

VMware® VMmark™ V1.1 Results

Vendor and Hardware Platform: Dell PowerEdge M805
Virtualization Platform: VMware ESX 3.5 Update 2 (build 103908)

VMmark V1.1 Score =
7.88 @ 6 Tiles

Tested By: Dell Inc.

Test Date: 30/07/2008

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Performance

	webserver		javaserver		mailserver		fileserver		database		
TILE_0	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1459.20	1.43	17639.78	1.06	1676.65	1.53	16.01	1.25	2126.47	1.42	1.33
p1	1461.38	1.43	18083.38	1.09	1465.67	1.34	16.32	1.27	2114.32	1.42	1.30
p2	1452.12	1.43	18048.30	1.09	1314.50	1.20	15.94	1.24	2111.88	1.42	1.27
TILE_1	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1601.97	1.57	18085.25	1.09	1693.25	1.54	15.64	1.22	2113.03	1.42	1.35
p1	1594.20	1.56	18060.97	1.09	1576.10	1.44	15.74	1.23	2106.97	1.41	1.33
p2	1587.22	1.56	17953.50	1.08	1618.12	1.48	15.61	1.22	2100.07	1.41	1.34
TILE_2	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1603.17	1.57	18095.53	1.09	1565.55	1.43	18.14	1.41	1671.33	1.12	1.31
p1	1598.28	1.57	17633.10	1.06	1583.17	1.44	18.06	1.41	1660.38	1.11	1.30
p2	1552.88	1.52	17963.58	1.08	1535.55	1.40	18.11	1.41	1619.17	1.08	1.29
TILE_3	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1771.28	1.74	18084.65	1.09	1386.35	1.26	18.09	1.41	2159.55	1.45	1.37
p1	1757.35	1.72	18109.50	1.09	1189.90	1.08	18.19	1.42	2150.25	1.44	1.33
p2	1731.12	1.70	17996.40	1.08	1223.50	1.12	17.97	1.40	2139.60	1.43	1.33
TILE_4	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1654.45	1.62	18080.40	1.09	1311.10	1.20	19.29	1.50	2140.10	1.43	1.35
p1	1645.40	1.61	18059.88	1.09	1382.67	1.26	19.19	1.50	2128.90	1.43	1.36
p2	1642.67	1.61	17998.65	1.08	1341.85	1.22	19.00	1.48	2123.07	1.42	1.35
TILE_5	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1793.40	1.76	17370.03	1.05	1232.05	1.12	16.21	1.26	1568.78	1.05	1.22
p1	1740.03	1.71	18024.25	1.08	1387.15	1.26	16.36	1.28	1481.22	0.99	1.24
p2	1757.95	1.73	17967.78	1.08	1370.35	1.25	16.10	1.26	1505.15	1.01	1.24
p0_score:	7.94										
p1_score:	7.88										
p2_score:	7.81										
Unreviewed_VMmark_Score:	7.88										

