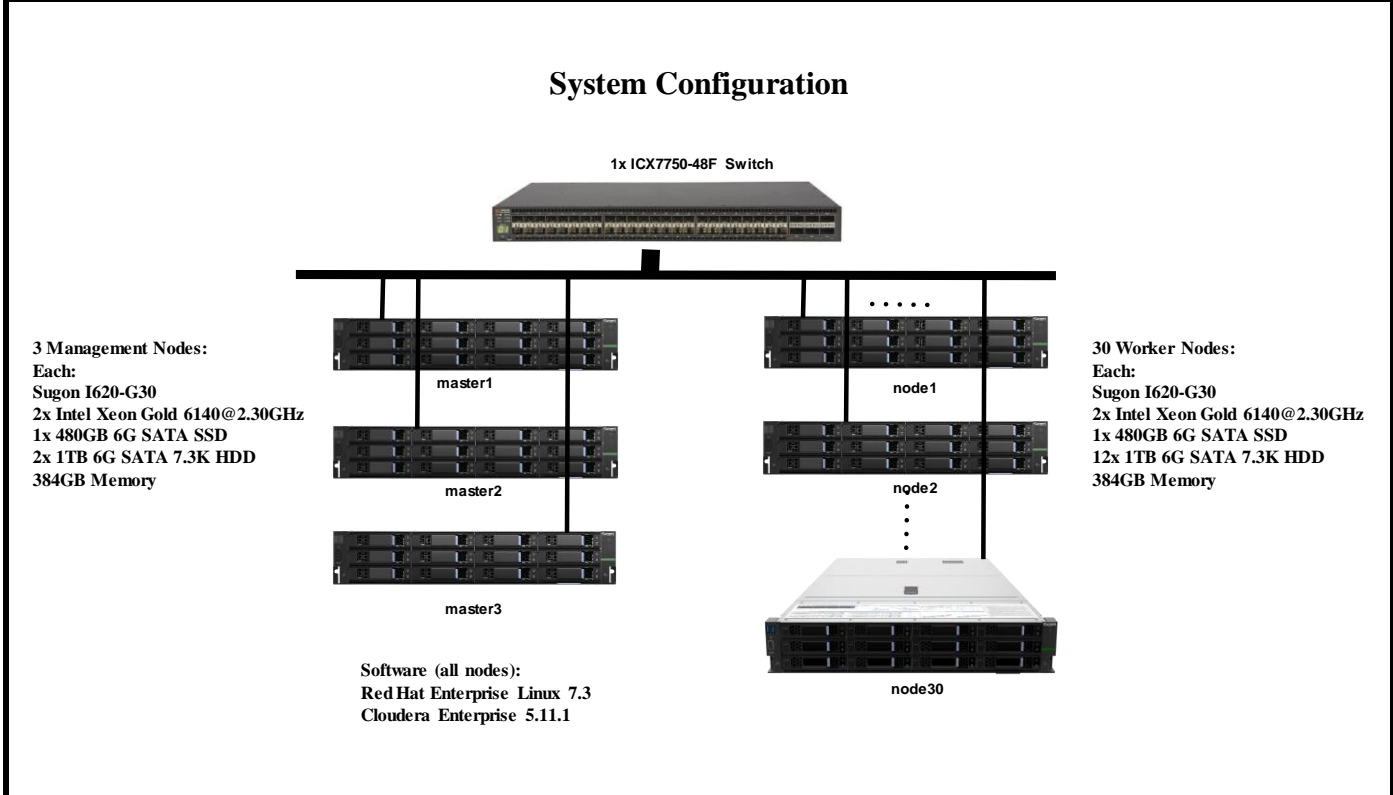
	<b>Sugon Cluster</b>	TPCx-BB Rev. v1.2.0 TPC-Pricing Rev. v2.2.0
		Report Date: January 22, 2018
Total System Cost	TPCx-BB Performance Metric	Price/Performance
<b>1,041,770 USD</b>	<b>3,383.95</b> BBQpm@30000	<b>307.86 USD</b> \$/BBQpm@30000

Framework	Operating System	Other Software	Availability Date	Scale Factor	Streams
Cloudera for Apache Hadoop (CDH) 5.11.1	Red Hat Enterprise Linux Server 7.3	None	January 22, 2018	30000	4



