Lenovo

TPC Express Benchmark™ AI
Full Disclosure Report

ThinkSystem SR665 V3

with 1x ThinkSystem SR665 V3
using

Anaconda Business

running on

Red Hat Enterprise Linux 8.10 (Ootpa)

TPCx-AI Version	2.0.0
Report Edition	First
Report Submitted	May 1, 2026

First Edition - May 2026

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Benchmark results are highly dependent upon workload, specific application requirements, and system design and implementation. Relative system performance will vary because of these and other factors. Therefore, TPC Express Benchmark™ AI should not be used as a substitute for a specific customer application benchmark when critical capacity planning and/or product evaluation decisions are contemplated.

All performance data contained in this report was obtained in a rigorously controlled environment. Results obtained in other operating environments may vary significantly. No warranty of system performance or price/performance is expressed or implied in this report.

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Abstract

Lenovo conducted the TPC Express Benchmark™ AI (TPCx-AI) on the ThinkSystem SR665 V3. The software used included Anaconda Business. This report provides full disclosure of the results. All testing was conducted in conformance with the requirements of the TPCx-AI Standard Specification, Revision 2.0.0.

Configuration Overview

Test Sponsor	Node(s)	Operating System
Lenovo	1x ThinkSystem SR665 V3 (Server)	Red Hat Enterprise Linux 8.10 (Ootpa)

Metrics Overview

Total System Cost	Performance	Price/Performance	Availability Date
$214,103 USD	1,272.25 AIUCpm@30	168.29 USD $/AIUCpm@30	May 1, 2026

Executive Summary

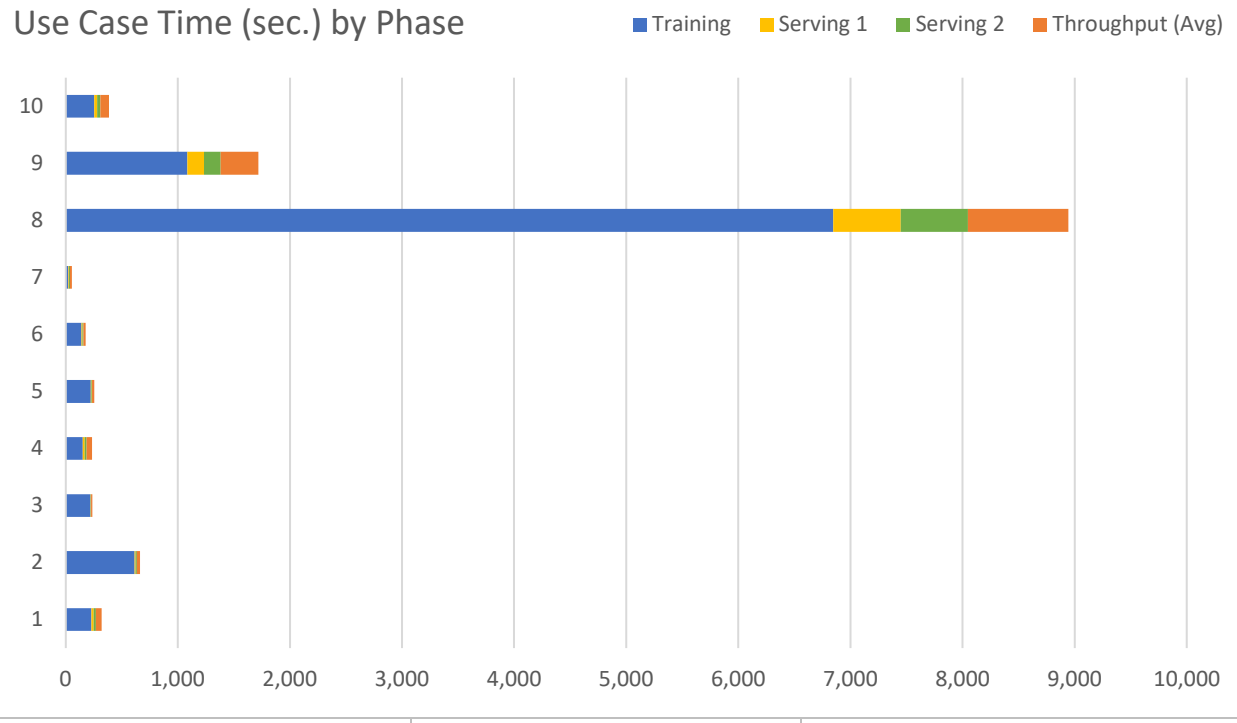
The Executive Summary follows on the next several pages.

ThinkSystem SR665 V3

TPCx-AI	2.0.0
TPC Pricing	2.9.0
Report Date	May 01, 2026

TPCx-AI Performance	Total System Cost	Price/Performance	Availability Date
1,272.25 AIUCpm@30	**$214,103 USD**	**$168.29 USD/AIUCpm@30**	**May 1, 2026**

Framework	Operating System	Other Software	Scale Factor	Streams
Anaconda Business	Red Hat Enterprise Linux 8.10 (Ootpa)	N/A	30	100



Physical Storage / Scale Factor	Scale Factor / Physical Memory	Main Data Redundancy Model
64.00	0.02	RAID1

Servers: Total Processors/Cores/Threads	1 2 / 96 / 192

Server Type	1x ThinkSystem SR665 V3 (Server)
Processors	2x AMD EPYC 9475F 48-Core Processor
Memory	1,536 GiB
Storage Controller	1x M.2 NVMe 2-Bay RAID Adapter
Storage Device	2x M.2 VA 960GB Read Intensive NVMe SSD
Network Controller	1x Broadcom 5719 1GbE RJ45 4-port Adapter

