· °	TPC-C Rev 5.11			
invent	HP ProLiant DL380 G7			Pricing Rev 1.5
Total System Cost	TPC Throughput Price/Performance Report Date			Availability Date
\$544,967 USD	803,068 tpmC \$0.68 USD per tpmC May 11, 2010			Sept 1, 2010
Procs/Cores/Threads	DataBase Manager	Operating System	Other Software	Number of Users
Srvr - 2/12/24 Intel X5680 Hex Core Processors @ 3.3 GHz Client - 16 x 2/8/8 Intel Xeon E5520 @ 2.26 GHz	Microsoft SQL Server 2005 Enterprise X64 Edition SP3	Microsoft Windows Server 2008 R2 Enterprise Edition for X64-Based Systems	Microsoft Visual C++ Microsoft COM+ Transaction Monitor	639,960
HP ProLiant DL380G7 w 3.3 Ghz/192GB RAM 1 SmartArray 410i SAS RAID controller 24 R.1				E's Simulating O Users

HP Procurve 2910al48

1 HP5642 Rack containing: 8xS torage Works D2700 with 16 x 120GB SSD's each.

(Priced Only) 3 x Storage Works D2700 Enclosures with 56x 500GB 10K SFF SAS drives



16x BL460c Blades (Middle Tier)

System Components	Server		Each Client	
	Qty	Туре	Qty	Туре
Procs/Cores/Thrds	2/12/24	3.3 GHz	2/8/8	2.26 GHz Intel Xeon E5520
Cache Memory		12 MB L3 cache		8 Mbyte L3 Cache
Memory	12	16 Gbyte	1	8196 MB
Disk Controllers	4	LSI 9200_8e SAS Controller	1	SA 410i
	1	Smart Array P410i		
	1	Smart Array P411		
	1	StorageWorks 82E 2x8gb fiber		
Disk Drives	128	HP 120GB 2.5" SSD (data)	2	146 Gbyte disk
	12	HP 500GB DP 2.5" 7.2K RPM SAS (Log)		
	56	HP 500GB DP 2.5" 7.2K RPM SAS(60Day)		
	2	HP 72GB 15K SAS drives (OS)		
Total Storage		46810.00		146 Gbyte
Terminals	1	Console Terminal	1	Console Terminal

