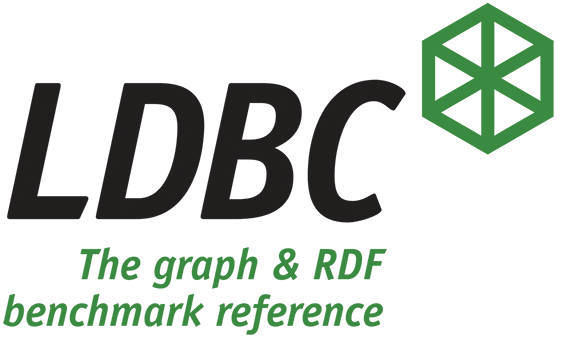
****

***Social Network Benchmark***

***Interactive Workload***

***Full Disclosure Report***

***<Author>***

***<Date>***

Table of Contents

[Preface 3](#_Toc417557500)

[General Terms 4](#_Toc417557501)

[1. System Description 5](#_Toc417557502)

[1.1 Database System 5](#_Toc417557503)

[1.2 Database Engine Configuration 5](#_Toc417557504)

[1.3 Platform Description 6](#_Toc417557505)

[1.4 Network Infrastructure Information 8](#_Toc417557506)

[2. Data Generation & Loading 9](#_Toc417557507)

[2.1 Dataset Information 9](#_Toc417557508)

[2.1.1 Description 9](#_Toc417557509)

[2.1.2 External Datasets 9](#_Toc417557510)

[2.1.3 Dataset Characteristics 9](#_Toc417557511)

[2.1.4 Data Generator Parameters 9](#_Toc417557512)

[2.2 Data Generation Times 10](#_Toc417557513)

[2.3. Bulk Loading 10](#_Toc417557514)

[3. Benchmark Test Driver 11](#_Toc417557515)

[3.1. Basic test driver configuration details 11](#_Toc417557516)

[3.2. Configuration Parameters for Driver Warmup 11](#_Toc417557517)

[3.3. Configuration Parameters for Driver Execution 11](#_Toc417557518)

[3.3. Test Driver Reference Data 11](#_Toc417557519)

[4. Performance Metrics 12](#_Toc417557520)

[5. Recovery 14](#_Toc417557521)

[6. Pricing Summary 15](#_Toc417557522)

[7. Attachment's CheckList 16](#_Toc417557523)

# Preface

# General Terms

Test Sponsor

<A statement identifying the benchmark sponsor and other participants must be provided>

# 1. System Description

<System used to execute the queries>

## 1.1 Database System

<Database used to execute the queries>

|  |  |
| --- | --- |
| Vendor Name |  |
| Database Name |  |
| Version No |  |
| Database Engine Configuration |  |

Table 1: DBMS Characteristics

|  |
| --- |
| General Terms  Vendor Name  <The DB System name, e.g., OGL, ONTO, Sparsity, ... >  Database Name  <Virtuoso, OWLIM, Sparksee, ... >  Version No |

## 1.2 Database Engine Configuration

<Full Disclosure about the configuration of the DBMS to make possible the reproduction of the test results. It should include the parameters in Table 5, if those are relevant for the engine.>

|  |  |
| --- | --- |
| Cache Configuration |  |
| Transaction Isolation Level/Model |  |
| Reasoning Strategy/configuration |  |
| triple/quadruple indices |  |
| indices |  |
| Optimisations |  |

Table 2: Database Engine Configuration

|  |
| --- |
| General Terms  Cache Configuration  <usually multiple parameters>  Transation Isolation Level/Model  Reasoning Strategy/Configuration  <"backward-chaining RDFS", "materialization OWL 2 RL", "hybrid RDFS--">  Triple/Quadruple Indices  <POS, SPO, CPSO, ... >  Indices  <Indices other than the Triple/Quadruple Indices: FTS, Geospatial>  Optimisations  <e.g., owl:same-as> |

## 1.3 Platform Description

<Features of the platform used to run the LDBC Benchmark. Examples given below are suitable for execution on a Linux system. Corresponding metrics can be extracted from most other systems. In case of a cluster configuration, then the System Configuration Description below should be repeated for each type of cluster node. Repeat Table 3 if the benchmark driver runs on a different machine.>

|  |  |
| --- | --- |
| Model |  |
| Processors |  |
| Memory |  |
| No Disks/Type/Storage Configuration |  |
| Network Adapters |  |
| Operating System |  |
| File System |  |
| No Threads |  |
| No Cores |  |
| Memory |  |
| Total Disks Capacity |  |

