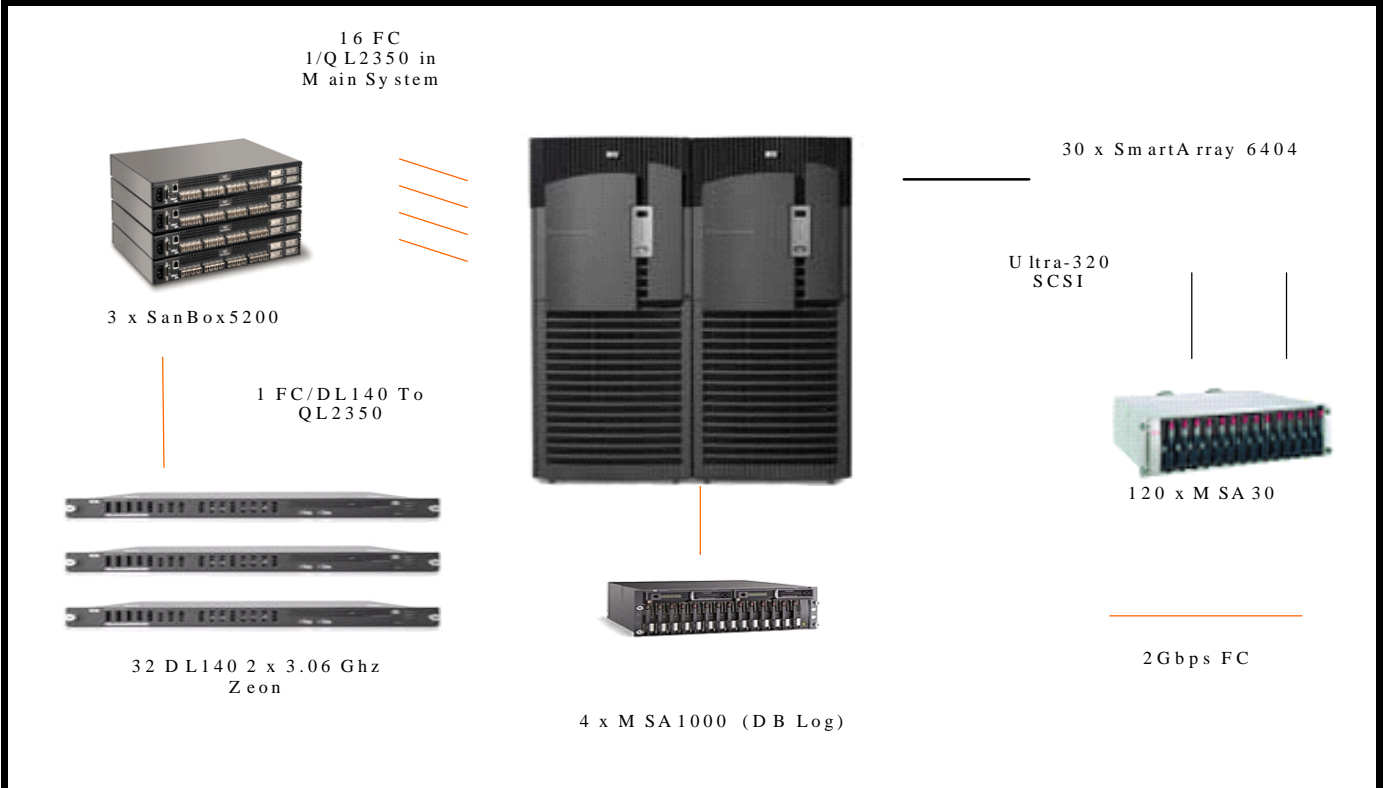





HP Integrity Superdome

TPC-C Revision
5.4

Total System Cost	TPC Throughput	Price/Performance	Report Date	Availability Date
\$5,820,285 USD	1,082,203 tpmC	\$5.38 USD per tpmC	June 7, 2005	Dec 7, 2005
Processors	DataBase Manager	Operating System	Other Software	Number of Users
64 Intel Itanium2 1.6 GHz 9M - Server 64 x Intel Xeon 3.06GHz - Client	Microsoft SQL Server 2005 Enterprise Edition 64-bit	Microsoft Windows Server 2003, Datacenter Edition (64- bit) SP1	Microsoft Visual C++ Microsoft COM+ Transaction Monitor	919,910