Server Hardware		Price Key 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23,432 275 2,280 259		eport Date Extended Price 1,591 4,598 18,588 598 99 529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	11-May-10 3 yr. Maint 837 1,513 23,617 656 26,623 Incl Belor Incl Belor Incl Belor
Server Hardware	4-B21 8-L21 6-B21 7-B21 9-B21 2-B21 0-B21 1-B21 45E A##ABA A##ABA 4-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,591 2,299 1,549 99 99 529 499 349 887 159 39 865 739 2,250 419 8,900 1,513 2,793 3,399 2,147 419 328 328 Sub	1 2 12 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,591 4,598 18,588 598 99 529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	837 1,513 23,617 656 26,623 Incl Beloi Incl Beloi
Server Hardware	08-L21 6-B21 7-B21 9-B21 9-B21 12-B21 10-B21 14-B21 45E A4#ABA A4#ABA A4#ABA 19A 63A 2-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 005E 0188 0188 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,591 2,299 1,549 299 99 529 499 349 837 159 39 865 739 2,250 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub	1 2 12 2 1 1 1 1 2 2 1 1 1 1 1 1 1 2 1 2 1	1,591 4,598 18,598 18,598 99 529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,617 656 26,623 Incl Beloi Incl Beloi
IF DL380G7 SFF CTO Chassis, HP NC382i nic, Smart Array P410i Controller	08-L21 6-B21 7-B21 9-B21 9-B21 12-B21 10-B21 14-B21 45E A4#ABA A4#ABA A4#ABA 19A 63A 2-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 005E 0188 0188 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,299 1,549 299 529 499 349 837 159 865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub	2 12 2 1 1 1 1 1 1 1 1 2 12 12 1 1 1 1	4,598 18,588 598 99 529 499 698 159 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,617 656 26,623 Incl Beloi Incl Beloi
Intel Xeon X5680 3.33Ghz Hax Core 12MB L3 Cache Opt 5874 1P 16GB 4Rx4 PC3-8500R-7 Kit 50066 1P 750W CS HE Power Supply Kit 5123 1P D1380G6/G7 PCI-E 1x8 2x4 Riser Kit 50067 1B Shacked Write Cache for P410i internal Disk Controller 4535 1P 720B 3G SAS 15K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive 4183 1P 72D 3G SAS 15K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive 4183 1P 2Y 4D 24x7 ProLiant DL330 HW Support , Proliant Server DL380 U.4 4P LE1851w 18.5-inch wide Monitor NK033 1P PSV2 Keyboard And Mouse Bundle RC464 4P 5642 Palled Unassembled Rack 35825 4P StorageWorks 282 Dual Channel 8Gb PCI-e HBA AF4 4P StorageWorks 282 Dual Channel 8Gb PCI-e HBA AF4 4P StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 4P 3y 4h 24x7 MSA2000 Array HWSupp ,MSA2000 Dual Controller U.6 4P 120B 3G SATA 2.5 in MDL SSD (Data) 19 200 38 SATA 2.5 in MDL SSD (Data) 4P 3y SupportPlus24 D2000 Enclosures, 4h 24x7 onsite response H3 3y SupportPlus24 D2000 Enclosures, 4h 24x7 onsite response LSI0 4P 500B 8G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day	08-L21 6-B21 7-B21 9-B21 9-B21 12-B21 10-B21 14-B21 45E A4#ABA A4#ABA A4#ABA 19A 63A 2-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 005E 0188 0188 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,299 1,549 299 529 499 349 837 159 865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub	2 12 2 1 1 1 1 1 1 1 1 2 12 12 1 1 1 1	4,598 18,588 598 99 529 499 698 159 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,617 656 26,623 Incl Beloi Incl Beloi
F1668 4Rx4 PC3-8500R-7 Kit 50068 19750H CS HE Power Supply Kit 51232 19750H CS HE Power Supply Kit 50067 19750H CS HE Power Supply Kit 50067 19750H CS HE POWER SUPPLIES HE POWER SU	6-B21 7-B21 9-B21 9-B21 2-B21 0-B21 1-B21 45E AA#ABA AA#ABA 4-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,549 299 99 529 499 349 837 159 865 739 2,250 75 419 8,900 1,513 2,799 2,147 419 328 328 Sub 23,432 275 2,250 23,432 275 2,250	12 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	18,588 598 99 529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Beloi Incl Beloi
