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: TigerGraph 3.7.0
	DBMS availability date: 2022/09/15

Setup Overview

Hardware	Operating system
48x AWS EC2 R6a.8xlarge	Amazon Linux 2 (5.10.167-147.601.amzn2.x86_64)

Hardware Configuration (Per instance)

CPU cores / threads / type	Total cache size per CPU	Memory size	Storage / file system
AMD EPYC 7R13 at 3.725 GHz, 16 cores, 32 threads Total cores: 16 Total threads: 32	L1i cache: 32KiB L1d cache: 32KiB L2 cache: 512KiB L3 cache: 33MiB	256GiB	AWS GP3 1000GB Storage, XFS file system

System Pricing

Total system cost	Machine cost	License cost	Maintenance fee
7,871,354 USD	1,141,994 USD	6,117,600 USD	611,760 USD

Benchmark Configuration and System Settings

Workload	Social Network Benchmark Business Intelligence workload (SNB BI)
SNB Datagen version	v0.5.1
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 preprocessing)
Scale factor	10000

Summary of Performance Metrics

Scale factor	Benchmark duration	Power@SF	Power@SF/$	Throughput@SF	Throughput@SF/$
10000	643.50 minutes	89,444.50	11.36	41,025.76	5.21

Audited by David Puroja (Pometry)	Report date: 2023/04/06
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.	