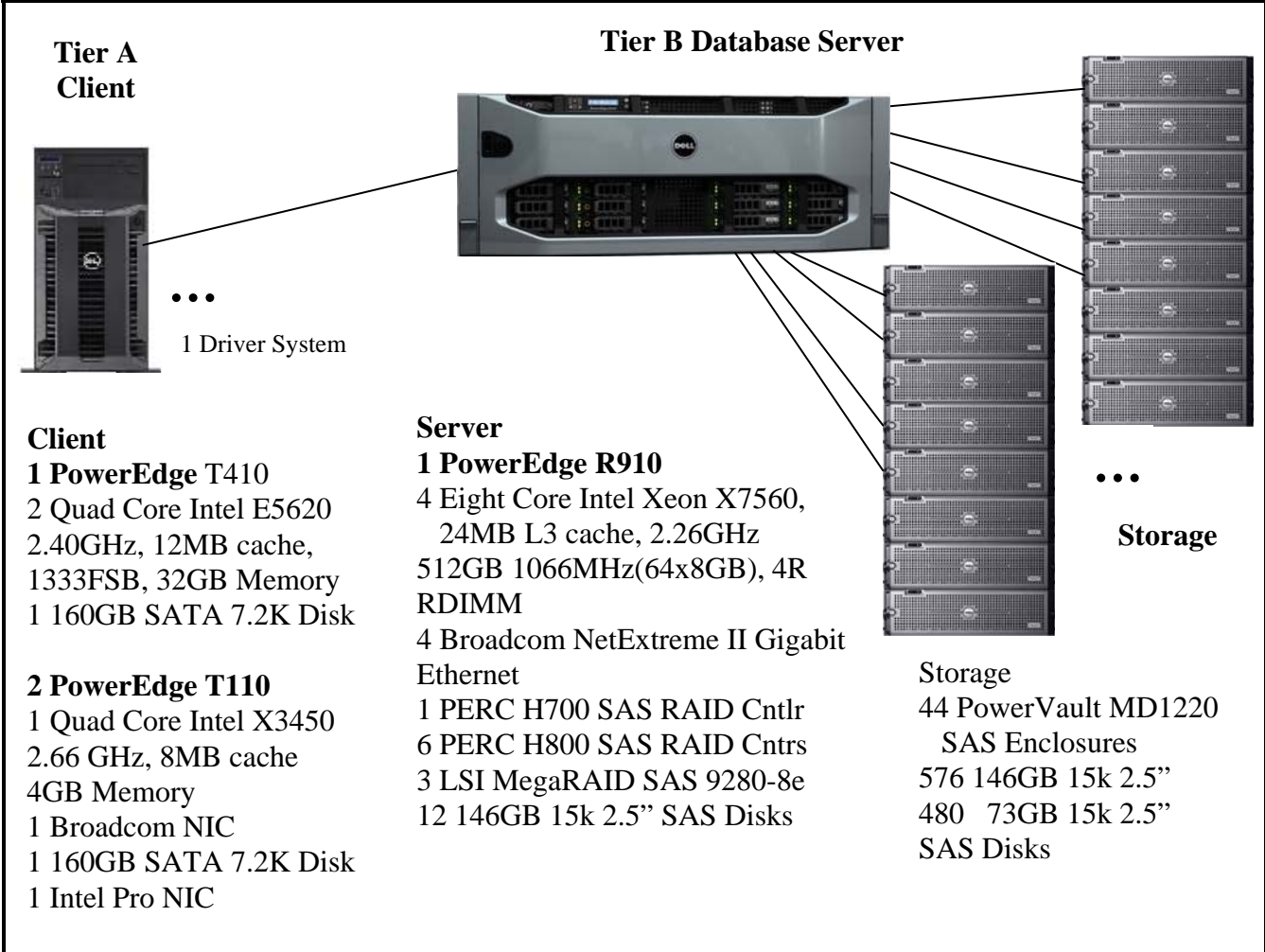
	PowerEdge™ R910 Server		TPC-E 1.9.0 TPC Pricing 1.5
			Report Date: April 11, 2010
			Revision Date: October 25, 2010
TPC-E Throughput	Price/Performance	Availability Date	Total System Cost
1933.96 tpsE	297.44USD per tpsE	May 6, 2010	\$575,235 USD

