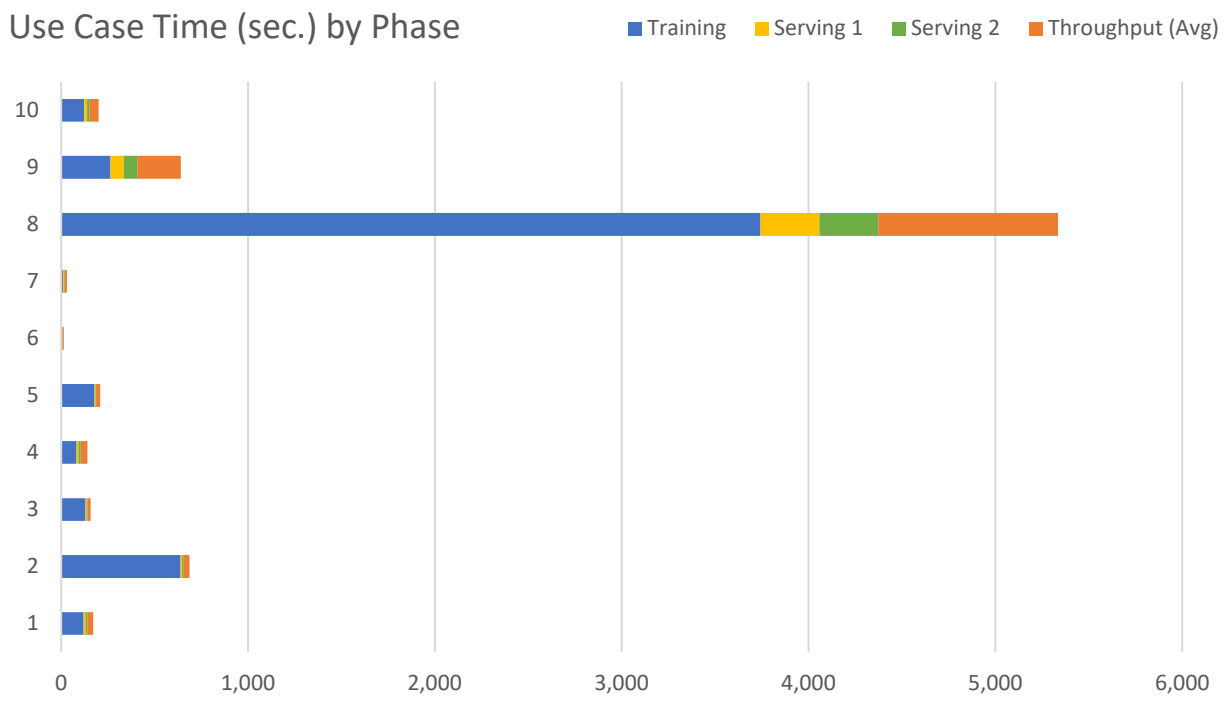
# PowerEdge R7615

| TPCx-AI | 1.0.3.1 |
|---|---|
| TPC Pricing | 2.8.0 |
| Report Date | Sep. 18, 2023 |

| TPCx-AI Performance | Total System Cost | Price/Performance | Availability Date |
|---|---|---|---|
| **697.10 AIUCpm@10** | **$41,153 USD** | **$59.04 USD/AIUCpm@10** | **September 18, 2023** |

| Framework | Operating System | Other Software | Scale Factor | Streams |
|---|---|---|---|---|
| Anaconda Pro | Red Hat Enterprise Linux 8.6 (Ootpa) | N/A | 10 | 100 |




| Physical Storage / Scale Factor | Scale Factor / Physical Memory | Main Data Redundancy Model |
|---|---|---|
| 96.00 | 0.01 | RAID 1 |

| | |
|---|---|
| Servers:<br>Total Processors/Cores/Threads | 1<br>1 / 32 / 64 |
| Server Type | 1x PowerEdge R7615 (Server) |
| Processors | 1x AMD EPYC 9374F 32-Core Processor |
| Memory | 768 GiB |
| Storage Controller | 1x Dell BOSS-N1 |
| Storage Device | 2x 480 GB M.2 NVMe SSD |
| Network Controller | 1x Broadcom NetXtreme BCM5720 Dual Port 1GbE |

