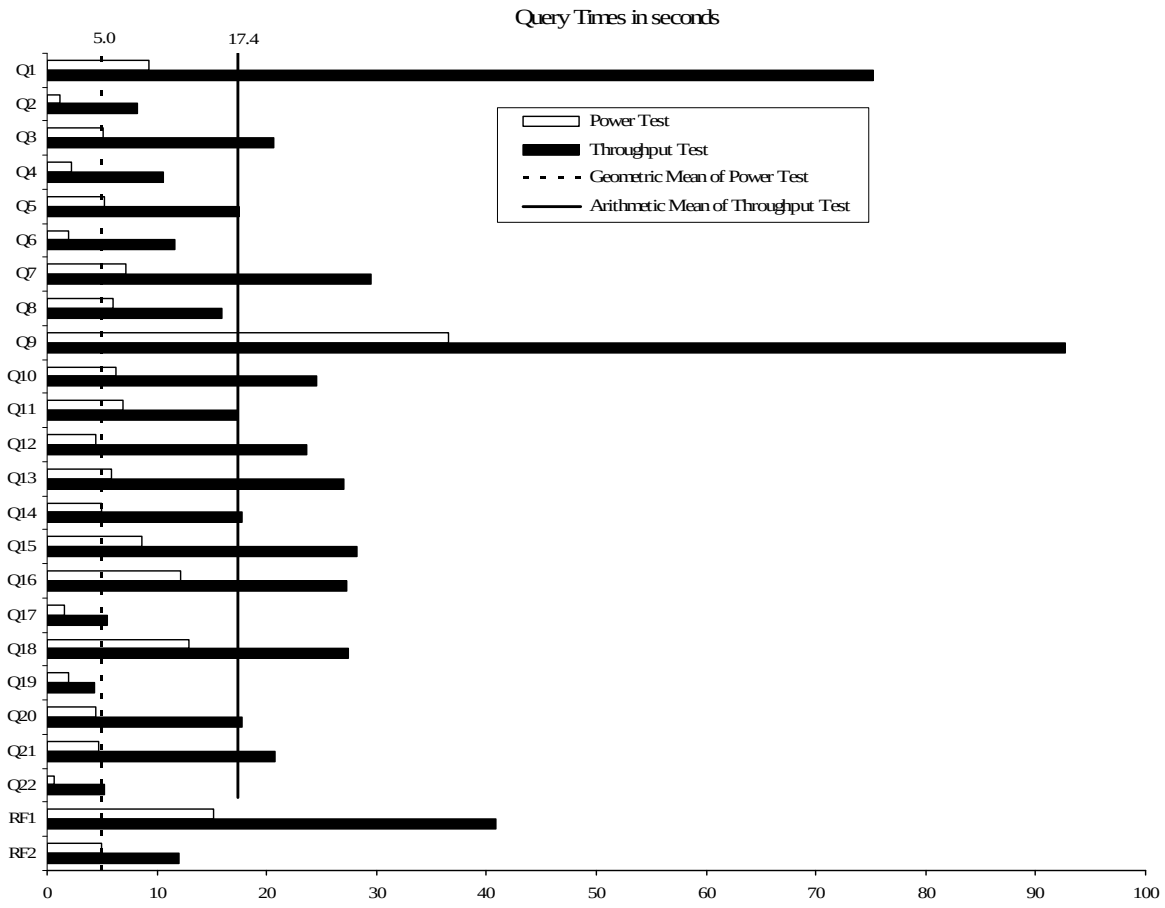
FUJITSU	**PRIMERGY RX300 S4 using EXASolution 2.1**		TPC-H Rev. 2.7.0 Report Date **June 2, 2008**	
Total System Cost	Composite Query per Hour Metric		Price / Performance	
$ 1,200,544	**1,018,321.9** QphH@1000GB		**$ 1.18** $ / QphH@1000GB	
Database Size	Database Manager	Operating System	Other Software	Availability Date
1000 GB	**EXASolution 2.1**	**EXACluster OS 2.1**	**C++ Compiler**	**August 1, 2008**



Database Load Time = 1.06	Included Backup: N	Data Storage / Database Size = 13.05
RAID (Base tables only): Y	RAID (Base tables and auxiliary data structures): Y	RAID (All): Y

System Configuration:

