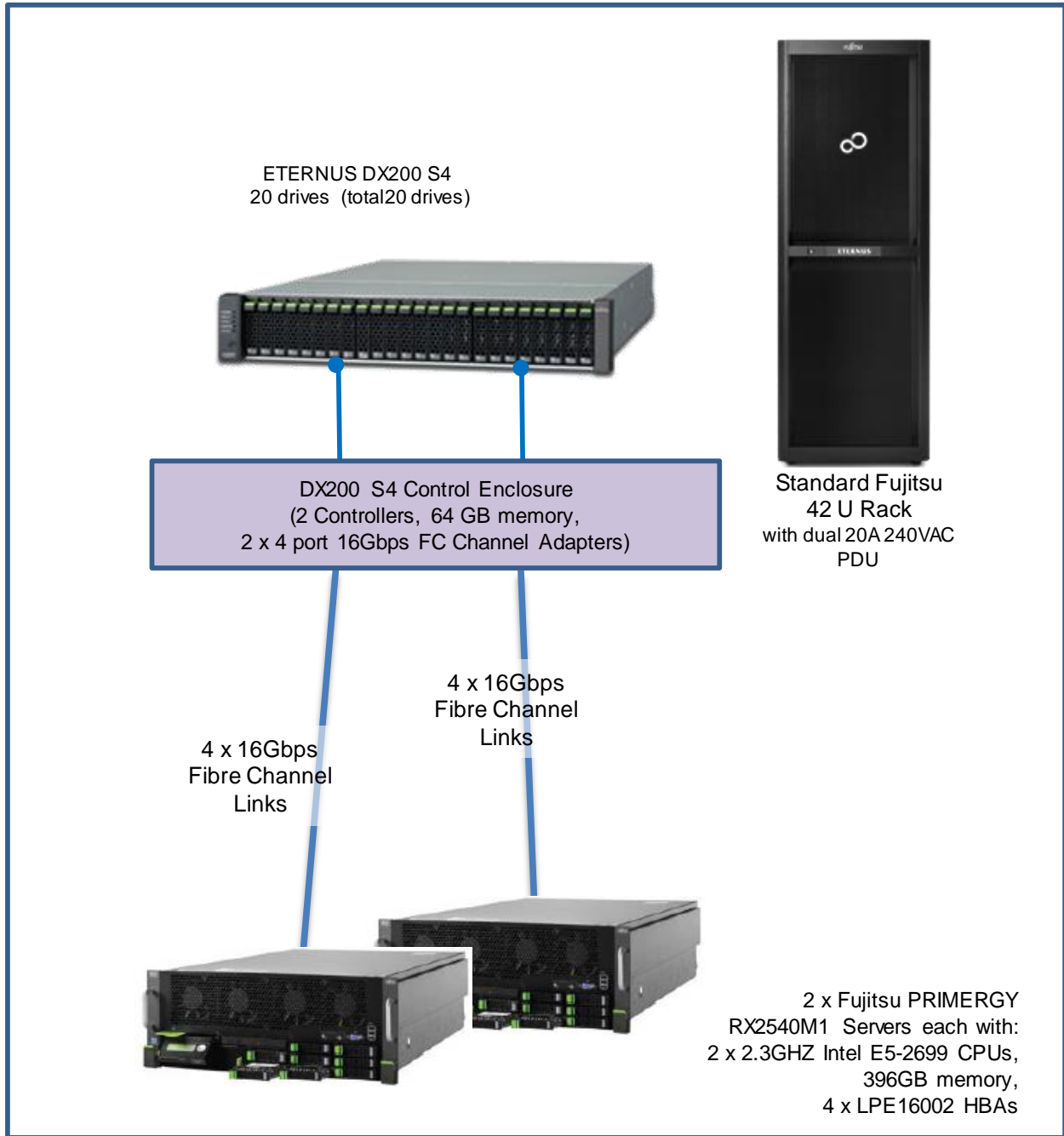
SPC-1 IOPS™	300,056
SPC-1 Price-Performance™	**$213.08/SPC-1 KIOPS™**
SPC-1 IOPS™ Response Time	0.598 ms
SPC-1 Overall Response Time	0.336 ms
SPC-1 ASU Capacity	3,924 GB
SPC-1 ASU Price	36.21/GB
SPC-1 Total System Price	63,935.19
Data Protection Level	Protected 2 (RAID1)
Physical Storage Capacity	8,000 GB
Pricing Currency / Target Country	U.S. Dollars / USA

SPC-1 v3.4.0

Submission Identifier: A32001

Submitted For Review: May 31, 2017

Benchmark Configuration Diagram

ETERNUS DX200 S4
20 drives (total 20 drives)

DX200 S4 Control Enclosure
(2 Controllers, 64 GB memory,
2 x 4 port 16Gbps FC Channel Adapters)

Standard Fujitsu
42 U Rack
with dual 20A 240VAC
PDU

4 x 16Gbps
Fibre Channel
Links

4 x 16Gbps
Fibre Channel
Links

2 x Fujitsu PRIMERGY
RX2540M1 Servers each with:
2 x 2.3GHZ Intel E5-2699 CPUs,
396GB memory,
4 x LPE16002 HBAs

Tested Storage Product Description

The scalable and unified Fujitsu Storage ETERNUS DX200 S4 delivers enterprise-class functionality to small and medium-sized companies and subsidiaries with an excellent price/performance ratio. It is the perfect solution when consolidating data for server virtualization, e-mail, databases and business applications as well as centralized file services.

