<table>
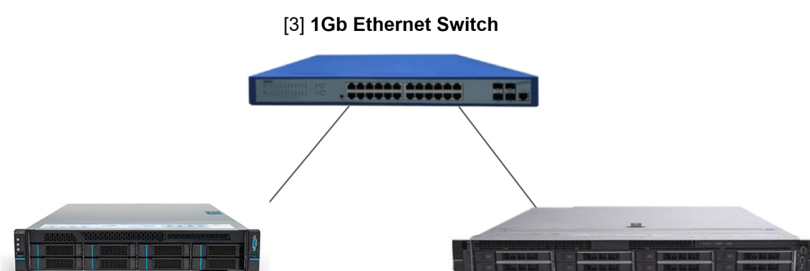<tr><td rowspan="2">TTA</td><td rowspan="2"><h1>Goldilocks v3.1 Standard Edition on UNIWIDE RE2212</h1></td><td>TPC-C Version 5.11.0
TPC Pricing 2.9.0</td></tr>
<tr><td>Report Date
15-Jul-2025</td></tr>
</table>

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
₩ 374,195,000 (KRW)	**101,562 tpmC**	**3,685 KRW/tpmC**	**Available Now**

Server Processors/Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
2/96/192	**Goldilocks v3.1 Standard Edition**	**RHEL 9.5**	**JBoss Web Server**	**80,000**

Priced Configuration (UNIWIDE)

[3] **1Gb Ethernet Switch**

[2] **Web Application Server**

1 x KTNF KM-H620
 - 2 x Intel(R) Xeon(R) Gold 6140 @ 2.30GHz
 - 2 x 64GB Memory
 - 2 x 600GB SATA HDD
 - 1 x 2-port 10G Ethernet
 - 1 x 3-port 1G Ethernet

[1] **Database Server**

1 x UNIWIDE RE2212
 - 2 x Intel(R) Xeon(R) Platinum 8468
 - 16 x 64GB (1024GB) Memory (Samsung DDR5)
 - 2 x 480GB SSD(SAMSUNG MZ7WD480HAGM U.2 480GB)
 - 4 x 1.92TB NVMe SSD(FADU Delta U.2 1.92TB)
 - 2 x 3.84TB NVMe SSD(Micron_9300_MTFDHAL3T2TDR)
 - 2 x BROADCOM BCM57840 NDC 10GBE 2 PORT NETWORK
 - 1 x 4-port 1G Ethernet

System Components	DB Server		WAS Server	
	Quantity	Description	Quantity	Description
Processors/Cores/Threads	2/96/192	Intel(R) Xeon(R) Platinum 8468	2/36/72	Intel(R) Xeon(R) Gold 6140 @ 2.30GHz
Memory	16	64GB	2	64GB
Storage Device	2 4 2	480GB SATA SSD 1.92TB NVMe SSD 3.84TB NVMe SSD	2	600GB SATA HDD

TPC-C Full Disclosure Report

Goldilocks v3.1 Standard Edition on UNIWIDE RE2212						
					TPC-C Version 5.11.0 TPC Pricing 2.9.0	
					Report Date 15-Jul-2025	
					Available Now	

