



DELL
PowerEdge 6800
with SQL Server 2005
Enterprise (x64) Edition™

TPC-H Revision 2.3.0

Report Date: Jan 12, 2006

Revision Date: Mar 28, 2006

Total System Cost
\$71,758 USD

TPC-H Composite Query per Hour
8,793.3 QphH@100GB

Price/Performance
\$8.17 USD/ QphH@100GB

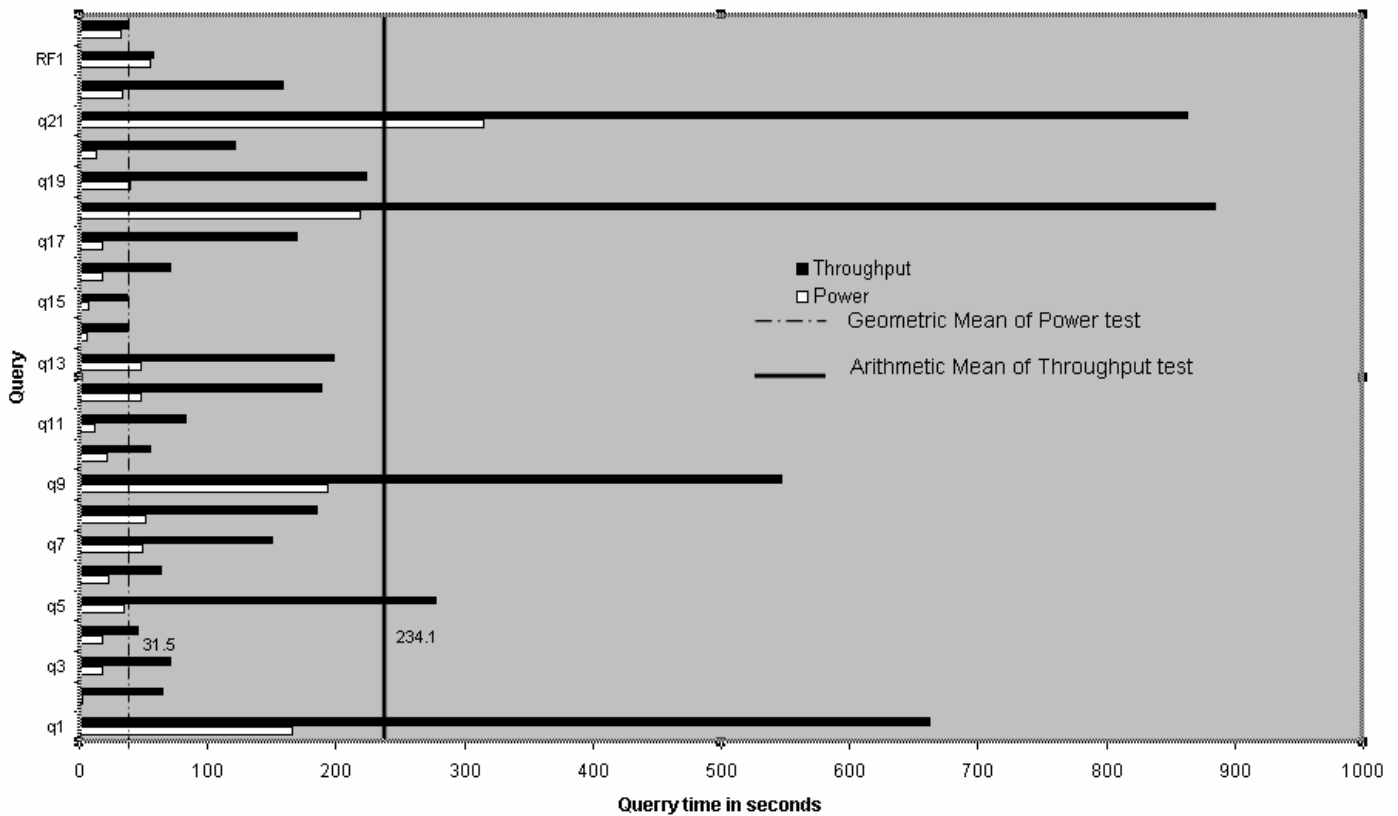
Database Size
100GB

Database Manager
 SQL Server 2005 Enterprise (x64)
 Edition™

Operating System
 Microsoft Windows Server
 2003 Enterprise x64
 Edition™

Other Software
 Visual C++ Standard Edition
 Visual Basic 2003 .Net
 Professional

Availability Date
January 12, 2006



Database Load Time
 1:34:06

Total Disk/Database Size
 33.9

Load Includes Backup
 Y

RAID (Base tables only)
 N

RAID (Base tables and auxiliary data structures)
 N

RAID (Everything)
 N

System Configuration : 1 node
Processors (per node) : 4x Dual-Core Intel® Xeon™ 7040/3.0GHz 2x2MB L2 Cache
Memory: (per node) : 32GB RAM
Disk Drives: 84 – 36GB 15k HDD & 8 – 73GB 10k HDD

“Database Size includes only raw data (e.g., no temp, index, redundant storage space, etc.)”