Configuration

Server and Network	
Server Manufacturer and Model	Dell PowerEdge M805
Processor Vendor and Model	Quad-Core AMD Opteron 2360SE
Processor Speed (GHz)	2.50
Number of Sockets/Cores per Socket	2 Sockets / 4 Cores per Socket (8 Cores Total)
Primary Cache	64 KB I + 64 KB D on chip per core
Secondary Cache	512 KB I+D on chip per core
Other Cache	2 MB I+D L3 on chip per chip
Memory	32 GB (8 x 4 GB) PC2-5300 667MHz Registered ECC DDR2 DIMM
Disk Subsystem Type	SAS (OS), FC SAN (VMs)
Number of Disk Controllers	N/A
Number of Host Bus Adapters	3
Host Bus Adapter Vendors and Models	1 x Onboard Dell CERC6 RAID Controller 2 x QLogic Corp QME2472
Number of Network Controllers	2
Network Controller Vendors and Models	Onboard Broadcom 5708 Dual Port GbE NIC
Network Switch Vendors and Models	Dell PowerConnect 6248
Network Speed	1000Base-T
Other Hardware	None
Other Software	None
Hardware Availability Date	27/08/2008
Software Availability Date	N/A
Virtualization Software	
Vendor, Product, Version, and Build	VMware ESX 3.5 Update 2 (build 103908)
Virtualization Type	Hardware Virtualization
Supplemental Software	None
Virtualization Software Availability Date	25/07/2008
Storage	
Array Vendor, Model, and Firmware Version	1. EMC CX300, version 02.26.300.5.005 2. EMC CX300, version 02.26.300.5.005 3. EMC CX300, version 02.26.300.5.005 4. EMC CX300, version 02.26.300.5.005
Fibre Channel Switch Vendors and Models	Brocade Silkworm 3800
Disk Space Used	416GB
Array Cache Size	1. EMC CX300, 2048MB 2. EMC CX300, 2048MB 3. EMC CX300, 2048MB 4. EMC CX300, 2048MB

Number and Size of LUNs	LUN 1: 120GB LUN 2: 120GB LUN 3: 120GB LUN 4: 120GB LUN 5: 120GB LUN 6: 120GB LUN 7: 260GB
RAID Type	RAID10 (all LUNs)
Number of Members per RAID Set	LUN 1: 10 members LUN 2: 10 members LUN 3: 10 members LUN 4: 10 members LUN 5: 10 members LUN 6: 10 members LUN 7: 16 members
Disk Vendor, Model, and Speed	Fujitsu Enterprise/15K

Clients

Number of Clients	6
System Model(s)	5 x PowerEdge 1650, 1 x PowerEdge 1750
Processor Vendor(s) and Model(s)	Intel Xeon
Processor Speed(s) (GHz)	5 x 1.40 (1650), 1 x 3.20 (1750)
Number of Sockets/Cores per Socket	6 x 2 Sockets / 1 Core per Socket (2 Cores Total)
Memory	2 GB
Network Controller Vendor and Model	5 x Intel PRO/1000 XT Network Connection (1650), 1 x Broadcom NetXtreme Gigabit Ethernet (1750)
Operating System, Version, and Service Pack	Microsoft Windows Server 2003 Enterprise Edition SP2
Other Hardware	None
Other Software	None

Notes for Workload

Server and Network Notes

- The onboard CERC6 controller contained 1 73GB/15K drive for OS.

Virtualization Software Notes

- Four vSwitches (0-3) bound to four physical NICs, vmnic0-3, respectively.
- Each vSwitch was configured to 120 ports (default 56).
- Service Console was shared with vSwitch0.
- Database, Standby, MailServer 0-2 VMs attached to vSwitch0;
FileServer, JavaServer, MailServer 3-5 VMs attached to vSwitch1;
WebServer 0-2 VMs attached to vSwitch2;
WebServer 3-5 VMs attached to vSwitch3.
- Database VMs were stored on LUN 7. For all other VMs, each tile was stored on its own LUN.
- Virtualized MMU Enabled on Database, FileServer, and WebServer VMs (default Automatic)
- Ethernet Adapter Type set to Enhanced vmxnet for all VMs.
- vmfs2 module was unloaded prior to the benchmark run.

Operating System Notes

- Microsoft Windows Server 2003 virtual machines were updated to Service Pack 2, and [KB 933360](#) was applied.

Software Notes

Client Notes

- [KB 933360](#) was applied.

Other Notes

VMMARK.CONFIG changes:

- JavaServer/DELAYTIME="1140" (default 540)
- Standby/DELAYTIME="770" (default 170)
- WebServer/DELAYTIME="780" (default 180)
- Database/DELAYTIME="960" (default 360)
- FileServer/DELAYTIME="1050" (default 450)

This is a full disclosure report for a VMmark benchmark result. All published VMmark results must be from fully-compliant tests for which a full disclosure report is publicly available.

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