Table 3: System Configuration

|  |
| --- |
| General Terms |
| Model  <The model of the system> |
| Processors  <Type of Processors> |
| Memory  <The total amount of physical RAM in Mbytes> |
| No Disks/Type/Storage Configuration  <see Table 7> |
| Network Adapters  < > |
| Operating System  <Result of "uname -a" command for Linux systems or appropriate one for others. Similar system information for the file system should provided (e.g., ZFS, EXT4).> |
| File System  <Result of "df --print-type"> |
| CPU Type and Count  <heading of CPU Description in /proc/cpuinfo> |
| No Threads  <The count of CPU description entries in /proc/cpuinfo. For Intel Xeon processors with hyperthreading this number is double the number of physical cores.> |
| No Cores  <The sibling count in a CPU description in /proc/cpuinfo. For cloud infrastructures, the number of virtual CPUs should also be provided; vCPUs for AWS.> |
| Total Disks Capacity  <Sum of total space from "df" command excluding nfs mounted file systems and RAM based file systems, e.g., NTFS>  System Configuration  <Contents of system configuration /etc/sysconf> |

|  |  |
| --- | --- |
| ***Storage*** |  |
| ***RAID/HBA controller*** |  |

Table 4: No Disks/Type/Storage/Configuration

## 1.4 Network Infrastructure Information

|  |  |
| --- | --- |
| ***Model*** |  |
| ***Network Switches*** |  |
| ***Wiring Information*** |  |

Table 5: Network Infrastructure Information

# 2. Data Generation & Loading

<Description about data generation and loading.>

## 2.1 Dataset Information

### 2.1.1 Description

|  |  |
| --- | --- |
| ***Scale Factor*** |  |
| ***Data Format*** |  |
| ***Data Generator Version*** |  |
| ***Time Compression ratio*** |  |

Table 6: Dataset characteristics

|  |
| --- |
| General Terms  Scale Factor  <Scale factor used>  Data Format  <Specify data serialization format, e.g., N-quads, TriG etc>  Data Generator Version  <Version of the Benchmark Test driver>  Time Compression Ratio  <... > |

### 2.1.2 External Datasets

<Listings must be provided for all ontologies and reference datasets used. By default all reference datasets and ontologies are included with the benchmark distribution>

### 2.1.3 Dataset Characteristics

<Details / statistics about the generated data>

### 2.1.4 Data Generator Parameters

|  |
| --- |
|  |

## 2.2 Data Generation Times

|  |  |
| --- | --- |
| ***Start Time (in ms)*** |  |
| ***End Time (in ms)*** |  |
| ***Generation Time*** |  |

Table 7: Data Generation Times

|  |
| --- |
| General Terms  Data Generation Start Time  <Time represented in ISO (hh:mm:ss) format>  Data Generation End Time  <Time represented in ISO (hh:mm:ss) format>  Generation Time  <Time represented in ms: END TIME - START TIME> |

## 2.3. Bulk Loading

|  |  |
| --- | --- |
| ***Start Time (in ms)*** |  |
| ***End Time (in ms)*** |  |
| ***Generation Time*** |  |

Table 8: Bulk Loading Time

|  |
| --- |
| General Terms  Bulk Load Start Time  <Start time represented in ISO (hh:mm:ss) format>  Bulk Load End Time  <End time represented in ISO (hh:mm:ss) format> |

# 3. Benchmark Test Driver

## 3.1. Basic test driver configuration details

|  |  |
| --- | --- |
| ***No of read threads*** |  |
| ***No of write threads*** |  |

Table 9: Basic Test Driver Configuration Details

|  |
| --- |
| No of Read Threads  <number of aggregation agents>  No of Write Threads  <number of editorial agents> |

## 3.2. Configuration Parameters for Driver Warmup

|  |
| --- |
|  |

## 3.3. Configuration Parameters for Driver Execution

|  |
| --- |
|  |

<All of the benchmark's test driver configuration parameters are contained in two files:

* test.properties - defines the general behavior of the benchmark test driver, number of read and write threads, reference datasets, etc.
* definitions.properties - defines various allocations related to data generation, execution of query mixes, benchmark behavior, etc.