Description	Part Number	Source	Unit Price	Qty	Price	3-Yr. Maint. Price
Server Hardware						
DB Server – UNIWIDE(RE2212)	RE2212	1	**113,559,000**	*1*	**249,905,000**	
RE2212 (1G*4,1600W(1+1), NO RAID, NO GPU supportable) 3.5 x12	SVR-UNI-RE2212-0011	1	26,438,000	1	26,438,000	
Intel Xeon Platinum 8468 48C/96T 2.1GHz 105M 350W	CPU-ING4-0390	1	65,738,000	2	131,476,000	
64GB DDR5-4800 R ECC	MEM-D5R48-RP-0030	1	2,838,000	16	45,408,000	
SSD SATA 480GB 2.5 인치 U.2	-	1	850,000	2	1,700,000	
SSD NVMe PCIe5.0 1.92TB 2.5 인치 U.2	SSD-NVHE-SA-0080	1	5,625,000	4	22,500,000	
SSD NVMe PCIe5.0 3.84TB 2.5 인치 U.2	SSD-NVHE-SA-0090	1	10,313,000	2	20,626,000	
CARD LAN 10G 4port UTP	LAN-10G2PR-RP-0010	1	1,757,000	1	1,757,000	
3year, 24x7x4hr Onsite Support Service 1	Maintenance	1	18,270,000	1	-	**18,270,000**
WAS Servers (per server) - KR580S1(KM-H620)	DT-S170G1IV0	2	18,500,000	*1*	*18,500,000*	
Intel Xeon Scalable Gold 6140 (2.30GHz, 18core)	CPU	2	(included)	2		
64GB DDR4 ECC RDIMM Memory	Memory	2	(included)	2		
600GB SAS 12Gb/s 10K RPM (128MB)	HDD	2	(included)	1		
3year, 24x7x4hr Onsite Support Service 1	Maintenance	2	(included)	1		
Server Hardware Sub Total					**268,405,000**	**18,270,000**
Client/Server Software						
Red Hat Enterprise Linux Server Standard 3yrs	RH00004	3	6,223,800	2	12,447,600	
RHEL Server Standard Maintenance - 3yrs 24x7x4hrs	RP-CPS(OS)	3	8,000,000	2		16,000,000
Red Hat JBoss Web Server 18-Core Standard 3Year	MW0232248	4	13,335,300	2	26,670,600	
JBoss Web Server per 4Core 3Year Maintenance	RP-CPS(WAS)	4	12,000,000	9		108,000,000
Goldilocks v3.1 Standard Edition	-	4	384,000,000	1	384,000,000	
Goldilocks v3.1 Standard Edition Technical Supports	-	4	192,000,000	3		576,000,000
Software Sub Total					**423,118,200**	**700,000,000**
Other Hardware						
Network switch, DASAN Networks, (CN)D2224GP, 24port POE	24567061	5	1,295,000	3	3,885,000	
Other Hardware Sub Total					*3,885,000*	

Discounts*						
DB Server Discount					-199,915,000	0
Red Hat OS Discount					-4,447,600	-10,000,000
Red Hat JBoss Discount					-10,920,600	-27,000,000
SW Discount - Goldilocks					-268,800,000	-518,400,000
Discounts Sub Total					**-484,083,200**	**-555,400,000**
Total					**211,325,000**	**162,870,000**

Pricing Notes

1) UNIWIDE Inc. 4) Sunjesoft Inc.
2) KTNF Inc. 5) UbiQuoss Inc.
3) Rockplace 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(₩):
374 ,195,000

TPC-C throughput: *101,562 tpmC*

Price/Performance: *3,685 ₩ / 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.

TPC-C Full Disclosure Report

	Goldilocks v3.1 Standard Edition on UNIWIDE RE2212	**TPC-C Version 5.11.0** **TPC Pricing 2.9.0**
		Report Date **15-Jul-2025**
		Available Now

MQTh, computed Maximum Qualified Throughput	**101,562 tpmC**	

Response Times (seconds)	**Min**	**Average**	**90th**	**Max**
New-Order	0.102	0.105	0.105	20.855
Payment	0.102	0.104	0.104	18.687
Order-Status	0.102	0.104	0.104	4.555
Delivery (interactive portion)	0.101	0.101	0.101	0.198
Delivery (deferred portion)	0.001	0.025	0.012	24.286
Stock-Level	0.102	0.105	0.107	20.888
Menu	0.101	0.102	0.102	0.319

Emulated Display Delay: 0.1 sec.

Transaction Mix	**Percent**	**Number**
New-Order	44.980%	42,656,350
Payment	43.011%	40,789,344
Order-Status	4.002%	3,795,584
Delivery	4.003%	3,796,400
Stock-Level	4.003%	3,796,408

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	2.002

Think Times (seconds)	**Min**	**Average**	**Max**
New-Order	0.001	12.044	120.501
Payment	0.001	12.041	120.501
Order-Status	0.001	10.050	100.501
Delivery	0.001	5.031	50.301
Stock-Level	0.001	5.025	50.301

Test Duration	
Ramp-up time	65 min
Measurement Interval (MI)	420 min
Checkpoints in MI	14
Checkpoint Interval (Average / Max)	28:18 min / 28:20 min
Number of Transactions in MI (all types)	94,834,086