
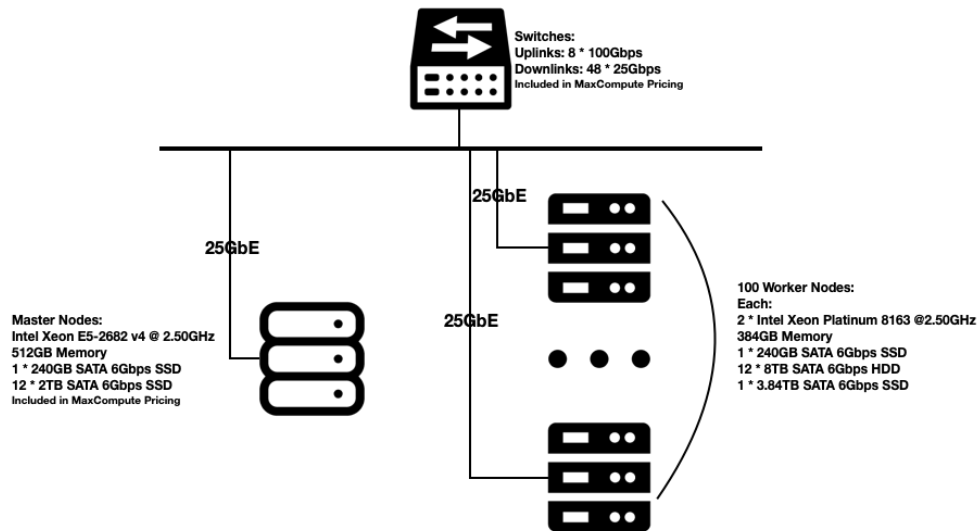


|   |   |                                  |                    |  |         |
|---|---|----------------------------------|--------------------|--|---------|
|  |   | <b>Alibaba Cloud MaxCompute</b>  |                    | TPCx-BB Rev. v1.3.0<br>TPC-Pricing Rev. v2.4.0 |         |
|   |   |                                  |                    | Report Date:<br>September 18, 2019             |         |
| Total System Cost   |   | TPCx-BB Performance Metric       |                    | Price/Performance                              |         |
| <b>5,756,026 USD</b>  |   | <b>25,641.21</b><br>BBQpm@100000 |                    | <b>224.49 USD</b><br>\$/BBQpm@100000           |         |
| Framework   | Operating System                                    | Other Software                   | Availability Date  | Scale Factor                                   | Streams |
| MaxCompute v3.31  | Alibaba Group Enterprise Linux Server 7.2 (Paladin) | None                             | September 18, 2019 | 100000   | 4       |

### System Configuration



|   |  |   |   |
|---|--|---|---|
| Physical Storage/Scale Factor: 100.81   |  | Scale Factor/Physical Memory: 2.50  |   |
| Servers: 100x Worker Node, 3x Master Node<br>Total Processors/Cores/Threads 206/4,896/9,792 |  |   |   |
| Server Configuration:<br>Processors<br>Memory<br>Storage Controller<br>Storage Device       | <b>Per Worker Node:</b><br>2x Intel® Xeon® Platinum 8163 @ 2.50GHz<br>384 GB<br>Onboard SATA controller<br>1x 240GB SATA 6Gbps SSD<br>1x 3.84TB SATA 6Gbps SSD<br>12x 8TB SATA 6Gbps HDD<br>Mellanox MT27710 ConnectX-4 Lx | <b>Per Master Node:</b><br>2x Intel® Xeon® E5-2682 v4 @ 2.50GHz<br>512 GB<br>Onboard SATA controller<br>1x 240GB SATA 6Gbps SSD<br>12x 2TB SATA 6Gbps SSD | Network<br>Mellanox MT27710 ConnectX-4 Lx |
| Connectivity:   |  | 3x Network Switch (8x100Gbps Up; 48x25Gbps Down)  |   |



