

VMware® VMmark™ V1.0.0 Results

Vendor and Hardware Platform: Dell PowerEdge M600
Virtualization Platform: VMware ESX Server V3.5.0 (build 64607)

VMmark V1.0.0 Score =
8.37 @ 6 Tiles

Tested By: Dell Inc., Round Rock, TX

Test Date: Feb-2008

Performance Section
[Performance](#)

Configuration Section
[Configuration](#)

Notes Section
[Notes for Workload](#)

Performance

	webservers		javaservers		mailservers		fileservers		databases		
TILE_0	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1667.45	1.64	18049.22	1.09	1622.45	1.48	19.95	1.56	2065.97	1.38	1.41
p1	1651.90	1.62	18018.33	1.08	1691.55	1.54	19.90	1.55	2069.78	1.39	1.42
p2	1597.33	1.57	18083.42	1.09	1688.67	1.54	19.63	1.53	2069.03	1.39	1.41
TILE_1	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1682.92	1.65	17998.15	1.08	1471.45	1.34	20.05	1.56	2039.83	1.37	1.39
p1	1646.47	1.62	18005.83	1.08	1602.83	1.46	19.95	1.55	2037.42	1.37	1.40
p2	1619.85	1.59	17993.08	1.08	1674.62	1.53	19.65	1.53	2059.78	1.38	1.41
TILE_2	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1630.53	1.60	18029.40	1.09	1542.97	1.41	20.08	1.56	2037.30	1.37	1.39
p1	1608.88	1.58	18044.60	1.09	1575.05	1.44	20.01	1.56	2057.07	1.38	1.40
p2	1572.38	1.54	18010.50	1.08	1677.40	1.53	19.63	1.53	2066.10	1.38	1.40
TILE_3	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1640.35	1.61	18031.55	1.09	1324.00	1.21	20.10	1.57	2019.72	1.35	1.35
p1	1603.67	1.57	17999.55	1.08	1601.50	1.46	20.23	1.58	2032.70	1.36	1.40
p2	1577.33	1.55	17520.45	1.05	1761.97	1.61	19.88	1.55	2055.22	1.38	1.41
TILE_4	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1678.25	1.65	18026.50	1.09	1383.17	1.26	20.08	1.56	2019.55	1.35	1.37
p1	1659.67	1.63	17555.17	1.06	1538.10	1.40	19.88	1.55	2047.22	1.37	1.39
p2	1616.60	1.59	18054.08	1.09	1646.15	1.50	19.65	1.53	2058.38	1.38	1.40
TILE_5	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1672.05	1.64	17509.33	1.05	1179.22	1.08	19.66	1.53	1933.30	1.30	1.30
p1	1651.97	1.62	17931.20	1.08	1461.62	1.33	19.39	1.51	1972.58	1.32	1.36
p2	1599.10	1.57	17951.38	1.08	1619.60	1.48	19.07	1.49	1974.08	1.32	1.38
p0_score:	8.21										
p1_score:	8.37										
p2_score:	8.41										
Unreviewed_VMmark_Score:	8.37										

Configuration

System Under Test (SUT)	
Processor Vendor and Model	Quad-Core Intel Xeon E5450
Processor Speed (GHz)	3.00
# of Sockets/Cores per Socket	2 Sockets / 4 Cores per Socket (8 Cores Total)
Primary Cache	32KB(I) + 32KB(D) on chip, per core
Secondary Cache	12MB(I+D) on chip, per chip, 6 MB shared/2 cores
Other Cache	None
Memory	32GB (8x4GB) 667MHz ECC CL5 DDR2 FB-DIMM
Disk Subsystem	SATA (OS), FC SAN (VMs)
# of Disk Controllers	1
Host Bus Adapters Vendor and Model	QLogic Corp QME2472
# of Host Bus Adapters	2
# of Network Controllers	2

Network Controllers Vendor and Model	Broadcom NetXtreme II BCM5708 1000Base-T
Network Switches Vendor and Model	Dell PowerConnect 5224
Network Speed	1000Base-T
Other Hardware	None
Other Software	None
Hardware Availability Date	Feb-2008
Software Availability Date	Dec-2007

Virtualization Platform

Vendor, Product, and Version	VMware ESX Server V3.5.0 Build 64607
Virtualization Type	Hardware Virtualization
Supplemental Software	None
Virtualization Platform Availability Date	Dec-2007

Storage

Array Vendor and Model/ 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 Switches Vendor and Model	Brocade Silkworm 3800
Used GB	416
Array Cache GB	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	LUN 1: RAID10 LUN 2: RAID10 LUN 3: RAID10 LUN 4: RAID10 LUN 5: RAID10 LUN 6: RAID10 LUN 7: RAID10
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 and Model/Speed	Fujitsu Enterprise/15K

Clients

# of Clients	6
System Model	PowerEdge 1650, 4 x PowerEdge 1750, PowerEdge 1850
Processor Vendor and Model	Intel Xeon
Processor Speed (GHz)	1.40 (1650), 2 x 3.20 (1750), 2 x 3.06 (1750), 2.80 (1850)
# of Sockets/# of Cores	2/2 (1650), 2/2 (1750), 2/4 (1850)
Memory	2 GB
Network Controller Vendor and Model	Intel PRO/1000 XT Network Connection (1650), 4 x Broadcom NetXtreme Gigabit Ethernet (1750), Intel PRO/1000 MT Network Connection (1850)
Operating System, Version, and Service Pack	Microsoft Windows Server 2003 SP1
Other Hardware	None
Other Software	None

Notes for Workload

SUT Notes

- The onboard disk controller contained 1 80GB/7.2K drive for OS.
- BIOS settings: Hardware Prefetcher Disabled (default Enabled), Adjacent Sector Prefetch Disabled (default Enabled)

Virtualization Platform Notes

- Two vSwitch0 and vSwitch1 bound to vmnic0 and vmnic1 (physical NICs) respectively.
- Each vSwitch was configured to 120 ports (default 56).
- Service Console was shared with vSwitch0.
- Webserver VMs were attached to vSwitch1; the rest of the VMs were attached to vSwitch0.
- Database VMs were stored on LUN 7. For all other VMs, each tile was stored on its own LUN.

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

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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