P 750W CS HE Power Supply Kit 5123;	7-B21 9-B21 9-B21 12-B21 0-B21 1-B21 45E 1-B21 45E 1-B21 1-B21 19A 63A 2-B21 0-B21 9-B21 0188 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	299 99 529 499 349 837 159 39 865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 Sub 23,432 275 2,280 259 259 21,250	2 1 1 1 2 1 1 1 1 1 1 2 12 1 1 1 1 1 2 1 2 1 2 1	598 99 529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Beloi Incl Beloi
IP DL380G6/G7 PCI-E 1x8 2x4 Riser Kit 5005 GB Flash Backed Write Cache for P410i internal Disk Controller 5345 IP Smart Array P411/256 Controller 4628 IP 720B 3G SAS 15K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive 41837 IP 3y 4h 24x7 ProLiant DL380 HW Support ,Proliant Server DL380 U45 IP 218 LE1851 w 18.5-inch wide Monitor NK033, 19 PS/2 Keyboard And Mouse Bundle RC464, 19 S642 Pallet Unassembled Rack 35825 IP 7802 Keyboard And Mouse Bundle RC464, 19 S642 Pallet Unassembled Rack 35825 IP 815 KVA 10 NA UPS AF4 19 StorageWorks 82E Dual Channel S6b PCI-e HBA AJ7 19 StorageWorks 82E Dual Channel Cable 22168 19 StorageWorks 82E Dual Controller Modular Smart Array (SFF) AJ7 19 StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 19 StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 19 StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 19 StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 19 StorageWorks 2700 Disk Enclosure AJ8 19 StorageWorks 2700 Disk Enclosures, 4h 24x7 onsite response UG2 19 StorageWorks 2700 Disk Enclosures, 4h 24x7 onsite response UG2 19 StorageWorks 2700 Disk Enclosure AJ8 19 Stor	9-B21 2-B21 0-B21 1-B21 45E 1-B21 45E 1-B21 1-B21 1-B21 1-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 03134 00116 04217	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	99 529 499 349 837 159 39 865 739 2,250 419 8,900 1,513 2,799 2,147 419 328 328 Sub	1 1 1 1 1 1 1 1 1 1 1 2 12 1 1 1 1 1 1	99 529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Belo Incl Belo
GB Flash Backed Write Cache for P410i internal Disk Controller	2-B21 0-B21 11-B21 45E A#ABA A#ABA A-#ABA 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 03134 00116 04217	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	529 499 349 837 159 39 865 739 2,250 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	1 1 2 1 1 1 1 1 1 2 12 1 1 1 1 1 1 1 1	529 499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Beloi Incl Beloi
#P Smart Array P411/256 Controller 4628: #P 72GB 3G SAS 15K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive 41837 #3 y4 h 24x7 ProLiant DL380 HW Support ,Proliant Server DL380 #1837 #1834 h 24x7 ProLiant DL380 HW Support ,Proliant Server DL380 #1847 #1834 h 24x7 ProLiant DL380 HW Support ,Proliant Server DL380 #1847	0-B21 1-B21 45E AA#ABA AA#ABA 4-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 0188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	499 349 837 159 865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub	2 1 1 1 1 1 1 1 2 12 1 1 1 1 1 1 1 5 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	499 698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Belo Incl Belo
#P 72GB 3G \$AS 15K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive #P 3y 40 24x7 ProLiant DL380 HW Support ,Proliant Server DL380 U45 #P 10-10-10-10-10-10-10-10-10-10-10-10-10-1	1-B21 45E A#ABA A#ABA A-#ABA 4-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 0188 03134 00116 04217	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	349 837 159 39 8655 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 Sub 23,432 275 2,280 259	1 1 1 1 1 1 1 2 12 1 1 1 128 11 11 56 4 4 2 2 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	698 159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Belo Incl Belo