# Alibaba Cloud MaxCompute

TPCx-BB Rev. v1.3.0  
TPC-Pricing Rev. v2.4.0

Report Date:  
September 18, 2019

| Description  | Part Number                   | Source | Unit Price     | Qty | Ext. Price            | 3-Year Maint.       |
|--|-------------------------------|--------|----------------|-----|-----------------------|---------------------|
| <b>License Compute and Software Services</b>           |                               |        |                |     |                       |                     |
| <u>MaxCompute Annual Subscription (9,500 CU)</u>       | Asia Pacific SE 1 (Singapore) | 1      | \$2,508,000.00 | 3   | \$7,524,000.00        |                     |
| Worker Node  |                               |        |                | 100 |                       |                     |
| Intel(R) Xeon(R) Platinum 8163 CPU @ 2.50GHz           |                               |        |                | 2   |                       |                     |
| 32 GB Memory   |                               |        |                | 12  |                       |                     |
| Master Node  |                               |        |                | 3   |                       |                     |
| Intel(R) Xeon(R) CPU E5-2682 v4 @ 2.50GHz              |                               |        |                | 2   |                       |                     |
| 32 GB Memory   |                               |        |                | 16  |                       |                     |
| Network Switches (8x100Gbps Up; 48x25Gbps Down)        |                               |        |                | 3   |                       |                     |
| 1-Year Annual Subscription Discount (30%)              |                               |        | -\$752,400.00  | 3   | -\$2,257,200.00       |                     |
| <u>MaxCompute Storage for 1 year</u>                   |                               | 1      | \$9,424.30     | 3   | \$28,272.90           |                     |
| 100000 Scale Factor (20.89 TB compressed)              |                               |        |                |     |                       |                     |
| <u>MaxCompute Enterprise Service for 1 year</u>        |                               | 1      | \$152,351.70   | 3   |                       | \$457,055.11        |
| 24x7, 4 hour response                                  |                               |        |                |     |                       |                     |
| <b>License Compute and Software Services Sub-Total</b> |                               |        |                |     | <b>\$5,295,072.90</b> | <b>\$457,055.11</b> |
| <b>Other Components</b>                                |                               |        |                |     |                       |                     |
| 13-inch MacBook Pro 1.4GHz (includes 2 spares)         |                               | 2      | \$1,299.00     | 3   | \$3,897.00            |                     |
| <b>Other Components Sub-Total</b>                      |                               |        |                |     | <b>\$3,897.00</b>     | <b>\$0.00</b>       |

Pricing: 1 = Alibaba; 2 = Apple.com

<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.

**Audited by Doug Johnson of InfoSizing**

|                                     |                    |
|-------------------------------------|--------------------|
| <b>Three-Year Cost of Ownership</b> | <b>\$5,756,026</b> |
| <b>BBQpm@100000</b>                 | <b>25,641.21</b>   |
| <b>\$/BBQpm@100000</b>              | <b>\$ 224.49</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        | 100000 |
| Streams             | 4      |
| SUT Validation Test | PASS   |

### Performance Run (Run 2)

|                                    |                         |
|------------------------------------|-------------------------|
| Overall Run Start Time             | 2019-08-23 23:40:09.740 |
| Overall Run End Time               | 2019-08-24 13:29:17.630 |
| Overall Run Elapsed Time           | 49,747.890              |
| Load Test Start Time               | 2019-08-23 23:40:09.741 |
| Load Test End Time                 | 2019-08-24 00:26:31.482 |
| Load Test Elapsed Time             | 2,781.741               |
| Power Test Start Time              | 2019-08-24 00:26:31.483 |
| Power Test End Time                | 2019-08-24 06:01:27.639 |
| Power Test Elapsed Time            | 20,096.156              |
| Throughput Test Start Time         | 2019-08-24 06:01:27.640 |
| Throughput Test End Time           | 2019-08-24 13:29:17.630 |
| Throughput Test Elapsed Time       | 26,869.990              |
| Performance Metric (BBQpm@ 100000) | 25,641.21               |

### Repeatability Run (Run 1)

|                                    |                         |
|------------------------------------|-------------------------|
| Overall Run Start Time             | 2019-08-23 06:35:38.228 |
| Overall Run End Time               | 2019-08-23 20:16:48.806 |
| Overall Run Elapsed Time           | 49,270.578              |
| Load Test Start Time               | 2019-08-23 06:35:38.229 |
| Load Test End Time                 | 2019-08-23 07:20:05.721 |
| Load Test Elapsed Time             | 2,667.492               |
| Power Test Start Time              | 2019-08-23 07:20:05.723 |
| Power Test End Time                | 2019-08-23 12:54:54.511 |
| Power Test Elapsed Time            | 20,088.788              |
| Throughput Test Start Time         | 2019-08-23 12:54:54.511 |
| Throughput Test End Time           | 2019-08-23 20:16:48.806 |
| Throughput Test Elapsed Time       | 26,514.295              |
| Performance Metric (BBQpm@ 100000) | 25,990.73               |

## Performance Run Report (Run 2)

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TPCx-BB

Result

v1.3.0

\*\*\*\*\*

INFO: T\_LOAD = 2781.741

INFO: T\_LD = 0.1 \* T\_LOAD: 278.1741

INFO: T\_PT = 6766.13889008518

INFO: T\_T\_PUT = 26869.99

INFO: T\_TT = 6717.4975

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@100000 = 25641.214015581

## Repeatability Run Report (Run 1)

\*\*\*\*\*

TPCx-BB

Result

v1.3.0

\*\*\*\*\*

INFO: T\_LOAD = 2667.492

INFO: T\_LD = 0.1 \* T\_LOAD: 266.7492

INFO: T\_PT = 6689.15536971355

INFO: T\_T\_PUT = 26514.295

INFO: T\_TT = 6628.57375

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@100000 = 25990.7348140493

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