	Supermicro A+ Server 2014TP-HTR	TPCx-IoT: v1.0.3
		TPC-Pricing: v2.4.0
		Report Date: Aug 07, 2019

Total System Cost	TPCx-IoT Performance Metric	Price/Performance
138,580 USD	**472,200.88 IoTps**	**0.29 USD $/IoTps**

Number of Records	DBMS Software	Operating System	Other Software	Availability Date
832 Million	HBase 2.0.0 on Cloudera Distribution for Apache Hadoop 6.0.1	Red Hat Enterprise Linux Server Release 7.6	None	Aug 31, 2019

System Configuration

1x Supermicro A+ Server 2014TP-HTR
TwinPro™ with 4x H12SST-PS Nodes, each with:
    1x AMD EPYC 7542 32-Core Processor
    256 GB (8x 32GB RDIMM 3200MT/s Dual Rank)
    1x 256GB M.2 PCIe Gen3
    1x Mellanox Dual Port 25GbE SFP28 NIC
    3x 1TB M.2 PCIe Gen3 (Data Nodes)

Mellanox SN2410 Network Switch
(48-port 25GbE + 8-port 100GbE)

Total Number of Servers:	1x Supermicro A+ Server 2014TP-HTR (TwinPro™ with 4x H12SST-PS Nodes)

Total Processors/Cores/Threads:		4/128/256
Server Configuration (each)	Processors	1x AMD EPYC 7542 2.9GHz 32-Core
	Memory	256GB
	Storage Device	1x 256GB M.2 PCIe Gen3 (all nodes)
		3x 1TB M.2 PCIe Gen3 (Data Nodes)
	Network	1x Supermicro AOC-MH25G-m2S2T Dual Port 25GbE SFP28 NIC
	Connectivity:	Mellanox SN2410 Network Switch
Total Rack Units:		(2x2014TP-HTR) + (1xSN2410) = (2x1) + (1x1) = 3RU

TPCx-IoT v1.0.3
Executive Summary

Supermicro
Supermicro A+ Server 2014TP-HTR

Reported Date
Aug 07, 2019

	Supermicro A+ Server 2014TP-HTR	TPCx-IoT: v1.0.3
		TPC-Pricing: v2.4.0
		Report Date: Aug 07,2019

Description	Part Number	Key	Unit Price	Qty	Extended Price	3 yr. Maint. Price
HARDWARE COMPONENTS						
Supermicro Super Server H12SST-PS - Rail, Power Cord (included)	AS -2014TP-HTR	1	$2,941.00	1	$2,941.00	
AMD EPYC™ 7542 2.9GHz/3.4GHz, 32C/64T 225W	PSE-ROM7542-0075	1	$3,320.00	4	$13,280.00	
SK hynix 32GB 2Rx4 PC4-3200 HMA84GR7CJR4N-XN	MEM-DR432L-HL01-ER32	1	$141.20	32	$4,518.40	
M.2 256GB TOSHIBA KXG50ZNV256G	HDS-TMN0-KXG50ZNV256G	1	$45.50	4	$182.00	
M.2 1TB TOSHIBA KXG50ZNV1T02	HDS-TMN0-KXG50ZNV1T02	1	$138.00	9	$1,242.00	
Mellanox Ethernet CX4LX 25GbE Network Adapter	AOC-MH25G-m2S2TM	1	$249.90	4	$999.60	
4-hour 7x24 On-site Service 3years	OS4HR3	1	$1,888.30	1		$1,888.30
Mellanox SN2410 Switch	MSN2410-CB2F	2	$25,387.00	1	$25,387.00	
Mellanox Tech Support and Warranty - Silver 3 years with 4 Hours On-Site Support for SN2000 Series Switch	SUP-SN2000-3S-4H	2	$2,475.00	1		$2,475.00
Mellanox MCP2M00-A001E30N Ethernet Passive Copper Cable 25GbE SFP28 1m Black 30AWG CA-N	MCP2M00-A001E30N	2	$52.00	5	$260.00	
12U Open Frame Server Rack - Adjustable Depth - 4-Post Data Rack	4POSTRACK12U	2	$195.99	1	$195.99	
NEMA 5-15P to IEC320 C15 14AWG 125V/15A	P515C15-15ABE-10	2	$10.00	1	$10.00	
24" LED Monitor		2	$79.00	1	$79.00	
Keyboard and Mouse		2	$14.56	1	$14.56	
Subtotal					$49,109.55	$4,363.30
					$49,109.5	$4,363.3
HARDWARE COMPONENTS			Subtotal		5	0

SUPERMICRO	**Supermicro A+ Server 2014TP-HTR**				TPCx-IoT: v1.0.3	
					TPC-Pricing: v2.4.0	
					Report Date: Aug 07,2019	

Description	Part Number	Key	Unit Price	Qty	Extended Price	3 yr. Maint. Price
SOFTWARE COMPONENTS						
Cloudera Enterprise Operational DB Edition, Node License, 24x7, 1YR		2	$6,000.00	12		$72,000.00
Red Hat Enterprise Linux 7.6, 3yr Premium Subscription		1	$3,276.86	4		$13,107.44
SOFTWARE COMPONENTS			Subtotal		$0.00	$85,107.44
Total					$49,109.55	$89,470.74

Pricing : 1 Supermicro (based upon total system cost as purchased by a regular customer) Pricing : 2 Obtained from third-party or online	**Three-Year Cost of Ownership :** **$138,580**
	IoTps : **472,200.88**
	$ / IoTps : **$0.29**
Audited by Meikel Poess, Oracle	

 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 the TPC at pricing@tpc.org.

	Supermicro A+ Server 2014TP-HTR	TPCx-IoT: v1.0.3
		TPC-Pricing: v2.4.0
		Report Date: Aug 07, 2019

Measurement Results for Performance Run

Total Number of Records	832 Million
Warmup Run - Start Time	2019-08-02 18:04:00
Warmup Run - End Time	2019-08-02 18:38:41
Warmup Run Elapsed Time in Seconds	2,079.425
Measured Run Start Time	2019-08-02 18:38:41
Measured Run End Time	2019-08-02 19:08:04
Total Time In Seconds	1,761.962

Measurement Results for Repeatability Run

Total Number of Records	832 Million
Warmup Run Start Time	2019-08-02 19:42:53
Warmup Run End Time	2019-08-02 20:18:08
Warmup Run Elapsed Time in Seconds	2,113.894
Measured Run Start Time	2019-08-02 20:18:08
Measured Run End Time	2019-08-02 20:47:00
Total Time In Seconds	1,731.521

	Supermicro A+ Server 2014TP-HTR	TPCx-IoT: v1.0.3
		TPC-Pricing: v2.4.0
		Report Date: Aug 07, 2019

Run Report for Performance Run

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TPCx-IoT Performance Metric (IoTps) Report

Total Time For Warmup Run In Seconds = 2,079.425
Total Time In Seconds = 1,761.962
Total Number of Records = 832 Million

TPCx-IoT Performance Metric (IoTps): 472,200.8760


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Run Report for Repeatability Run

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TPCx-IoT Performance Metric (IoTps) Report

Total Time For Warmup Run In Seconds = 2,113.894
Total Time In Seconds = 1,731.521
Total Number of Records = 832 Million

TPCx-IoT Performance Metric (IoTps): 480,502.4022
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