


LDBC Social Network Benchmark Interactive Workload – Audited Run – Executive Summary

System Details

Test Sponsor	System Under Test (SUT)	Availability date of the SUT
 HUAWEI CLOUD	Graph Engine Service (GES)	2024-08-02

Cloud provider	Machine region / instance type	Operating system	Database management system
Huawei Cloud	ac8.48xlarge.4	Ubuntu 20.04.6	GES 3.0.0

Server processor cores / threads / type	Total cache size per CPU	Memory size	Storage / file system / average performance
96 cores / 192 thread / AMD @ 2.40GHz	L1 cache: 3MiB Data + 3MiB Instruction L2 cache: 96 MiB L3 cache: 384 MiB	768GiB	1536GiB NVMe SSD / ext4 / 818.90 IOPS

System Pricing

Total system cost	Machine cost	License cost	Maintenance fee
3,105,819 RMB	425,819 RMB (ac8.48xlarge.4 reserved instance in the Huawei Cloud, standard 3-year term)	0.00 RMB	2,680,000 RMB

Benchmark Configuration and System Settings

Benchmark specification and auditing policies version	v2.2.3		
Datagen version	v1.0.0		
Driver version	v1.2.0		
Implementation language	Cypher		
Driver read threads	128		
Data partitions / driver write threads	48		
Data format	CsvComposite		
Scale factor	30	100	300
Time compression ratio	0.0010	0.0029	0.0114
Transaction isolation level	Read Committed		

Summary of Performance Metrics

Scale factor	Benchmark duration	Benchmark operations	Throughput (ops/s)	On-time query compliance
30	02h 01m 18s	274 968 913	37,775.91	100.00%
100	02h 06m 48s	345 675 524	45,432.22	98.45%
300	02h 03m 54s	299 967 535	40,347.04	98.68%

Audited by David Püroja	Report Date: 2024-09-16
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, successfully run the ACID tests associated with the claimed isolation level, and verified the overall system's configuration conformance to the description of the benchmark and its strict requirements.	