

VMware® VMmark™ V1.1 Results

Vendor and Hardware Platform: Supermicro 6026T-NTR+
Virtualization Platform: ESX 3.5 Update 4 BETA (build 142291)

VMmark V1.1 Score =
14.22 @ 10 Tiles

Tested By: Intel Inc.

Test Date: 02/08/2009 (MM/DD/YYYY)

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Performance

	webservers		javaserver		mailserver		fileserver		database		
TILE_0	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1634.75	1.60	18196.97	1.10	1382.75	1.26	17.81	1.39	2279.50	1.53	1.36
p1	1735.20	1.70	18169.10	1.09	1500.45	1.37	18.59	1.45	2299.57	1.54	1.42
p2	1786.20	1.75	18167.72	1.09	1483.17	1.35	18.83	1.47	2291.32	1.54	1.42
TILE_1	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1730.92	1.70	18166.25	1.09	1494.00	1.36	17.63	1.37	2075.18	1.39	1.37
p1	1821.83	1.79	18164.05	1.09	1546.75	1.41	18.30	1.43	2010.55	1.35	1.40
p2	1886.40	1.85	18170.28	1.09	1547.83	1.41	18.60	1.45	2007.85	1.35	1.41
TILE_2	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1940.78	1.90	18170.30	1.09	1593.80	1.45	18.09	1.41	2157.97	1.45	1.44
p1	1931.00	1.90	18171.08	1.09	1568.03	1.43	18.64	1.45	2153.38	1.44	1.44
p2	1933.05	1.90	17719.90	1.07	1646.45	1.50	19.08	1.49	2126.72	1.43	1.45
TILE_3	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1674.70	1.64	18172.92	1.09	1513.00	1.38	18.21	1.42	2028.60	1.36	1.37
p1	1757.78	1.73	18174.42	1.09	1477.05	1.35	18.90	1.47	2030.65	1.36	1.38
p2	1816.62	1.78	18173.50	1.09	1621.53	1.48	19.28	1.50	2020.22	1.35	1.42
TILE_4	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1968.62	1.93	18185.78	1.09	1529.33	1.39	17.89	1.39	2138.68	1.43	1.43
p1	1965.70	1.93	18164.42	1.09	1445.75	1.32	18.57	1.45	2145.38	1.44	1.42
p2	1968.53	1.93	18183.40	1.09	1517.78	1.38	19.02	1.48	2155.50	1.44	1.44
TILE_5	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1939.35	1.90	18191.92	1.10	1468.80	1.34	18.29	1.43	2164.70	1.45	1.42
p1	1932.70	1.90	17741.00	1.07	1661.25	1.51	18.89	1.47	2191.45	1.47	1.46
p2	1934.17	1.90	18177.45	1.09	1671.78	1.52	19.27	1.50	2178.75	1.46	1.47
TILE_6	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1923.85	1.89	18168.03	1.09	1510.17	1.38	18.32	1.43	2105.43	1.41	1.42

p1	1914.05	1.88	18176.35	1.09	1615.90	1.47	18.95	1.48	2093.70	1.40	1.44
p2	1916.70	1.88	18170.47	1.09	1712.80	1.56	19.30	1.50	2080.22	1.39	1.46
TILE_7	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1661.12	1.63	18166.78	1.09	1335.80	1.22	18.22	1.42	2108.15	1.41	1.34
p1	1766.15	1.73	18161.97	1.09	1587.62	1.45	18.81	1.47	2060.20	1.38	1.41
p2	1835.22	1.80	18160.78	1.09	1626.53	1.48	19.12	1.49	2044.58	1.37	1.43
TILE_8	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1929.88	1.89	18164.62	1.09	1360.03	1.24	17.84	1.39	2036.58	1.36	1.37
p1	1920.22	1.88	18163.90	1.09	1625.47	1.48	18.55	1.45	2034.85	1.36	1.43
p2	1924.30	1.89	18165.97	1.09	1715.65	1.56	18.90	1.47	2026.75	1.36	1.45
TILE_9	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	Actual	Ratio	GM
p0	1948.83	1.91	18159.35	1.09	1181.12	1.08	18.27	1.42	2108.75	1.41	1.35
p1	1937.67	1.90	18160.60	1.09	1523.10	1.39	18.79	1.46	2013.10	1.35	1.42
p2	1941.28	1.91	18153.17	1.09	1734.25	1.58	19.09	1.49	2029.38	1.36	1.46
p0_score:	13.87										
p1_score:	14.22										
p2_score:	14.43										
Unreviewed_VMmark_Score:	14.22										