ThinkSystem SR665 V3

TPCx-AI	2.0.0
TPC Pricing	2.9.0
Report Date	May 01, 2026

Description	Part Number	Source	List Price	Qty	Extended Price	1-Yr. Maintenance
Server Hardware						
ThinkSystem SR665 V3 Configure-To-Order, includes:	7D9ACTO1WW	1	$234,861.00	1	$234,861.00	
ThinkSystem V3 2U 24x2.5" Chassis	BLKK			1		
AMD EPYC 9475F 48C 400W 3.65GHz Processor	C2A3			2		
ThinkSystem SR665 V3 2U High Performance Heatsink	BQ29			2		
ThinkSystem SR645 V3/SR665 V3 64GB TruDDR5 6400MHz (2Rx4) RDIMM-A v2	CBND			24		
ThinkSystem M.2 NVMe 2-Bay RAID Adapter	B8P9			1		
ThinkSystem M.2 VA 960GB Read Intensive NVMe PCIe 4.0x4 NHS SSD	CBT0			2		
ThinkSystem Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter	B5T1			1		
ThinkSystem 1800W 230V Platinum Hot-Swap Gen2 Power Supply v2	BMUF			2		
2.8m, 13A/100-250V, C13 to C14 Jumper Cord	6400			2		
ThinkSystem 2U V3 Performance Fan Module	BLL6			6		
ThinkSystem Toolless Slide Rail Kit v2	B8LA			1		
ThinkSystem 2U V3 EIA Latch Standard	BQQ2			1		
ThinkSystem SR665 V3 MB W/IO,Turin,Kauai,2U	C2B8			1		
ThinkSystem 2U MS 3FH Riser Filler	B8MM			2		
MS 2FH Riser Filler	BC4X			1		
ThinkSystem 8x1 2.5" HDD Filler	AVEQ			3		
ThinkSystem MS 2U common Airduct Filler	BQ31			2		
ThinkSystem 2U V3 EIA right with FIO	BQQ6			1		
ThinkSystem SR6445 V3/SR665 V3 Absolut-RoW RoT Module for Turin MLK	C257			1		
ThinkSystem 2U MS main Airduct	BQ2Z			1		
Red Hat RHEL	7S0FCTOBWW			1		
RHEL Server Physical or Virtual Node, 2 Skt Standard Subscription w/Lenovo Support 1Yr	SF2X			1		
3Yr Premier 24x7 4Hr Resp SR665 V3	7Q01CTS4WW	1	$2,759.00	1		$2,759.00
				Subtotal	$234,861.00	$2,759.00
Server Software						
Anaconda Business Subscription (1 year)		2	$60,000.00	1	$60,000.00	
Anaconda Business Premium Support, including 24x7 support		2	$30,000.00	1		$30,000.00
				Subtotal	$60,000.00	$30,000.00
Infrastructure						
Lenovo 310 USB-A Wired Combo - US English, Keyboard & Mouse (2 spares)	GX31R09775	1	$23.00	3	$69.00	
ThinkVision S22-4e 21.5 inch Monitor (2 spares)	64CBKAR6UZ	1	$79.00	3	$237.00	
				Subtotal	$306.00	$0.00
				Total	$295,167.00	$32,759.00
Dollar Volume Discount (See Note 1)		47.84%	1		$113,823.00	

Pricing: 1 = Lenovo; 2 = Anaconda

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

Audited by Doug Johnson, InfoSizing

Total System Cost (USD):	**$214,103**
AIUCpm@30:	**1,272.25**
$/AIUCpm@30:	**$168.29**

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.

Lenovo	ThinkSystem SR665 V3	TPCx-AI	2.0.0
		TPC Pricing	2.9.0
		Report Date	May 01, 2026

Numerical Quantities

AIUCpm@30	**1,272.25**	T_{Load}	4.13
Scale Factor	30	T_{LD}	4.13
Streams	100	T_{PTT}	301.66
		T_{PST1}	19.43
Kit Version	2.0.0	T_{PST2}	19.42
Execution Status	Pass	T_{PST}	19.43
Accuracy Status	Pass	T_{TT}	1.66

Test Times

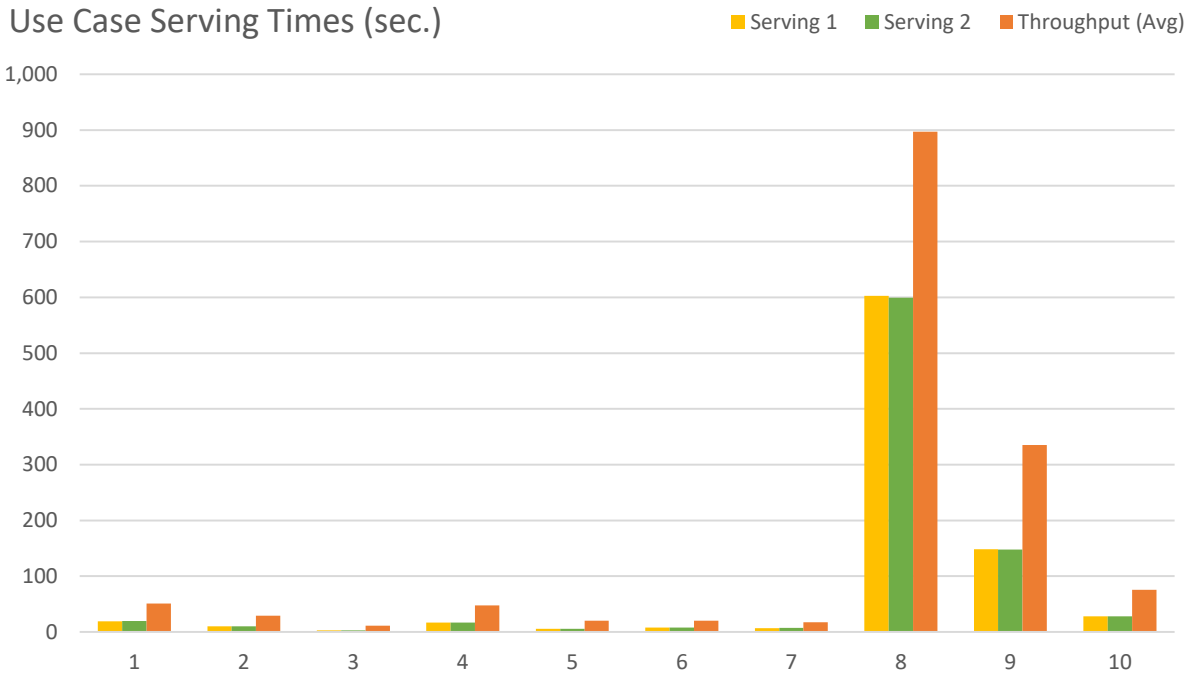
Overall Run Start Time	2026-04-11 22:51:39.318
Overall Run End Time	2026-04-12 02:37:02.382
Overall Run Elapsed Time	13,523.064
Load Test Start Time	2026-04-11 22:55:35.515
Load Test End Time	2026-04-11 22:55:39.661
Load Test Elapsed Time	4.146
Power Training Start Time	2026-04-11 22:55:39.663
Power Training End Time	2026-04-12 01:38:45.779
Power Training Elapsed Time	9,786.116
Power Serving 1 Start Time	2026-04-12 01:38:45.781
Power Serving 1 End Time	2026-04-12 01:52:54.524
Power Serving 1 Elapsed Time	848.743
Power Serving 2 Start Time	2026-04-12 01:52:54.528
Power Serving 2 End Time	2026-04-12 02:06:59.911
Power Serving 2 Elapsed Time	845.383
Scoring Start Time	2026-04-12 02:07:50.097
Scoring End Time	2026-04-12 02:09:22.360
Scoring Elapsed Time	92.263
Throughput Start Time	2026-04-12 02:09:22.373
Throughput End Time	2026-04-12 02:37:02.378
Throughput Elapsed Time	1,660.005