System Components	Server		Each Client	
	Qty	Type	Qty	Type
Processors	64	Intel Itanium 2 9M CPUs at 1.6GHz	2	3.06 GHz Intel Xeon
Cache Memory		9 MB L3 cache		512kbyte L2 Cache
Memory	512	2 Gbyte	2	1048 Mbytes
Disk Controllers	30 1	HP Smart Array 6404 HP Smart Array 6402 (Boot)	1	ATA
Disk Drives	1064 616 56 2 2	HP 36GB 15KRPM HP 18GB 15KRPM HP 146GB, 10krpm U320 HP 36 GB 15KRPM drive for Boot HP 18GB 15KRPM for Utility	1	80 Gbyte disk
Total Storage		53743.4 Gbyte		80 Gbyte
Tape Drives	1	HP TA5300		
Terminals	1	Console Terminal	1	Console Terminal

 Hewlett Packard Company		HP Integrity Superdome Enterprise Server			TPC-C Rev. 5.0	
				Report Date: April, 2003		
Description	Price Key	Part Numbr	Unit Price	Qty	Extended Price	3 Yr Maint Price
Superdome left cabinet	1	A5201A, Opt. 429	\$236,716	1	\$236,716	
Superdome right cabinet	1	A5202A, Opt. 429	\$251,200	1	\$251,200	
IPF Superdome Cell Board (sx1000)	1	A6866A	\$19,200	16	\$307,200	
3 Year Svc & Support Price (Hardware and Software)						\$888,659
HP Superdome Itanium2 1.6 GHz 9M 2 CPU	1	AD003A	\$41,800	32	\$1,337,600	
Superdome 128GB Memory Pack	1	AB547A	\$282,880	8	\$2,263,040	
PCI-x I/O chassis	1	A6864A	\$16,805	8	\$134,440	
Core I/O card	1	A6865A	\$1,045	1	\$1,045	
Gig E - TX Adapter	1	A7061A	\$270	1	\$270	
Graphics USB Card	1	A6869A	\$299	1	\$299	
FC-HBA 2GB, 1 Channel (LP9802)	1	AB232A	\$1,550	4	\$6,200	
Qlogic QLA-2350 Fibre-Channel VI Adapter	1	A390975	\$1,256	16	\$20,096	
HP Smart Array Controller 6402 (boot)	1	A9890A	\$1,669	1	\$1,669	
HP Smart Array Controller 6404 (incl boot)	1	A9891A	\$2,549	30	\$76,470	
36GB, 15krpm Ultra3 Wide disk (Incl Boot)	1	286776-B22	\$299	1682	\$502,918	
Storageworks MSA30 SB (incl boot)	1	302969-B21	\$2,829	121	\$342,309	
Storage MSA30 Support 3yrs 24x7 4 hr incl disks	1	HA110A3 #7GT	\$1,827	121		\$221,067
HP9000 Standard Rack System E41	1	A4902A	\$1,910	14	\$26,740	
HP Power Distribution Unit 120-240V	1	A5137AZ	\$145	27	\$3,915	
Modular Storage Array 1000	1	201723-B22	\$6,995	4	\$27,980	
MSA1000 controller	1	218231-B22	\$4,290	4	\$17,160	
Storage MAS1000 Support 3yrs 24x7 4hr incl disks	1	HA110A3 #6FG	\$3,222	4		\$12,888
146GB, 10krpm disk	1	286716-B22	\$499	56	\$27,944	
5M LC to LC Cable Kit	1	221692-B22	\$82	4	\$328	
TA5300 Enclosure for DAT tape	1	C7508AZ	\$729	1	\$729	
DVD Rom drive	1	Q1592A	\$649	1	\$649	
DAT Tape	1	C7497B	\$1,049	1	\$1,049	
sx1000 Superdome SMS, rack	1	A9802B	\$6,500	1	\$6,500	
Server Subtotal					\$5,594,466	\$1,122,614
Microsoft Windows Server 2003, Datacenter Edition (64-bit) SP1	1	T2372A opt064	\$128,000	1	\$128,000	
Microsoft SQL Server 2005 Enterprise Edition 64-bit	2	810-00846	\$19,909	64	\$1,274,176	\$245
Server Software Subtotal					\$1,402,176	\$245
DL140 Dual 3.06GHz Xeon 1GB 80GB ATA	1	356533-B21	\$1,799	32	\$57,568	
HP 3 Yr. 4h 24x7 ProLiant DL140 Hardware Support	1	U9510E	\$419	12		\$5,028
1GB PC2100 ECC DDR	1	351109-B21	\$419	32	\$13,408	
HP Mouse	1	P5304M	\$28	1	\$28	
HP Enhanced Keyboard (USB/PS2)	1	DC852A#ABA	\$29	1	\$29	
\$7540 17in CRT Monitor	1	PF997AA	\$149	1	\$149	
Startech 32port KVM switch	4	5150	\$1,599	1	\$1,599	
KVM Cable	4	5250	\$12	32	\$384	
Qlogic QLA-2350 FC VI Adapter (incl 10% spares)	1	A390975	\$1,256	37	\$46,472	
5M LC to LC Cable Kit	1	221692-B22	\$82	48	\$3,936	
Client Subtotal					\$123,573	\$5,028
Microsoft Windows 2003 Server	2	P73-00295	\$719	32	\$23,008	
Microsoft Visual C++ Standard	2	254-00170	\$109	1	\$109	
Microsoft Problem Resolution	2		\$245	1		\$245
Client Software Subtotal					\$23,117	\$245
Qlogic SANBox 5200 16 2GB Port (incl spares)	3	SB5200-16A	\$4,371	3	\$13,113	
SANbox 5200 Prime 7x24x4 Maint. Upgrade, 1-Year	3	Prime-SB5200	\$1,327	9		\$11,943
Finisar 2GB SFP (incl 10% spares)	3	FTRJ8519P1BNL	\$84	53	\$4,452	
Connectivity Subtotal					\$17,565	\$11,943
HP's Large Configuration Discount *	* Discounts:				-\$2,082,351	-\$398,336
Total:					\$5,078,546	\$741,739
Price Key: 1-HP, 2-Microsoft, 3-SANMarketplace.com 4 - KVMs.com		3 year cost of ownership:			\$5,820,285	
		tpmC:			1,082,000	
* All discounts are based on US list prices and for similar quantities and configurations		\$/tpmC:			\$5.38	
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 terms, please inform the TPC at pricing@tpc.org . Thank you.						

