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

System Details

Test Sponsor:g	GraphScope Flex 0.31.3	LDBC SNB Interactive v2.2.4 Workload v1
Alibaba Cloud	GraphScope	Auditing Policies v2.2.4
		Availability date of the SUT: 2025-03-17

Cloud provider	Machine region / instance type	Operating system	Database management system
Alibaba Cloud	Ulanqab / ecs.g8a.48xlarge	Ubuntu 20.04.6 LTS 5.4.0-204-generic	GraphScope Flex 0.31.3

Server processor cores / threads / type	Total cache size per CPU	Memory size	Storage / file system / average performance
96 / 192 / AMD EPYC 9T24 @ 3.7GHz	L1 cache: 3 MiB Data + 3 MiB Instruction L2 cache: 96 MiB L3 cache: 384 MiB	768 GiB	4TB NVMe ESSD / xfs / 5000 IOPS

System Pricing

Total system cost	Machine cost	License cost	Maintenance fee
808,444.48 RMB	408,444.48 RMB (ecs.g8a.48xlarge reserved instance machine in Alibaba Cloud, standard 3-year term)	0.00 RMB	400,000.00 RMB

Benchmark Configuration and System Settings

Benchmark Specification and Auditing Policies version	v2.2.4		
Workload Version	Interactive V1		
Datagen version	v1.0.0		
Driver version	v1.2.0		
Implementations language	Cypher		
Driver read threads	192		
Data partitions / driver write threads	48 / 192		
Data format	CsvComposite		
Scale factor	30	100	300
Time compression ratio	0.001	0.0016	0.0054
Transaction isolation level	Serializable		

Summary of Performance Metrics

Scale factor	Benchmark duration	Benchmark operations	Throughput (ops/s)	On-time query compliance
30	02h 00m 23s	272,000,000	37,650.00	100.00%
100	02h 01m 46s	579,000,000	79,244.18	95.25%
300	02h 02m 30s	591,800,000	80,510.79	95.71%

Audited by Arnau Prat-Pérez	Report Date: 2025-04-21
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.	