


 星 环 科 技		<h2>Transwarp Big Data Appliance</h2>			TPCx-BB Rev. v1.6.1 TPC-Pricing Rev. v2.8.0	
					Report Date: September 19, 2023	
Total System Cost		TPCx-BB Performance Metric			Price/Performance	
<b>3,760,954 CNY</b>		<b>5,230.08</b> BBQpm@3000			<b>719.11 CNY</b> ¥/BBQpm@3000	
Framework	Operating System	Other Software	Availability Date	Scale Factor	Streams	
Transwarp Data Hub 9.1	CentOS Linux release 8	Spark 2.3.3	September 19, 2023	3000	8	
<h3>System Configuration</h3>						
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><b>20 x Transwarp Big Data Appliance TxData-2L server</b>            2 x Intel® Xeon® Gold 6330 Processor            256GB (8 x Samsung 32G DDR4 RECC 3200MT/s)            2 x Intel P4510 U.2 1T SSD            6 x Intel P5510 U.2-3.84T NVMe SSD            1 x Intel I350 2-port 1Gb Network Adapter            1 x Mellanox 100G EDR IB Dual-Port QSFP28 Network Adapter</p> </div> <div style="text-align: center;">  <p>1x Mellanox MSB7800-ES2F</p> </div> <div style="text-align: center;">  <p>1x H3C S5110-52P-SI</p> </div> </div>						
Physical Storage/Scale Factor: 166.93		Scale Factor/Physical Memory: 0.59		Main Data Redundancy Model: 3-way Replication		
Servers:		20x TxData-2L				
Total Processors/Cores/Threads		40/1,120/2,240				
Server Configuration:		<b>20x TxData-2L (Cluster Node):</b> 2x Intel(R) Xeon(R) Gold 6330 CPU @ 2.00GHz Memory: 256 GiB Storage Device: 2x 1 TB NVMe SSD 6x 3.84 TB NVMe SSD Network Controller: 1x Intel I350 2-port 1 Gb 1x Mellanox 100 G EDR IB Dual-Port QSFP28				
Connectivity:		1x Mellanox MSB7800-ES2F Switch 1x H3C S5110-52P-SI Switch				



# Transwarp Big Data Appliance

TPCx-BB Rev. v1.6.1  
 TPC-Pricing Rev. v2.8.0

Report Date:  
 September 19, 2023

Description	Part Number	Source	List Price	Qty	Extended Price	3-Yr. Maintenance
<b>Transwarp Big Data Appliance TxData-2L server</b>						
Transwarp Big Data Appliance TxData-2L server, 2U, single node	PRO-993		1 ¥24,450	20	¥489,000	
Intel® Xeon® Gold 6330 Processor, 42M Cache, 2.00 GHz, 28C, 56T	PRO-881		1 ¥22,560	40	¥902,400	
Samsung 32G DDR4 RECC 3200MT/s	PRO-764		1 ¥1,670	160	¥267,200	
Intel P4510 U.2 1T SSD	PRO-633		1 ¥2,100	40	¥84,000	
Intel P5510 U.2 3.84T NVMe SSD	PRO-668		1 ¥6,200	120	¥744,000	
Intel I350 2-port 1Gb Network Adapter	PRO-518		1 ¥700	20	¥14,000	
Mellanox 100G EDR IB Dual-Port QSFP28 Network Adapter	PRO-556		1 ¥8,400	20	¥168,000	
Transwarp 4-hour 7x24 On-site Service, 3 years	PRO-100		1 ¥133,430	1		¥133,430
<b>Network, Cables, Infrastructure</b>						
Mellanox MSB7800-ES2F Switch-IB 2 Based EDR InfiniBand 1U Switch 36 QSFP28 Ports	MSB7800-ES2F		1 ¥159,840	1	¥159,840	
Support and Warranty - 3 Year for MSB7800-ES2F	SUP-MSB7800-ES2F		1 ¥15,984	1		¥15,984
Mellanox® Passive Copper cable, IB EDR, up to 100Gb/s, QSFP28, 5m, Black, 26AWG			1 ¥2,795	20	¥55,900	
H3C S5110-52P-SI 52-port Gigabit Ethernet Switch,with 1 year Support and Warranty	S5110-52P-SI		1 ¥2,800	3	¥8,400	
42U Enclosure system			1 ¥4,000	1	¥4,000	
24" LED Monitor			1 ¥1,500	3	¥4,500	
Keyboard and Mouse			1 ¥100	3	¥300	
<b>Hardware Subtotals</b>					<b>¥2,901,540</b>	<b>¥149,414</b>
<b>Software</b>						
Transwarp Data Hub 9.1 Subscription Edition - 3 Years			1 ¥30,000	20		¥600,000
Support Service - 3 Years for CentOS 8			1 ¥5,500	20		¥110,000
<b>Software Subtotals</b>					<b>¥0</b>	<b>¥710,000</b>

