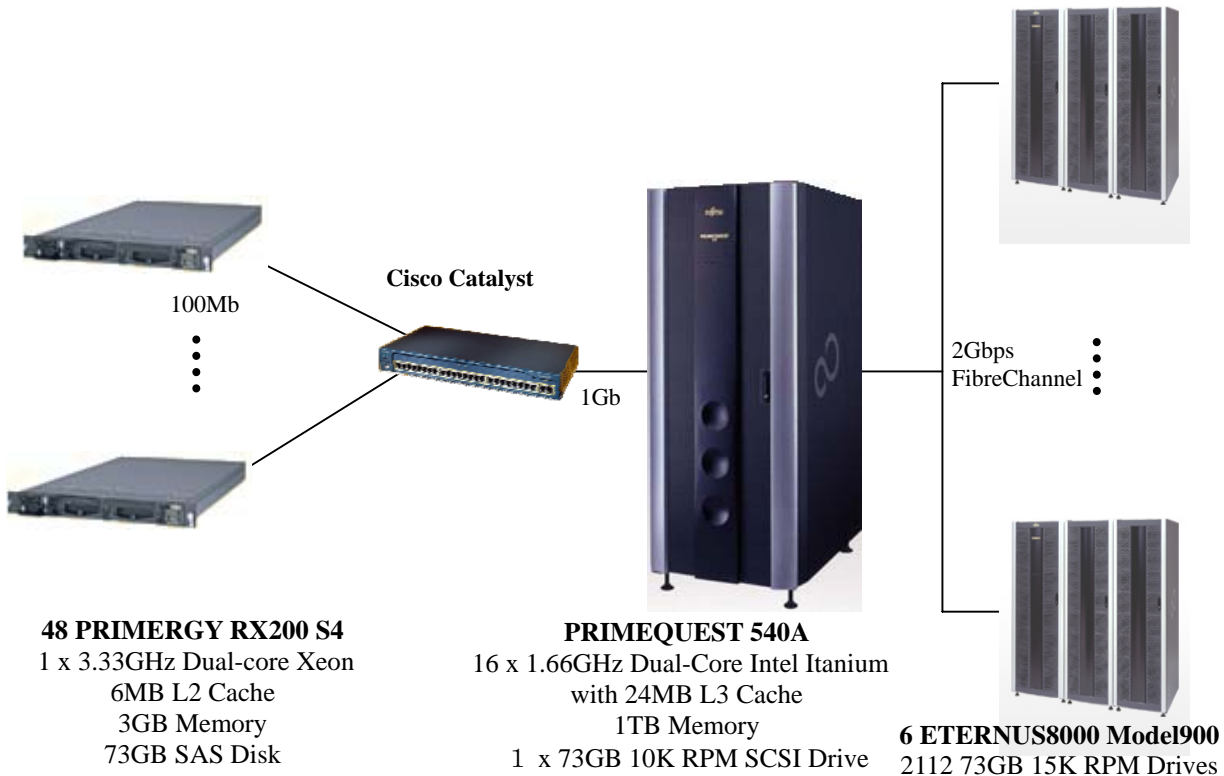
		PRIMEQUEST 540A c/s w/48 Front-Ends		TPC-C Rev 5.10 TPC Pricing 1.3.0					
				Report Date: November 22,2008 Revised: December 12, 2008					
Total System Cost		TPC-C Throughput		Price/Performance		Availability Date			
\$ 4,397,010 USD		1,354,086 tpmC		\$ 3.25 USD/tpmC		November 22, 2008			
Database Server Processors/Cores/Threads		Database Manager		Operating system		Other Software		Number of users	
16/32/64 Intel Itanium 1.66GHz		Oracle Database 10g Release 2 Enterprise Edition		Red Hat Enterprise Linux 4 AS		Tuxedo 8.1		1,084,800	
 <p> 48 PRIMERGY RX200 S4 1 x 3.33GHz Dual-core Xeon 6MB L2 Cache 3GB Memory 73GB SAS Disk </p> <p> PRIMEQUEST 540A 16 x 1.66GHz Dual-Core Intel Itanium with 24MB L3 Cache 1TB Memory 1 x 73GB 10K RPM SCSI Drive </p> <p> 6 ETERNUS8000 Model900 2112 73GB 15K RPM Drives </p>									
System Component		Qty		Server:		Qty		Each of 48 Clients:	
Processors/Cores/ Threads Cache Memory		16/32/64		1.66GHz Dual-Core Intel Itanium 9150M 24MB L3 Cache		1/2/2		3.33GHz Intel Dual-core Xeon X5260 6MB L2 Cache	
Memory		32		32GB (4 x 8GB DDR2-400)		3		1GB(2 x 512MB PC2-5300F) 2GB(2 x 1024MB PC2-5300F)	
Disk Controllers		24		4G bps FibreChannel (used at 2Gbps)		1		Serial Attached SCSI (SAS)	
Disk Drives		1 2112		73GB 10K rpm 73GB 15K rpm		1		73 GB 15K rpm	
Total Storage				154,249 GB				3,504 GB	



