

Scale-out MySQL

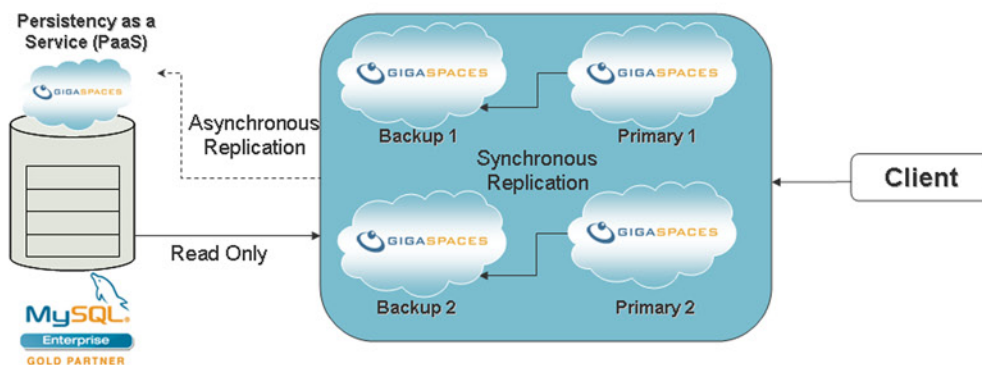
A robust and scalable MySQL powered by GigaSpaces

Business Challenge

A growing class of applications faces scalability and performance challenges. Such applications include Web 2.0, SaaS, Real-Time and transactional applications in a range of industries. The need to scale these applications on-demand, handling unexpected spikes and growth, while maintaining a superior user experience, becomes a complex challenge with existing centralized architectures.

Solution Overview

MySQL and GigaSpaces provide an integrated solution that combines MySQL's wide adoption and cost-effectiveness with GigaSpaces' scale-out application server. The solution introduces GigaSpaces transactional and reliable memory cloud as a front-end to the database. The cloud acts as the "system of record" for the application, i.e. handles all updates, queries and "runtime logic". The database acts as in-sync persistence storage in the background. To improve performance, the database is kept in sync with the memory cloud in an asynchronously manner.



Solution Benefits

- Near Linear Scalability and unparalleled performance
- Seamless database clustering
- Complex in-memory data manipulation is easily achieved by through Java, .Net and C++ code, or SQL queries.
- Parallel aggregated queries are executed across multiple machines in the cloud leveraging the full CPU and memory power of those machines.
- Decoupling the database and the application providing more options for optimization.
- Simplicity – reduce the need for O/R mapping

GigaSpaces at a Glance

What is it?

GigaSpaces provides a next generation application server for scaling distributed applications with high-performance and resilience.

Relevant Applications

Capital Markets, Retail Banking, Insurance, Telco, Energy, Manufacturing, Government & Defense, Life Sciences, Travel & Logistics, Online Gaming, and more

Benefits

- ✓ Linear scalability
- ✓ High Availability
- ✓ High Performance
- ✓ Flexible & simplified infrastructure
- ✓ Guaranteed fail-over

Customers

Dow Jones, Virgin Mobile, Nortel, ABB, NYSE, Lehman Brothers, GE Goldman Sachs and others

Persistence as a Service

A "memory cloud" is used as a front-end to the database. All updates and queries are handled by the cloud while the database is kept in sync. To improve performance the synchronization with the database is done asynchronously. The rate at which the database is kept in sync is configurable.