Physical Storage/Scale Factor: 12.73	Scale Factor/Physical Memory: 2.37
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Servers:	33x I620-G30
Total Processors/Cores/Threads	66/1,188/2,376

Server Configuration:	<b>Per I620-G30:</b>
Processors	2x Intel Xeon Gold 6140 @ 2.30 GHz
Memory	384 GB
Storage Controller	LSI 9361 RAID Card, 2GB SAS 12G (worker nodes only)
Storage Device	1x 480GB 6G SATA SSD 2x 1TB 6G SATA 7.3K RPM HDD (management nodes only) 12x 1TB 6G SATA 7.3K RPM HDD (worker nodes only)
Network	Intel 10-Gigabit SFI/SFP+ (dual port)

Connectivity:	Brocade ICX7750-48F Switch
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### Sugon Cluster

TPCx-BB Rev. v1.2.0  
TPC-Pricing Rev. v2.2.0

Report Date:  
January 22, 2018

Description	Part Number	Source	Unit Price (\$)	Qty	Extended Price (\$)	3 Year Maint. Price (\$)
<b>Server Hardware - Management Nodes</b>						
I620-G30(with P20-D312 chassis)	61006780	1	5,737.28	3	17,211.84	
Intel Xeon Gold 6140	62000614	1	2,993.33	6	17,959.98	
32GB DDR4 2Rx8 2667MHz Memories	50000383	1	427.95	36	15,406.20	
Network Card, 2x10GE Port(82599)	24000829	1	228.97	3	686.91	
480 GB, 2.5inch 6Gb/s SSD	54000554	1	347.82	3	1,043.46	Included
1 TB, 7.2k 3.5inch 6Gb/s SATA	54000544	1	91.79	6	550.74	
4*3.5" Hard Disk Back plane	24001494	1	30.26	3	90.78	
550W Platinum AC power supply unit	33000186	1	63.21	6	379.26	
8038 8K Fan Module	3001379	1	5.90	12	70.80	
			<i>SubTotal</i>		53,399.97	Included
<b>Server Hardware - Worker Nodes</b>						
I620-G30(with P20-D312 chassis)	61006781	1	6,746.53	30	202,395.90	
Intel Xeon Gold 6140	62000614	1	2,993.33	60	179,599.80	
32GB DDR4 2Rx8 2667MHz Memories	50000383	1	427.95	360	154,062.00	
Network Card, 2x10GE Port(82599)	24000829	1	228.97	30	6,869.10	
480 GB, 2.5inch 6Gb/s SSD	54000554	1	347.82	30	10,434.60	
1 TB, 7.2k 3.5inch 6Gb/s SATA	54000544	1	91.79	360	33,044.40	Included
4*3.5" Hard Disk Back plane	24001494	1	30.26	90	2,723.40	
2*2.5" Rear Hard Disk Back plane Module	3000609	1	2.44	30	73.20	
LSI 9361 RAID Card, 2GB SAS 12G	24001041	1	295.77	30	8,873.10	
550W Platinum AC power supply unit	33000186	1	63.21	60	3,792.60	
8038 8K Fan Module	3001379	1	5.90	120	708.00	
			<i>SubTotal</i>		602,576.10	Included
{continues next page}						



## Sugon Cluster

TPCx-BB Rev. v1.2.0  
TPC-Pricing Rev. v2.2.0

Report Date:  
January 22, 2018

Description	Part Number	Source	Unit Price (\$)	Qty	Extended Price (\$)	3 Year Maint. Price (\$)
<b>Network</b>						
BROCADE ICX7750-48F	96002001	1	26,962.50	1	26,962.50	Included
Avago AFBR-709SMZ 10G 850nm SFP+,Multi-mode Module	3000807	1	24.10	66	1,590.60	
<i>SubTotal</i>					28,553.10	Included
<b>Monitor/Keyboard/Mouse (includes 2 spares)</b>						
Lenovo 60F5MAR6US Thinkvision T2224Z	0E6-009A-001M8	2	209.00	3	627.00	
Lenovo Professional Wireless Keyboard and Mouse Combo	9SIA6ZP5M99142	2	59.99	3	179.97	
<i>SubTotal</i>					806.97	
<b>Server Software</b>						
Cloudera Ent Basic Ed 1y r 24x7		1	2,304.00	99	228,096.00	Included
RHEL Svr 2 Sckt/2 Gst 3y r 24x7 E-LTU		1	3,889.00	33	128,337.00	
<i>SubTotal</i>					356,433.00	Included
<b>Total Extended Price</b>					1,041,769.14	0.00

