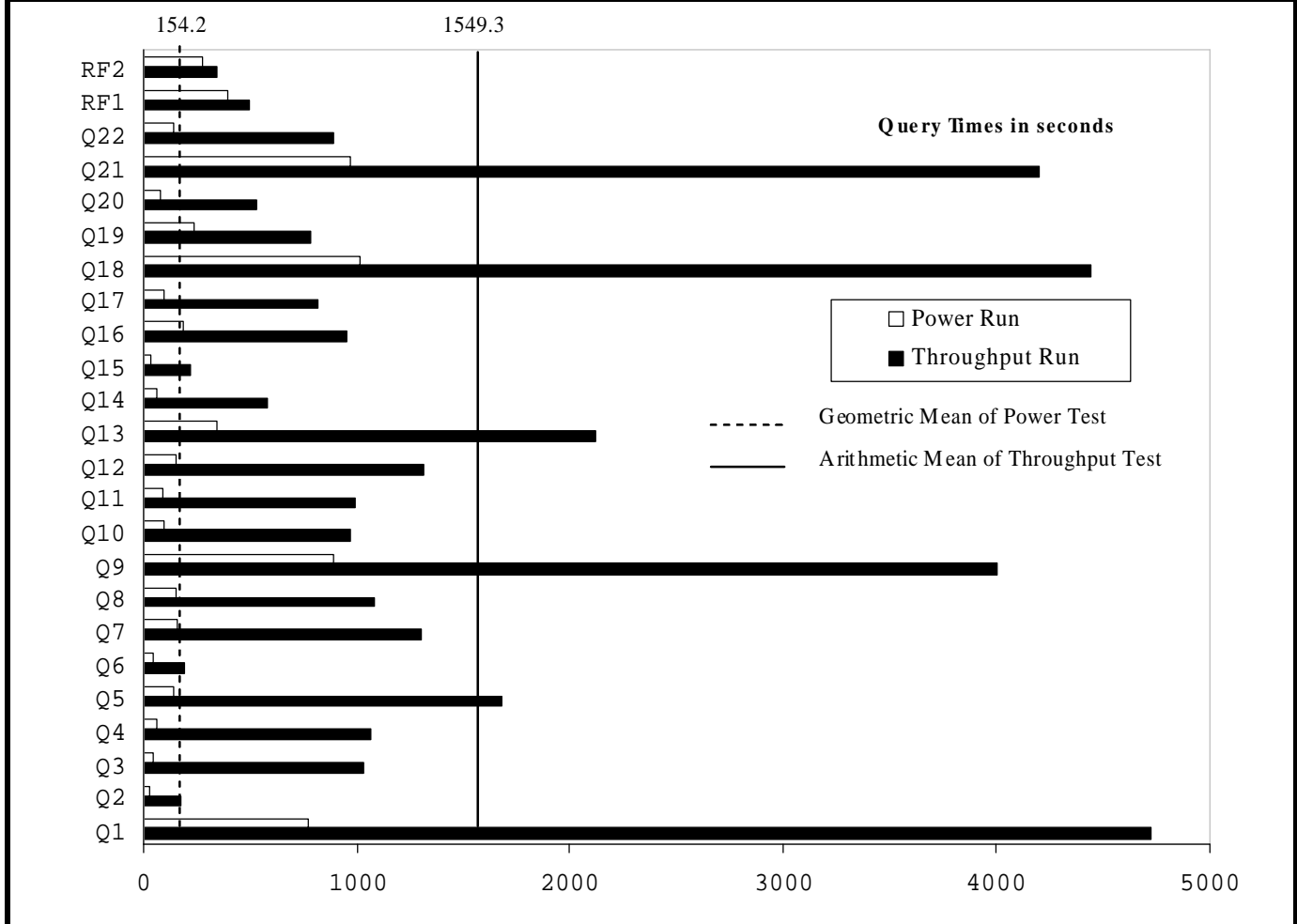
		HP Integrity rx8640		TPC-H Rev. 2.3.0	
				Report Date November 7, 2005 Revision Date November 28, 2005	
Total System Cost		Composite Query per Hour Rating		Price Performance	
513,208 USD		17,725.9 QphH @ 1000G		28.96 USD/ QphH @1000G	
Database size	Database Manager	Operating System	Other Software	Availability Date	
1000G	Microsoft SQL Server 2005 Enterprise Edition for Itanium-based systems SP1	Microsoft Windows Server 2003, Datacenter Edition (64-bit) SP1	MS Visual Basic MS Visual C++ MS Resource Kit	May 05 - 2006	



Database Load Time = 15h23min32sec		Load included backup: Y		Total Data Storage / Database Size = 5.53	
RAID(Base Tables): Y		RAID(Base Tables and Auxiliary Data Structure): Y		RAID(All)= N	
System configuration					
Processors	16	Intel Itanium 2 1.6GHz with 6MB L3 Cache			
Memory	64 GB	Main Memory			
Disk Controllers	13	SmartArray 6402			
Disk Drives	2	36GB SCSI (local)			
	2	146GB SCSI (Log)			
	168	36GB SCSI (DB)			
Total Disk Storage		5,533 GB			



