



SPC BENCHMARK 1™

EXECUTIVE SUMMARY

MACROSAN TECHNOLOGIES CO., LTD MACROSAN MS2500G2-25E

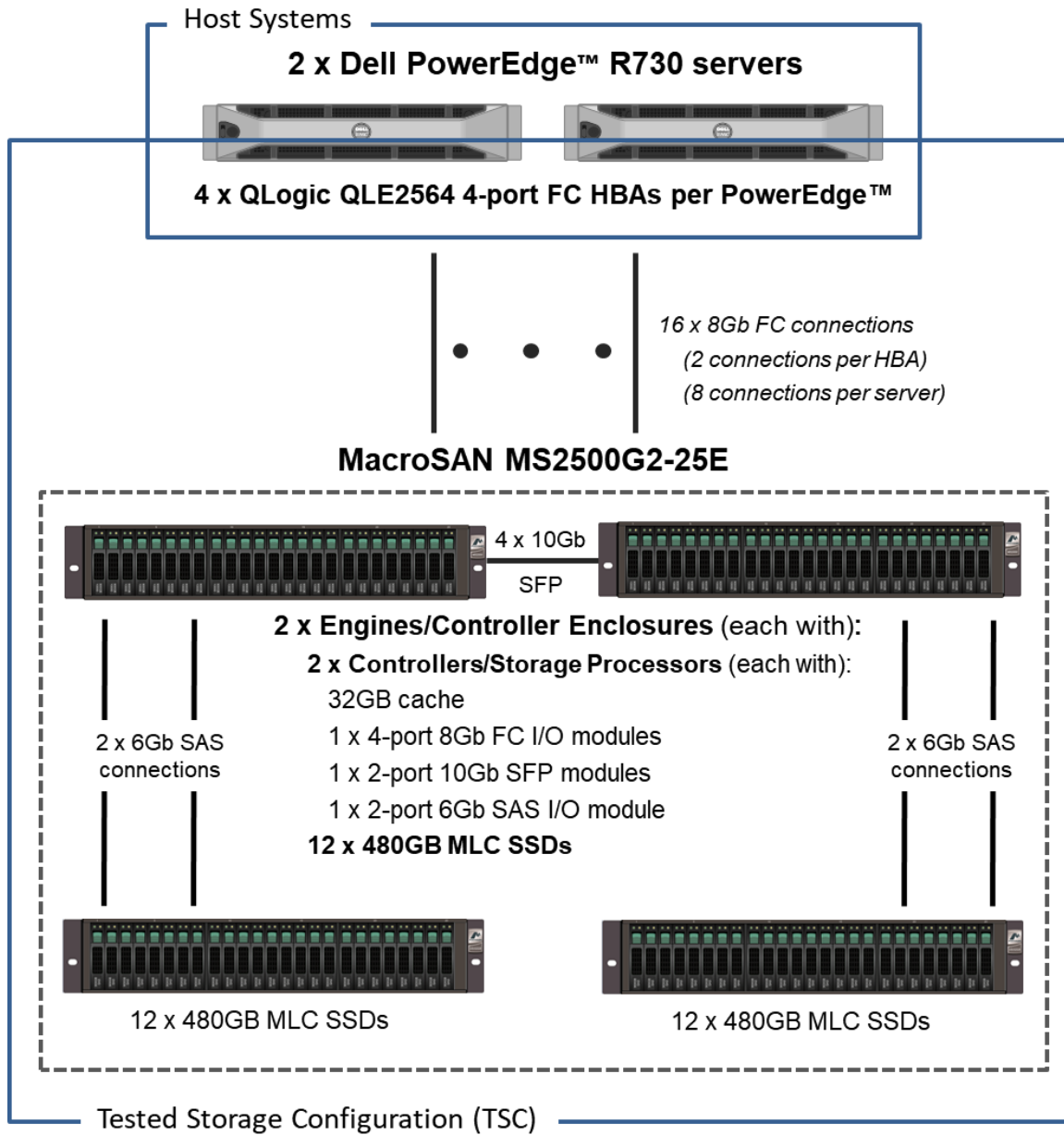
| | |
|-----------------------------------|---|
| SPC-1 IOPS™ | 300,028 |
| SPC-1 Price-Performance™ | \$379.50/SPC-1 KIOPS™ |
| SPC-1 IOPS™ Response Time | 0.480 ms |
| SPC-1 Overall Response Time | 0.388 ms |
| SPC-1 ASU Capacity | 10,640.0 GB |
| SPC-1 ASU Price | \$10.71/GB |
| SPC-1 Total System Price | \$113,858.31 |
| Data Protection Level | Protected 2 (RAID 10 and full redundancy) |
| Physical Storage Capacity | 21,408 GB |
| Pricing Currency / Target Country | U.S. Dollars / People's Republic of China |

SPC-1 V3.6.0

SUBMISSION IDENTIFIER: A31011

SUBMITTED FOR REVIEW: FEBRUARY 12, 2018

Benchmark Configuration Diagram



Tested Storage Product Description

The MacroSAN MS2500G2-25E is a new product in the MacroSAN MS2500G2 series, which is the new generation of MacroSAN entry-level data center storage products, oriented toward small size data centers and branches. Based on its leading hardware architecture and rich software function, the MS2500G2-25E can provide more storage solutions for the small business to guarantee data safety and service continuity, including database storage solution, centralized online storage, backup storage solution, data disaster recovery solution and more.