48 x PRIMERGY RX300 S4 Server, each with:
2 Intel XEON X5460 QC 3.16 GHz processors (each is 1 chip, 4 cores, 4 threads)
16 GB RAM
2x 146 GB (15k rpm) internal SAS disks

Total Storage: 13,053 GB
(1 GB = 1024 * 1024 * 1024 bytes)

FUJITSU	**PRIMERGY RX300 S4 using EXASolution 2.1**	TPC-H Rev. 2.7.0 Report Date **June 2, 2008**

Description	Part Number	Pricing	Unit Price	Qty	Extended Price	3 yr. Maint. Price
System Hardware						
PRIMERGY RX 300 S4 2x 3.16 Ghz Quadcore CPUs (Intel® Xeon 5460) 2x 3.5″ SAS/S-ATA HotSwap Slots 8x 2GB Base FBDIMM – 667MHz 2x HD SAS 146GB 15.000 rpm hot plug 3.5″ RAID Ctrl SAS onboard 512MB iTBBU LSI 2x Ethernet Cable (LAN-CAT 5)	PY RX300S4 3.5/X5460	1	10,079	48	483,792	
TopUp Service 3 years, 24x7, 4h response time		1	2,772	48		133,056
Server Discount (36%)		1			-174,192	-47,904
HP ProCurve 5406zl (1000Base-T Ethernet Switch, 48 ports)	J8699A#ABB	1	9,500	2	19,000	
HP eCare Pack ProCurve Chassis 6 Switch 5406zl, 3 years, 24x7, 4h response time	UE251E	1	2,149	2		4,298
Switch Discount		1			-5,928	-338
				Subtotal	**$322,672**	**$ 89,112**
Storage **No external storage required**						
Software						
EXASolution 2.1 licence for 3 years	EXA-48N-16G	2	840,000	1	840,000	
EXASOL Discount (10%)		2			-84,000	
EXASOL Premium Support (3.9%)	EXA-SUP-P	2				32,760
				Subtotal	**$ 756,000**	**$ 32,760**
				Total	**$ 1,078,672**	**$ 121,872**

3-Year Cost of Ownership **$ 1,200,544**

QphH Rating: **1,018,321.9**

$/QphH@1000GB: **1.18**

Price Key: 1-FSC, contact: Julian Sayer, Julian.Sayer@fujitsu-siemens.com
2-EXASOL, contact: Olga Sapozhnykova, sales@exasol.com

All discounts are based on list prices and for similar quantities and configurations.

Results independently audited by: Francois Raab of InfoSizing, Inc. (www.sizing.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 the stated prices are not available according to these terms please inform the TPC at pricing@tpc.org.

Numerical Quantities

Measurement Results

Database Scale Factor	1000 GB
Total Data Storage / Database Size	13.05
Start of Database Load	22:49:44
End of Database Load	23:53:26
Database Load Time	1h 03m 42 s
Query Streams for Throughput Test	11
TPC-H Power	726,076.1
TPC-H Throughput	1,428,196.7
TPC-H Composite Query-per-Hour Metric (QphH@1000GB)	1,018,321.9
Total System Price Over 3 Years	$1,200,544
TPC-H Price/ Performance Metric ($/QphH@1000GB)	$1.18

Measurement Interval

Measurement Interval in Throughput Test (Ts)	598 seconds

Duration of Stream Execution

Stream ID	Seed	Start Date	Start Time	End Date	End Time	Duration
Stream 0	428235326	2008-04-28	00:06:27	2008-04-28	00:09:18	2mins:51secs
Stream 1	428235327	2008-04-28	00:09:18	2008-04-28	00:17:31	8 mins:13secs
Stream 2	428235328	2008-04-28	00:09:23	2008-04-28	00:17:43	8 mins:20secs
Stream 3	428235329	2008-04-28	00:09:30	2008-04-28	00:18:11	8 mins:41secs
Stream 4	428235330	2008-04-28	00:09:36	2008-04-28	00:18:34	8 mins:58secs
Stream 5	428235331	2008-04-28	00:09:40	2008-04-28	00:18:27	8 mins:47secs
Stream 6	428235332	2008-04-28	00:09:51	2008-04-28	00:18:54	9 mins:03secs
Stream 7	428235333	2008-04-28	00:09:51	2008-04-28	00:18:49	8 mins:58secs
Stream 8	428235334	2008-04-28	00:10:10	2008-04-28	00:19:11	9 mins:01secs
Stream 9	428235335	2008-04-28	00:10:17	2008-04-28	00:19:19	9 mins:02secs
Stream 10	428235336	2008-04-28	00:10:29	2008-04-28	00:19:25	8 mins:56secs
Stream 11	428235337	2008-04-28	00:10:34	2008-04-28	00:19:28	8 mins:54secs
Refresh		2008-04-28	00:09:18	2008-04-28	00:19:00	9 mins:42secs