Pricing: 1 = Sugon; 2 = newegg  <small><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.</small>  <p style="text-align: center;"><b>Audited by Doug Johnson of InfoSizing</b></p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;"><b>Three-Year Cost of Ownership</b></td> <td style="text-align: right;"><b>\$1,041,770</b></td> </tr> <tr> <td style="text-align: right;"><b>BBQpm@30000</b></td> <td style="text-align: right;"><b>3,383.95</b></td> </tr> <tr> <td style="text-align: right;"><b>\$/BBQpm@30000</b></td> <td style="text-align: right;"><b>\$ 307.86</b></td> </tr> </table>	<b>Three-Year Cost of Ownership</b>	<b>\$1,041,770</b>	<b>BBQpm@30000</b>	<b>3,383.95</b>	<b>\$/BBQpm@30000</b>	<b>\$ 307.86</b>
<b>Three-Year Cost of Ownership</b>	<b>\$1,041,770</b>						
<b>BBQpm@30000</b>	<b>3,383.95</b>						
<b>\$/BBQpm@30000</b>	<b>\$ 307.86</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.



## Sugon Cluster

TPCx-BB Rev. v1.2.0  
TPC-Pricing Rev. v2.2.0

Report Date:  
January 22, 2018

### Numerical Quantities

Scale Factor	30000
Streams	4
SUT Validation Test	PASS

### Performance Run (Run 2)

Overall Run Start Time	2017-12-11 17:34:06.821
Overall Run End Time	2017-12-12 21:18:04.834
Overall Run Elapsed Time	99,838.013
Load Test Start Time	2017-12-11 17:34:06.822
Load Test End Time	2017-12-11 19:19:25.921
Load Test Elapsed Time	6,319.099
Power Test Start Time	2017-12-11 19:19:25.924
Power Test End Time	2017-12-12 02:05:48.207
Power Test Elapsed Time	24,382.283
Throughput Test Start Time	2017-12-12 02:05:48.208
Throughput Test End Time	2017-12-12 21:18:04.834
Throughput Test Elapsed Time	69,136.626
Performance Metric (BBQpm@ 30000)	3,383.95

### Repeatability Run (Run 1)

Overall Run Start Time	2017-12-10 13:04:02.994
Overall Run End Time	2017-12-11 16:35:03.876
Overall Run Elapsed Time	99,060.882
Load Test Start Time	2017-12-10 13:04:02.995
Load Test End Time	2017-12-10 14:50:56.042
Load Test Elapsed Time	6,413.047
Power Test Start Time	2017-12-10 14:50:56.045
Power Test End Time	2017-12-10 21:28:35.474
Power Test Elapsed Time	23,859.429
Throughput Test Start Time	2017-12-10 21:28:35.474
Throughput Test End Time	2017-12-11 16:35:03.876
Throughput Test Elapsed Time	68,788.402
Performance Metric (BBQpm@ 30000)	3,435.53

### Performance Run Report (Run 2)

```
*****  
TPCx-BB  
Result  
v1.2  
*****  
INFO: T_LOAD = 6319.099  
INFO: T_LD = 0.1 * T_LOAD: 631.9099  
INFO: T_PT = 13589.2217300351  
INFO: T_T_PUT = 69136.626  
INFO: T_TT = 17284.1565  
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@30000 = 3383.95742649002
```

### Repeatability Run Report (Run 1)

```
*****  
TPCx-BB  
Result  
v1.2  
*****  
INFO: T_LOAD = 6413.047  
INFO: T_LD = 0.1 * T_LOAD: 641.3047  
INFO: T_PT = 13217.848388304  
INFO: T_T_PUT = 68788.402  
INFO: T_TT = 17197.1005  
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@30000 = 3435.53763619344
```

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