Listed configuration files above must be provided within the supporting files set for each of the benchmark test drivers.>

## 3.3. Test Driver Reference Data

<Reference data, ontologies and query templates are located at the 'data/' directory of the SPB benchmark's software distribution. A list of the reference datasets and ontologies used in the test must be disclosed. Any modification to files e.g. query templates, reference datasets or ontologies must be disclosed and provided within the supporting files set.>

# 4. Performance Metrics

|  |  |  |  |
| --- | --- | --- | --- |
| ***Duration*** | ***Operations*** | ***Throughput*** | ***% above threshold*** |
|  |  |  |  |
| ***Query*** | ***Count*** | ***Mean*** | ***% Execution*** |
| ***Complex 1*** | 10 | 10 | 10 |
| ***Complex 2*** | 10 | 10 | 10 |
| ***Complex 3*** | 10 | 10 | 10 |
| ***Complex 4*** | 10 | 10 | 10 |
| ***Complex 5*** | 10 | 10 | 10 |
| ***Complex 6*** | 10 | 10 | 10 |
| ***Complex 7*** | 10 | 10 | 10 |
| ***Complex 8*** | 10 | 10 | 10 |
| ***Complex 9*** | 10 | 10 | 10 |
| ***Complex 10*** | 10 | 10 | 10 |
| ***Complex 11*** | 10 | 10 | 10 |
| ***Complex 12*** | 10 | 10 | 10 |
| ***Complex 13*** | 10 | 10 | 10 |
| ***Complex 14*** | 10 | 10 | 10 |
| ***Short 1*** | 10 | 10 | 10 |
| ***Short 2*** | 10 | 10 | 10 |
| ***Short 3*** | 10 | 10 | 10 |
| ***Short 4*** | 10 | 10 | 10 |
| ***Short 5*** | 10 | 10 | 10 |
| ***Short 6*** | 10 | 10 | 10 |
| ***Short 7*** | 10 | 10 | 10 |
| ***Update 1*** | 10 | 10 | 10 |
| ***Update 2*** | 10 | 10 | 10 |
| ***Update 3*** | 10 | 10 | 10 |
| ***Update 4*** | 10 | 10 | 10 |
| ***Update 5*** | 10 | 10 | 10 |
| ***Update 6*** | 10 | 10 | 10 |
| ***Update 7*** | 10 | 10 | 10 |
| ***Update 8*** | 10 | 10 | 10 |

Table 10: Execution Summary

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Query*** | ***Min*** | ***Max*** | ***Mean*** | ***50th*** | ***90th*** | ***95th*** | ***99th*** |
| ***Complex 1*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 2*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 3*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 4*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 5*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 6*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 7*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 8*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 9*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 10*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 11*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 12*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 13*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Complex 14*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

Table 11: Complex reads detail

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Query*** | ***Min*** | ***Max*** | ***Mean*** | ***50th*** | ***90th*** | ***95th*** | ***99th*** |
| ***Short 1*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Short 2*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Short 3*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Short 4*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Short 5*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Short 6*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Short 7*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

Table 12: Short Reads detail

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Query*** | ***Min*** | ***Max*** | ***Mean*** | ***50th*** | ***90th*** | ***95th*** | ***99th*** |
| ***Update 1*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 2*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 3*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 4*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 5*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 6*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 7*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| ***Update 8*** | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

Table 13: Updates detail

# 5. Recovery

|  |  |
| --- | --- |
| ***Execution Duration*** |  |
| ***Time to Recover*** |  |

Table 14: Recovery

# 6. Pricing Summary

|  |  |  |
| --- | --- | --- |
|  | Item | Price |
|  |  |  |
|  |  |  |
|  |  |  |
| TOTAL |  |  |

Table 15: Pricing Information

# 7. Attachment's CheckList

|  |  |
| --- | --- |
| Datagen params.ini |  |
| Driver’s LDBC-configuration.properties |  |
| Driver’s LDBC-results.json |  |
| Vendor Specific configuration files |  |

Table 13: Checklist