Priced Storage Configuration Components

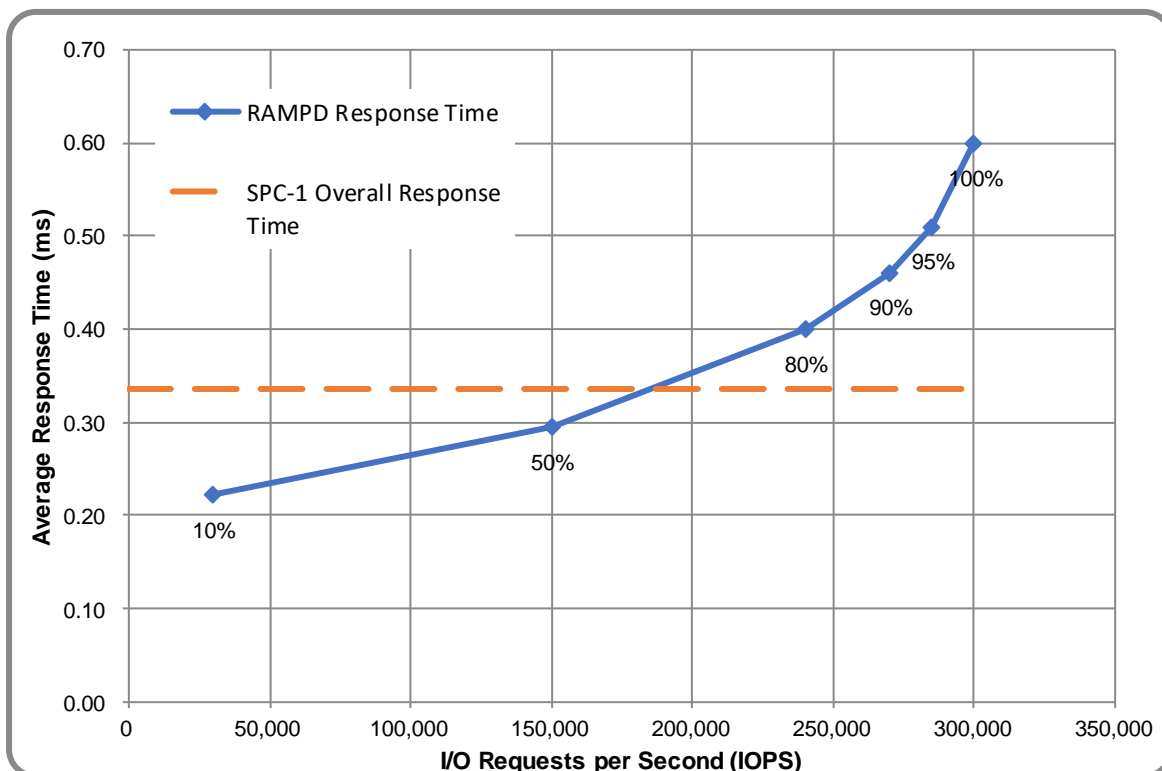| |
|---|
| **4 x Emulex LPe16002 dual port 16 Gb Fibre Channel HBAs** |
| **1 x DX200 S4, with:**
        2 x Controller Modules (CM) each with:
                32 GB cache (64 GB total)
                1 x Channel Adapter (CA) with
                      4 x 16 Gbps Fibre Channel Host Ports
        20 x 400 GB SSD devices (without Hot Spare) |

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ETERNUS DX200 S4

Storage Configuration Pricing

	Description	Qty	Unit Price	Ext. Price	Disc.	Disc. Price
	Hardware					
ET204AU	DX200 S4 Base System Rackmount (AC200V, 2RU)(2.5" type)	1	3,260	3,260	40%	1,956.00
ETVCHFJ	Controller module for DX200 S4 （2CM, 16Gbit/s, FC, 4port, for Standard model）	1	15,190	15,190	40%	9,114.00
ETVHHG	Host interface for DX100 S4/DX200 S4 （16Gbit/s, FC, 2port）	2	1,820	3,640	40%	2,184.00
ETVSA4A	SSD(2.5inch) 400GB x1 for DX200 S4	20	3,090	61,800	40%	37,080.00
S26361-F4994-L502	PFC EP LPe16002	8	1,418	11,344	40%	6,806.40
ETFKC05U	AC Power Cords (125V - IEC320-C14, 0.5m)	2	80	160	40%	96.00
61-343827-003	Fibre Channel Host IF Cable LC/LC - 3m	8	132	1,056	0%	1,056.00
	Hardware Subtotal					**58,292.40**
	Support & Maintenance					
	Provide 24 hour per day / 7days per week 4 hour response maintenance for 36 months					
ETD200-W025360-ADE	Warranty Service, 36 months Standard, 9x5 phone, NBD response	1	-	-	0%	-
ETD200-U004361-ADE	Warranty Uplift, 36 months Enhanced plus, 24x7 4hr Onsite	1	7,053	7,053	20%	5,642.78
	Support & Maintenance Subtotal					**5,642.78**
	SPC-1 Total System Price					**63,935.19**

Discount Details: The discounts shown are generally available and based on the capacity and total price of the storage configuration purchased.

Availability Date: Currently Available.

Response Time and Throughput Graph

Contact Information	
Test Sponsor Primary Contact	Fujitsu Limited – http://www.fujitsu.com/services/computing/storage/ Kun Katsumata – kkatsumata@us.fujitsu.com
SPC Auditor	InfoSizing – www.sizing.com Doug Johnson – doug@sizing.com

Revision Information	
SPC Benchmark 1™ Revision	v3.4.0
SPC-1 Workload Generator Revision	v3.0.2-1-g823a
Publication Revision History	- First Edition: May 31, 2017 - Second Edition: February 15, 2018 - Updated SPC-1 Price-Performance™ metric based on SPC-1 v3.6.0 definition. - Third Edition: April 17, 2018 - Correct Committed Data Persistence Implementation description. Correct typos in RAID group info in Appendix D.