



PRIMERGY RX900 S1

TPC-E 1.12.0
TPC Pricing 1.5.0

Report Date
September 24, 2010

TPC-E Throughput
3,800.00 tpsE

Price/Performance
\$ 245.82 USD per tpsE

Availability Date
October 1, 2010

Total System Cost
\$ 934,084

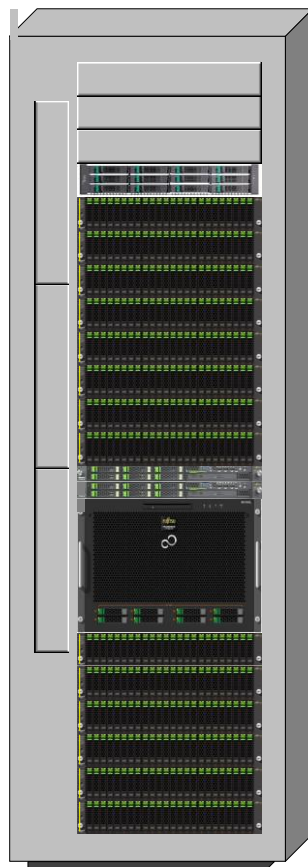
Database Server Configuration

Operating System
**Microsoft Windows
Server 2008 R2
Datacenter Edition**

Database Manager
**Microsoft SQL Server
2008 R2 Datacenter
Edition**

Processors/Cores/Threads
8/64/128

Memory
1024 GB



Tier A (2x)

PRIMERGY RX200 S6
2x Intel Xeon E5640 2.66 GHz
12 GB Memory
1x 73 GB 15K SAS Drive
2x onboard LAN 1 Gb/s
2x Dual Port LAN 1 Gb/s

Tier B

PRIMERGY RX900 S1
8x Intel Xeon X7560 2.26 GHz
1024 GB Memory
2x 146 GB 10K SAS Drives
6x 300 GB 10K SAS Drives
6x onboard LAN 1 Gb/s
1x onboard SAS RAID Controller
14x SAS RAID Controller

Storage

1x PRIMECENTER Rack
14x ETERNUS JX40
336x 64 GB SSD Drives
1x FibreCAT SX40
7x 750 GB 7.2K SATA Drives

