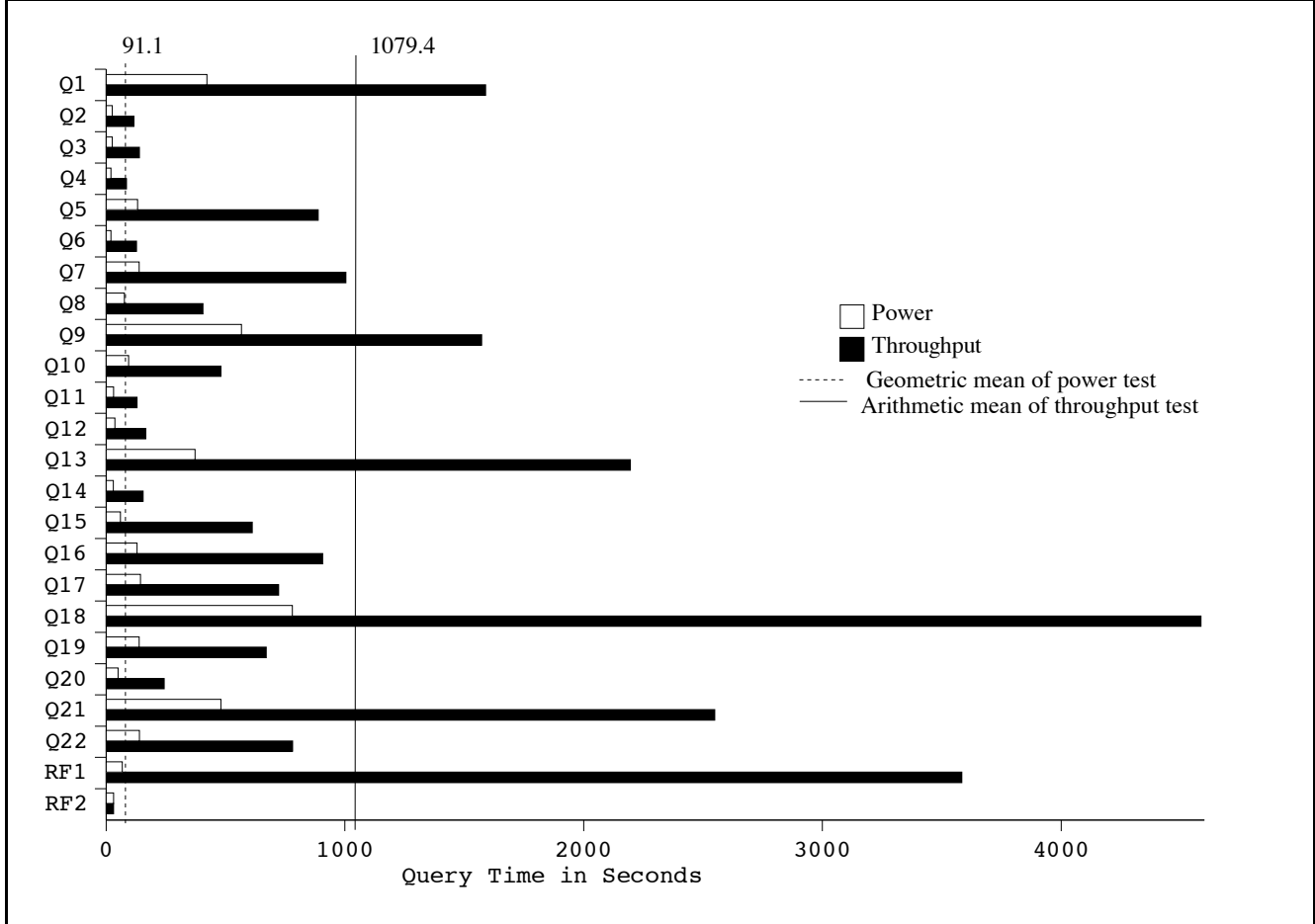
		SGI Altix 3700 with IBM DB2 UDB 8.2		TPC-H Revision 2.1.0	
				Report Date: October 15, 2004	
Total System Cost		Composite Query-per-hour Metric		Price/Performance	
US\$751,939		8827.5 QphH@300GB		85 US\$/QphH@300GB	
Database Size	Database Manager	Operating System	Other Software	Availability Date	
300GB	DB2 UDB 8.2	SUSE LINUX Enterprise Server 9	None	December 15, 2004	



Database Load Time: 3:00:02	Load Included Backup: N	Total Data Storage / Database Size: 25.83
RAID (Base Table): Y	RAID (Base Tables and Auxiliary Data Structures): Y	RAID (ALL): Y