P 3y 4h 24x7 ProLiant DL380 HW Support Proliant Server DL380	45E \text{A#ABA} \text{A#ABA} \text{A-B21} \text{19A} \text{63A} \text{2-B21} \text{0-B21} \text{97A} \text{75E} \text{3-B21} \text{41A} \text{05E} \text{0-B21} \text{0188} \text{0188} \text{03134} \text{00116} \text{04217} \text{9-B21}	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	837 159 39 865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub	1 1 1 1 1 1 1 2 12 1 1 1 128 11 11 56 4 4 2 2 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	159 39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,513 23,613 656 26,623 Incl Belo Incl Belo
P LÉ 1851w 18.5-Inch wide Monitor	A#ABA A#ABA A#ABA 4-B21 19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 03134 00116 04217	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	159 39 865 739 2,250 75 419 8,900 1,513 2,799 2,147 419 328 328 Sub 23,432 275 2,280 259	1 1 1 1 1 2 12 1 1 128 11 11 56 4 2 2 4 2 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	1,51 23,61 65 26,623 Incl Belo Incl Belo
P PS/2 Keyboard And Mouse Bundle	AA#ABA 4-B21 19A 6-3A 2-B21 0-B21 97A 75E 3-B21 41A 005E 0-B21 0188 03134 00116 04217	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 4 4	39 865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	1 1 1 1 2 12 1 1 1 1 1 1 56 4 2 2 0 total	39 865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo
P 5642 Pailet Unassembled Rack 35825	4-B21 19A 63A 2-B21 97A 75E 3-B21 41A 05E 0-B21 0188 0188 03134 00116 04217	1 1 1 1 1 1 1 1 1 1 1 1 1 4 4	865 739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	1 1 1 2 12 1 1 1 128 11 11 56 4 2 2 5 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	865 739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo
## R1.5 kVA 1U NA UPS ## StorageWorks 82E Dual Channel 8Gb PCI-e HBA ## StorageWorks 82E Dual Channel 8Gb PCI-e HBA ## StorageWorks 82E Dual Channel Cable ## 500GB 6G SAS 7.2k SFF (2.5-inch) Dual Port Midline Hard Dr (Log) ## StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) ## 3y 4h 24x7 MSA2000 Array HWSupp, MSA2000 Dual Controller ## 120GB 3G SATA 2.5 in MDL SSD (Data) ## StorageWorks D2700 Disk Enclosure ## 3y SupportPlus24 D2000 Enclosures, 4h 24x7 onsite response ## 3y SupportPlus24 D2000 Enclosures, 4h 24x7 onsite response ## 3y SupportPlus24 D2000 Enclosures, 4h 24x7 onsite response ## 500GB 6G SAS 7.2k SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) ## 519200_8e SAS HBA ## SI 9200_8e SAS HBA (10% Spares) ## BLC Windows Server 2005 Enterprise X64 Edition ## Incrosoft Windows Server 2008 R2 Enterprise Edition ## Incrosoft Problem Resolution Services ## BLC 7000 Blade Enclosure ## BLC 7000 Blade Enclosure 3 Inch LCD display ## BLC 7000 Blade Enclosure 41337 ## BLC 6x Active Cool 200 FlO Fan Option ## 2400W High Efficiency Power Supply ## BLC 105 Ener Pass Thru Mod Opt Kit ## Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server ## BLC 105 Ener Pass Thru Mod Opt Kit ## Proliant BL460C G6 FlO	.19A 63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 0188	1 1 1 1 1 1 1 1 1 1 1 4 4	739 2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 2,259 259	1 1 2 12 1 1 1 128 11 11 56 4 2 2 0total	739 2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo Incl Belo
P StorageWorks 82E Dual Channel 8Gb PCI-e HBA	63A 2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 0188	1 1 1 1 1 1 1 1 1 1 4 4	2,250 75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	1 2 12 1 1 1 128 11 1 1 56 4 2 2 1 1 1	2,250 150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo Incl Belo
