



Alibaba Cloud AnalyticDB

TPC-H Rev. 2.18.0
TPC-Pricing Rev. 2.5.0

Report Date
May 20, 2020

Total System Cost

Composite Query per Hour Metric

Price / Performance

¥7,343,841 RMB

5,057,263
QphH@30000GB

¥1.46 RMB
RMB/QphH@30000GB

Database Size

DB Manager

OS

Other Software

Available Date

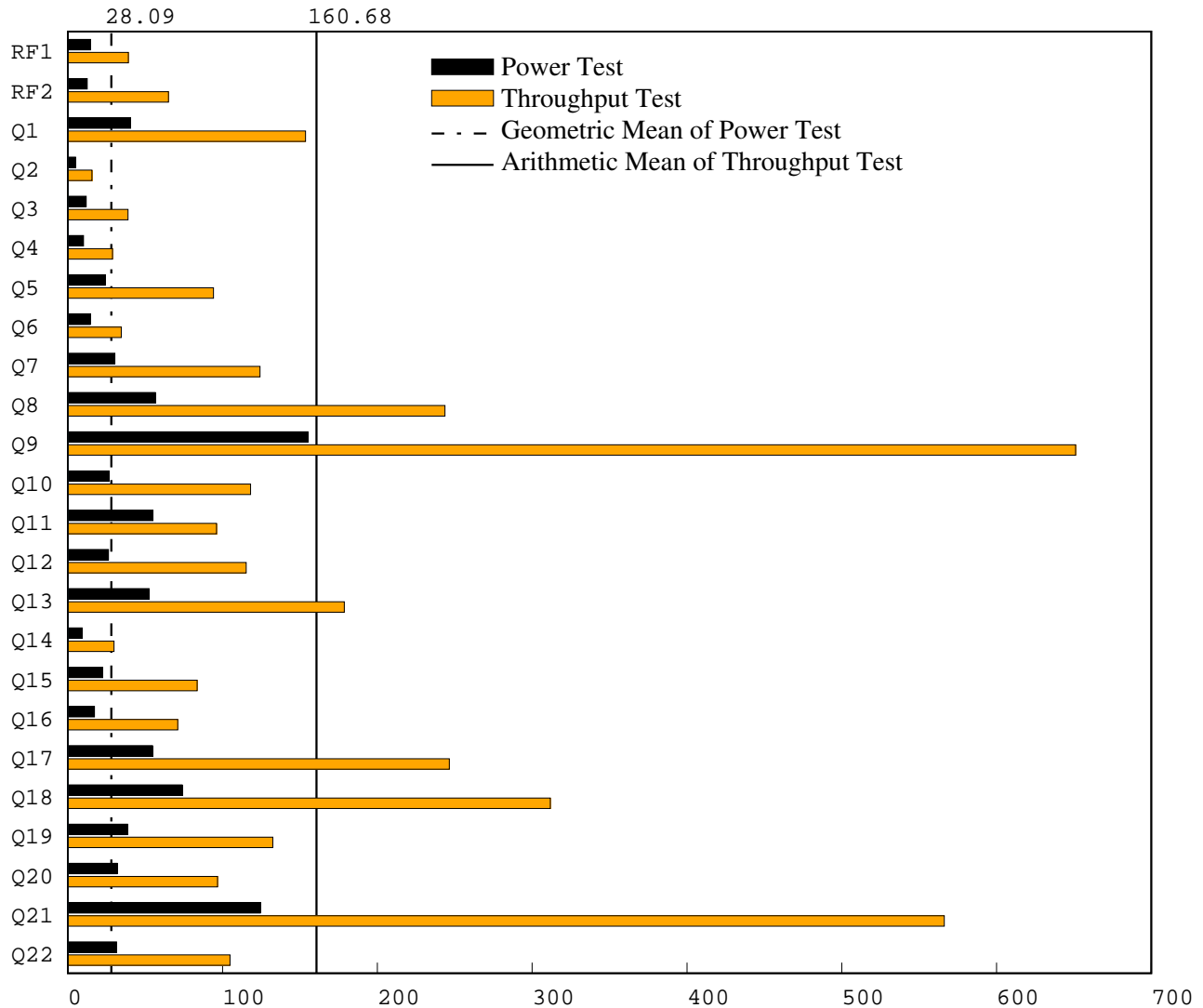
30,000GB

AnalyticDB for PostgreSQL 6.0

AliOS 7.2

None

As of publication



Database Load Time 09h 42m 43s
Load Includes Backup: N
Total Data Storage/Database Size 1.86
Memory to Database Size Percentage 93.4%