Dell		PowerEdge PE6800			TPC-H REV 2.3 EXECUTIVE SUMMARY		
		Server			Report Date: 12-January-06		
					Revision Date: 28-March-06		
Description	Part Number	Third Party		Unit Price	Qty	Extended Price	3 yr. Maint. Price
		Brand	Pricing				
Server Hardware							
Dell PowerEdge 6800 3.0GHz Dual Core XEON wr/2+2MB	222-1046			\$4,094.00	1	\$4,094.00	\$300.00
L2 cache, 667MHZ FSB, 2 onboard Gigabit NICs							
3.0GHZ/2+2MB,Dual Core XEON,QUAD PROC	311-5643			\$10,497.00	1	\$10,497.00	
32GB,DDR2,400MHZ(16X2GB),2R	311-4662			\$6,358.00	1	\$6,358.00	
PERC4e/Di 256MB	341-1903			\$299.00	1	\$299.00	
PERC4eDC,128MB,2-EXT CHN	341-1642			\$799.00	3	\$2,397.00	
73GB U320M SCSI 10K RPM Hard Drive (OS+LOG)	341-1287			\$299.00	8	\$2,392.00	
Dell E773,17 in Gray (16.0 VIS)	320-2907			\$159.00	1	\$159.00	
					Subtotal	\$26,196.00	\$300.00
PowerVault Disk Subsystem							
PV220S, U3	220-4476			\$2,255.00	6	\$13,530.00	\$2,406.00
ZEMM,U320,PV22XS,SINGLE	340-9324			\$399.00	6	\$2,394.00	
600W,PWR SPLY,PV22XS	310-0677			\$0.00	6	\$0.00	
600W,PWR SPLY,PV22XS	310-0683			\$89.00	6	\$534.00	
SCSI Cables	310-0679			\$99.00	6	\$594.00	
36GB U320M SCSI 15K RPM Hard Drive *	340-9371			\$249.00	84	\$20,916.00	
RACK-111/24U/Dell	A0213544			\$479.95	1	\$479.95	
					Subtotal	\$38,447.95	\$2,406.00
Server Software							
SQL Server 2005 Enterprise x64 Edition **	810-04793	Microsoft	1	\$8,487.00	1	\$8,487.00	
SQL Server 2005 Client Licence **	359-01911	Microsoft	1	156	25	\$3,900.00	
Windows Server 2003 Enterprise x64 Server **	P72-00274	Microsoft	1	\$2,334.00	1	\$2,334.00	
Visual C++ Standard Edition **	254-00170	Microsoft	1	\$109.00	1	\$109.00	
Visual Basic 2003 Standard	046-00856	Microsoft	1	\$109.00	1	\$109.00	
Professional Support (1 Incident)		Microsoft	1	\$245.00	1		\$245.00
					Subtotal	\$14,939.00	\$245.00
All components from Dell are discounted 16% based on total dollar volume of this configuration.				Other Discounts (16%)		\$10,775.99	
					Total	\$68,807	\$2,951
Notes: * Maint. included in PowerVault 220 disk pod					Three-Year Cost of Ownership:		\$71,758 USD
** All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server							
Pricing: 1 = Microsoft, all others are Dell					QphH@100G	8,793.3	
Pricing may be verified by calling 1-800-BUY-DELL and referencing quote # 283836068							
as a complex quote.							
Audited by Lorna Livingtree, Performance Metrics Inc.					\$ / QphH@100G:	\$8.17 USD	
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 items, please inform the TPC at pricing@tpc.org .							