Im LC-LC Multi-Mode Fibre Channel Cable 22168 19 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Log) 50761 19 StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 19 3y 4h 24x7 MSA2000 Array HWSupp MSA2000 Dual Controller UJ6 19 120GB 3G SATA 2.5in MDL SSD (Data) 57207 19 StorageWorks D2700 Disk Enclosure AJ8 19 3y SupportPlus24 D2000 Enclosures.4h 24x7 onsite response UJ2 19 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) 50761 19 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) 50761 19 200_8e SAS HBA LS10 LS10 19 200_8e SAS HBA LS10 19 200_8e SA	2-B21 0-B21 97A 75E 3-B21 41A 05E 0-B21 0188 03134 00116 04217	1 1 1 1 1 1* 1 1 4 4 4	75 419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	2 12 1 1 128 11 11 56 4 2 ototal	150 5,028 8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo Incl Belo
P 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Log) 50761 P StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF) AJ7 P 3y 4h 24x7 MSA2000 Array HWSupp_MSA2000 Dual Controller UJ6 P 120GB 3G SATA 2.5in MDL SSD (Data) 57207 P StorageWorks D2700 Disk Enclosure AJ8 P 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) 50761 S 19 200_8	0-B21 97A 75E 3-B21 41A 005E 0-B21 0188 0188 03134 00116 04217	1 1 1 1 1 1* 1 1 4 4 4	419 8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	12 1 1 128 11 11 56 4 2 ototal	5,028 8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo Incl Belo
P StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF)	97A 75E 3-B21 41A 05E 0-B21 0188 0188 03134 00116 04217	1 1 1 1 1* 1 1 4 4	8,900 1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	1 128 11 11 56 4 2 ototal	8,900 358,272 37,389 23,464 1,312 465,767	23,61 65 26,623 Incl Belo
P 3y 4h 24x7 MSA2000 Array HWSupp_MSA2000 Dual Controller	75E 3-B21 41A 05E 0-B21 0188 0188 03134 00116 04217	1 1 1 1* 1 1 4 4 4	1,513 2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	1 128 11 11 56 4 2 ototal	358,272 37,389 23,464 1,312 465,767 46,864 275	23,61 65 26,623 Incl Belo
P 120GB 3G SATA 2.5in MDL SSD (Data) 57207 P StorageWorks D2700 Disk Enclosure AJ8 P 3y SupportPlus24 D2000 Enclosures,4h 24x7 onsite response UQ1 P 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) S0761 S	3-B21 41A 05E 0-B21 0188 0188 0188 03134 00116 04217	1 1* 1 1 4 4 4	2,799 3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	128 11 11 56 4 2 ototal	37,389 23,464 1,312 465,767 46,864 275	23,61 65 26,623 Incl Belo
IP StorageWorks D2700 Disk Enclosure IP 39 SupportPlus24 D2000 Enclosures,4h 24x7 onsite response IP 39 SupportPlus24 D2000 Enclosures,4h 24x7 onsite response IP 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) Sil 9200_8e SAS HBA LSI0 Sil 9200_8e SAS HBA (10% Spares) Server Software dicrosoft SQL Server 2005 Enterprise X64 Edition Sizual Studio 2008 Standard Edition dicrosoft Windows Server 2008 R2 Enterprise Edition P72-0 dicrosoft Problem Resolution Services Client Hardware IP BLc7000 Blade Enclosure 3 Inch LCD display single Phase Power option for Blade Enclosure IP 2400W High Efficiency Power Supply IP 2400W High Efficiency Power Supply IP BLc 1Gb Enet Pass Thru Mod Opt Kit IP Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server IP E5520 BL460c G6 FIO Kit IP 46B 2Rx4 PC3-10600R-9 Memory Kit IP 146GB 15k 2.5 dual Port HP SAS Drive IP 146GB 15k 2.5 dual Port HP SAS Drive IP LE1851w 18.5-Inch wide Monitor IP PS/2 Keyboard And Mouse Bundle IP 1year 4h 24x7 B Series Blades HW Support 16 Blades Client Software Vindows Server 2008 Standard Edition (X64) P73-0 P73-0 P73-0 Vindows Server 2008 Standard Edition (X64) P73-0	41A 05E 0-B21 0188 0188 03134 00116 04217	1* 1 1 4 4 2 2 2 2	3,399 2,147 419 328 328 Sub 23,432 275 2,280 259	11 11 56 4 2 ototal	37,389 23,464 1,312 465,767 46,864 275	65 26,623 Incl Beld Incl Beld
## 3y SupportPlus24 D2000 Enclosures,4h 24x7 onsite response ## 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) ## 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) ## 5000_8e SAS HBA ## SI 9200_8e SAS HBA (10% Spares) Server Software	05E 0-B21 0188 0188 03134 00116 04217	1 1 4 4 4	2,147 419 328 328 Sub 23,432 275 2,280 259	11 56 4 2 ototal 2 1	23,464 1,312 465,767 46,864 275	65/ 26,623 Incl Belo Incl Belo
P 500GB 6G SAS 7.2K SFF (2.5-inch) Dual Port Midline Hard Dr (Backup/60Day Space) S19200_8e SAS HBA LS10 LS10	0-B21 0188 0188 0188 03134 00116 04217	1 4 4 2 2 2 2	23,432 275 2,280 259	56 4 2 ototal 2 1 1	1,312 465,767 46,864 275	65 26,623 Incl Belo