Pricing:1 = {Source 1}; 2 = {Source 2}  <sup>(1)</sup> All discounts are based on US list prices and for similar quantities and configurations. The discounts are based on the overall specific components pricing from respective vendors in this single quotation. Discounts for similarly sized configurations will be similar to those quoted here, but may vary based on the components in the configuration.  <b>Audited by Doug Johnson, InfoSizing</b>	<b>Three-Year Cost of Ownership</b>	<b>¥3,760,954</b>
	<b>BBQpm@3000</b>	<b>5,230.08</b>
	<b>¥/BBQpm@3000</b>	<b>¥ 719.11</b>

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 terms, please inform at [pricing@tpc.org](mailto:pricing@tpc.org). Thank you.

**Numerical Quantities**

Scale Factor	3000
Streams	8
SUT Validation Test	PASS

**Performance Run (Run 2)**

Overall Run Start Time	2023-09-04 14:38:04.898
Overall Run End Time	2023-09-04 16:50:48.853
Overall Run Elapsed Time	7,963.955
Load Test Start Time	2023-09-04 14:38:04.900
Load Test End Time	2023-09-04 14:46:45.226
Load Test Elapsed Time	520.326
Power Test Start Time	2023-09-04 14:46:45.252
Power Test End Time	2023-09-04 15:16:14.590
Power Test Elapsed Time	1,769.338
Throughput Test Start Time	2023-09-04 15:16:14.590
Throughput Test End Time	2023-09-04 16:50:48.853
Throughput Test Elapsed Time	5,674.263
Performance Metric (BBQpm@ 3000)	5,230.08

**Repeatability Run (Run 1)**

Overall Run Start Time	2023-09-04 11:58:26.919
Overall Run End Time	2023-09-04 14:09:51.204
Overall Run Elapsed Time	7,884.285
Load Test Start Time	2023-09-04 11:58:26.919
Load Test End Time	2023-09-04 12:07:23.459
Load Test Elapsed Time	536.540
Power Test Start Time	2023-09-04 12:07:23.460
Power Test End Time	2023-09-04 12:36:17.853
Power Test Elapsed Time	1,734.393
Throughput Test Start Time	2023-09-04 12:36:17.854
Throughput Test End Time	2023-09-04 14:09:51.203
Throughput Test Elapsed Time	5,613.349
Performance Metric (BBQpm@ 3000)	5,273.03

## Performance Run Report (Run 2)

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TPCx-BB

Result

v1.6.1

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INFO: T\_LOAD = 520.326

INFO: T\_LD = 0.1 \* T\_LOAD: 52.0326

INFO: T\_PT = 1355.30495689559

INFO: T\_T\_PUT = 5674.263

INFO: T\_TT = 709.282875

INFO: === Checking validity of the final result ===

INFO: OK: All required BigBench phases were performed.

INFO: OK: All 30 queries were running in the power test.

INFO: OK: All 30 queries were running in the first throughput test.

INFO: OK: Pretend mode was inactive. All commands were executed.

INFO: === Final result ===

INFO: VALID BBQpm@3000 = 5230.08033596877

## Repeatability Run Report (Run 1)

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TPCx-BB

Result

v1.6.1

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INFO: T\_LOAD = 536.54

INFO: T\_LD = 0.1 \* T\_LOAD: 53.6539999999999

INFO: T\_PT = 1342.11765250356

INFO: T\_T\_PUT = 5613.349

INFO: T\_TT = 701.668625

INFO: === Checking validity of the final result ===

INFO: OK: All required BigBench phases were performed.

INFO: OK: All 30 queries were running in the power test.

INFO: OK: All 30 queries were running in the first throughput test.

INFO: OK: Pretend mode was inactive. All commands were executed.

INFO: === Final result ===

INFO: VALID BBQpm@3000 = 5273.03820932679

Summary details of the run reports are shown above. For the complete run reports, see the Support Files Archive.