**PRIMEQUEST 540A c/s
w/48 Front-Ends**

TPC-C Revision 5.10
TPC Pricing 1.3.0
Report Date: November 22, 2008
Revised Date : December 12, 2008

Description	Part Number	Third Party Brand Pricing	Unit Price	Qty	Extended Price	3Year Maint. Price
Server Hardware						
PRIMEQUEST 540A Base Unit	MC4C0P311U	1	14,000.00	1	14,000.00	136,392.00
System Board	MC-97SB11	1	18,000.00	4	72,000.00	
CPU Module(Dual core Itanium 9150M/1.66GHz/24MB	MC-01HA114	1	20,900.00	16	334,400.00	
32GB Memory Module (4x8GB DDR2-400)	MC-02A6114	1	32,880.00	32	1,052,160.00	
I/O Unit	MC-97UX11	1	15,000.00	4	60,000.00	
BMC Module	MC-97BM11	1	1,720.00	1	1,720.00	
Disk Drive Unit (3.5inch, 73GB, 10,000rpm, Ultra320)	MC-03D321	1	680.00	1	680.00	
Gigabit Switch Board (w/ 8 external 1000Base-T ports)	MC-87GE11	1	11,850.00	1	11,850.00	
External I/O Cabinet	MC-87RK11U	1	20,850.00	1	20,850.00	
PCI-Box	MC-07PB21U	1	20,700.00	1	20,700.00	
PCI Unit	MC-07PU31	1	4,250.00	2	8,500.00	
PCI Cassette	MC-07PC11	1	370.00	6	2,220.00	
PCI Unit Cable (5m)	MC-07CA11	1	890.00	2	1,780.00	
FibreChannel Card (4Gbps, PCI-X, dual port)	MC-08FC41	1	4,270.00	22	93,940.00	
FibreChannel Cable (15m, LC-LC)	CBL-MLLB15	1	330.00	44	14,520.00	
17" Flat Panel Display	96-343680-000	1	520.00	1	520.00	
USB Keyboard W/Trackball	MC-07KB51	1	600.00	1	600.00	
Server Hardware Subtotals					1,710,440.00	136,392.00
Storage						
ETERNUS8000 Model900 Base Unit w/ 2 Controllers, 4 Drive Enclosures	E890S20AU	1	180,000.00	6	1,080,000.00	485,580.00
Additional Expansion Rack	E800CR1U	1	12,000.00	11	132,000.00	
Additional Controllers (2 sets)	E800CJ01U	1	40,000.00	6	240,000.00	
Cache Memory (2GBx4)	E800CM41U	1	14,000.00	6	84,000.00	
FibreChannel Host Interfaces (4Gbps, dual port, 2	E800CH14U	1	12,800.00	22	281,600.00	
Drive Enclosures for Base Unit (4 sets)	E800CE11U	1	39,400.00	6	236,400.00	
Drive Enclosures for Expansion Rack (4 sets)	E800CE21U	1	31,000.00	33	1,023,000.00	
Disk Drive Unit (73GB, 15,000rpm)	E800CA3U	1	650.00	2112	1,372,800.00	
Storage Subtotals					4,449,800.00	485,580.00
Server Software						
Red Hat Enterprise Linux 4 AS (for Intel Itanium)	PMK0348US	1	7,497.00	1	7,497.00	7,497.00
Oracle Database 10g Enterprise Edition, Per Processor, Unlimited Users for 3 years		2	23,750.00	16*	380,000.00	
Oracle Database Server Support for 3 years		2	2,300.00	3		6,900.00
Server Software Subtotals					387,497.00	14,397.00
Client Hardware						
PRIMERGY RX200 S4	S26361-K1167-V101	1	1,174.84	48	56,392.32	45,360.00
Xeon DP X5260 3.33 GHz 6MB 1333MHz	S26361-F3881-E333	1	1,422.00	48	68,256.00	
1GB Base Memory (2 x 512MB PC2-5300F)	S26361-F3263-E521	1	109.36	48	5,249.28	
2GB Memory Module (2 x 1024MB PC-5300F)	S26361-F3263-E522	1	149.42	48	7,172.16	
Drive Bay (2 x 3.5" HDD slots)	S26361-F3317-E400	1	45.00	48	2,160.00	
Hard Disk Drive (3.5inch, 73GB, 15,000rpm Hot Plug, 5	S26361-F3204-E573	1	227.00	48	10,896.00	
RAID 0/1 SAS based on LSI MegaRAID 4Port	S26361-F3257-E4	1	127.00	48	6,096.00	
Internal CD-RW / DVD Unit	S26361-F3268-E1	1	68.40	48	3,283.20	
USB FDD	S26361-F2382-L20	1	42.34	1	42.34	
PRIMECENTER Rack 19inch Rack (24U)	S26361-K826-V102	1	2,011.01	3	6,033.03	
Dummy panel, plastics, 2U + assembly	S26361-F2735-E131	1	16.00	3	48.00	
RackMountKit 1-2U servers	S26361-F2735-E110	1	67.00	48	3,216.00	
Cable Powercord (USA) 1.8m, grey	T26139-Y1742-E10	1	11.00	48	528.00	
LCDRC23 17" TFT	S26361-K1023-V200	1	1,716.00	3	5,148.00	
KVM Switch (8ports, 1U)	S26361-F2293-E801	1	708.00	9	6,372.00	
Console Switch adapter KVM S2 PS/2-VGA	S26361-F2293-L201	1	110.00	48	5,280.00	
KVM Cable (1.8m)	S26361-F2293-L20	1	10.80	54	583.20	
Client Hardware Subtotals					186,755.53	45,360.00