SI 9200_8e SAS HBA	0188 0188 03134 00116 04217 9-B21	2 2 2	328 328 Sub 23,432 275 2,280 259	2 ototal 2 1	1,312 465,767 46,864 275	26,623 Incl Belo
SI 9200_8e SAS HBA (10% Spares) LS10	0188 03134 00116 04217 9-B21	2 2 2	328 Sub 23,432 275 2,280 259	2 ototal	465.767 46,864 275	26,623 Incl Belo
Server Software	03134 00116 04217 9-B21	2 2 2	23,432 275 2,280 259	2 1	46,864 275	26,623 Incl Belo
Server 2005 Enterprise X64 Edition	00116 04217 9-B21	2 2	23,432 275 2,280 259	2 1 1	46,864 275	Incl Belo
Server 2005 Enterprise X64 Edition	00116 04217 9-B21	2 2	275 2,280 259	1	275	Incl Belo
Issual Studio 2008 Standard Edition 127-0 Incrosoft Windows Server 2008 R2 Enterprise Edition P72-0 Incrosoft Problem Resolution Services P72-0 Client Hardware 19 BLc 7000 Blade Enclosure 3 Inch LCD display 50701 Image: Pass Power option for Blade Enclosure 41337 IP BLc 6x Active Cool 200 FlO Fan Option 51752 IP 2400W High Efficiency Power Supply 49924 IP BLc 1Gb Enet Pass Thru Mod Opt Kit 40674 IP Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server 50778 IP E5520 BL460c G6 FlO Kit 50779 IP 4GB 2Rx4 PC3-10600R-9 Memory Kit 50065 IP 146GB 15k 2.5 dual Port HP SAS Drive 41836 IP LE1851w 18.5-Inch wide Monitor NK033 IP PS/2 Keyboard And Mouse Bundle RC464 IP 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Vindows Server 2008 Standard Edition (X64) P73-0	00116 04217 9-B21	2 2	275 2,280 259	1	275	Incl Belo
Microsoft Windows Server 2008 R2 Enterprise Edition P72-0	9-B21	2	2,280 259	1		
Section Color Co	9-B21		259		2 280	
Client Hardware Factor F		2		1	2,200	Incl Belo
P BLc7000 Blade Enclosure 3 Inch LCD display 50701			Sub			25
P BLc7000 Blade Enclosure 3 Inch LCD display 50701 Single Phase Power option for Blade Enclosure 41337 P BLc 6x Active Cool 200 FIO Fan Option 51752 P 2400W High Efficiency Power Supply 49924 P BLc 1Gb Enet Pass Thru Mod Opt Kit 40674 P Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server 50778 P E5520 BL460c G6 FIO Kit 50779 P 4682 Rx4 PC3-10600R-9 Memory Kit 50065 P 146GB 15k 2.5 dual Port HP SAS Drive 41836 P 146GB 15k 2.5 dual Port HP SAS Drive 41836 P LE1851w 18.5-Inch wide Monitor NK033 P PS/2 Keyboard And Mouse Bundle RC464 P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Vindows Server 2008 Standard Edition (X64) P73-1			Jul	ototal	49,419	259
Single Phase Power option for Blade Enclosure 41337 PBLc 6x Active Cool 200 FIO Fan Option 51752 P 2400W High Efficiency Power Supply 49924 PB BLc 1Gb Enet Pass Thru Mod Opt Kit 40674 P Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server 50778 P E5520 BL460c G6 FIO Kit 50779 P 468 2Rx4 PC3-10600R-9 Memory Kit 50065 P 146GB 15k 2.5 dual Port HP SAS Drive 41836 P LE1851w 18.5-Inch wide Monitor NK033/ P PS/2 Keyboard And Mouse Bundle RC464 P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Vindows Server 2008 Standard Edition (X64) P73-4		1	4,837	1	4,837	
## BLc 6x Active Cool 200 FIO Fan Option 51752 ## 2400W High Efficiency Power Supply ## BLc 1Gb Enet Pass Thru Mod Opt Kit ## Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server ## E5520 BL460c G6 FIO Kit ## 50778 ## 4GB 2Rx4 PC3-10600R-9 Memory Kit ## 4GB 2Rx4 PC3-10600R-9 Memory Kit ## 146GB 15k 2.5 dual Port HP SAS Drive ## 146GB 15k 2.5 dual Port HP SAS Drive ## 1851w 18.5-Inch wide Monitor ## PS/2 Keyboard And Mouse Bundle ## 1year 4h 24x7 B Series Blades HW Support 16 Blades Client Software	9-621	1	175	1	175	
#P 2400W High Efficiency Power Supply #P 2400W High Efficiency Power Supply #P BLc 1Gb Enet Pass Thru Mod Opt Kit #P Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server #P E5520 BL460C G6 F10 Kit #P 4GB 2Rx4 PC3-10600R-9 Memory Kit #P 1466B 15k 2.5 dual Port HP SAS Drive #P 1466B 15k 2.5 dual Port HP SAS Drive #P LE1851w 18.5-Inch wide Monitor #P PS/2 Keyboard And Mouse Bundle #P 1year 4h 24x7 B Series Blades HW Support 16 Blades #P 1year 4h 24x7 B Series Blades HW Support 16 Blades #P 1000 Software Undows Server 2008 Standard Edition (X64) P 73-1						
