



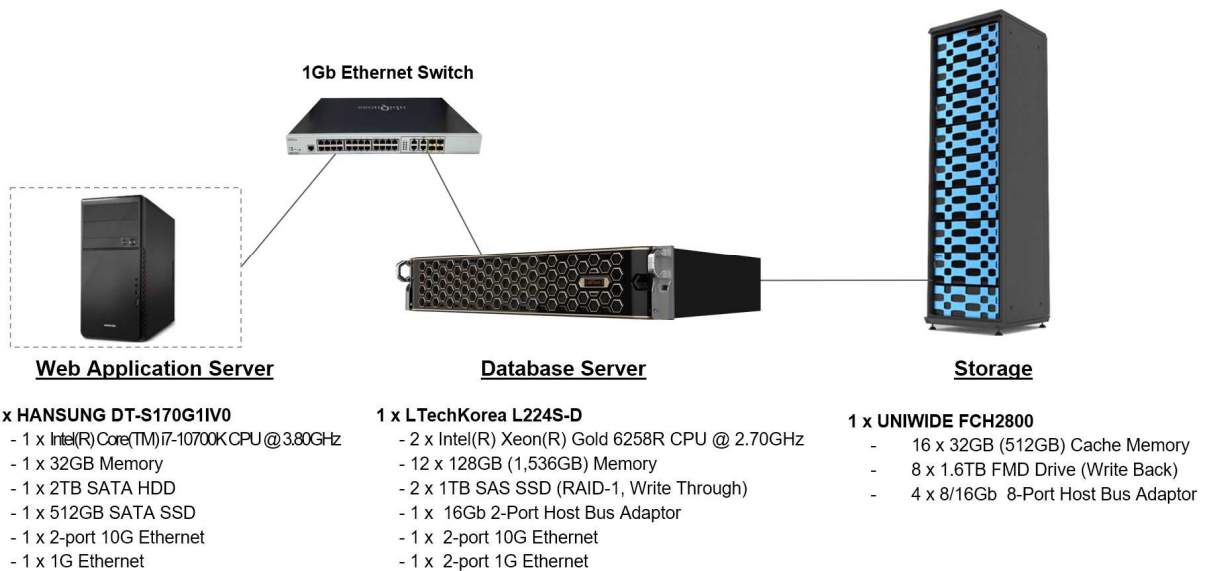
Goldilocks v3.1 Standard Edition on LTechkorea L224S-D

TPC-C Version 5.11.0
TPC Pricing 2.7.0

Report Date
30-Aug-2021

Total System Cost	TPC-C Throughput	Price/Performance		Availability Date
₩ 276,751,800 (KRW)	144,714 tpmC	1,913 KRW/tpmC		Available Now
Server Processors/Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
2/56/112	Goldilocks v3.1 Standard Edition	RHEL 7.9	JBoss Web Server	114,000

Priced Configuration (LTechKorea)



System Components	DB Server		WAS Server	
	Quantity	Description	Quantity	Description
Processors/Cores/Threads	2/56/112	Intel(R) Xeon(R) Gold 6258R CPU @ 2.70GHz	1/8/16	Intel(R) Core(TM) i7-10700K CPU @ 3.80GHz
Memory	12	128GB	1	32GB
Storage Controller	1 2 2	- MegaRAID SAS-3 3108 - C620 Series SATA Controller - QLogic Corp. ISP8324-based 16Gb Fibre Channel to PCI Express Adapter		
Storage Device	2 8	1TB SAS HDD (Write Through) 1.6TB FMD SSD (External, Write back)	1 1	1TB SATA HDD 512GB SATA SSD
Total Storage Capacity		14.8TB		