TPC-H Timing Intervals (in seconds)

Query	Power	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5	Stream 6	Stream 7	Stream 8	Stream 9	Stream 10	Stream 11	Min Q_i	Avg Q_i	Max Q_i
1	9.2	75.0	76.3	74.9	77.6	74.6	74.3	72.4	71.2	76.9	76.5	77.0	71.19	75.16	77.58
2	1.2	13.7	5.7	5.3	7.6	12.6	7.5	8.5	6.7	9.3	10.2	3.1	3.09	8.19	13.71
3	5.1	6.4	23.1	23.2	25.7	22.9	18.0	21.8	20.1	21.6	23.6	21.1	6.39	20.68	25.74
4	2.3	13.8	9.8	9.3	10.6	8.8	11.9	10.7	10.8	12.1	4.8	13.2	4.81	10.52	13.82
5	5.2	17.6	23.6	13.0	12.5	24.7	19.8	18.1	22.4	9.8	9.2	21.4	9.25	17.48	24.71
6	2.0	12.0	3.6	8.7	14.7	11.9	13.1	14.0	13.8	15.6	14.0	6.3	3.65	11.60	15.64
7	7.2	29.0	31.1	27.7	33.2	33.9	37.5	28.9	27.1	30.6	34.1	11.4	11.39	29.51	37.53
8	6.0	23.8	18.5	8.7	19.4	16.3	15.2	14.6	19.4	14.0	8.2	17.3	8.20	15.95	23.79
9	36.6	72.6	75.3	86.0	87.1	89.7	93.3	90.5	104.8	100.7	107.4	113.0	72.60	92.75	112.96
10	6.2	25.7	14.0	28.3	24.6	23.9	19.6	24.9	27.5	28.1	26.0	27.3	13.97	24.53	28.30
11	7.0	14.1	16.9	17.3	19.8	21.9	17.6	19.5	11.2	22.3	11.9	18.6	11.24	17.36	22.32
12	4.4	24.4	21.3	24.2	25.0	19.6	25.0	20.9	26.7	23.6	25.0	24.3	19.60	23.65	26.69
13	5.9	31.0	29.8	29.2	28.6	30.2	26.2	28.4	27.0	26.6	28.4	12.1	12.12	27.06	31.00
14	4.9	19.0	6.5	20.7	12.1	19.2	19.7	19.7	20.8	17.0	19.9	20.4	6.54	17.73	20.84
15	8.6	30.3	32.1	28.2	25.5	20.2	28.5	25.6	26.9	27.8	32.1	32.7	20.22	28.17	32.69
16	12.1	28.9	18.5	30.7	31.7	24.8	36.3	31.1	28.2	15.0	24.0	30.9	15.01	27.27	36.34
17	1.6	5.9	2.1	3.2	9.4	5.3	2.9	7.0	5.3	4.0	7.2	8.2	2.07	5.49	9.36
18	12.9	15.9	30.0	30.0	29.6	29.4	33.4	25.1	19.7	28.8	27.1	32.5	15.87	27.40	33.41
19	1.9	4.8	2.7	4.2	5.0	4.5	5.8	4.0	2.5	7.9	3.9	1.9	1.90	4.29	7.91
20	4.4	19.2	21.6	19.4	15.5	14.1	14.5	23.5	19.9	20.3	9.7	17.9	9.69	17.79	23.51
21	4.7	5.2	33.8	23.0	19.5	13.9	18.1	24.3	21.1	26.4	24.4	18.5	5.19	20.75	33.85
22	0.7	4.5	3.8	5.7	3.8	5.1	4.7	4.1	7.7	4.2	8.7	5.4	3.80	5.24	8.66
RF1	15.2	115.6	29.4	31.0	29.0	40.3	28.4	27.1	42.2	56.3	27.6	22.4	22.42	40.84	115.62
RF2	5.0	12.6	14.4	10.5	13.0	16.7	13.6	11.1	10.3	11.4	12.0	6.3	6.33	11.99	16.65