DELL
PowerEdge 6800
w/ SQL Server 2005
Enterprise (x64) Edition™

TPC-H Revision 2.3.0

Report Date: Jan 12, 2006

Revision Date: Mar 28, 2006

Numerical Quantities Summary

Measurement Results:

Database Scale Factor	100
Total Data Storage/Database Size	33.9
Start of Database Load	2005-12-12 08:42:27
End of Database Load	2005-12-12 10:16:33
Database Load Time	1:34:06
Query Streams for Throughput Test	5
TPC-H Power	11423.9
TPC-H Throughput	6768.5
TPC-H Composite Query-per-Hour Metric (QphH@300GB)	8793.3
Total System Price Over 3 Years	\$71,758
TPC-H Price Performance Metric (\$/QphH@300GB)	\$8.17

Measurement Interval:

Measurement Interval in Throughput Test (Ts) = 5851 seconds

Duration of stream execution:

	Seed	Start Date/Time	End Date/Time	Duration
Stream00	1212101633	2005-12-12 13:36:32	2005-12-12 13:59:05	00:22:33
Stream01	1212101634	2005-12-12 13:59:39	2005-12-12 15:22:56	01:23:17
Stream02	1212101635	2005-12-12 13:59:39	2005-12-12 15:27:38	01:28:00
Stream03	1212101636	2005-12-12 13:59:39	2005-12-12 15:29:00	01:29:22
Stream04	1212101637	2005-12-12 13:59:39	2005-12-12 15:24:43	01:25:04
Stream05	1212101638	2005-12-12 13:59:39	2005-12-12 15:23:12	01:23:33
Refresh00		12/12/05 13:35:37	12/12/05 13:36:32	0:00:55
		12/12/05 13:59:05	12/12/05 13:59:38	0:00:32
Refresh01		12/12/05 13:59:39	12/12/05 15:30:39	1:31:01
Refresh02		12/12/05 15:30:40	12/12/05 15:32:23	0:01:42
Refresh03		12/12/05 15:32:24	12/12/05 15:33:59	0:01:36
Refresh04		12/12/05 15:34:01	12/12/05 15:35:35	0:01:34
Refresh05		12/12/05 15:35:37	12/12/05 15:37:09	0:01:32



DELL
PowerEdge 6800
SQL Server 2005
Enterprise (x64) Edition™

TPC-H Revision 2.3.0

Report Date: Jan 12, 2006

Revision Date: Mar 28, 2006

Numerical Quantities Summary

Timing Intervals in Seconds:

Query	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Stream00	165.7	2.9	18.4	18.0	34.3	22.7	49.8	52.0
Stream01	671.6	42.1	85.3	54.9	127.7	34.3	243.8	211.2
Stream02	632.0	48.4	93.8	35.4	192.3	84.1	111.4	197.5
Stream03	654.1	71.5	16.9	45.8	838.6	43.2	157.8	209.5
Stream04	637.4	61.7	94.6	47.4	154.2	101.7	115.3	168.1
Stream05	713.3	101.5	65.2	46.9	74.2	52.8	125.6	137.4
Min Qi	671.6	42.1	65.2	46.9	74.2	34.3	125.6	137.4
Max Qi	713.3	101.5	94.6	54.9	838.6	101.7	243.8	211.2
Avg Qi	692.45	71.8	75.25	50.9	100.95	43.55	184.7	174.3

Query	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
Stream00	193.2	21.5	11.9	48.1	46.0	5.6	7.0	17.5
Stream01	424.5	54.3	99.1	177.6	281.4	28.7	29.3	71.0
Stream02	476.8	67.5	99.3	288.7	176.9	64.7	30.7	93.4
Stream03	595.2	58.8	66.7	55.8	89.7	27.3	25.3	21.6
Stream04	598.0	57.4	89.0	231.6	213.4	28.1	42.7	79.4
Stream05	642.3	36.1	60.7	188.8	227.9	34.5	26.5	87.6
Min Qi	424.5	36.1	60.7	177.6	227.9	28.7	26.5	71
Max Qi	642.3	67.5	99.3	288.7	281.4	64.7	42.7	93.4
Avg Qi	533.4	45.2	79.9	183.2	254.65	31.6	27.9	79.3

Query	Q17	Q18	Q19	Q20	Q21	Q22	RF1	RF2
Stream00	17.5	219.0	39.7	13.2	314.8	34.2	54.7	32.3
Stream01	56.0	938.1	137.8	122.0	945.6	161.3	5421.2	39.0
Stream02	333.1	810.3	502.8	94.1	678.4	167.9	64.9	36.7
Stream03	87.5	999.0	110.2	102.4	952.3	132.1	58.2	36.7
Stream04	234.1	813.4	209.0	151.0	791.7	184.8	56.8	36.7
Stream05	139.2	862.9	159.3	136.0	945.1	148.9	49.5	40.5
Min Qi	56	862.9	137.8	122	945.1	148.9	49.5	39
Max Qi	333.1	999	502.8	151	952.3	184.8	5421.2	40.5
Avg Qi	97.6	900.5	148.55	129	945.35	155.05	2735.35	39.75