**PRIMEQUEST 540A c/s
w/48 Front-Ends**

TPC-C Revision 5.10
TPC Pricing 1.3.0
Report Date: November 22, 2008
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Description	Part Number	Third Party Brand Pricing	Unit Price	Qty	Extended Price	3Year Maint. Price
Client Software						
Red Hat Enterprise Linux 4 ES (for x86)	PMK0343US	1	672.00	48	32,256.00	
Tuxedo CFS-R Tier 1		2	1,800.00	48	86,400.00	
Oracle Premium Support for 3 years		2	19,008.00	3		57,024.00
Client Software Subtotals					118,656.00	57,024.00
User Connectivity						
Cisco Catalyst 2950T-24 Switch		3	839.00	4	3,356.00	
Cisco SMARTnet 24x7x4 Maintenance		4		4		1,439.88
User Connectivity Subtotals					3,356.00	1,439.88
Oracle Mandatory E-Business Discount		2			-106,065.00	
Large Configuration Discount** and Support Prepayment***		1			-2,794,058.66	-299,564.70
Total					3,956,381.00	440,629.00
Three-Year Cost of Ownership						\$4,397,010

Pricing Sources: 1 = Fujitsu , 2 = Oracle , 3 = getITnew.com , 4 = TechOnWeb.com
 Audited by: Francois Raab, InfoSizing, Inc. (www.sizing.com)
 Oracle pricing contact: MaryBeth Pierantoni, mary.beth.pierantoni@oracle.com, 916-315-5081
 * 16=0.50 x 32. Explanation: For the purposes of counting the number of processors which require licensing, an Intel multicore chip with "n" cores shall be determined by multiplying "n" cores by a factor of 0.50. ** applied to the Fujitsu hardware and storage price subtotals.
 *** applied to the Fujitsu hardware, storage and server software maintenance.

Three-Year Cost of Ownership USD	\$4,397,010
tpmC	1,354,086
\$ USD / tpmC	\$3.25

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. Thank you.

**Numerical Quantities Summary for
PRIMEQUEST 540A c/s w/ 48 Front-Ends
Oracle Database 10g Release 2 Enterprise Edition**

MQTH, Computed Maximum Qualified Throughput **1,354,086 tpmC**

Response Times (in seconds)	Average	90th %	Maximum
New-Order	0.508	0.992	6.389
Payment	0.499	0.983	6.401
Order-Status	0.507	0.992	6.132
Delivery (interactive portion)	0.103	0.104	0.324
Delivery (deferred portion)	0.404	0.887	4.988
Stock-Level	0.491	0.976	6.137
Menu	0.103	0.104	0.358

Transaction Mix, in percent of total transaction

New-Order	44.96%
Payment	43.01%
Order-Status	4.01%
Delivery(interactive)	4.01%
Stock-Level	4.01%

Emulation Delay (in seconds)

	Response Time	Menu
New-Order	0.1	0.1
Payment	0.1	0.1
Order-Status	0.1	0.1
Delivery (interactive)	0.1	0.1
Stock-Level	0.1	0.1

Keying/Think Times (in seconds)

	Keying Time			Think Time		
	Min	Avg	Max	Min	Avg	Max
New-Order	18.002	18.012	18.034	0.000	12.016	120.198
Payment	3.002	3.012	3.036	0.000	12.015	120.196
Order-Status	2.003	2.012	2.034	0.000	10.016	100.187
Delivery (interactive)	2.003	2.012	2.033	0.000	5.017	50.184
Stock-Level	2.003	2.012	2.030	0.000	5.018	50.193

Test Duration

Ramp-up time	179 Min. 0 Sec.
Measurement interval	120 minutes
Transactions during measurement interval(all types)	361,713,360

Checkpointing

Number of checkpoints	4
Checkpoint interval (seconds)	1,717