Configuration

Server and Network	
Server Manufacturer and Model	Supermicro 6026T-NTR+
Processor Vendor and Model	Intel Xeon X5570
Processor Speed (GHz)	2.93
Number of Sockets/Cores per Socket	2 Sockets / 4 Cores per Socket (8 Cores Total)
Primary Cache	32KB(I)+32KB(D) per core
Secondary Cache	256KB per core
Other Cache	8MB L3
Memory	72GB (18x4GB) DDR3 1066MHz DIMMs
Disk Subsystem Type	SATA HDD for OS, FC SAN for VMs
Number of Disk Controllers	1
Number of Host Bus Adapters	1
Host Bus Adapter Vendors and Models	QLogic QLE2462 (dual port)

Number of Network Controllers	3
Network Controller Vendors and Models	1 x Intel 8254NXX Gigabit Ethernet (dual port) 2 x Intel 82571EB Gigabit Ethernet (dual port)
Network Switch Vendors and Models	Cisco Linksys SR2024
Network Speed	Gigabit Ethernet
Other Hardware	None
Other Software	None
Hardware Availability Date	03/30/2009 (MM/DD/YYYY)
Software Availability Date	03/30/2009 (MM/DD/YYYY)

Virtualization Software

Vendor, Product, Version, and Build	VMware ESX 3.5 Update 4 BETA (build 142291)
Virtualization Type	Hardware Virtualization
Supplemental Software	None
Virtualization Software Availability Date	03/30/2009 (MM/DD/YYYY)

Storage

Array Vendor, Model, and Firmware Version	EMC CX3-40f, version 03.24.040.5.011
Fibre Channel Switch Vendors and Models	None
Disk Space Used	660GB for VMs
Array Cache Size	4GB
Number and Size of LUNs	16 Set #1: LUN 2, 4, 6, 8 (100GB each) Set #2: LUN 9, 10, 20, 21 (300GB each) LUN 18, 19 (200GB each) LUN 23 (100GB) Set #3: LUN 12, 13, 17 (100GB each) Set #4: LUN0 (1336GB) Set #5: LUN1 (1336GB)
RAID Type	RAID0
Number of Members per RAID Set	Set #1: 10 Set #2: 10 Set #3: 15 Set #4: 10 Set #5: 10
Disk Vendor, Model, and Speed	Hitachi 146GB 15K RPM, FC HDD

Clients

Number of Clients	10
System Model(s)	Inspur NF190D2

Processor Vendor(s) and Model(s)	Intel Xeon E5405
Processor Speed(s) (GHz)	2.0
Number of Sockets/Cores per Socket	2 Sockets / 4 Cores per Socket (8 Cores Total)
Memory	4GB
Network Controller Vendor and Model	Intel 82566DM-2 Gigabit Network
Operating System, Version, and Service Pack	Microsoft Windows Server 2003 Enterprise Edition with SP2
Other Hardware	None
Other Software	None

Notes for Workload

Server and Network Notes

- l Server:
 - n Processor Speed: Intel Turbo Boost Technology up to 3.2GHz
 - n Processor: 2 Threads per Core (16 Threads Total) with Intel Hyper-Threading Capability
- l Storage settings:
 - n Storage Processor cache High/Low watermark: 40/20 (default 80/60)
 - n Path policy of each LUN storage set to “fixed” (default “most recently used”)
 - n LUN 9, 10 for 10 database VMs split equally
 - n LUN 20 for 3 mailserver VMs, LUN 21 for 3 mailserver VMs, LUN 18 for 2 mailserver VMs, LUN 19 for 2 mailserver VMs
 - n Other LUNs for other VMs of 10 tiles (each LUN contains one tile)
- l Network settings:
 - n All virtual switches set to 120 ports (default 56)
 - n vSwitch0 bound to vmnic0 – Service Console, 3 Web VMs
 - n vSwitch1 bound to vmnic3 – 10 Java VMs, 10 Standby VMs and 10 Mail VMs
 - n vSwitch2 bound to vmnic1 – 10 Database VMs
 - n vSwitch3 bound to vmnic2 – 4 Web VMs
 - n vSwitch4 bound to vmnic4 – 3 Web VMs
 - n vSwitch5 bound to vmnic5 – 10 File VMs

Virtualization Software Notes

- 1 Ethernet Adapter Type set to Enhanced vmxnet for all VMs
- 1 Disable ESX logging for all VMs
- 1 IDE and floppy devices removed (default enabled)
- 1 Cimservr stopped at run time

Operating System Notes

None

Software Notes

None

Client Notes

None

Other Notes

None

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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