Lenovo	ThinkSystem SR665 V3	TPCx-AI	2.0.0
		TPC Pricing	2.9.0
		Report Date	May 01, 2026

Numerical Quantities (continued)

Use Case Times & Accuracy

Use Case	Training (sec)	Serving 1 (sec)	Serving 2 (sec)	Throughput (avg)	Accuracy
UC01	229.218	19.297	19.387	51.075	0.000
UC02	613.206	10.134	10.062	29.237	0.398
UC03	219.193	3.034	3.014	10.977	3.553
UC04	152.545	16.863	16.971	47.782	0.706
UC05	223.810	5.691	5.554	19.925	0.037
UC06	141.034	7.679	7.703	20.013	0.353
UC07	22.333	7.016	7.179	17.387	1.007
UC08	6,845.797	602.665	599.428	896.877	0.754
UC09	1,085.448	148.339	147.974	335.501	1.000
UC10	253.441	27.933	28.010	75.750	0.817



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Clause 0 – Preamble

0.1 TPC Express Benchmark™ AI Overview

Artificial intelligence (AI) has become a key transformational technology of our times. Advances in neural networks and other machine learning techniques have made it possible to use AI on a variety of use cases. From the public sector to aerospace, defense and academia, new and improved ways to use AI techniques are changing the way we harness data and analytics. This along with advances in compute, interconnect and memory technologies have made possible to solve complicated challenges that will ultimately benefit customers in production datacenter and cloud environments.

Abundant volumes of rich data from text, images, audio and video are the essential starting point for creating a benchmark that would represent the myriad of use cases and customers. TPC Express Benchmark™ AI (TPCx-AI) is created in keeping with the TPC tradition of emulating real world AI scenarios and data science use cases. Unlike most other AI benchmarks, the TPCx-AI uses a diverse dataset and is able to scale across a wide range of scale factors. TPCx-AI may later expand with additional use cases and add additional flexibility for a greater variety of implementations.

The benchmark defines and provides a means to evaluate the System Under Test (SUT) performance as a general-purpose data science system that:

- Generates and processes large volumes of data.
- Trains preprocessed data to produce realistic machine learning models.
- Conducts accurate insights for real-world customer scenarios based on the generated models.
- Can scale to large scale distributed configurations.
- Allows for flexibility in configuration changes to meet the demands of the dynamic AI landscape.

The benchmark models real-life examples of companies and public-sector organizations that use a range of analytics techniques, both AI and more traditional machine learning approaches, as well as the potential application of these techniques in situations like those in which they have already been successfully deployed. In addition, the benchmark measures end to end time to provide insights for individual use cases, as well as throughput metrics to simulate multiuser environments for a given hardware, operating system, and data processing system configuration under a controlled, complex, multi-user AI or machine learning data science workload.

The purpose of TPC benchmarks is to provide relevant, objective performance data to industry users. To achieve that purpose, TPC benchmark specifications require benchmark runs be implemented with systems, products, technologies and pricing that:

- Are generally available to users.
- Are relevant to the market segment that the individual TPC benchmark models or represents (e.g., TPCx-AI models and represents complex, high data volume, decision support environments).
- Would plausibly be implemented.

The TPCx-AI kit is available from the TPC website (see www.tpc.org/tpcx-ai/ for more information). Users must sign up and agree to the TPCx-AI End User Licensing Agreement (EULA) to download the kit. All related work (such as collaterals, papers, derivatives) must acknowledge the TPC and include the TPCx-AI copyright. The TPCx-AI kit includes: TPCx-AI Specification document (this document), TPCx-AI Users Guide (README.md) documentation, scripts to set up the benchmark environment, code to execute the benchmark workload, Data Generator, use case related files, and Benchmark Driver.

The use of new systems, products, technologies (hardware or software) and pricing is encouraged so long as they meet the requirements above. Specifically prohibited are benchmark systems, products, technologies or pricing (hereafter referred to as "implementations") whose primary purpose is performance optimization of TPC benchmark results without any corresponding applicability to real-world applications and environments. In other words, all "benchmark special" implementations that improve benchmark results but not real-world performance or pricing, are prohibited.

The rules for pricing are included in the TPC Pricing Specification.

Further information is available at www.tpc.org.

Clause 1 – General Items

1.1 Test Sponsor

This benchmark was sponsored by Lenovo.

1.2 Parameter Settings

The Supporting Files Archive contains the parameters and options used to configure the components involved in this benchmark.

1.3 Configuration Diagrams

The measured configuration diagram is shown below. In addition, any differences between the measured and the priced configurations are described.

1.3.1 Measured Configuration

Nodes:	1		
Processors/Cores/Threads:	2/96/192	Storage Devices:	2
Total Memory:	1,536 GiB	Storage Capacity:	1,920 GB

	Server
Server	1x ThinkSystem SR665 V3:
Procs/Cores/Threads:	2/96/192
Processor Model:	2x AMD EPYC 9475F 48-Core Processor
Memory:	1,536 GiB
Storage Controller:	1x M.2 NVMe 2-Bay RAID Adapter
Storage Devices:	2x M.2 VA 960GB Read Intensive NVMe SSD
Network Controller:	1x Broadcom 5719 1GbE RJ45 4-port Adapter

The distribution of software components over server nodes is detailed in Clause 2.

1.3.2 Differences Between the Measured and the Priced Configurations

There are no differences between the measured configuration and the priced configuration.

Clause 2 – SW Components & Data Distribution

2.1 Roles and Dataset Distribution

Table 2-1 describes the distribution of the dataset across all media in the SUT.

Server	Host Name	SW Services	Storage	Contents
1x ThinkSystem SR665 V3	SR665V3	All	2x M.2 VA 960GB Read Intensive NVMe SSD	OS, Data

Table 2-1 Software Components and Dataset Distribution

2.2 File System Implementation

A local file system provided by Red Hat Enterprise Linux 8.10 (Ootpa) / Anaconda Business was used for data generation and the Load Test. The data set was not relocated after generation and before the Load Test.