Database Server Configuration			
Operating System	Database Manager	Processors/Cores/ Threads	Memory
Microsoft Windows Server 2008 R2 Enterprise x64 Edition™	SQL Server 2008 R2Enterprise x64 Edition™	4/32/64	512GB



Initial Database Size 8,309.15GB	Redundancy Level: 1 RAID10 Log Data	Storage 12 x 146GB, 576 x 146GB, 480 x 73GB
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PowerEdge R910

TPC-E 1.9.0 TPC Pricing 1.5

Report Date
April 11, 2010
Revision Date
October 25, 2010
Availability Date
May 6, 2010

Description	Part Number	Price Source	Unit Price	Qty	Extended Price	3 yr. Maint. Price
Server Hardware						
R910 Chassis for up to Sixteen 2.5" HDs	244-8696	1	\$2,954.00	1	\$2,954.00	\$1,119.00
Dual 2-port Embedded Broadcom 5709 Gigabit NIC	330-7444	1	299.00	1	\$299.00	
2xIntel Xeon X7560 2.26GHz, 24M cache, 6.40 GT/s QPI	317-3280	1	\$8,999.00	1	\$8,999.00	
Upgrade to Four Intel Xeon X7560 2.26GHz, 8C	317-3286	1	\$8,999.00	1	\$8,999.00	
HO Pwr Sply,Non-Redundant,1100W UPG	330-7496	1	\$598.00	1	\$598.00	
Memory Riser for PE R910, Qty 8	330-6786	1	\$1,596.00	1	\$1,596.00	
512GB Memory (64x8GB), 1066MHz, Quad Ranked	317-3321	1	\$24,130.00	1	\$24,130.00	
R910 Add-in Card with 4x Low Profile PCIe	330-6790	1	\$49.00	1	\$49.00	
PERC H700 Integrated RAID Controller, 512MB Cache	342-0371	1	\$499.00	1	\$499.00	
PERC H800 RAID Adapter for External JBOD, 512MB	341-5842	1	\$649.00	6	\$3,894.00	
MegaRAID SAS 9280-8e External RAID Adapter	A3578859	1	\$720.99	3	\$2,162.97	
146GB,SAS,2.5-inch,15K RPM HD	342-0427	1	\$439.00	12	\$5,268.00	
DELL E170S,Standard, 17in VIS	320-5090	1	\$177.00	1	\$177.00	
				Subtotal	\$59,624.97	\$1,119.00
Server Storage						
PV MD1220,RACK,2U,24 BAY,LBZL	224-7093	1	\$2,794.00	24	\$67,056.00	
PV MD1220,RACK,2U,24 BAY,LBZL	224-7093	1s	\$2,794.00	20	\$55,880.00	
PV MD1220,RACK,2U,24 BAY,LBZL (10% Spares)	224-7093	1s	\$2,794.00	5		\$13,970.00
Enclosure Management Modules, PowerVault MD1220	330-6058	1	\$0.00	24	\$0.00	
Enclosure Management Modules, PowerVault MD1220	330-6058	1s	\$0.00	20	\$0.00	
73GB,SAS,2.5-inch,15K RPM HD	341-9888	1s	\$329.00	480	\$157,920.00	
73GB,SAS,2.5-inch,15K RPM HD (10% Spares)	341-9888	1s	\$329.00	48		\$15,792.00
146GB,SAS,2.5-inch,15K RPM HD	341-9889	1	\$439.00	576	\$252,864.00	
146GB,SAS,2.5-inch,15K RPM HD (10% spares)	341-9889	1s	\$439.00	58		\$25,462.00
RACK-42U, CUST	340-4896	1	\$239.99	2	\$479.98	
				Subtotal	\$534,199.98	\$55,224.00
Server Software						
SQL Server 2008 Enterprise x64 Edition **	N/A	2	\$19,188.00	4	\$76,752.00	
Windows Server 2008 Enterprise Edition (x64) **	P72-04217	2	\$2,280.00	1	\$2,280.00	
Professional Support (1 Incident)	N/A		\$259.00	1		\$259.00
				Subtotal	\$79,032.00	\$259.00
Client Hardware						
Dell PowerEdge T410 w/ Intel E5620 Quad core, 1066 FSB	224-8663	1s	\$321.00	1	\$321.00	\$708.00
Intel Xeon E5620 2.4GHz, 12M Cache, Turbo, HT	317-4112	1s	\$579.00	1	\$579.00	
Intel Xeon E5620 2.4GHz, 12M Cache, Turbo, HT	317-4124	1s	\$579.00	1	\$579.00	
32GB,1333MHz,(8X4GB),2R,RDIMMS	317-2564	1s	\$1,690.00	1	\$1,690.00	
160G 7K SATA2,3G,3.5,HP	341-6084	1s	\$99.00	1	\$99.00	
Dell PowerEdge T110 Chasis	224-6816	1	\$108.00	2	\$216.00	\$984.00
X3450 Xeon Proc, 2.66 GHz 8M Cache, Turbo, HT	317-2042	1	\$419.00	2	\$838.00	
4GB,1033MHz,(2X2GB),2R,UDIMM	317-2034	1	\$158.00	2	\$316.00	
160G 7K SATA2,3G,3.5,HP	341-6084	1	\$99.00	2	\$198.00	
Intel Gigabit ET NIC PCI-e	430-0643	1	\$199.00	2	\$398.00	
				Subtotal	\$5,234.00	\$1,692.00
Client Software						
Windows Server 2008 Standard Edition (x64) **	P73-04980	2	\$711.00	3	\$2,133.00	
				Subtotal	\$2,133.00	\$0.00
Infrastructure						
1M SAS Cable, MDXX00	310-6061	1	\$30.00	44	\$1,320.00	
				Subtotal	\$1,320.00	\$0.00
				Other Discounts*	(\$150,094.74)	(\$14,508.75)
				Total	\$531,449.21	\$43,785.25
Notes:						
None of the components of the measured configuration have been substituted in the Priced Configuration. See the FDR for details.						
*All hardware from Dell(1) is discounted 25% based on total dollar volume of this config.				Three-Year Cost of Ownership:	\$575,235	USD
** All Microsoft maintenance is covered by the maint. costs of Microsoft SQL Server				TPC-E Throughput:	1,933.96	tpsE
Price Source: 1=Dell, 2=Microsoft, NIO = Not Immediately Orderable				Price/Performance:	\$297.44	tpsE/USD
Pricing may be verified by calling 1-800-BUY-DELL and referencing quote # 536775819 as a complex quote.						
Audited by Lorna Livingtree, Performance Metrics Inc.						
<i>Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications. If you find that the stated prices are not available according to these items, please inform the TPC at pricing@tpc.org.</i>						

