



Goldilocks v3.1 Standard Edition on KTNF KR570S1

TPC-C Version 5.11.0
TPC Pricing 2.4.0

Report Date
12-Nov-2019

Total System Cost	TPC-C Throughput	Price/Performance		Availability Date
₩ 242,475,000 (KRW)	152,328 tpmC	1,592 KRW/tpmC		Available Now
Server Processors/Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
2/20/40	Goldilocks v3.1 Standard Edition	RHEL 7.7	JBoss Web Server	120,000

1Gb Ethernet Switch



Web Application Server

2 x ATEC A6HGBCP

- 1 x Intel Xeon E3-1270 V5 3.60GHz
- 2 x 8GB Memory
- 1 x 1TB SATA HDD
- 1 x 250GB SATA SSD
- 1 x 1Gb Ethernet

Database Server

1 x KTNF KR570S1

- 2 x Intel Xeon Silver 4114 2.20GHz
- 24 x 64GB (1.5TB) Memory
- 2 x 480GB SATA SSD
- 1 x 16/32Gb 2-Port Host Bus Adaptor
- 1 x 1Gb Ethernet

Storage

1 x UNIWIIDE FCH2800

- 16 x 32GB (512GB) Cache Memory
- 8 x 1.6TB FMD Drive
- 4 x 8/16Gb 8-Port Host Bus Adaptor

System Components	DB Server		WAS Server	
	Quantity	Description	Quantity	Description
Processors/Cores/Threads	2/20/40	Intel Xeon Silver 4114 2.20GHz	1/4/8	Intel Xeon E3-1270 V5 3.60GHz
Memory	24	64GB	2	8GB
Storage Controller	1	SAS 12G Raid		
	1	16/32Gb FC HBA		
Storage Device	2	480GB SATA SSD	1	1TB SATA HDD
	8	1.6TB FMD SSD (External)	1	250GB SATA SSD
Total Storage Capacity		13.76TB		



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Description	Part Number	Source	Unit Price	Qty	Price	3-Yr. Maint. Price
Server Hardware						
1 x DB Server – KTNF KR570S1	PAB0034A	1	26,000,000	1	26,000,000	
KR570S1 Barebone	HAE0342A	1	(included)	1		
Intel Xeon Scalable Silver 4114 Processor (10Core 2.2GHz/13.75MB)	HAK0097A	1	(included)	2		
64GB DDR4 2400 ECC RDIMM Memory	HCL0015A	1	(included)	24		
480GB 2.5" SATA SSD	HCZ0032A	1	(included)	2		
Broadcom MEGARAID SAS 9361-8i RAID Card (1GB Cache)	HCH0037A	1	(included)	1		
Qlogic 4port 16G FC HBA Adapter	HAZ0005A	1	(included)	1		
Intel 2port 10G LC Fiber Server Adapter	HBV0080A	1	(included)	1		
SFP+ Transceiver	HCW0009A	1	(included)	2		
Trackball Mini Keyboard	HDM0001A	1	(included)	1		
KTNF 27-inch Monitor	HDM0002A	1	(included)	1		
Maintenance - 7x24x4 Care Pack (3-yrs)		1	4,500,000	1		4,500,000
2 x WAS Servers (per server) - A6HGBDPNN						
Intel® Xeon® Processor XEON E3-1270V5, 3.6GHz	A6HGBDPNN	2	1,750,000	2	3,500,000	
DDR4 8GB (2400MHz / PC4 19000 / ECC / REG)		2	(included)	1		
Samsung 850EVO, 250GB, SATA3, TLC, MEX		2	(included)	2		
1TB, 7200RPM, 64M, SATAIII, ST1000DM010		2	(included)	1		
KUB-1407, USB, Black		2	(included)	1		
MUB-1407, USB, 1000DPI, Black		2	(included)	1		
Tower, 500W, ATX		2	(included)	1		
UTP CAT5e Ethernet Cable 1M		2	(included)	1		
Power Cord, NICETECH, 2.5M		2	(included)	1		
A6HGBDPNN 7x24x4 Care Pack (3-yrs)		2	(included)	1		
Server Hardware Sub Total					29,500,000	4,500,000
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	DKC-F810I-1R6FM.P	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
Client/Server Software						
Red Hat Enterprise Linux Server Standard 3yrs	RH00004F3	4	3,975,000	3	11,925,000	
RHEL Server Standard Maintenance - 3yrs 24x7x4hrs	RSC-LSF3	4	6,000,000	3		18,000,000
Red Hat JBoss Web Server 4-Core Standard 3Year	MW00123F3	4	2,086,000	2	4,172,000	
JBoss Web Server per 16Core 3Year Maintenance	RSC-JSF3	4	12,000,000	1		12,000,000
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					112,097,000	60,000,000
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*						
SW Discount - Goldilocks					-64,000,000	-15,600,000
Red Hat OS Discount					-4,770,000	-12,000,000
Red Hat JBoss Discount					-1,252,000	-6,000,000
Discounts Sub Total					-70,022,000	-33,600,000
Total					180,725,000	61,750,000

Pricing Notes

- | | |
|------------------------------|-------------------|
| 1) KTNF Co., Ltd | 4) Rockplace Inc. |
| 2) Atec Co., Ltd. | 5) Sunjesoft Inc. |
| 3) UNIWIDE Technologies Inc. | 6) UbiQuoss Inc. |

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(₩): 242,475,000

TPC-C throughput: 152,328 tpmC

Price/Performance: 1,592 ₩ / tpmC

Benchmark implementation and results independantly audited by Francois Raab 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 **152,328 tpmC**

Response Times (seconds)	Min	Average	90 th	Max
New-Order	0.103	0.106	0.108	0.761
Payment	0.102	0.105	0.108	0.760
Order-Status	0.102	0.105	0.107	0.657
Delivery (interactive portion)	0.101	0.102	0.102	0.528
Delivery (deferred portion)	0.003	0.013	0.027	1.820
Stock-Level	0.102	0.105	0.107	0.759
Menu	0.101	0.102	0.102	0.527

Emulated Display Delay: 0.1 sec.

Transaction Mix	Percent	Number
New-Order	44.980%	63,977,769
Payment	43.011%	61,177,057
Order-Status	4.002%	5,692,927
Delivery	4.003%	5,693,907
Stock-Level	4.003%	5,693,613

Keying Times (seconds)	Min	Average	Max
New-Order	18.001	18.001	18.025
Payment	3.001	3.001	3.044
Order-Status	2.001	2.001	2.038
Delivery	2.001	2.001	2.035
Stock-Level	2.001	2.001	2.042

Think Times (seconds)	Min	Average	Max
New-Order	0.001	12.045	120.503
Payment	0.001	12.043	120.502
Order-Status	0.001	10.046	100.502
Delivery	0.001	5.028	50.303
Stock-Level	0.001	5.029	50.301

Test Duration	
Ramp-up time	65 min
Measurement Interval (MI)	420 min
Checkpoints in MI	15
Checkpoint Interval (Average / Max)	27.53 min / 27.56 min
Number of Transactions in MI (all types)	142,235,273