2.3 Execution Engine, Frameworks, Driver & Libraries

Anaconda Business consisted of the following components.

Component	Version
python	3.9.18
setuptools	59.8.0
pandas	1.5.3
scikit-learn	1.2.2
xgboost	1.7.4
numpy	1.23.5
nose	1.3.7
scipy	1.10.1
statsmodels	0.13.5
patsy	0.5.3
tqdm	4.65.2
keras	2.11.0
tensorflow	2.11.0
joblib	1.2.0
pyyaml	6.0.2
matplotlib	3.7.1
jinja2	3.1.2
pycryptodome	3.16.0
scikit-surprise	1.1.3
librosa	0.8.1
imbalanced-learn	0.10.1
tensorflow-addons	0.19.0

Table 2-2 Software Components

For a detailed listing of installed libraries, please see the envInfo logs in the Supporting Files.

2.4 Applied Patches

No additional vendor-supported patches were applied to the SUT.

Clause 3 – Workload Related Items

3.1 Hardware & Software Tuning

The Supporting Files archive contains all hardware and software configuration scripts.

3.2 Kit Version & Modifications

Table 3-1 shows the version of the TPCx-AI used to produce this result along with any kit flies that were modified to facilitate system, platform, and framework differences.

TPCx-AI Kit Version	2.0.0
Modified File	Description of Changes
tools/python/dataRedundancyInformation.sh	Added platform-specific data collection.

Table 3-1 Kit Version & Modifications

3.3 Use Case Elapsed Times

Below are the elapsed times for each use case. Use cases are grouped based on whether they use Deep Learning or Machine Learning techniques.

Type	UC ID	P1	P2	T1	T2	T3	T4
Deep Learning	2	10.134	10.062	33.385	21.720	24.869	22.130
	5	5.691	5.554	31.856	27.450	20.897	14.799
	9	148.339	147.974	284.017	327.277	366.148	366.140
Machine Learning	1	19.297	19.387	42.929	79.699	34.077	56.555
	3	3.034	3.014	46.098	6.074	23.749	7.635
	4	16.863	16.971	42.732	52.308	41.182	80.834
	6	7.679	7.703	13.676	11.536	18.473	9.851
	7	7.016	7.179	11.564	13.389	21.271	9.059
	8	602.665	599.428	847.186	918.879	861.466	905.833
	10	27.933	28.010	91.211	70.936	58.066	72.308

Type	UC ID	T5	T6	T7	T8	T9	T10
Deep Learning	2	26.527	36.520	14.555	21.201	24.093	25.648
	5	11.949	54.478	14.862	37.180	43.992	32.874
	9	365.391	242.767	271.077	241.668	391.502	396.759
Machine Learning	1	70.487	35.741	79.534	34.169	73.151	27.412
	3	9.693	4.023	16.079	49.784	9.585	10.942
	4	36.814	38.871	61.498	31.035	43.413	41.773
	6	27.212	26.980	16.416	12.044	10.695	51.056
	7	19.744	21.158	16.523	13.784	14.312	9.066
	8	867.360	931.991	889.972	893.116	833.581	903.792
	10	67.871	83.387	47.190	82.194	92.864	58.637

Type	UC ID	T11	T12	T13	T14	T15	T16
Deep Learning	2	23.938	29.127	30.279	14.157	24.825	44.300
	5	20.158	7.285	18.372	15.403	10.739	17.514
	9	299.071	369.364	422.245	351.955	234.026	341.083
Machine Learning	1	79.575	52.357	48.329	44.243	49.695	46.438
	3	9.129	3.440	9.255	4.028	6.992	6.607
	4	44.827	95.076	56.876	40.870	35.548	51.039
	6	21.017	22.276	16.198	20.603	23.460	17.633
	7	15.150	11.787	28.621	17.439	14.048	14.107
	8	854.987	870.551	841.981	909.538	880.751	829.465
	10	75.855	87.885	55.390	120.563	121.425	121.473

Type	UC ID	T17	T18	T19	T20	T21	T22
Deep Learning	2	19.026	24.407	18.618	37.710	25.706	25.507
	5	9.163	7.050	41.856	22.998	12.026	15.018
	9	316.662	347.493	314.616	423.596	377.173	359.817
Machine Learning	1	106.655	44.016	44.369	42.206	67.392	41.337
	3	3.998	7.500	34.062	7.291	12.211	9.210
	4	18.829	95.837	49.677	53.001	55.516	39.300
	6	12.096	23.299	20.900	29.874	23.977	17.912
	7	11.440	8.053	16.684	16.565	13.273	16.820
	8	1,050.552	914.340	820.098	839.179	847.149	967.797
	10	57.756	88.436	56.894	54.928	67.516	57.394

Type	UC ID	T23	T24	T25	T26	T27	T28
Deep Learning	2	36.326	20.865	18.362	24.979	13.042	17.777
	5	26.246	15.489	40.807	15.985	7.783	10.406
	9	235.642	410.485	319.180	232.477	396.251	270.497
Machine Learning	1	50.487	37.622	43.339	39.283	107.609	28.544
	3	3.689	5.598	11.453	6.193	4.175	18.225
	4	54.352	41.845	28.165	31.592	33.001	34.796
	6	24.421	51.994	26.312	25.113	18.135	10.612
	7	32.557	12.643	9.430	10.871	16.220	15.379
	8	865.346	923.673	856.486	951.931	908.571	1,109.353
	10	60.468	49.656	92.003	45.868	65.631	57.826

Type	UC ID	T29	T30	T31	T32	T33	T34
Deep Learning	2	21.547	40.468	20.820	24.381	26.854	56.818
	5	36.149	11.772	13.613	19.938	20.170	17.495
	9	394.471	369.420	419.380	372.101	304.307	385.274
Machine Learning	1	31.494	41.085	39.390	47.994	58.098	43.238
	3	7.933	23.516	10.548	8.210	4.406	5.032
	4	72.064	56.580	40.743	78.593	74.775	39.975
	6	9.787	12.868	24.828	12.429	14.538	19.147
	7	18.744	41.484	14.196	17.226	13.968	13.632
	8	920.652	844.806	841.214	880.881	855.529	904.947
	10	57.398	63.091	113.824	57.880	80.594	62.811

