


Executive Summary of an Audited LDBC Benchmark Result

Linked Data Benchmark Council – Social Network Benchmark – Business Intelligence Workload

Audit Overview

	Test Sponsor:	Database management system: TuGraph 0.9
		DBMS availability date: 2023/10/10

Setup Overview

Hardware	Operating system
Workers instances: 72 ecs.r7.16xlarge instances, detailed under <i>Hardware Configuration (per Instance)</i> Driver instance: 1 ecs.g6.2xlarge instance (8 vCPU, 32 GiB RAM), ESSD P0 storage (capacity 80GB)	Alibaba Group Enterprise Linux Server Release 7.2 (Paladin)

Hardware Configuration (per Instance)

CPU cores / threads / type	Total cache size per CPU	Memory size	Storage / file system
Intel® Xeon® Platinum 8369B at 2.70 GHz, 32 cores, 64 threads per CPU Total cores per instance: 64	L1d cache: 1.5 MB L1i cache: 1 MB L2 cache: 40 MB L3 cache: 1.5 GB	512 GB	Aliyun ESSD AutoPL Capacity: 1024GB File system: ext4

System Pricing

Total system cost	Machine cost	License cost	Maintenance fee
5,649,500 USD	4,165,500 USD	1,060,000 USD	424,000 USD

Benchmark Configuration and System Settings

Workload	Social Network Benchmark Business Intelligence workload (SNB BI)
SNB Datagen version	v0.5.0
SNB BI driver and implementations version	v1.0.3
SNB specification version	v2.2.0
Execution mode	disjoint RW mode
Data format	composite-projected-fk layout, compressed CSV files (decompressed during load)
Scale factor	30,000

Summary of Performance Metrics

Scale factor	Benchmark duration	Power@SF	Power@SF/\$	Throughput@SF	Throughput@SF/\$
30,000	1,390.44	111,775.39	19.79	56,920.48	10.08

Audited by David Püroja (Pometry)	Report date: 2023/12/03
<p>This summary references an audited LDBC benchmark run. The results have been gathered by an independent and impartial auditor who has validated the implementation of the queries and verified the overall system's configuration conformance to the description of the benchmark and its strict requirements.</p>	