DELL EMC

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| Description | Part Number | Source | List Price | Qty | Extended Price | 1-Yr. Maintenance |
|---|---|---|---|---|---|---|
| **Hardware** | | | | | | |
| **PowerEdge R7615 Server** | 210-BFVW | 1 | $77,904.39 | 1 | $77,904.39 | |
| 2.5 Chassis | 379-BDTF | 1 | $0.00 | 1 | $0.00 | |
| NVMe Backplane | 379-BDSX | 1 | $0.00 | 1 | $0.00 | |
| No Rear Storage | 379-BDTE | 1 | $0.00 | 1 | $0.00 | |
| No GPU Enablement | 379-BDSR | 1 | $0.00 | 1 | $0.00 | |
| Trusted Platform Module 2.0 V3 | 461-AAIG | 1 | $0.00 | 1 | $0.00 | |
| 2.5" Chassis with up to 16 NVMe HWRAID Drives, Dual Controller, Smart Flow, Front PERC 11 | 321-BIEQ | 1 | $0.00 | 1 | $0.00 | |
| AMD EPYC 9374F 3.85GHz, 32C/64T, 256M Cache (320W) DDR5-4800 | 338-CGXD | 1 | $0.00 | 1 | $0.00 | |
| High Performance Heatsink | 412-BBFX | 1 | $0.00 | 1 | $0.00 | |
| Performance Optimized | 370-AHLL | 1 | $0.00 | 1 | $0.00 | |
| 4800MT/s RDIMMs | 370-AHCL | 1 | $0.00 | 1 | $0.00 | |
| 64GB RDIMM, 4800MT/s Dual Rank | 370-AGZR | 1 | $0.00 | 12 | $0.00 | |
| C46, No RAID + No RAID, dual PERC | 780-BCJK | 1 | $0.00 | 1 | $0.00 | |
| PERC H755N Front | 405-AAZE | 1 | $0.00 | 2 | $0.00 | |
| Front PERC Mechanical Parts, rear load | 750-ADWP | 1 | $0.00 | 2 | $0.00 | |
| No Hard Drive | 400-ABHL | 1 | $0.00 | 1 | $0.00 | |
| Performance BIOS Settings | 384-BBBL | 1 | $0.00 | 1 | $0.00 | |
| UEFI BIOS Boot Mode with GPT Partition | 800-BBDM | 1 | $0.00 | 1 | $0.00 | |
| High Performance Fan x6 | 750-ADRE | 1 | $0.00 | 1 | $0.00 | |
| Dual, Hot-Plug,Power Supply Redundant (1+1), 1400W, Mixed Mode | 450-AJHG | 1 | $0.00 | 1 | $0.00 | |
| Jumper Cord - C13/C14, 4M, 250V, 12A (North America, Guam, North Marianas, Philippines, Samoa) | 492-BBDG | 1 | $0.00 | 2 | $0.00 | |
| Riser Config 2, 6 x8 FH + 2 x8 LP | 330-BCCR | 1 | $0.00 | 1 | $0.00 | |
| PowerEdge R7615 Motherboard V2 | 329-BJSD | 1 | $0.00 | 1 | $0.00 | |
| No OCP 3.0 mezzanine NIC card | 412-AASK | 1 | $0.00 | 1 | $0.00 | |
| PCIe Blank Filler, Low Profile | 414-BBJB | 1 | $0.00 | 2 | $0.00 | |
| Broadcom 5720 Dual Port 1GbE Optional LOM | 540-BDKD | 1 | $0.00 | 1 | $0.00 | |
| No Cables Required | 470-AEYU | 1 | $0.00 | 1 | $0.00 | |
| PowerEdge 2U Standard Bezel | 325-BEUJ | 1 | $0.00 | 1 | $0.00 | |
| BOSS-N1 controller card + with 2 M.2 480GB (RAID 1) | 403-BCRU | 1 | $0.00 | 1 | $0.00 | |
| BOSS Cables and Bracket for R7615 (Riser1) | 470-AFMY | 1 | $0.00 | 1 | $0.00 | |
| RHEL, 1-2SKT, Physical Node, 3YR Premium Sub, 1 Virtual Guest, Digitally Fulfilled | 528-CHFH | 1 | $0.00 | 1 | $0.00 | |
| No Media Required | 605-BBFN | 1 | $0.00 | 1 | $0.00 | |
| iDRAC9, Enterprise 16G | 528-CTIC | 1 | $0.00 | 1 | $0.00 | |
| Secured Component Verification | 528-COYT | 1 | $0.00 | 1 | $0.00 | |
| No Quick Sync | 350-BBYX | 1 | $0.00 | 1 | $0.00 | |
| iDRAC,Factory Generated Password | 379-BCSF | 1 | $0.00 | 1 | $0.00 | |
| iDRAC Group Manager, Disabled | 379-BCQY | 1 | $0.00 | 1 | $0.00 | |
| No Rack Rails | 770-BBBS | 1 | $0.00 | 1 | $0.00 | |
| No Systems Documentation, No OpenManage DVD Kit | 631-AACK | 1 | $0.00 | 1 | $0.00 | |
| PowerEdge R7615 Shipping | 340-DHNL | 1 | $0.00 | 1 | $0.00 | |
| PowerEdge R7615 Shipping Material | 340-DCZQ | 1 | $0.00 | 1 | $0.00 | |
| PowerEdge R7615 No CE or CCC Marking | 470-AFOQ | 1 | $0.00 | 1 | $0.00 | |
| Basic Next Business Day 36 Months | 709-BBFM | 1 | $249.00 | 1 | | $249.00 |
| ProSupport and 4Hr Mission Critical Initial, 36 Month(s) | 865-BBNB | 1 | $9,365.59 | 1 | | $9,365.59 |
| Dell Wireless Keyboard and Mouse - KM3322W | 580-AKCW | 1 | $29.99 | 1 | $29.99 | |
| Dell 24 Monitor – S2421HN | 210-AXHJ | 1 | $158.49 | 1 | $158.49 | |
| | | | | **Subtotal** | $78,092.87 | $9,614.59 |
| **Software** | | | | | | |
| Anaconda Pro Subscription - 1 year with Premium Support | | 2 | $10,000.00 | 1 | $10,000.00 | |
| RHEL, 1-2SKT, Physical Node, 1YR Premium Sub, 1 Virtual Guest, Digitally Fulfilled | 528-CHFJ | 1 | $1,299.00 | 1 | $1,299.00 | |
| | | | | **Subtotal** | $11,299.00 | $0.00 |
| | | | | **Total** | $89,391.87 | $9,614.59 |
| Large Purchase Discount (65%)* | | | | | -$51,604.72 | -$6,249.48 |