The MS2500G2-25E provides an optimal balance between performance and cost, with better reliability and expansion capability, to support customer's rapid business growth.

For more details, visit:

http://www.macrosan.com/en/product_detail.aspx?k1=2&k2=10&id=73

Priced Storage Configuration Components

| |
|---|
| 8 x QLogic QLE2564 4-port FC HBAs |
| 2 x MacroSAN MS2500G2 Engines, each with: |
| 2 x Controllers/Storage Processors, each with: |
| 32GB cache |
| 1 x 4-port 8Gb FC I/O Modules |
| 1 x 2-port 10Gb SFP Modules |
| 1 x 2-port 6Gb SAS 2.0 I/O Modules |
| 12 x 480GB MLC SSDs |
| 2 x External storage enclosures, each with: |
| 12 x 480GB MLC SSDs |

Storage Configuration Pricing

| | Description | Qty | Unit Price | Ext. Price | Disc. | Disc. Price |
|---|--|-----|------------|------------|-------|-------------------|
| Hardware & Software | | | | | | |
| MS2500G2-25E-64GB | MS2500G2-25E Storage Controllers Unit (Dual Controllers, 2U, 25*2.5 disks, 64GB cache, 4*GE ports+4*10GE port-no SFPs, 3Y 7x9xND Basic Svc&Warranty) | 2 | 18,595.59 | 37,191.18 | 50% | 18,595.59 |
| DSU2625 | DSU2625 SAS/SATA Disk Shelf Unit (support 25 2.5inch disks, SAS 3.0) | 2 | 6,223.53 | 12,447.06 | 50% | 6,223.53 |
| MS2M1SD480G0M2AEA | 480GB MLC SSD Drive(2.5") for MS2500G2/DSU2625 | 48 | 2,367.65 | 113,647.20 | 50% | 56,823.60 |
| IOA1014A | 4*8Gb FC IO Module | 8 | 2,029.41 | 16,235.29 | 50% | 8,117.65 |
| MS1MMF010G | 10Gb MultiMode Datacom SFP+ Optical Transceiver | 8 | 321.32 | 2,570.56 | 50% | 1,285.28 |
| LIS_MS2000_BASE_STD | MacroSAN ODSP for Multi control - MS2500G2 Storage Management Software(Basic Storage Management, CRAID, support FC&SCSI, System monitoring and Warning) -English version | 1 | 4,102.94 | 4,102.94 | 50% | 2,051.47 |
| LIS_MS2000_2C_EXPAND | MacroSAN ODSP-MS2500G2 storage system management software -2 Controllers-EXPAND | 1 | 1,992.49 | 1,992.49 | 50% | 996.25 |
| LC05-LC05-M12-L5 | 5M fiber (multimode, LC-LC) | 20 | 8.00 | 160.00 | | 160.00 |
| MS4.150.0001MX | RACK KIT (For 2U devices) | 4 | 61.12 | 244.48 | | 244.48 |
| 5020012 | SAS cable (1M, miniSASHD-miniSASHD) | 8 | 0.00 | 0.00 | | 0.00 |
| 2090044 | Qlogic QLE2564 HBA Card,PCIE,8Gbps 4-Ports,Fiber Channel Multimode LC Optic Interface | 8 | 1,500.00 | 12,000.00 | | 12,000.00 |
| Hardware & Software Subtotal | | | | | | 106,497.84 |
| Support & Maintenance | | | | | | |
| MS-2000-SV-BS-SPU | MS2500G2 Installation Service - Per SPU | 2 | 982.41 | 1,964.82 | 20% | 1,571.86 |
| MS-2001-SV-BS-DSU | Disk Enclosure Installation Base Service per Set | 2 | 588.24 | 1,176.48 | 20% | 941.18 |
| MS-2000-SV-GS-1Y-SPU | MS2500G2 Svc&Warranty Upgrade - 7x24x4 Premium - Per Year Per SPU | 2 | 1,711.89 | 3,423.78 | 20% | 2,739.02 |
| MS-2000-SV-GS-1Y-DSU | MS2500G2 Svc&Warranty Upgrade - 7x24x4 Premium - Per Year Per DSU | 2 | 1,317.75 | 2,635.50 | 20% | 2,108.40 |
| Support & Maintenance Subtotal | | | | | | 7,360.46 |
| SPC-1 Total System Price | | | | | | 113,858.31 |
| SPC-1 IOPS™ | | | | | | 300,028 |
| SPC-1 Price-Performance™ (\$/SPC-1 KIOPS™) | | | | | | 379.50 |
| SPC-1 ASU Capacity (GB) | | | | | | 10,640 |
| SPC-1 ASU Price (\$/GB) | | | | | | 10.71 |

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

Warranty: Pricing includes Gold-Level Service with: 24x7 online support, unlimited software upgrades and bug fixes, and on-site presence of a qualified maintenance engineer within 4 hours of a problem acknowledgement, inside the Target Market.

Availability Date: Currently available.

Response Time and Throughput Graph



| Contact Information | |
|------------------------------|---|
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| Revision Information | |
|-----------------------------------|---------------------|
| SPC Benchmark 1™ Revision | V3.6.0 |
| SPC-1 Workload Generator Revision | V3.0.2-1-g823a |
| Publication Revision History | Initial Publication |