Type	UC ID	T35	T36	T37	T38	T39	T40
Deep Learning	2	55.908	21.046	10.461	32.412	23.902	19.524
	5	8.388	10.219	48.026	16.440	30.320	9.307
	9	316.787	323.399	351.805	318.211	361.206	342.664
Machine Learning	1	38.322	43.841	49.671	25.501	49.548	76.034
	3	4.776	4.496	6.257	4.421	5.083	4.491
	4	56.358	43.788	55.273	80.068	36.884	28.284
	6	25.375	17.372	7.719	19.919	16.342	10.258
	7	12.421	15.139	13.690	15.820	13.299	11.255
	8	833.900	1,022.645	1,064.048	871.027	863.775	887.618
	10	80.213	118.610	29.287	46.173	67.750	49.610

Type	UC ID	T41	T42	T43	T44	T45	T46
Deep Learning	2	29.854	39.640	40.150	18.515	17.135	43.004
	5	14.317	42.821	20.885	30.359	33.588	35.359
	9	323.877	304.524	362.708	305.773	399.729	258.368
Machine Learning	1	61.230	34.343	56.167	44.351	20.067	60.767
	3	4.734	8.005	6.807	8.687	9.491	38.852
	4	48.439	53.831	76.714	41.481	19.006	54.664
	6	16.526	14.424	10.474	12.828	16.387	19.324
	7	10.510	17.988	18.652	11.428	51.760	15.211
	8	894.045	859.556	851.595	1,014.802	1,057.362	862.592
	10	123.064	109.701	65.611	101.115	29.723	71.417

Type	UC ID	T47	T48	T49	T50	T51	T52
Deep Learning	2	17.735	20.575	14.520	20.013	44.197	18.423
	5	15.883	29.365	8.761	9.087	12.416	9.029
	9	358.950	371.730	348.577	260.775	364.226	252.626
Machine Learning	1	97.605	57.241	29.987	58.586	38.410	74.832
	3	7.599	12.300	11.132	3.376	10.798	8.443
	4	50.419	43.358	27.047	33.489	39.831	54.975
	6	10.212	25.505	8.788	9.891	27.049	50.654
	7	12.246	55.275	21.452	11.081	41.605	21.666
	8	879.333	840.440	863.025	934.452	848.161	915.667
	10	76.070	86.232	143.627	40.425	119.028	54.718

Type	UC ID	T53	T54	T55	T56	T57	T58
Deep Learning	2	78.102	42.798	40.695	20.483	28.884	56.053
	5	20.256	20.969	8.074	10.244	10.963	11.895
	9	382.504	329.371	247.827	240.672	296.020	343.420
Machine Learning	1	52.210	58.072	31.862	33.027	30.139	61.598
	3	4.980	12.705	3.600	4.974	3.593	8.272
	4	57.662	36.437	31.461	26.948	96.562	45.163
	6	30.984	52.606	9.258	13.075	13.918	22.292
	7	10.854	14.068	11.378	10.267	9.382	14.105
	8	836.751	834.342	962.373	966.740	855.264	827.154
	10	63.724	73.831	95.276	62.247	93.004	94.215

Type	UC ID	T59	T60	T61	T62	T63	T64
Deep Learning	2	18.818	26.481	26.709	35.512	38.085	17.584
	5	19.571	18.362	14.027	52.877	21.187	8.194
	9	300.894	327.974	373.081	234.837	376.916	351.108
Machine Learning	1	45.287	29.709	60.884	40.952	73.114	28.495
	3	4.960	7.771	12.140	4.644	23.450	4.538
	4	42.250	46.607	80.558	42.215	35.225	31.634
	6	10.247	15.966	14.758	12.533	11.420	11.974
	7	14.756	20.516	21.111	11.194	13.915	11.799
	8	868.552	839.637	834.305	928.895	890.079	976.169
	10	117.225	124.820	62.815	61.372	64.031	61.915

Type	UC ID	T65	T66	T67	T68	T69	T70
Deep Learning	2	20.535	30.048	24.916	41.374	19.848	24.607
	5	37.534	18.077	11.964	22.107	12.585	36.332
	9	294.709	352.321	353.141	388.574	233.619	327.568
Machine Learning	1	34.713	109.219	51.273	41.005	39.015	34.353
	3	4.481	8.544	7.175	11.007	4.406	49.363
	4	32.820	33.497	36.194	64.537	36.572	45.452
	6	15.255	14.795	28.078	10.728	52.148	29.054
	7	53.022	10.524	55.800	13.749	9.401	16.091
	8	901.144	901.884	848.698	917.445	904.388	853.847
	10	54.425	48.868	104.599	58.806	49.756	103.974

Type	UC ID	T71	T72	T73	T74	T75	T76
Deep Learning	2	25.099	27.778	34.841	54.079	34.467	25.869
	5	9.237	34.457	19.245	30.640	11.613	20.042
	9	333.864	333.599	290.089	330.401	326.826	369.551
Machine Learning	1	46.007	115.851	55.507	42.071	27.892	83.413
	3	4.864	8.322	7.310	12.922	21.994	4.131
	4	40.115	43.666	53.222	39.559	37.813	81.991
	6	52.065	9.217	36.568	11.219	26.390	15.115
	7	15.338	15.843	16.613	25.293	14.966	11.057
	8	908.151	868.515	875.297	911.958	947.674	915.243
	10	99.682	45.518	58.096	67.797	49.162	65.132

Type	UC ID	T77	T78	T79	T80	T81	T82
Deep Learning	2	33.456	19.810	20.685	28.852	46.980	39.773
	5	6.329	15.284	13.474	5.748	17.045	19.858
	9	375.315	370.235	386.229	317.043	357.844	404.704
Machine Learning	1	37.344	58.224	41.524	33.674	37.448	43.278
	3	42.556	11.296	6.557	8.224	3.946	7.903
	4	61.144	36.705	33.824	34.083	43.039	51.246
	6	13.298	20.105	12.610	15.582	13.706	39.985
	7	10.527	15.972	14.020	11.570	15.688	18.986
	8	907.282	859.325	853.259	1,095.617	864.351	841.038
	10	65.784	109.542	108.258	55.827	137.175	77.205

Type	UC ID	T83	T84	T85	T86	T87	T88
Deep Learning	2	54.909	25.519	21.171	19.912	78.131	14.379
	5	11.373	48.194	33.719	12.769	24.101	22.020
	9	404.377	272.351	413.415	374.371	405.530	280.179
Machine Learning	1	45.681	56.474	28.433	70.809	54.334	29.213
	3	10.289	9.281	11.917	46.042	11.228	5.643
	4	40.460	52.807	42.031	47.502	69.877	28.166
	6	22.198	23.481	48.675	24.604	16.287	16.195
	7	14.234	15.923	10.806	17.664	22.780	11.851
	8	871.455	874.036	910.620	836.960	854.439	959.478
	10	114.575	82.119	59.449	89.416	50.379	43.626

