



Bull's Database Migration Business Unit

Comparison of a Proprietary RDBMS and PostgreSQL 9.1.X

The comparison was performed using Hammerora, an open source load generation tool, simulating 500 users performing 10,000 transactions each against 800 data warehouses. These tests were done using the same platform and were executed (after reset) a number of times to verify the repeatability of the results. One notable aspect of the system was the use of a 100GB Solid State Disk (SSD) for the databases. One purpose was to see how many transactions per minute could be accomplished utilizing the SSD technology for database storage. We measured throughput during peak processing.

Following is the platform we used for testing:

```
MODEL x86_64 [type=x86_64]

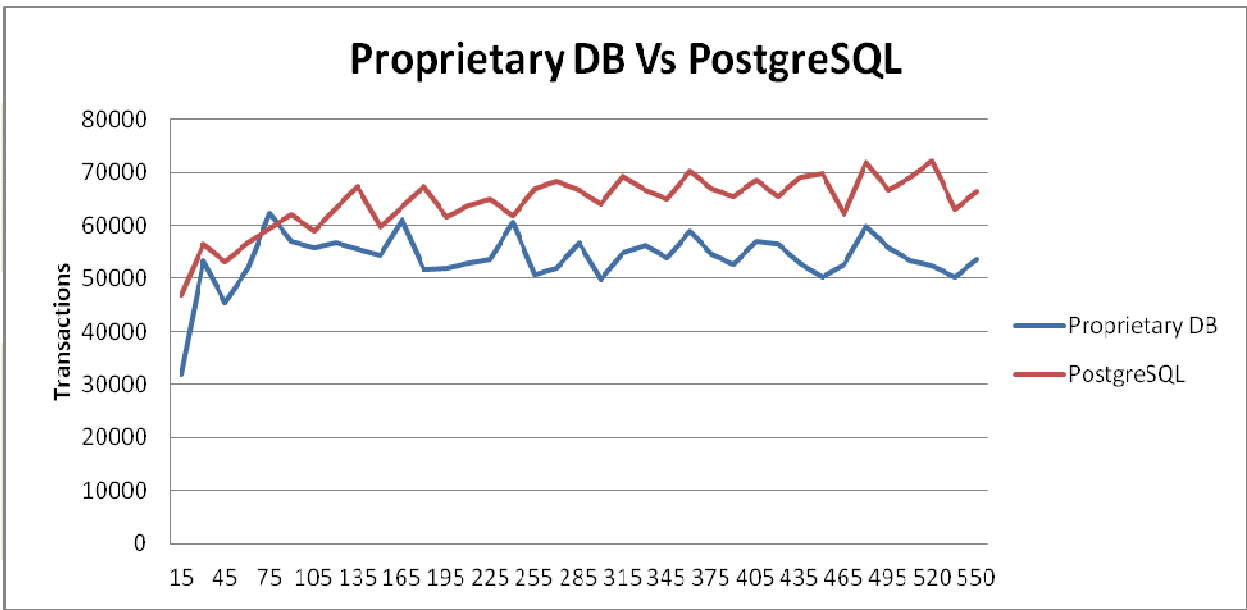
CPU Intel(R) Xeon(R) CPU X7550 @ 2.00GHz, 64 bits, 18 MB L3
cache, 2000.071 MHZ

Physical CPU .... 1 (single-socket)
Cores per CPU ... 6 (hexa-core)
Logical CPUs .... 6 (HT is off)

MEM 16334444 KB (about 16 GB available to OS)

OS Red Hat Enterprise Linux Server release 6.2 (Santiago)
KERN 2.6.32-220.7.1.el6.x86_64
```

The following chart displays transaction rate samples that were collected every 15 seconds during the test. The number of users and transactions were chosen to maximize system resource usage. During our testing, our average Proprietary RDBMS sample showed throughput of 53824 Transactions per Minute (TPM) while our PostgreSQL samples averaged 64374 TPM, which represented almost 20% higher throughput.



It can be readily concluded that PostgreSQL consistently performed better than the proprietary database during our test run on this system; showing an ability to handle high amounts of transactions at a fairly consistent rate

