Telemaque Deploys MySQL Cluster to Power Converged Call Center Services

- MySQL Cluster 7.1
- Application: SIP, Switches & Proxy Servers
- Hardware: IBM 2 & 4 Socket x86 Servers
- OS: Fedora Linux

"During our evaluation, we threw all sorts of failure conditions at MySQL Cluster, including hardware faults, software crashes and network partitions. MySQL Cluster did not miss a beat, and has not since we deployed the database into production nearly 2 years ago."

Tristan Mahe, VP of Systems, Telemaque

Telemaque Overview

Telemaque were formed in 2000 to deliver call center services for clients across France and French-speaking countries around the world. Developing and hosting the call center applications themselves enables Telemaque to deliver complete end-to-end customer management solutions for their clients. As part of its unique offering, Telemaque integrates all customer communications across multiple channels, including web, telephone and SMS / MMS (Short Message Service / Multi-Media Message Service), ensuring a seamless contact experience for their clients' customers.

The Business Challenge

Telemaque had built their call-center solutions on the LAMP stack, using MySQL with the MyISAM storage engine to serve their database needs. As their business grew and call volumes increased, the infrastructure used to power the telephony call center services and integrate them with web-based systems became more business-critical.

The database needed to support the call switching and SIP (Session Initiation Protocol) media servers and proxies, handling call set-up, routing tables, AAA (Authentication, Authorization, Accounting) processes and Call Detail Records (CDRs). The SIP server itself is based on the Kamailio open source server (formerly OpenSER) and the media servers are based on FreeSWITCH.

Telemaque needed a solution that would scale to handle the growing workload, and deliver the extreme levels of availability demanded by their clients' SLAs (Service Level Agreements). After initially experimenting with a multi-master MySQL server solution, Telemaque identified the need to simplify the deployment with a database that could scale easily as the load increased, and deliver at least 99.999% availability, equating to less than 5 minutes of downtime per year.

The MySQL Cluster Solution

Through their extensive use of MySQL, Telemaque had become familiar with MySQL Cluster, and so decided to evaluate it as a potential solution for their telephony services. The evaluation took several months with the development team simulating a whole array of hardware, network and software failures. In each case, MySQL Cluster was able to withstand the failures and maintain service to the applications. With these tests complete, Telemaque optimized their queries for the new database and were able to move into production with a solution that delivered the levels of low latency and carrier-grade availability demanded by their applications.

Today, MySQL Cluster is supporting over 330,000 queries per second across 4 x data nodes and 6 x MySQL Server API nodes, delivering continuous availability since being deployed into production, including database upgrades that were performed with zero downtime.

Looking forward, Telemaque are planning on testing Push Down Join functionality currently in development, which is designed to improve performance for multi-table JOIN operations.

MySQL Cluster

The Leading Open Source, High Availability Database for Real-Time, Mission Critical Applications

MySQL Cluster is the industry's only true real-time transactional relational database combining 99.999% availability with the low TCO of open source.

Carrier Grade Availability

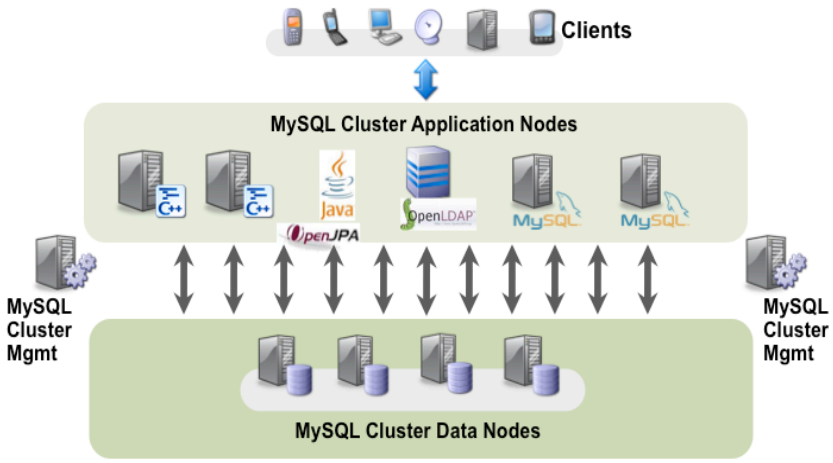
MySQL Cluster features a "shared-nothing" distributed architecture with no single point of failure to assure 99.999% availability, allowing you to meet your most demanding mission-critical application requirements.

High Throughtput and Low Latency

MySQL Cluster's real time design delivers consistent, millisecond response times with the ability to service tens of thousands of transactions per second.

Linear Scalability

Support for disk based data, automatic data partitioning with load balancing and the ability to add nodes to a running cluster with zero downtime allows almost unlimited database scalability to handle the most unpredictable web & network-based workloads.



About MySQL

MySQL is the world's most popular open source database software. Many of the world's largest and fastest-growing organizations use MySQL to save time and money powering their high-volume Web sites, communications networks, business-critical systems and packaged software – including industry leaders such as Yahoo!, Google, Alcatel-Lucent, YouTube and Zappos.com.

For more information about MySQL Cluster, please go to www.mysql.com/cluster

To contact MySQL online or via telephone, please go to www.mysql.com/contact