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Description	Part Number	Source	Unit Price	Qty	Price	3-Yr. Maint. Price
Server Hardware						
DB Server – L224S-D Server	L224S-D	1	207,494,400	1	207,494,400	
Intel® Xeon® Gold 6258R 28C/56Th 2.7Ghz (Up To 4Ghz)	-	1	(included)	2		
128GB fully buffered DDR4 Memory, LRDIMM	-	1	(included)	12		
SSD 1TB, Enterprise	-	1	(included)	2		
RAID Controller - LSI 9361 8i	-	1	(included)	1		
Intel® Ethernet Server Adapter I350-T2V2	-	1	(included)	1		
Intel® Ethernet Converged Network Adapter X550-T2	-	1	(included)	1		
QLE 2692 PCI-e 3.0 - 16G Fc gbic	-	1	(included)	1		
224S-D Server(power 920watt) 2.5 inch disk bay * 24EA	-	1	(included)	1		
Maintenance - 7x24x4 Care Pack (3-yrs)	-	1	(included)	1		
WAS Servers (per server) - DT-S170G1IV0	DT-S170G1IV0	2	1,551,000	5 ¹	7,755,000	
Intel® Core Processor i7-10700K, 3.8GHz		2	(included)	1		
DDR4 32GB, Samsung, UDIMM PC4-25600U		2	(included)	1		
Seagate Barracuda ST2000DM008 2 TB 3.5"		2	(included)	1		
HP SSD EX900 500GB		2	(included)	1		
Server Hardware Sub Total					215,249,400	
Storage Hardware						
All Flash Storage - FCH2800	FCH2800	3	72,250,000	1	72,250,000	
FCH2800 Controller Device	T0001-0117-00	3	(included)	1		
Back-end Bus Adapter 12G SAS	T0001-0117-01	3	(included)	1		
16G 8-Port Host Bus Adapter	T0001-0117-02	3	(included)	4		
Cache Interconnect Adapter	T0001-0117-03	3	(included)	1		
Cache Memory DDR-3 (32GB)	T0001-0117-04	3	(included)	16		
FCH2800 Flash Disk Drive Expansion Unit	T0001-0117-05	3	(included)	1		
FCH2800 controller cpu Board	T0001-0117-06	3	(included)	1		
Rack 600x1200x2010 mm (WxDxH) 42U	T0001-0117-07	3	(included)	1		
Storage Management SW	T0001-0117-08	3	(included)	1		
UTP CAT5e Ethernet Cable 1M	61001-0001-00	3	(included)	1		
Power Cord, NICETECH, 2.5M	42119-0005-00	3	(included)	2		
1.6TB Flash Memory Disk Drive	T22601-0117-03	3	3,900,000	8	31,200,000	
3-yrs 24x7x4hrs Onsite Support Service	-	3	26,350,000	1		26,350,000
Storage Hardware Sub Total					103,450,000	26,350,000

¹ The number of WAS Servers in SUT is 3, But priced condition includes 2 spares for replaceable items. (TPC Pricing 2.7.0 - 4.3.2)

Client/Server Software						
Red Hat Enterprise Linux Server Standard 3yrs	RH00004	4	4,098,000	4	16,392,000	
RHEL Server Standard Maintenance - 3yrs 24x7x4hrs	RP-CSP(OS)	4	5,000,000	4		20,000,000
Red Hat JBoss Web Server 4-Core Standard 3Year	MW00123F3	4	2,138,000	6	12,828,000	
JBoss Web Server per 4Core 3Year Maintenance	RP-CSP(WAS)	4	12,000,000	6		72,000,000
Goldilocks v3.1 Standard Edition	-	5	96,000,000	1	96,000,000	
Goldilocks v3.1 Standard Edition Technical Supports	-	5	10,000,000	3		30,000,000
Software Sub Total					125,220,000	122,000,000
Other Hardware						
UbiQuoss uSafe3010-24ps (10G, 24-port)(w/spares)	22917889	6	1,900,000	3	5,700,000	
Other Hardware Sub Total					5,700,000	
Discounts*						
HW Discount - DB Server(L224S-D)					-181,557,600	
Red Hat OS Discount					-6,792,000	-12,000,000
Red Hat JBoss Discount					-5,268,000	-36,000,000
SW Discount - Goldilocks					-64,000,000	-15,600,000
Discounts Sub Total					-257,617,600	-63,600,000
Total					192,001,800	84,750,000

Pricing Notes 1) LTechKorea Inc. 4) Rockplace Inc. 2) Hansung Corporation. 5) Sunjesoft Inc. 3) UNIWIDE Technologies Inc. 6) UbiQuoss Inc.	Three year cost of ownership KRW(W): 276,751,800 TPC-C throughput: 144,714 tpmC Price/Performance: 1,913 ₩ / tpmC

Benchmark implementation and results independantly audited by Doug Johnson of InfoSizing (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 pricing 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.



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MQTh, computed Maximum Qualified Throughput **144,714 tpmC**

Response Times (seconds)	Min	Average	90 th	Max
New-Order	0.102	0.104	0.104	0.912
Payment	0.102	0.103	0.103	0.715
Order-Status	0.102	0.103	0.102	0.712
Delivery (interactive portion)	0.101	0.101	0.101	0.397
Delivery (deferred portion)	0.002	0.006	0.006	0.674
Stock-Level	0.102	0.103	0.103	0.706
Menu	0.101	0.101	0.102	0.507

Emulated Display Delay: 0.1 sec.

Transaction Mix	Percent	Number
New-Order	44.979%	60,782,381
Payment	43.012%	58,123,521
Order-Status	4.003%	5,408,747
Delivery	4.003%	5,409,721
Stock-Level	4.003%	5,409,646

Keying Times (seconds)	Min	Average	Max
New-Order	18.001	18.001	18.004
Payment	3.001	3.001	3.006
Order-Status	2.001	2.001	2.002
Delivery	2.001	2.001	2.003
Stock-Level	2.001	2.001	2.002

Think Times (seconds)	Min	Average	Max
New-Order	0.001	12.044	120.501
Payment	0.001	12.045	120.501
Order-Status	0.001	10.052	100.501
Delivery	0.001	5.028	50.301
Stock-Level	0.001	5.030	50.301

Test Duration	
Ramp-up time	65 min
Measurement Interval (MI)	420 min
Checkpoints in MI	14
Checkpoint Interval (Average / Max)	29:22 min / 29:23 min
Number of Transactions in MI (all types)	135,134,016