HP Integrity rx8640

TPC-H Rev. 2.3.0

TPC Pricing 1.0.1

Report Date: November 7, 2005

Revision Date November 28, 2005

Availability Date: May 5, 2006

Description	Price Key	Part Number	Unit Price	Qty	Extended Price	3 Yr Maint Price
rx8640 16-way SMP Base System, incl cell boards, core IO, power supplies, PCI-X backplane, 16x1.6ghz Intel Madison 9M processors	1	AB2404A -05	\$263,995	1	\$263,995	\$123,454
HP 8GB HD SyncDRAM Midrange Memory	1	AB309A-0D1	\$14,000	8	\$112,000	
36GB, 15K hard disk for rx76/86	1	A9880A	\$1,800	2	\$3,600	
DVD+RW Drive for rx76/86	1	AB351A	\$850	1	\$850	
HP Smart Array Controller 6402	1	A9890A-0D1	\$1,669	13	\$21,697	
Field Rack Mount Kit - rx86xx	1	J1528A	\$520	1	\$520	
HP Storageworks MSA 30 SB Storage	1	302969-B21	\$2,829	13	\$36,777	
HP Storageworks MSA 30 SB Storage 10% spare	1	302969-B21	\$2,829	2	\$5,658	
36GB, 15krpm Ultra320 Pluggable Hard Drive	1	286778-B22	\$299	168	\$50,232	
36GB, 15krpm Ultra320 Pluggable Hard Drive 10% spare	1	286778-B22	\$299	17	\$5,083	
146GB, 10krpm U320 Pluggable Hard drive	1	286716-B22	\$499	2	\$998	
146GB, 10krpm U320 Pluggable Hard drive 10% spare	1	286716-B22	\$499	1	\$499	
HP Rack 10642 42U pallet	1	245161-B21	\$1,359	2	\$2,718	
HP 16A High Voltage Modular PDU	1	252663-B24	\$299	2	\$598	
ML110 G3 SATA / 17" Monitor	1	www.hp.com	\$1,076	1	\$1,076	
Server Subtotal					\$506,301	\$123,454
Microsoft Windows Server 2003, Datacenter edition (64-bit)	1	T2372A opt016	\$32,000	1	\$32,000	
Microsoft SQL Server 2005 Enterprise Edition	2	810-04794	\$8,487	1	\$8,487	\$245
Microsoft SQL Server 2005 Client License	2	359-01911	\$156	45	\$7,020	
Microsoft Visual C++ Standard	2	254-00170	\$109	1	\$109	
Microsoft Visual Basic	2	046-00856	\$109	1	\$109	
Server Software Subtotal					\$47,725	\$245
Total Extended Price:					\$677,725	
Total Discounts:					\$164,518	
HP's Large Configuration Discount *						
* All discounts are based on US list prices and for similar quantities and configurations. An approximate 24.86 % discount was based on the overall specific components and support pricing from vendor 1 in this single quotation. Discounts for similarly sized configurations will be similar to those quoted here, but may vary based on the components in the configuration.						
Price Key: 1-HP, 2-Microsoft Audited by Lorna Livingtree of Performance Metrics, Inc.						
3 year cost of ownership:						\$513,208
QpH						17,725.9
\$/QpH:						\$28.96
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 stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.						
Sales contact Vendor 1: HP Sales Development, 19111 Pruneridge Ave., Cupertino, CA 95014 (408) 447 2320 Sales contact Vendor 2: Jamie Reding (425) 703-0510 jamiere@microsoft.com						



Numerical Quantities

Measurement Results

Database Scale Factor	1000GB
Total Data Storage / Database Size	5.53
Start of Database Load	10-22-05 11:41:12
End of Database Load	10-23-05 03:04:44
Database Load Time	15h 23m 32sec
Query Streams for Throughput Test	7
TPC-H Power	23,346.3
TPC-H Throughput	13,458.6
TPC-H Composite Query-per-Hour (QpH@1000GB)	17,725.9
Total System Price over 3 Years	513,208 USD
TPC-H Price/Performance Metric (USD /QpH@1000GB)	28.96 USD / QpH@1000GB