P BLc 1Gb Enet Pass Thru Mod Opt Kit 40674 P Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server 50778 P E5520 BL460C G6 FIO Kit 50779 P 4GB 2Rx4 PC3-10600R-9 Memory Kit 50065 P 146GB 15k 2.5 dual Port HP SAS Drive 41836 P LE1851w 18.5-Inch wide Monitor NK033/ P PS/2 Keyboard And Mouse Bundle RC464/ P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Vindows Server 2008 Standard Edition (X64) P73-1		1	894	1	894	
P Proliant BL460C G6 E5520 2.26Ghz Quad Core Blade Server 50778 P E5520 BL460C G6 FIO Kit 50779 P E5520 BL460C G6 FIO Kit 50075 P 468 2Rx4 PC3-10600R-9 Memory Kit 50065 P 1466B 15k 2.5 dual Port HP SAS Drive 41836 P LE1851w 18.5-Inch wide Monitor NK0334 P PS/2 Keyboard And Mouse Bundle RC464, P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Vindows Server 2008 Standard Edition (X64) P73-1		1	349	6	2,094	
P E5520 BL460c G6 FIO Kit		1	999	2	1,998	
#P 4GB 2Rx4 PC3-10600R-9 Memory Kit #P 14GB 15k 2.5 dual Port HP SAS Drive #P 146GB 15k 2.5 dual Port HP SAS Drive #P LE1851w 18.5-Inch wide Monitor #P S/2 Keyboard And Mouse Bundle #P 1year 4h 24x7 B Series Blades HW Support 16 Blades #P 19 Client Software Vindows Server 2008 Standard Edition (X64) #P 173-106 #P 146GB 15k 2.5 dual Port HP SAS Drive #P		1	2,489	16	39,824	
#P 146GB 15k 2.5 dual Port HP SAS Drive 41836 #P LE1851w 18.5-Inch wide Monitor NK033/ #P PS/2 Keyboard And Mouse Bundle RC464/ #P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 #Client Software Windows Server 2008 Standard Edition (X64) P73-4		1	599	16	9,584	
#P LE1851w 18.5-Inch wide Monitor NK033/ #P PS/2 Keyboard And Mouse Bundle RC464/ #P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Windows Server 2008 Standard Edition (X64) P73-4		1	230	32	7,360	
#P PS/2 Keyboard And Mouse Bundle #P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Windows Server 2008 Standard Edition (X64) P73-1		1	269	32	8,608	
#P 1year 4h 24x7 B Series Blades HW Support 16 Blades UB3 Client Software Vindows Server 2008 Standard Edition (X64) P73-1	A#ABA	1	159	1	159	
Client Software Vindows Server 2008 Standard Edition (X64) P73-1	AA#ABA	1	39	1	39	
Vindows Server 2008 Standard Edition (X64)	29E	1	612	3		1,83
Vindows Server 2008 Standard Edition (X64)			Sub	ototal	75,572	1,836
	1416E	2	711	16	11,376	Incl. Abo
Jser Connectivity	74100	2		ototal	11,376	IIICI. ADO
	47A	1	4,569	1	4,569	
*	93E	1	1,307	1		1,30
AT 6 7 Foot Gray Patch Cable	2-7GY	3	2	18	28	
AT C 7 F - + C D-+- C (C)					20	
CB24	2-7GY	3	2	2		
			Sub	ototal	4,597	1,310
District and Net 20 discount (C. N. 1.4)	00/	_			(\$07.10E)	[#A 6E4
arge Purchase and Net 30 discount (See Note 1)	U%	1			(\$87,135)	(\$4,658
				Total	\$519,596	\$25,371
	0%	1		Total		
rices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time urchase of the stated components. Individually negotiated discounts are not permitted. Special	Th	ree-Yes	r Cost (of ∩wr	nership: USD	\$ 544 967
prices based on assumptions about past or future purchases are not permitted. All discounts						, ,
effect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark pricing specifications. If you find that the stated prices are not					803,068	
vailable according to these terms, please inform the TPC at pricing@tpc.org. Thank you. \$ / tpmC: USE					\$0.68	
Pricing: 1=HP Direct 800-203-6748 2= Microsoft 3= deepsurplus.com 4= Microland Electronics						
lote 1 = Discount based on HP Direct guidance applies to all lines where pricing = 1 * SSD drive sup lote 2 = The benchmark results were audited by Lorna Livingtree of Performance Metrics					ent 1 2010 caa aar	endix F