Initial Database Size
15,248 GB

Redundancy Level 1
RAID-5 data and RAID-10 log

Storage
336 x 64 GB SSD
7 x 750 GB 7.2K HDD
6 x 300 GB 10K HDD



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Description	Part Number	Price Source	Unit Price	Qty	Extended Price	3-yr. Maint. Price
Database Server Hardware						
FSCR800_S26361-K1361-V800_106543-01		1	132,380.70	1	132,380.70	
PY RX900S1	S26361-K1361-V800			1		
CPU MEMORY Riser Board	S26361-F4470-E100			4		
Intel Xeon X7560 8C/16T 2.26 GHz 24 MB	S26361-F3999-E560			8		
32GB (4x8) DDR3 1333 MHz PC3-10600 rg d	S26361-F4472-E645			32		
DVD-RW supermulti slimline SATA	S26361-F3269-E2			1		
HD SAS 6G 146GB 10K HOT PLUG 2.5" EP	S26361-F4006-E114			2		
HD SAS 6G 300GB 10K HOT PLUG 2.5" EP	S26361-F4006-E130			6		
RAID Ctrl SAS 6G 5/6 512MB (D2616)	S26361-F3554-E512			1		
RAID Ctrl SAS 6G 8Port ex 512MB FH LSI	S26361-F3593-E1			14		
Rack Mount Kit for RX900	S26361-F2735-E109			1		
Cable mgmt. RX900 fr asym. 19" Racks	S26361-F2735-E17			1		
PYRX800 Warranty Uplift, 36 Months, Enhanced Plus Level, 24x7x365 Phone Support (Sev1 - Live Transfer), 24x7x365 Onsite and Parts (Sev1 Resp. Time - 4 Hours), Incl. Holidays, Prepaid billing	PYR800-U004361-0NA	1	3,000.00	1		3,000.00
PYRX800 during normal business hours, Primergy Installation, High-end Server, w/o OS, One Time billing	PYR800-N037005-0NA	1	450.00	1		450.00
				Subtotal	132,380.70	3,450.00
Server Storage						
FSCPCTR_S26361-K826-V214_106605-01		1	2,584.00	1	2,584.00	
PRIMECENTER Rack 46U, 1100mm deep	S26361-K826-V214			1		
Dummy panel, plastics, 2U + assembly	S26361-F2735-E131			14		
Socket strip 3phase 3x 8 sockets	S26361-F2262-L31	1	157.25	1	157.25	
PYPCTR Warranty Uplift, 36 Months, Enhanced Plus Level, 24x7x365 Phone Support (Sev1 - Live Transfer), 24x7x365 Onsite and Parts (Sev1 Resp. Time - 4 Hours), Incl. Holidays, Prepaid billing	PYPCTR-U004361-0NA	1	720.00	1		720.00
FSCJX40_FTS:ETJXS11BG_106605-02		1	2,611.20	14	36,556.80	
ETERNUS JX40	FTS:ETJXS11BG			14		
PRIMERGY Rackinstallation SX/DX ex works	D:FCSX-INPSR			14		
SSD SATA 3G 64GB SLC HOT PLUG 2.5" EP	S26361-F3298-L64	1	1,131.35	336	380,133.60	
PYJX40 Warranty Uplift, 12 Months, Enhanced Plus Level, 24x7x365 Phone Support (Sev1 - Live Transfer), 24x7x365 Onsite and Parts (Sev1 Resp. Time - 4 Hours), Incl. Holidays, Prepaid billing	PYJX40-U004121-0NA	1	609.00	14		8,526.00
PYJX40 Post Warranty, 24 Months, Enhanced Plus Level, 24x7x365 Phone Support (Sev1 - Live Transfer), 24x7x365 Onsite and Parts (Sev1 Resp. Time - 4 Hours), Incl. Holidays, Prepaid billing	PYJX40-P004241-0NA	1	1,218.00	14		17,052.00
PYJX40 during normal business hours, Primergy storage installation, One Time billing	PYJX40-N043005-0NA	1	450.00	14		6,300.00
FSCSX40_S26361-K1122-V200_106605-03		1	3,100.80	1	3,100.80	
FibreCAT SX40 SAS Disk Subsystem	S26361-K1122-V200			1		
HD SATA 3Gb/s 750GB 7.2k hot p 3.5" SX40	S26361-F3245-E750			7		
Rack installation ex works, SX10, 1U Nod	S26361-F1647-E302			1		
PYSX40 Warranty Uplift, 36 Months, Enhanced Plus Level, 24x7x365 Phone Support (Sev1 - Live Transfer), 24x7x365 Onsite and Parts (Sev1 Resp. Time - 4 Hours), Incl. Holidays, Prepaid billing	PYSX40-U004361-0NA	1	1,827.00	1		1,827.00
PYSX40 during normal business hours, Primergy storage installation, One Time billing	PYSX40-N043005-0NA	1	450.00	1		450.00
SAS Cable 6Gb 1x SFF 8088-1x SFF 8088 2m	D:KBSAS6G-1S-1S-2M	1	85.00	14	1,190.00	
SAS CBL EXT 2m 8088-8470	S26361-F3246-L203	1	62.90	1	62.90	
				Subtotal	423,785.35	34,875.00