Pricing: 1 = Dell; 2 = Anaconda

* Discount applies to all line items where Key = 1. Discount based upon total system cost as purchased by a regular customer.

**Audited by Doug Johnson, InfoSizing**

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|---|---|
| **Total System Cost (USD):** | **$41,153** |
| **AIUCpm@10:** | **697.10** |
| **$/AIUCpm@10:** | **$59.04** |

*Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated Line Items. 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 Line Items. For complete details, see the pricing section of the TPC Benchmark Standard. 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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|---|---|---|---|
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| | | Report Date | Sep. 18, 2023 |

*Numerical Quantities*

| | | | |
|---|---|---|---|
| **AIUCpm@10** | **697.10** | $T_{Load}$ | 2.56 |
| Scale Factor | 10 | $T_{LD}$ | 2.56 |
| Streams | 100 | $T_{PTT}$ | 131.70 |
| | | $T_{PST1}$ | 11.32 |
| Kit Version | 1.0.3.1 | $T_{PST2}$ | 11.33 |
| Execution Status | Pass | $T_{PST}$ | 11.33 |
| Accuracy Status | Pass | $T_{TT}$ | 1.44 |

Test Times

| | |
|---|---|
| Overall Run Start Time | 2023-09-12 07:04:28.127 |
| Overall Run End Time | 2023-09-12 09:16:11.547 |
| Overall Run Elapsed Time | 7,903.420 |
| | |
| Load Test Start Time | 2023-09-12 07:06:23.286 |
| Load Test End Time | 2023-09-12 07:06:25.860 |
| Load Test Elapsed Time | 2.574 |
| | |
| Power Training Start Time | 2023-09-12 07:06:25.861 |
| Power Training End Time | 2023-09-12 08:34:48.993 |
| Power Training Elapsed Time | 5,303.132 |
| | |
| Power Serving 1 Start Time | 2023-09-12 08:34:48.997 |
| Power Serving 1 End Time | 2023-09-12 08:42:15.758 |
| Power Serving 1 Elapsed Time | 446.761 |
| | |
| Power Serving 2 Start Time | 2023-09-12 08:42:15.759 |
| Power Serving 2 End Time | 2023-09-12 08:49:43.198 |
| Power Serving 2 Elapsed Time | 447.439 |
| | |
| Scoring Start Time | 2023-09-12 08:50:19.823 |
| Scoring End Time | 2023-09-12 08:52:10.798 |
| Scoring Elapsed Time | 110.975 |
| | |
| Throughput Start Time | 2023-09-12 08:52:10.814 |
| Throughput End Time | 2023-09-12 09:16:11.544 |
| Throughput Elapsed Time | 1,440.730 |