Numerical Quantities Summary for HP ProLiant DL380 G7

MQTH, Computed Maximum Qualified Throughput

803,068 tpmC

Response	Times	(in	seconds)
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	90th %-ile	Maximum	Average
New-Order	0.56s	15.69s	0.30s
Payment	0.50s	14.82s	0.25s
Order-Status	0.56s	12.64s	0.30s
Delivery (interactive portion)	0.24s	14.17s	0.14s
Delivery (deferred portion)	0.33s	5.24s	0.18s
Stock-Level	1.59s	10.42s	1.08s
Menu	0.24s	16.64s	0.14s

Response time delay added for emulated components 0.1 seconds

Transaction Mix, in percent of total transactions

New-Order	44.95%
Payment	43.01%
Delivery	4.01%
Stock-Level	4.01%
Order-Status	4.01%

Keying/Think Times

	Keying Time			Think Time		
	Min	Avg	Max	Min	Avg	Max
New-Order	18.00s	18.02s	18.03s	0.00s	12.06s	120.52s
Payment	3.00s	3.02s	3.03s	0.00s	12.06s	120.52s
Order-Status	2.00s	2.02s	2.03s	0.00s	10.06s	100.52s
Delivery (interactive)	2.00s	2.02s	2.03s	0.00s	5.07s	50.52s
Stock-Level	2.00s	2.02s	2.03s	0.00s	5.06s	50.52s

Test Duration

Ramp up time	121 minutes
Measurement interval	120 minutes
Transactions during measurement interva	al 214375459

Ramp down time 5 minutes

Checkpointing

Number of checkpoints in measurement interval 4

Checkpoint Interval 29.17 minutes