Type	UC ID	T89	T90	T91	T92	T93	T94
Deep Learning	2	21.004	40.299	22.616	43.713	12.785	22.021
	5	6.349	22.065	10.929	11.399	12.583	17.491
	9	406.582	370.852	274.510	235.740	334.114	376.192
Machine Learning	1	26.428	61.637	44.007	67.432	31.374	65.676
	3	4.809	6.116	5.291	5.711	8.890	12.626
	4	96.415	37.280	26.377	27.174	25.942	62.839
	6	17.219	17.172	8.809	13.160	12.083	10.725
	7	13.341	39.533	26.740	13.003	11.332	17.829
	8	909.646	843.196	843.923	971.213	954.624	847.144
	10	92.201	106.239	119.253	72.548	45.382	50.694

Type	UC ID	T95	T96	T97	T98	T99	T100
Deep Learning	2	27.791	16.326	35.116	53.541	29.267	24.434
	5	7.378	9.252	25.319	16.239	19.609	15.163
	9	333.300	326.790	295.426	366.474	311.738	372.656
Machine Learning	1	108.758	33.214	61.944	38.058	69.236	52.606
	3	4.308	3.624	9.038	6.134	41.809	8.255
	4	43.411	26.897	31.459	69.688	50.163	84.219
	6	7.338	19.289	45.367	14.992	13.168	19.191
	7	22.534	11.569	21.015	9.175	15.494	15.374
	8	900.916	942.916	900.183	866.775	1,036.233	861.619
	10	85.965	43.957	91.452	68.134	30.736	85.148

Table 3-2 Use Case Elapsed Times

3.4 SUT Validation Test Output

Validation Run Report

AIUCpm@1	418.99	T_{Load}	0.36
Scale Factor	1	T_{LD}	0.36
Streams	100	T_{PTT}	22.55
		T_{PST1}	2.89
Kit Version	2.0.0	T_{PST2}	2.84
Execution Status	Pass	T_{PST}	2.89
Accuracy Status	Pass	T_{TT}	0.18

Test Times

Overall Run Start Time	2026-04-11 22:22:58.566
Overall Run End Time	2026-04-11 22:51:19.709
Overall Run Elapsed Time	1,701.143
Load Test Start Time	2026-04-11 22:24:36.371
Load Test End Time	2026-04-11 22:24:36.744
Load Test Elapsed Time	0.373
Power Training Start Time	2026-04-11 22:24:36.745
Power Training End Time	2026-04-11 22:43:46.259
Power Training Elapsed Time	1,149.514
Power Serving 1 Start Time	2026-04-11 22:43:46.260
Power Serving 1 End Time	2026-04-11 22:44:52.753
Power Serving 1 Elapsed Time	66.493
Power Serving 2 Start Time	2026-04-11 22:44:52.754
Power Serving 2 End Time	2026-04-11 22:45:58.669
Power Serving 2 Elapsed Time	65.915
Scoring Start Time	2026-04-11 22:46:47.763
Scoring End Time	2026-04-11 22:48:14.487
Scoring Elapsed Time	86.724
Throughput Start Time	2026-04-11 22:48:14.500
Throughput End Time	2026-04-11 22:51:19.705
Throughput Elapsed Time	185.205

(continued on next page)

Validation Run Report (continued)

Accuracy Metrics

Use Case	Metric Name	Metric	Criteria	Threshold	Status
1	N/A	0.000	N/A	0.00	Pass
2	word_error_rate	0.237	<=	0.50	Pass
3	mean_squared_log_error	4.582	<=	5.40	Pass
4	f1_score	0.701	>=	0.65	Pass
5	mean_squared_log_error	0.012	<=	0.50	Pass
6	matthews_corrcoef	0.462	>=	0.19	Pass
7	median_absolute_error	0.891	<=	1.80	Pass
8	accuracy_score	0.715	>=	0.65	Pass
9	accuracy_score	1.000	>=	0.90	Pass
10	accuracy_score	0.817	>=	0.70	Pass

3.5 Configuration Parameters

The Supporting Files archive contains all Global Benchmark Parameter and Use Case Specific Parameter settings.

Clause 4 – SUT Related Items

4.1 Specialized Hardware/Software

No Specialized Hardware/Software was used in the SUT.

4.2 Configuration Files

The Supporting Files archive contains all configuration files.

4.3 SUT Environment Information

All envInfo.log files are included in the Supporting Files archive.

4.4 Data Storage to Scale Factor Ratio

The details of the Data Storage Ratio are provided below.

Node Count	Disks	Size (GB)	Total (GB)
1	2	960	1,920

Total Storage (GB)	1,920
Scale Factor	30
Data Storage Ratio	64.00

4.5 Scale Factor to Memory Ratio

The details of the Memory to Scale Factor Ratio are provided below.

Nodes	Memory (GiB)	Total (GiB)
1	1,536	1,536

Scale Factor	30
Total Memory (GiB)	1,536
SF / Memory Ratio	0.02

4.6 Output of Tests

The Supporting Files archive contains the output files of all tests.

4.7 Additional Sponsor Files

The Supporting Files archive contains any additional files that were used.

4.8 Model Optimizations

The Supporting Files archive contains any model optimization files that were used.

Clause 5 – Metrics and Scale Factor

5.1 Reported Performance Metrics

Metric Overview

TPCx-AI Performance Metric	1,272.25	AIUCpm@30
TPCx-AI Price/Performance Metric	168.29	$/AIUCpm@30
TPCx-AI Scale Factor	30	
TPCx-AI Stream Count	100	