Measurement Interval

Measurement Interval in Throughput Test (Ts) 41193 seconds

Duration of Stream Execution

	Seed	Query Start Date/Time Query End Date/Time	RF1 Start Date/Time RF1 End Date/Time	RF2 Start Date/Time RF2 End Date/Time	Duration
Stream 00	1023030443	24-Oct-05 0:53:20 24-Oct-05 2:29:29	24-Oct-05 0:46:42 24-Oct-05 0:53:20	24-Oct-05 2:29:29 24-Oct-05 2:34:07	1:47:24
Stream 01	1023030444	24-Oct-05 2:34:09 24-Oct-05 12:10:50	24-Oct-05 12:22:35 24-Oct-05 12:29:27	24-Oct-05 12:29:29 24-Oct-05 12:35:08	10:01:00
Stream 02	1023030445	24-Oct-05 2:34:09 24-Oct-05 12:08:27	24-Oct-05 12:35:12 24-Oct-05 12:42:50	24-Oct-05 12:42:51 24-Oct-05 12:48:30	10:14:20
Stream 03	1023030446	24-Oct-05 2:34:10 24-Oct-05 11:20:46	24-Oct-05 12:48:35 24-Oct-05 12:57:21	24-Oct-05 12:57:23 24-Oct-05 13:03:01	10:28:51
Stream 04	1023030447	24-Oct-05 2:34:10 24-Oct-05 12:22:33	24-Oct-05 13:03:09 24-Oct-05 13:12:02	24-Oct-05 13:12:04 24-Oct-05 13:17:48	10:43:38
Stream 05	1023030448	24-Oct-05 2:34:11 24-Oct-05 12:11:31	24-Oct-05 13:17:56 24-Oct-05 13:26:46	24-Oct-05 13:26:51 24-Oct-05 13:32:43	10:58:32
Stream 06	1023030449	24-Oct-05 2:34:12 24-Oct-05 11:55:18	24-Oct-05 13:32:51 24-Oct-05 13:40:44	24-Oct-05 13:40:49 24-Oct-05 13:46:22	11:12:11
Stream 07	1023030450	24-Oct-05 2:34:13 24-Oct-05 12:06:24	24-Oct-05 13:46:35 24-Oct-05 13:54:45	24-Oct-05 13:54:51 24-Oct-05 14:00:42	11:26:29



TPC-H Timing Intervals (in seconds):

Query	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Stream 0	775.9	29.0	43.5	60.4	140.3	43.1	155.1	149.1
Stream 1	4563.3	116.1	780.0	1325.8	3016.2	169.0	1664.6	1240.8
Stream 2	4949.0	337.1	416.2	767.6	1491.9	224.9	1169.3	1038.9
Stream 3	4020.1	188.3	704.6	665.2	2902.7	150.2	1670.7	523.4
Stream 4	5394.4	156.9	42.0	1451.3	402.2	176.4	159.9	2263.5
Stream 5	4957.7	154.5	552.4	734.0	2066.1	162.1	1892.8	777.6
Stream 6	5040.4	117.0	2995.3	1123.3	1120.5	208.9	1370.5	867.2
Stream 7	4193.7	142.1	1714.4	1363.6	792.2	238.4	1176.5	861.0
Min Qi	4020.1	116.1	42.0	665.2	402.2	150.2	159.9	523.4
Max Qi	5394.4	337.1	2995.3	1451.3	3016.2	238.4	1892.8	2263.5
Avg Qi	4731.2	173.1	1029.3	1061.5	1684.5	190.0	1300.6	1081.8
Query	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
Stream 0	889.6	94.4	92.1	146.2	345.8	57.6	34.3	181.3
Stream 1	5980.0	1452.9	530.6	881.1	1886.1	327.0	199.7	912.1
Stream 2	3441.0	1614.0	465.2	1350.2	2359.5	2161.7	187.4	1123.0
Stream 3	4279.5	558.9	1086.8	1094.8	2726.2	397.4	158.8	751.4
Stream 4	2934.7	803.4	1018.8	976.7	2313.0	390.0	258.6	1167.7
Stream 5	3398.3	757.5	1970.6	1085.8	2107.8	244.1	360.6	638.1
Stream 6	3902.6	772.5	742.3	1041.7	1859.6	310.4	196.1	1360.1
Stream 7	4101.0	808.8	1170.3	2771.4	1628.8	255.2	172.5	696.0
Min Qi	2934.7	558.9	465.2	881.1	1628.8	244.1	158.8	638.1
Max Qi	5980.0	1614.0	1970.6	2771.4	2726.2	2161.7	360.6	1360.1
Avg Qi	4005.3	966.8	997.8	1314.5	2125.8	583.7	219.1	949.8
Query	Q17	Q18	Q19	Q20	Q21	Q22	RF1	RF2
Stream 0	97.3	1008.5	235.1	81.6	968.7	139.7	397.8	277.2
Stream 1	431.2	3686.7	600.9	495.1	3113.5	1228.4	411.6	340.0
Stream 2	794.4	4373.2	825.8	743.2	3784.8	839.3	458.4	338.3
Stream 3	612.2	3146.7	669.4	361.6	4357.5	569.7	526.6	338.0
Stream 4	2629.4	5766.7	1051.3	162.1	5678.5	104.9	533.2	344.0
Stream 5	434.7	6463.4	1103.5	272.9	3174.9	1331.3	530.7	352.3
Stream 6	241.5	3946.8	603.8	226.3	4510.0	1109.9	472.9	333.6
Stream 7	593.2	3753.8	600.4	1455.6	4781.2	1061.3	489.7	350.3
Min Qi	241.5	3146.7	600.4	162.1	3113.5	104.9	411.6	333.6
Max Qi	2629.4	6463.4	1103.5	1455.6	5678.5	1331.3	533.2	352.3
Avg Qi	819.5	4448.2	779.3	531.0	4200.0	892.1	489.0	342.3