Goldilocks v3.1 Standard Edition on KTNF KE780S1

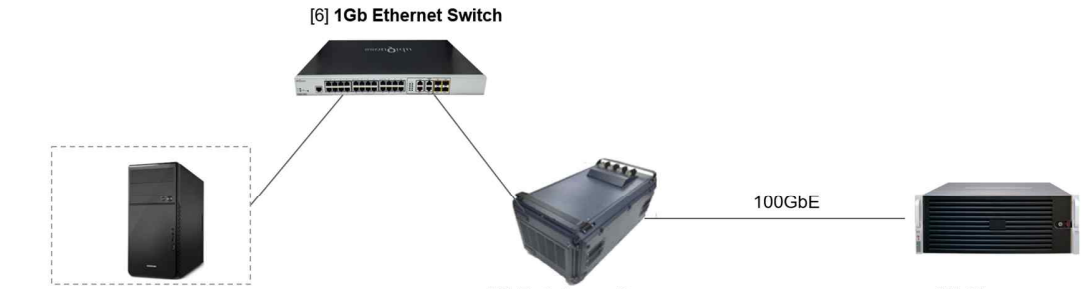
TPC-C Version 5.11.0
TPC Pricing 2.9.0

Report Date
25-Jan-2024

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
₩ 163,820,700 (KRW)	**50,768 tpmC**	**3,227 KRW/tpmC**	**Available Now**

Server Processors/Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
1/12/24	**Goldilocks v3.1 Standard Edition**	**RHEL 9.0**	**JBoss Web Server**	**40,000**

Priced Configuration (KTNF)



[2] **Web Application Server**

1 x HANSUNG DT-S170G1IV0
- 1 x Intel(R) Core(TM) i7-10700K CPU @ 3.80GHz
- 1 x 32GB Memory
- 1 x 2TB SATA HDD
- 1 x 512GB NVMe SSD
- 1 x 2-port 10G Ethernet
- 1 x 1G Ethernet

[1] **Database Server**

1 x KTNF KE780S1
- 1 x Intel(R) Xeon(R) Silver 4410Y CPU @ 2.00GHz
- 8 x 64GB (512GB) Memory
- 1 x 512GB NVMe SSD
- 1 x Dual port 100GbE Intel® Ethernet Network Adapter E810
- 1 x single port 1G Ethernet

[3] **Storage**

1 x GLUESYS AnyStor 700E-12
- 2 x Intel(R) Xeon(R) Gold 6326 CPU @ 2.90GHz
- 8 x 32GB Memory
- 4 x 7.68TB NVMe Drive (Write Through)
- 1 x Dual port 100GbE Intel® Ethernet Network Adapter E810
- 1 x NVIDIA RTX A2000 for GRAID

System Components	DB Server		WAS Server	
	Quantity	**Description**	**Quantity**	**Description**
Processors/Cores/Threads	1/12/24	Intel(R) Xeon(R) Silver 4410Y @ 2.00GHz	1/8/16	Intel(R) Core(TM) i7-10700K CPU @ 3.80GHz
Memory	8	64GB	1	32GB
Storage Controller	-	None	-	None
Storage Device	1 4	512GB NVMe SSD(Write Through) 7.68TB NVMe SSD(External, Write Through)	1 1	1TB SATA HDD 512GB SATA SSD
Total Storage Capacity		31.232 TB		