Test Times

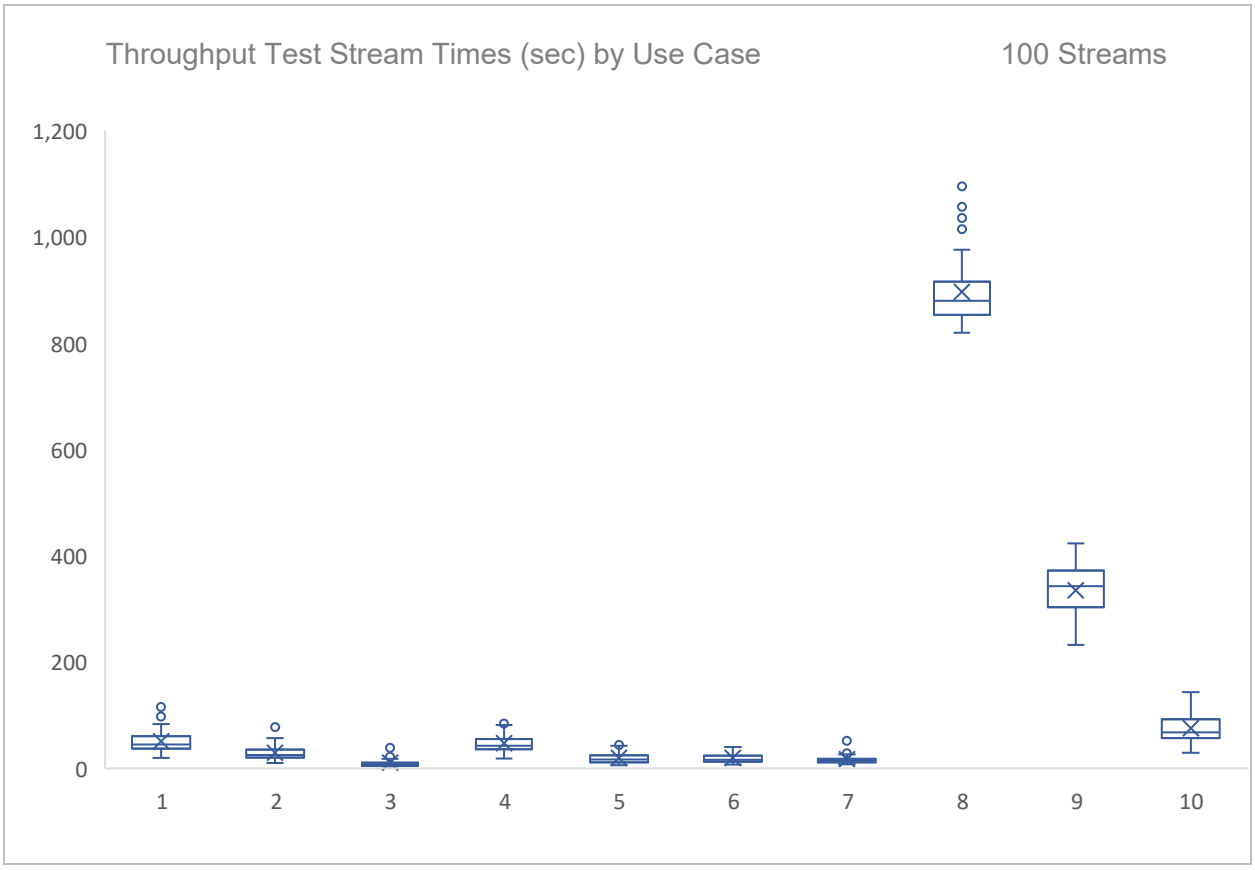
Overall Run Start Time	2026-04-11 22:51:39.318
Overall Run End Time	2026-04-12 02:37:02.382
Overall Run Elapsed Time	13,523.064
Load Test Start Time	2026-04-11 22:55:35.515
Load Test End Time	2026-04-11 22:55:39.661
Load Test Elapsed Time	4.146
Power Training Start Time	2026-04-11 22:55:39.663
Power Training End Time	2026-04-12 01:38:45.779
Power Training Elapsed Time	9,786.116
Power Serving 1 Start Time	2026-04-12 01:38:45.781
Power Serving 1 End Time	2026-04-12 01:52:54.524
Power Serving 1 Elapsed Time	848.743
Power Serving 2 Start Time	2026-04-12 01:52:54.528
Power Serving 2 End Time	2026-04-12 02:06:59.911
Power Serving 2 Elapsed Time	845.383
Scoring Start Time	2026-04-12 02:07:50.097
Scoring End Time	2026-04-12 02:09:22.360
Scoring Elapsed Time	92.263
Throughput Start Time	2026-04-12 02:09:22.373
Throughput End Time	2026-04-12 02:37:02.378
Throughput Elapsed Time	1,660.005

Accuracy Metrics

Use Case	Metric Name	Metric	Criteria	Threshold	Status
1	N/A	0.000	N/A	0.00	Pass
2	word_error_rate	0.398	<=	0.50	Pass
3	mean_squared_log_error	3.553	<=	5.40	Pass
4	f1_score	0.706	>=	0.65	Pass
5	mean_squared_log_error	0.037	<=	0.50	Pass
6	matthews_corrcoef	0.353	>=	0.19	Pass
7	median_absolute_error	1.007	<=	1.80	Pass
8	accuracy_score	0.754	>=	0.65	Pass
9	accuracy_score	1.000	>=	0.90	Pass
10	accuracy_score	0.817	>=	0.70	Pass

5.2 Throughput Test Stream Times

The following chart shows the minimum, 1st quartile, median, mean (X), 3rd quartile, and maximum stream times by use case for the Throughput Test. Outliers are marked with “o”.



Auditor's Information

This benchmark was audited by Doug Johnson, InfoSizing.

www.sizing.com
63 Lourdes Drive
Leominster, MA 01453
978-343-6562.

This benchmark's Full Disclosure Report can be downloaded from www.tpc.org.

A copy of the auditor's attestation letter is included in the next two pages.

InfoSizing
The Right Metric For Sizing IT

TPC
Certified Auditor

Danny Zhang
Performance Development Manager
7001 Development Drive
Morrisville, NC 27560

April 29, 2026

I verified the TPC Express Benchmark™ AI v2.0.0 performance of the following configuration:

Platform:	1x ThinkSystem SR665 V3
Operating System:	Red Hat Enterprise Linus 8.10 (Ootpa)
Additional Software:	Anaconda Business

The results were:

Performance Metric	**1,272.25 AIUCpm@30**	
Secondary Metrics	T_{LD}	4.13
	T_{PTT}	301.66
	T_{PST}	19.43
	T_{TT}	1.66

System Under Test	**1x ThinkSystem SR665 V3 with:**		
CPUs	2x AMD EPYC 9475F 48-Core Processor		
Memory	1,536 GiB		
Storage	***Qty***	***Size***	***Type***
	2	960 GB	M.2 VA Read Intensive NVMe SSD

In my opinion, these performance results were produced in compliance with the TPC requirements for the benchmark.

The following verification items were given special attention:

- All TPC-provided components were verified to be v2.0.0.
- All checksums were validated for compliance.
- Any modifications to shell scripts were reviewed for compliance.
- No modifications were made to any of the Java code.
- The generated dataset was properly scaled to 30 GB.
- The generated dataset used for testing was protected by RAID1.

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- The elapsed times for all phases and runs were correctly measured and reported.
- The Storage and Memory Ratios were correctly calculated and reported.
- The system pricing was verified for major components and maintenance.
- The major pages from the FDR were verified for accuracy.