Storage Redundancy Levels:
Base Tables Level One
Auxiliary Data Structures Level One
DBMS Temporary Space Level One
OS and DBMS Software Level One

System Configuration

System Component	Per Node (Master)	System Total (Master)	Per Node (Compute)	System Total (Compute)
Node:	1	2	1	576
vCPU:	32 vCPUs	64 vCPUs	6 vCPUs	3,456 vCPUs
Memory:	192 GB	384 GB	48 GB	27,648 GB
Storage:	320 GB	640 GB	96 GB	55,296 GB

Total Storage: 55,936 GB



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Description	Part Num.	Src	Unit Price (RMB)	Qty	Ext.Price (RMB)	3-Year Maint. (RMB)
Licence Computer and Software Services						
<u>AnalyticDB for PostgreSQL 6.0 (Standard Edition, 576 nodes, 6 cores per node, 3-years pre-pay)</u>	North China 5	1	7,340,544.00	1	7,340,544.00	included
Compute Node (each with)				included	576	
- 6 vCPUs						
- 48 GB memory						
- 96 GB SSD storage						
Master Instance (each with)				included	2	
- 32 vCPUs						
- 192GB memory						
- 320GB SSD storage						
Licence Computer and Software Services Sub-Total					7,340,544.00	0.00
Other Components						
Lenovo MIIX 210 Laptop (Includes spares)		2	1,099.00	3	3,297.00	
Other Components Sub-Total					3,297.00	0.00
1 = Alibaba Cloud, 2 = Tmall.com					3-Year Cost Of Ownership	7,343,841.00
All prices are based on 3-year pre-paid subscriptions.					QphH@30000GB	5,057,263
Audited by Francois Raab, InfoSizing					RMB/QphH@30000GB	1.46

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. Thank you.

Numeric Quantities

Measurement Results

Database Scale Factor	30,000 GB
Total Data Storage / Database Size	1.86
Percentage Memory / Database Size	93.4%
Start of Database Load	2020-05-15 18:37:46
End of Database Load	2020-05-16 04:20:29
Database Load Time	00d 09h 42m 43s
Query Streams for Throughput Test	10
TPC-H Power	3,844,697.0
TPC-H Throughput	6,652,257.2
TPC-H Composite Query-per-Hour Metric (QphH@30000GB)	5,057,263.4
Total System Price Over 3 Years	¥7,343,841.00 (RMB)
TPC-H Price/ Performance Metric (\$/QphH@30000GB)	¥1.46 (RMB)

Measurement Interval

Measurement Interval in Throughput Test	3,571.72 seconds
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Duration of Stream Execution

Power Run	Seed	Query Start Time	Total Time (hh:mm:ss)	RF1 Start Time	RF2 Start Time
		Query End Time		RF1 End Time	RF2 End Time
	516042029	2020-05-16 05:36:04	00:15:13	2020-05-16 05:35:50	2020-05-16 05:51:17
		2020-05-16 05:51:17		2020-05-16 05:36:04	2020-05-16 05:51:30
Throughput Stream	Seed	Query Start Time	Total Time (hh:mm:ss)	RF1 Start Time	RF2 Start Time
		Query End Time		RF1 End Time	RF2 End Time
1	516042030	2020-05-16 05:51:29	00:59:00	2020-05-16 05:51:29	2020-05-16 05:52:15
		2020-05-16 06:50:29		2020-05-16 05:52:15	2020-05-16 05:53:16
2	516042031	2020-05-16 05:51:29	00:58:32	2020-05-16 05:53:16	2020-05-16 05:53:55
		2020-05-16 06:50:01		2020-05-16 05:53:55	2020-05-16 05:54:47
3	516042032	2020-05-16 05:51:29	00:58:50	2020-05-16 05:54:47	2020-05-16 05:55:22
		2020-05-16 06:50:19		2020-05-16 05:55:22	2020-05-16 05:56:15
4	516042033	2020-05-16 05:51:29	00:58:58	2020-05-16 05:56:15	2020-05-16 05:56:55
		2020-05-16 06:50:27		2020-05-16 05:56:55	2020-05-16 05:57:52
5	516042034	2020-05-16 05:51:29	00:58:48	2020-05-16 05:57:52	2020-05-16 05:58:34
		2020-05-16 06:50:17		2020-05-16 05:58:34	2020-05-16 05:59:39
6	516042035	2020-05-16 05:51:29	00:58:44	2020-05-16 05:59:39	2020-05-16 06:00:13
		2020-05-16 06:50:13		2020-05-16 06:00:13	2020-05-16 06:01:29
7	516042036	2020-05-16 05:51:29	00:58:52	2020-05-16 06:01:29	2020-05-16 06:02:00
		2020-05-16 06:50:21		2020-05-16 06:02:00	2020-05-16 06:03:12
8	516042037	2020-05-16 05:51:29	00:59:33	2020-05-16 06:03:12	2020-05-16 06:03:48
		2020-05-16 06:51:02		2020-05-16 06:03:48	2020-05-16 06:04:55
9	516042038	2020-05-16 05:51:29	00:59:12	2020-05-16 06:04:55	2020-05-16 06:05:35
		2020-05-16 06:50:41		2020-05-16 06:05:35	2020-05-16 06:06:42
10	516042039	2020-05-16 05:51:29	00:58:54	2020-05-16 06:06:42	2020-05-16 06:07:30
		2020-05-16 06:50:23		2020-05-16 06:07:30	2020-05-16 06:08:51