Numerical Quantities Summary				
Reported Throughput: 1933.96 tpsE		Configured Customers: 1,025,000		
Response Times (in seconds)	Minimum	Average	90th%tile	Maximum
Broker-Volume	0.01	0.06	0.10	4.36
Customer-Position	0.00	0.04	0.07	3.62
Market-Feed	0.00	0.04	0.07	44.18
Market-Watch	0.00	0.04	0.08	3.93
Security-Detail	0.00	0.02	0.04	2.87
Trade-Lookup	0.00	0.52	0.71	3.07
Trade-Order	0.00	0.09	0.15	10.02
Trade-Result	0.00	0.11	0.18	6.40
Trade-Status	0.00	0.03	0.05	2.16
Trade-Update	0.01	0.58	0.73	12.41
Data-Maintenance	0.01	0.09		0.58
Transaction Mix		Transaction Count		Mix %
Broker-Volume		6,823,240		4.900%
Customer-Position		18,103,398		13.000%
Market-Feed		1,392,471		1.000%
Market-Watch		25,065,856		18.000%
Security-Detail		19,495,843		14.000%
Trade-Lookup		11,139,302		7.999%
Trade-Order		14,065,000		10.100%
Trade-Result		13,924,541		9.999%
Trade-Status		26,458,366		19.000%
Trade-Update		2,784,755		2.000%
Data-Maintenance		120		
Test Duration and Timings				
Ramp-up Time (hh:mm:ss)			00:18:19	
Measurement Interval (hh:mm:ss)			02:00:00	
Business Recovery Time (hh:mm:ss)			09:43:09	
Total number of Transactions Completed in Measurement Interval			139,252,772	