Additional Audit Notes:

None.

Respectfully Yours,

Doug Johnson, Certified TPC Auditor

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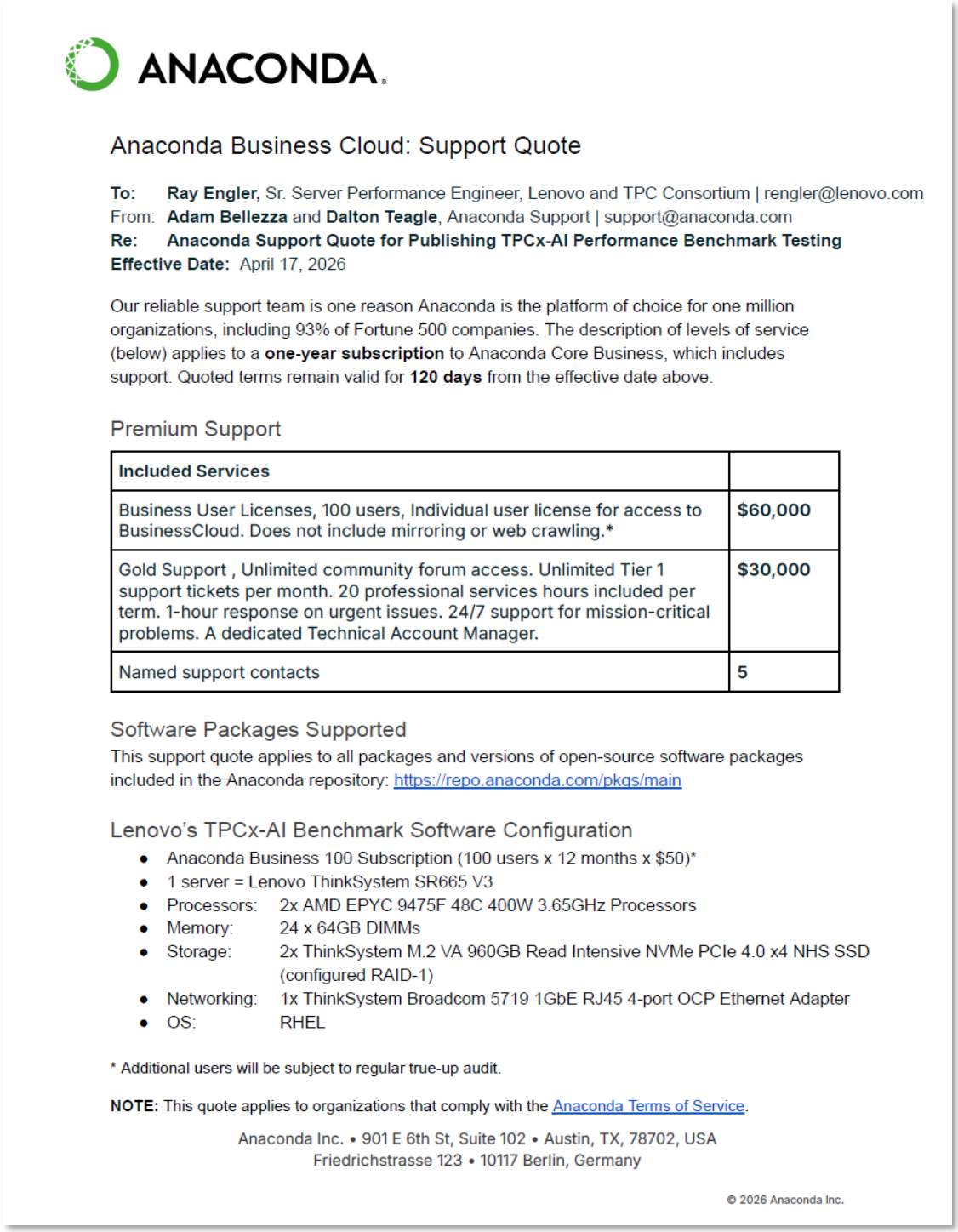
Third-Party Price Quotes

Anaconda



ANACONDA.

Anaconda Business Cloud: Support Quote

To: **Ray Engler,** Sr. Server Performance Engineer, Lenovo and TPC Consortium | rengler@lenovo.com
From: **Adam Bellezza** and **Dalton Teagle**, Anaconda Support | support@anaconda.com
Re: **Anaconda Support Quote for Publishing TPCx-AI Performance Benchmark Testing**
Effective Date: April 17, 2026

Our reliable support team is one reason Anaconda is the platform of choice for one million organizations, including 93% of Fortune 500 companies. The description of levels of service (below) applies to a **one-year subscription** to Anaconda Core Business, which includes support. Quoted terms remain valid for **120 days** from the effective date above.

Premium Support

Included Services	
Business User Licenses, 100 users, Individual user license for access to BusinessCloud. Does not include mirroring or web crawling.*	**$60,000**
Gold Support , Unlimited community forum access. Unlimited Tier 1 support tickets per month. 20 professional services hours included per term. 1-hour response on urgent issues. 24/7 support for mission-critical problems. A dedicated Technical Account Manager.	**$30,000**
Named support contacts	**5**

Software Packages Supported

This support quote applies to all packages and versions of open-source software packages included in the Anaconda repository: https://repo.anaconda.com/pkgs/main

Lenovo's TPCx-AI Benchmark Software Configuration

- Anaconda Business 100 Subscription (100 users x 12 months x $50)*
- 1 server = Lenovo ThinkSystem SR665 V3
- Processors: 2x AMD EPYC 9475F 48C 400W 3.65GHz Processors
- Memory: 24 x 64GB DIMMs
- Storage: 2x ThinkSystem M.2 VA 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD (configured RAID-1)
- Networking: 1x ThinkSystem Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter
- OS: RHEL

* Additional users will be subject to regular true-up audit.

NOTE: This quote applies to organizations that comply with the Anaconda Terms of Service.

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Supporting Files Index

The Supporting Files archive for this disclosure contains the following structure.

Supporting Files Directory	Description
CheckIntegrity/…	Output of CHECK_INTEGRITY test (if the phase is not done as part of the Validation and Performance Test).
PerformanceTest/…	Performance Test output files.
ValidationTest/…	Validation Test output files.

Additional files used by Lenovo	
Sponsor/ModelOptimization/…	Details of model optimization.
Sponsor/ModifiedKitFiles/…	1 modified file(s).
Sponsor/Tuning/…	All tuning files used.