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Description	Part Number	Source	Unit Price	Qty	*Price*	*3-Yr. Maint. Price*
Server Hardware						
DB Server - KTNF(KE780S1)	KE780S1	1	**43,000,000**	1	**43,000,000**	
4th Gen intel Xeon Scalable Processor Silver 4410Y	CPU	1	(included)	1		
64GB DDR5 4800RDIMM	RAM	1	(included)	8		
Dual port 100GbE Intel® Ethernet Network Adapter E810	NIC	1	(included)	1		
512GB M.2 NMVe SSD	SSD	1	(included)	1		
3year, 24x7x4hr Onsite Support Service	Maintenance	1	(included)	1		
WAS Servers - DT-S170G1IV0	DT-S170G1IV0	1	8,000,000	1	**8,000,000**	
Intel® Core Processor i7-10700K, 3.8GHz	CPU	1	(included)	1		
DDR4 32GB, Samsung, UDIMM PC4-25600U	RAM	1	(included)	1		
2TB SATA HDD	HDD	1	(included)	1		
512 M.2 NVMe SSD	SSD	1	(included)	1		
2port 10G RJ-45 Adapter	NIC	1	(included)	1		
1port 1G RJ-45 Adapter	NIC	1	(included)	1		
3year, 24x7x4hr Onsite Support Service	Maintenance	1	(included)	1		
Server Hardware Sub Total					***51,000,000***	
Storage Hardware						
Anystor 700E-12	ASE700E-12	2	97,000,000	1	**97,000,000**	
Intel® Xeon Gold 6326 Processor (16Core, 2.9GHz, 24MB Cache)	-	2		2		
32GB ECC Registered Memory	-	2		8		
2-port 10G RJ45 & 2-port 10G SFP+, Intel X710-TM4	-	2		1		
Hot-Swappable 12 SAS or SATA Disk Bay	-	2		1		
PCIe Gen4 x 16 GRAID SupremeRAID Core Software Module License with Full features, supports 32 native NVMe drives and NVMe-oF	-	2		1		
AnyStor-E NAS 전용 O/S (480GB SSD X2EA, RAID1)	OS	2		1		
SAMSUNG PM9A3, 7.68TB U.2 PCIe 4.0 NVMe (SAMSUNG MZQL27T6HBLA-00A07)	Disk Drive	2	1,250,000	4	5,000,000	
Dual-Port QSFP28 100GbE Network Card	NIC Card	2	2,500,000	1	2,500,000	
100G QSFP28 Cable 3M (MCP1600-C003E26N)	NIC Cable	2	300,000	2	600,000	
Premium Package 3-Year Support & Maintenance	Support & Maintenance	2	12,000,000	1		12,000,000
Storage Hardware Sub Total					**105,100,000**	**12,000,000**
Client/Server Software						
Red Hat Enterprise Linux Server Standard 3yrs	RH00004F3	3	4,089,000	2	8,178,000	
RHEL Server Standard Maintenance - 3yrs 24x7x4hrs	RP-CPS(OS)	3	8,000,000	2		16,000,000
Red Hat JBoss Web Server 4-Core Standard 3Year	MW00123F3	3	1,944,000	2	3,888,000	
JBoss Web Server per 4Core 3Year Maintenance	RP-CPS(WAS)	3	12,000,000	2		24,000,000

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Goldilocks v3.1 Standard Edition	-	4	64,000,000	1	64,000,000	
Goldilocks v3.1 Standard Edition Technical Supports	-	4	20,000,000	3		60,000,000
Software Sub Total					**76,066,000**	**100,000,000**
Other Hardware						
DASAN Networks access switch - D2224GP, 24port POE	22917889	5	1,900,000	3	5,700,000	
Hansung Computer - HKM1000K Keyboard mouse set	-	6	19,900	3	59,700	
Hansung Computer - ULTRON 2235V Freesink real75 Monitor	-	6	97,000	3	291,000	
Other Hardware Sub Total					**6,050,700**	
Discounts*						
Storage Hardware Discount					-59,230,000	-7,500,000
Red Hat OS Discount					-2,978,000	-10,000,000
Red Hat JBoss Discount					-1,288,000	-6,000,000
SW Discount - Goldilocks					-46,600,000	-52,800,000
Discounts Sub Total					**-110,096,000**	**-76,300,000**
Total					**128,120,700**	**35,700,000**

Pricing Notes

1) KTNF Inc.
2) Gluesys Co.,Ltd.
3) Rockplace Inc.
4) Sunjesoft Inc.
5) DASAN Networks
6) Hansung Corp.

All of the prices are based on South Korea's currency, KRW (₩, Korean Won) and excluded VAT.

* All discounts are based on Korea list prices and for similar quantities and configurations. Discounts for similarly sized configurations will be similar to those quoted here, but may vary based on the components in the configuration.

Three year cost of ownership KRW(₩): 163,820,700

TPC-C throughput: 50,768 tpmC

Price/Performance: 3,227 ₩ / 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	**50,768 tpmC**

Response Times (seconds)	**Min**	**Average**	**90th**	**Max**
New-Order	0.102	0.11	0.103	12.348
Payment	0.102	0.108	0.103	8.922
Order-Status	0.102	0.107	0.102	3.882
Delivery (interactive portion)	0.101	0.104	0.101	3.284
Delivery (deferred portion)	0.001	0.019	0.005	8.919
Stock-Level	0.102	0.108	0.103	3.882
Menu	0.101	0.105	0.102	3.308

Emulated Display Delay: 0.1 sec.

Transaction Mix	**Percent**	**Number**
New-Order	44.980%	21,322,770
Payment	43.011%	20,389,345
Order-Status	4.003%	1,897,459
Delivery	4.003%	1,897,757
Stock-Level	4.003%	1,897,541

Keying Times (seconds)	**Min**	**Average**	**Max**
New-Order	18.001	18.001	18.002
Payment	3.001	3.001	3.002
Order-Status	2.001	2.001	2.002
Delivery	2.001	2.001	2.002
Stock-Level	2.001	2.001	2.001

Think Times (seconds)	**Min**	**Average**	**Max**
New-Order	0.001	12.041	120.501
Payment	0.001	12.040	120.501
Order-Status	0.001	10.037	100.501
Delivery	0.001	5.032	50.301
Stock-Level	0.001	5.028	50.301

Test Duration	
Ramp-up time	65 min
Measurement Interval (MI)	420 min
Checkpoints in MI	14
Checkpoint Interval (Average / Max)	29:21 min / 29:22 min
Number of Transactions in MI (all types)	47,404,872

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