System Config: SGI Altix 3700
Processors: 8 x 1.5GHz 6MB-L3 Intel Itanium 2 64-bit processor
Memory: 8 x LS33-MEM-8G-133 - 8GB DIMM sets
Disk Controllers: 8 x Dual-port 2Gbit HBA
Disk Drives: 112 x 73GB, 15K FC
2 x 73GB 10K SCSI (system & swap)
Total Disk Storage: 7750GB



**SGI Altix 3700
with
IBM DB2 UDB 8.2**

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Description	Part#	Src	Unit Price	Qty	Extended Price	3-Yr. Maint. Price
Server Hardware						
SGI Altix 3700 Server base infrastructure	LS-3700	1	21,560	1	21,560	11505
SGI Altix 3700 syst 4x1.5GHz/6MB, IX-brk, 73GB sys dsk	LS-3700-4-4	1	208,402	1	208,402	20,244
SGI Altix 3700 C-brick w/4x1.5GHz/6MB, NUMALink cbl	LS37-CBRICK-4-4	1	96,286	1	96,286	11,950
Optional L2 system controller	HU-L2-SYSCTLR	1	5,000	1	5,000	0
73GB, 10K SCSI disk for IX-BRICK	73GB-IXBRICK	1	1,100	1	1,100	0
SGI Altix 3700 PCIX expansion brick	LS-PXBRICK	1	20,000	1	20,000	0
Dual port 2Git FC HBA	PCIX-FC-2POPT-B	1	4,600	8	36,800	0
North American single-phase power cord	DK-N1P-001	1	0	1	0	0
8GB standard system memory	LS33-MEM-8G-133	1	8,600	8	68,800	0
2-port Gigabit Ethernet card	PCIX-GIGENET-C-2P	1	775	1	775	0
10-meter optical cable w/LC connector	X-F22-OPT-10M	1	223	16	3,568	0
SUSE Linux Ent. Server 9 for IPF Media Kit	SC5-SLES9-ENG-GER	1	33	1	33	
SUSE Linux Ent. Server 9 Maint. 3 yr/1-8cpu	SR5-SLES9-SVR8P-3Y	1	1,886	1		1,886
CD-ROM Media Update requirement	MO5-CD	1	826	1		826
Server Hardware Subtotal					462,324	48,211
Server Storage						
SGI TP9300	TP9300-BASE-2C	1	18,750	8	150,000	51,898
2Gbit, 73GB, 15K rpm LP Disk Drive	TP9500-73GB-E	1	1,175	112	131,600	
38-U rack enclosure for TP9500/TP9300	TP9500-RACK	1	8,990	1	8,990	
U.S. power destination kit	TP9500-DK-US	1	250	1	250	
TP9300 destination kit for USA/Canada/Japan	DK-TP-001	1	0	1		
TPSSM host S/W license req'd for TP9300	SC5-TPSSM-9.10	1	3,750	8	30,000	17,904
Server Storage Subtotal					320,840	69,802
Server Hardware + Storage Subtotal					783,164	118,013
Software Licenses						
DB2 UDB ESE V8.2 License/1-yr. Maint.	D518GLL	2	20,451	8	163,608	
DB2 UDB ESE V8.2 Support – 1Yr/Proc	E00BILL	2	974	16		15,584
DB2 UDB ESE V8.2 DPF License/1-yr.Maint.	D518JLL	2	6,143	8	49,144	
DB2 UDB ESE V8.2 DPF Support – 1Yr/Proc	E00BJLL	2	293	16		4,688
Software License Subtotal					212,752	20,272
Total					\$995,916	\$138,285
SGI Large System Discount						-\$382,262
Total Three-Year Cost of Ownership						\$751,939
QphH@300GB						8827.5
US\$/QphH@300GB						\$85

Pricing Sources: 1 - SGI: Jacqueline Hladun, Inside Sales, email: jhkadun@sgi.com, phone: 1- 866-272-2504. 2 - IBM DB2: Paul Rivot, Dir. Database Servers Business Intelligence Software, email: privot@us.ibm.com, phone: 1-914-766-1325. Warranty and Maintenance: The standard SGI warranty has been upgraded to SGI FullExpress extended warranty (3 years of 24x7x4 coverage). Audited by: Lorna Livingtree of Performance Metrics, Inc(www.perfmetrics.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 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.