TPC-H Timing Intervals (in seconds)

Stream ID	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	40.57	5.00	11.89	10.10	24.16	14.49	30.38	56.57	155.04	26.41	55.05	26.30
1	97.79	19.30	50.35	8.39	126.32	41.05	106.92	255.26	645.43	134.43	104.79	155.52
2	135.68	16.50	46.13	32.76	102.31	36.96	112.26	297.40	662.80	103.67	93.79	81.80
3	176.77	14.89	20.42	25.17	86.56	35.74	133.04	209.17	627.32	121.03	98.78	73.39
4	182.32	14.90	26.44	43.10	102.31	41.44	124.12	275.29	637.87	96.25	101.93	93.72
5	120.10	16.20	46.70	23.79	102.88	39.05	132.52	294.11	599.96	133.88	95.46	92.87
6	188.03	13.42	38.17	41.38	106.30	32.42	164.61	234.11	677.29	109.76	101.32	121.43
7	167.83	15.55	35.33	22.44	112.18	30.87	139.35	211.73	672.42	116.79	96.79	59.01
8	135.05	12.93	36.13	30.27	104.53	36.58	91.79	249.12	726.93	117.72	71.84	160.36
9	143.31	16.14	47.66	24.85	51.11	26.78	95.07	207.61	646.39	121.29	94.84	137.47
10	188.66	16.37	41.00	36.86	46.86	24.93	141.81	202.70	614.52	125.23	101.20	177.16
Qi Min	40.57	5.00	11.89	8.39	24.16	14.49	30.38	56.57	155.04	26.41	55.05	26.30
Qi Avg	143.28	14.65	36.38	27.19	87.77	32.76	115.62	226.64	606.00	109.68	92.34	107.18
Qi Max	188.66	19.30	50.35	43.10	126.32	41.44	164.61	297.40	726.93	134.43	104.79	177.16

Stream ID	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	RF1	RF2
0	52.51	9.27	22.58	17.20	54.64	73.88	38.58	31.75	124.35	31.53	14.57	12.56
1	176.43	24.70	72.42	53.47	264.81	356.68	107.56	120.55	526.59	89.80	45.13	61.15
2	197.02	27.12	87.94	71.46	203.31	329.10	126.02	91.93	553.46	101.55	38.72	52.18
3	185.20	36.77	110.95	68.08	250.36	349.95	154.13	112.55	535.63	103.33	35.14	52.83
4	203.70	30.78	86.54	91.68	278.05	286.13	146.48	59.51	538.59	75.21	39.41	57.14
5	178.67	32.46	99.61	82.43	195.50	337.02	161.32	97.38	516.78	128.48	42.62	64.26
6	161.16	18.96	66.10	66.99	251.34	284.06	114.79	80.89	542.78	107.52	34.55	75.61
7	180.97	22.16	54.80	81.26	278.75	284.41	104.93	100.00	636.71	106.73	31.30	71.41
8	149.20	42.63	70.74	91.96	235.19	272.68	125.89	97.71	587.71	124.62	36.61	67.03
9	160.89	23.25	109.49	18.35	260.42	343.88	129.92	104.86	659.69	127.18	39.71	66.97
10	192.98	39.10	76.27	83.93	246.97	273.34	153.04	101.53	564.78	83.38	47.57	81.62
Qi Min	52.51	9.27	22.58	17.20	54.64	73.88	38.58	31.75	124.35	31.53	14.57	12.56
Qi Avg	167.16	27.93	77.95	66.07	229.03	290.10	123.88	90.79	526.10	98.12	36.85	60.25
Qi Max	203.70	42.63	110.95	91.96	278.75	356.68	161.32	120.55	659.69	128.48	47.57	81.62