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Server Software						
SQL Server 2008 R2 Datacenter Edition Per Processor License	810-00445	2	38,524.00	8	308,192.00	
Windows Server 2008 R2 Datacenter Edition Per Processor License	P71-06367	2	2,310.00	8	18,480.00	
Microsoft Problem Resolution Services	n/a	2	259.00	1		259.00
				Subtotal	326,672.00	259.00
Tier A Client Hardware						
FSCR2S6_S26361-K1342-V101_106605-05		1	4,414.90	2	8,829.80	
PY RX200 S6, 6HD-bays 2.5"	S26361-K1342-V101			2		
Intel Xeon E5640 4C/8T 2.66 GHz 12 MB	S26361-F4419-E266			4		
SP 6GB 3x2 DDR3 1333 MHz PC3-10600 rg s	S26361-F3604-E533			4		
DVD-RW supermulti slimline SATA	S26361-F3269-E2			2		
HD SAS 6G 73GB 15K HOT PLUG 2.5" EP	S26361-F4006-E573			2		
RAID 0/1 SAS based on LSI MegaRAID 4Port	S26361-F3257-E4			2		
Eth Ctrl 2x1Gbit PCIe PRO/1000PT Cu lp	S26361-F3228-E201			4		
Rack installation ex works, SX10, 1U Nod	S26361-F1647-E302			2		
RMK-P_1-2U servers (new)	S26361-F2735-E110			2		
Power Supply Module 450W gold hp	S26113-F570-E1			2		
PYRX200 S6 Warranty Uplift, 36 Months, Enhanced Plus Level, 24x7x365 Phone Support (Sev1 - Live Transfer), 24x7x365 Onsite and Parts (Sev1 Resp. Time - 4 Hours), Incl. Holidays, Prepaid billing	PYR2S6-U004361-0NA	1	550.00	2		1,100.00
PYRX200 S6 during normal business hours, Primergy installation, Low-end Server, w/o OS, One Time billing	PYR2S6-N039005-0NA	1	200.00	2		400.00
				Subtotal	8,829.80	1,500.00
Tier A Client Software						
Windows Server 2008 R2 Standard x64 Edition	P73-04980	2	711.00	2	1,422.00	
Infrastructure or Connectivity						
DISPLAY A19-5 ECO (incl. 2 spares)	S26361-K1339-V140	1	125.80	5	629.00	
KB400 USB US (incl. 2 spares)	S26381-K550-L402	1	15.30	5	76.50	
Mini Optical Mouse (incl. 2 spares)	S26381-K452-L100	1	11.05	5	55.25	
LAN-CAT 5 Enhanced, l=3m	S26361-F3417-L3	1	18.70	8	149.60	
				Total	894,000.20	40,084.00
Notes:				Three-Year Cost of Ownership USD		\$934,084
Price Source: 1=Fujiitsu, 2=Microsoft Corporation				TPC-E Throughput		3,800.00
				\$ USD/tpsE		\$245.82

The benchmark results and test methodology were audited by Doug Johnson for InfoSizing Inc. (www.sizing.com)

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 section of the TPC benchmark pricing specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.



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Numerical Quantities Summary

Reported Throughput:		3800.00 tpsE		Configured Customers:		1,900,000	
Response Times (in seconds)		Minimum	Average	90th%tile	Maximum		
Broker Volume		0.00	0.06	0.10	6.72		
Customer Position		0.00	0.05	0.07	3.49		
Market Feed		0.00	0.03	0.05	3.48		
Market Watch		0.00	0.05	0.09	2.83		
Security Detail		0.00	0.02	0.04	3.79		
Trade Lookup		0.00	0.13	0.19	3.30		
Trade Order		0.00	0.10	0.14	3.74		
Trade Result		0.00	0.13	0.18	7.10		
Trade Status		0.00	0.03	0.04	6.51		
Trade Update		0.01	0.14	0.20	3.79		
Data Maintenance		0.02	0.07	N/A	0.37		
Transaction Mix			Transaction Count		Mix %		
Broker Volume			13,470,648		4.900%		
Customer Position			35,737,790		13.000%		
Market Feed			2,749,095		1.000%		
Market Watch			49,483,046		18.000%		
Security Detail			38,486,527		14.000%		
Trade Lookup			21,992,188		8.000%		
Trade Order			27,765,455		10.100%		
Trade Result			27,490,698		10.000%		
Trade Status			52,232,809		19.000%		
Trade Update			5,498,117		2.000%		
Data Maintenance			120		N/A		
Test Duration and Timings							
Ramp-up Time (hh:mm:ss)			00:14:32				
Measurement Interval (hh:mm:ss)			02:00:00				
Business Recovery Time (hh:mm:ss)			00:55:44				
Total Number of Transactions Completed in Measurement Interval			274,906,373				