Numerical Quantities Summary for HP Integrity Superdome

MQTH, Computed Maximum Qualified Throughput

1082203 tpmC

Response Times (in seconds)

	90th %-ile	Maximum	Average
New-Order	2.56s	9.82s	1.60s
Payment	2.52s	9.81s	1.57s
Order-Status	2.53s	9.82s	1.58s
Delivery (interactive portion)	0.82s	8.48s	0.32s
Delivery (deferred portion)	0.30s	3.22s	0.17s
Stock-Level	2.60s	10.04s	1.64s
Menu	0.85s	8.51s	0.33s

Response time delay added for emulated components 0.1 seconds

Transaction Mix, in percent of total transactions

New-Order	44.93%
Payment	43.04%
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	18.01s	18.06s	0.00s	12.05s	120.52s
Payment	3.00s	3.01s	3.06s	0.00s	12.05s	120.51s
Order-Status	2.00s	2.01s	2.05s	0.00s	10.05s	100.51s
Delivery (interactive)	2.00s	2.01s	2.05s	0.00s	5.06s	50.5s
Stock-Level	2.00s	2.01s	2.05s	0.00s	5.05s	50.5s

Test Duration

Ramp up time	88 minutes
Measurement interval	120 minutes
Transactions during measurement interval	300617278
Ramp down time	5 minutes

Checkpointing

Number of checkpoints in measurement interval	4
Checkpoint Interval	25 minutes