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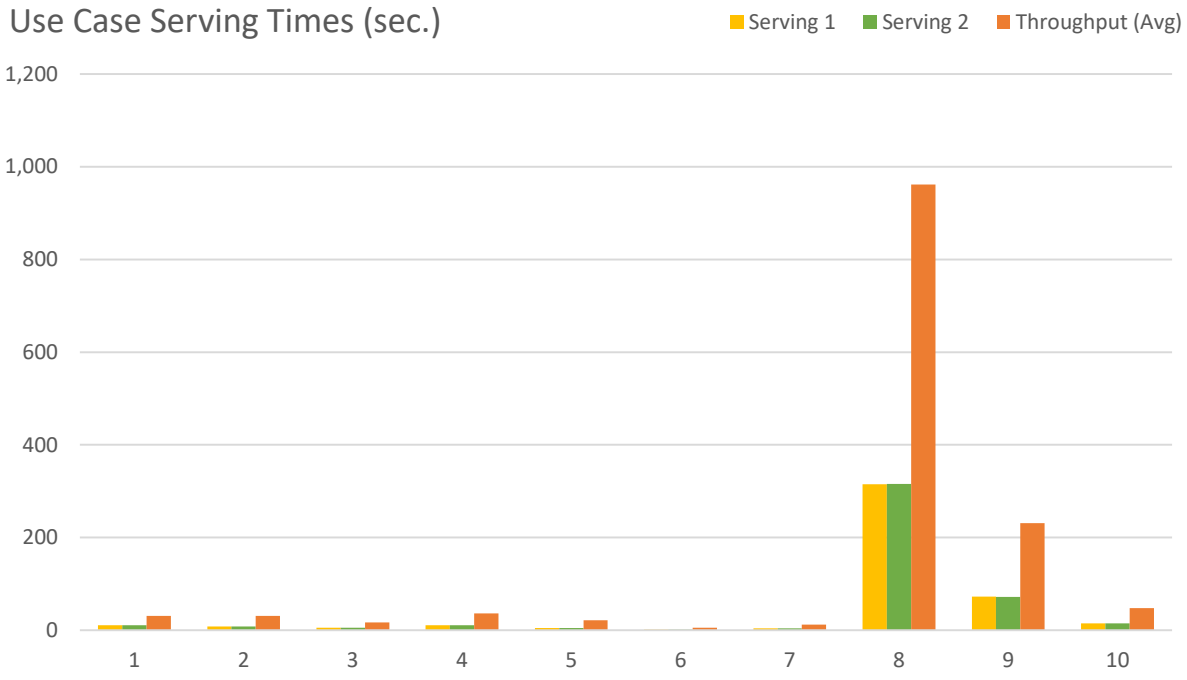
*Numerical Quantities (continued)*

Use Case Times & Accuracy

| Use Case | Training (sec) | Serving 1 (sec) | Serving 2 (sec) | Throughput (avg) | Accuracy |
|---|---|---|---|---|---|
| UC01 | 120.590 | 10.476 | 10.466 | 30.971 | 0.000 |
| UC02 | 639.942 | 8.155 | 8.129 | 30.639 | 0.453 |
| UC03 | 129.945 | 5.622 | 5.571 | 16.835 | 3.609 |
| UC04 | 82.820 | 10.904 | 10.930 | 36.570 | 0.707 |
| UC05 | 178.793 | 4.483 | 4.625 | 21.467 | 0.077 |
| UC06 | 7.535 | 1.071 | 1.068 | 5.118 | 0.448 |
| UC07 | 11.418 | 4.129 | 4.099 | 12.105 | 1.035 |
| UC08 | 3,743.552 | 314.895 | 315.653 | 961.812 | 0.735 |
| UC09 | 264.238 | 72.412 | 72.220 | 231.207 | 1.000 |
| UC10 | 124.225 | 14.541 | 14.600 | 47.899 | 0.816 |