SGI Altix 3700
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Measurement Results:

Database Scale Factor	300
Total Data Storage/Database Size	25.83
Start of Database Load	21:24:38
End of Database Load	00:24:40
Database Load Time	03:00:02
Query Streams for Throughput Test	6
TPC-H Power	11,858.3
TPC-H Throughput	6,571.4
TPC-H Composite Query-per-Hour (QphH@300GB)	8,827.5
Total System Price over 3 Years	US\$751,939
TPC-H Price/Performance Metric (\$/QphH@300GB)	US\$85

Measurement Interval:

Measurement Interval in Throughput Test (Ts) = 21694 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	928002440	09/28/04 01:19:23	09/28/04 01:19:24	09/28/04 02:25:52	00:01:06
		09/28/04 02:25:52	09/28/04 01:20:31	09/28/04 02:26:23	
Stream 01	928002441	09/28/04 02:26:56	09/28/04 02:26:58	09/28/04 08:20:27	05:52:26
		09/28/04 08:19:22	09/28/04 08:20:27	09/28/04 08:20:55	
Stream 02	928002442	09/28/04 02:26:56	09/28/04 08:20:55	09/28/04 08:21:58	05:33:39
		09/28/04 08:07:28	09/28/04 08:21:58	09/28/04 08:22:38	
Stream 03	928002443	09/28/04 02:26:56	09/28/04 08:22:38	09/28/04 08:23:36	05:21:28
		09/28/04 07:48:24	09/28/04 08:23:36	09/28/04 08:24:04	
Stream 04	928002444	09/28/04 02:26:56	09/28/04 08:24:04	09/28/04 08:25:01	05:26:03
		09/28/04 07:52:59	09/28/04 08:25:01	09/28/04 08:25:34	
Stream 05	928002445	09/28/04 02:26:56	09/28/04 08:25:34	09/28/04 08:26:31	05:49:37
		09/28/04 08:16:33	09/28/04 08:26:31	09/28/04 08:27:03	
Stream 06	928002446	09/28/04 02:26:56	09/28/04 08:27:03	09/28/04 08:27:58	05:23:02
		09/28/04 07:49:58	09/28/04 08:27:58	09/28/04 08:28:29	



SGI Altix 3700
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TPC-H Timing Intervals (in seconds):

Query	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Stream 00	422.3	26.6	26.4	20.2	131.6	20.9	138.1	76.7	567.3	94.3	31.6	37.1
Stream 01	667.5	138.3	110.6	20.5	992.5	72.9	992.7	338.0	1695.2	680.3	141.4	147.5
Stream 02	1949.6	98.8	106.2	118.6	1136.6	192.5	1048.9	313.4	2071.9	613.5	116.8	97.4
Stream 03	1572.7	147.2	169.2	114.2	719.0	136.8	751.4	602.5	1202.2	518.5	142.0	268.9
Stream 04	1842.7	106.2	117.2	77.7	636.9	58.1	783.5	256.9	1782.9	276.5	124.2	100.0
Stream 05	1992.1	153.2	175.8	118.0	668.9	123.5	1191.1	359.8	874.4	341.7	145.4	226.4
Stream 06	1510.8	56.3	158.9	65.9	1178.6	180.7	1258.1	563.1	1815.1	456.7	106.3	157.4
Minimum	667.5	56.3	106.2	20.5	636.9	58.1	751.4	256.9	874.4	276.5	106.3	97.4
Average	1589.2	116.7	139.7	85.8	888.8	127.4	1004.3	405.6	1573.6	481.2	129.4	166.3
Maximum	1992.1	153.2	175.8	118.6	1178.6	192.5	1258.1	602.5	2071.9	680.3	145.4	268.9

Stream ID	Q13	Q14	Q15a	Q16	Q17	Q18	Q19	Q20	Q21	Q22	RF1	RF2
Stream 00	373.0	30.0	60.1	130.0	144.1	780.6	138.9	50.5	480.6	139.5	67.6	31.0
Stream 01	2716.3	211.3	870.1	865.5	443.8	5441.0	725.9	180.9	3339.2	354.8	21209.0	28.7
Stream 02	2212.3	129.9	554.3	934.1	1017.6	3560.0	1107.4	281.2	1877.3	894.0	62.8	39.8
Stream 03	2852.2	155.9	620.8	1110.5	908.2	4739.5	474.2	231.5	1364.6	485.4	57.9	27.9
Stream 04	1851.7	187.8	486.3	784.9	669.2	4614.1	864.6	272.1	3142.5	527.1	56.9	33.0
Stream 05	2072.3	96.1	796.4	734.9	720.3	4663.9	427.6	301.1	3346.8	1446.9	57.3	31.8
Stream 06	1467.6	152.9	346.5	1014.2	579.4	4493.1	422.7	195.4	2224.1	978.4	55.4	31.2
Minimum	1467.6	96.1	346.5	734.9	443.8	3560.0	422.7	180.9	1364.6	354.8	55.4	27.9
Average	2195.4	155.7	612.4	907.4	723.1	4585.3	670.4	243.7	2549.1	781.1	3583.2	32.1
Maximum	2852.2	211.3	870.1	1110.5	1017.6	5441.0	1107.4	301.1	3346.8	1446.9	21209.0	39.8