Utel *handles 10,000 Requests per Second Using a Scale out Deployment of MySQL Network*

Utel's bet: to develop France's biggest mobile phone-based chat community! Founded in the midst of the Internet boom by a group of telephone, television, and music enthusiasts, the start-up quickly built a business selling platforms for phone based games, as well as ring tones and logos for mobile phones. Utel became the first European software house to launch an "on demand" ring tone application based on actual titles rather than reference codes. In March 2003, the company launched "Fotochat", the first service to leverage the photo sharing capabilities of the new generation of handsets. This enabled users to get their pictures online in a matter of seconds via a simple e-mail or MMS.

Fotochat is integrated into the services offered by the three major French operators — Orange, SFR, and Bouygues Telecom — as well as by international call brokers. Fotochat is also the chat service used by the "Vodafone Live!" and "Orange World" portals. The Fotochat engine currently accounts for the highest monthly volume of Gallery transactions in France.

The system is based entirely on MySQL and processes an average of 3,000 queries per second and handles 10,000 queries per second at peak times! This amounts to over 300 million queries per day.

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"MySQL Network enables us to sleep well at night since it guarantees an expert's answer in less than 30 minutes at any hour of the day, 365 days a year."

Pierre Antoine
CTO, Utel

MySQL®

When Pierre Antoine joined Utel as CTO in the Autumn of 2003, he was delighted to take over a system based on the popular open source LAMP architecture (Linux, Apache, MySQL, PHP). Having used MySQL a few years back while developing an e-business application powered by MySQL, he was totally confident that MySQL could handle the high volume of queries generated by the application. "We never hesitated to go with MySQL. The product is battle-tested and MySQL provides high-quality support." affirms Antoine.

However, in order to achieve the best possible performance, Antoine turned to MySQL AB for their expert assistance. The recommended solution was three-fold:

1. Onsite services of a MySQL AB consultant
2. Staff training and certification
3. MySQL Network

"My first priority was to overcome a situation that was weighing us down: one of our servers was quickly reaching its saturation point. So we first had a MySQL AB expert come in to optimise our queries and our database engine parameters.

Next, I wanted to improve our staff's technical mastery of the database in a cost-effective way. We therefore decided to arrange an on-site training for the whole team, including a certification exam at the end. Finally, I needed to make sure that we could call on MySQL experts for assistance and advice at any time; hence we opted for the MySQL Network Platinum package giving us direct e-mail and telephone access to the MySQL AB support staff. MySQL Network enables us to sleep well at night since it guarantees an expert's answer in less than 30 minutes at any hour of the day, 365 days a year."

MySQL Network provides a comprehensive set of enterprise-grade software, support and services ensuring the highest levels of reliability, security and uptime at an affordable price. "With MySQL Network, I don't have to waste time thinking about what version of the software to use. All we have to do is to implement the Certified MySQL Server which eliminates uncertainty and risk." continues Pierre Antoine.

Technical environment

MySQL consultants also helped Utel redefine the database architecture in order to improve its performance and scalability. The system now relies on a scale-out architecture using replication, as well as LVS (Linux Virtual Server), the open source load balancing solution. The current set-up consists of four Apache Web servers and three MySQL database servers: one master and two slaves. Write queries are directed to the master server and replicated on the slaves which can take over in the event of a master server outage. Read queries are directed to both the master and the slaves. Plus, queries requiring extremely fast turnaround, for example access to web pages, are directed to the master for immediate access. Queries that can put up with delays of few milliseconds, such as looking for other chatters on the network, are directed to the slaves. The new architecture and the implementation of a multi FIFO (First in First Out) table buffer by the MySQL consultants has resulted in higher performance while greatly simplifying the database maintenance.

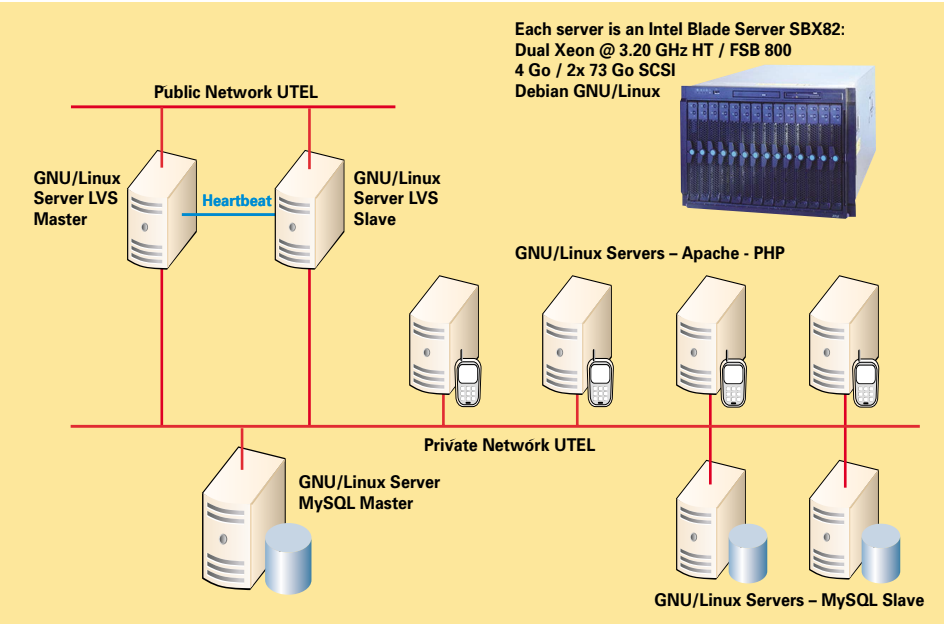
MySQL Network offers reliability, security and ease of use

"The scale-out architecture using replication is ideally suited to our needs. It is simple, reliable and scales very well at a very reasonable cost. At Utel, we can't afford to sacrifice scalability. With our pay-per-click business model, lost traffic translates directly into lost revenue," stresses Antoine. "If we start approaching the saturation point, all we have to do is hook in more Apache and MySQL servers running on commodity Intel-based hardware."

Low TCO and ease of use

"The low TCO was the key reason to implement an architecture based on open source technologies and MySQL. The savings we achieved on proprietary software licences enabled us to invest in training and consulting services while still benefiting from MySQL's very high quality technical support services. In addition to the cost benefits, the MySQL database is very fast, reliable, and easy to use.

This simplicity is crucial for DBAs and permeates right down to the error messages generated by MySQL that tell you very clearly what the problem is and how to fix it!" continues Antoine. "When I need to endorse a new tool for integration into our IT environment, native support for MySQL is a must. The responsiveness of the MySQL technical staff is another notable factor."



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Technical Environment

Hardware:	Intel Blade servers (Xeon)
OS:	Linux Debian
Database:	MySQL 4.1
Language:	PHP
Load Balancer:	LVS (Linux Virtual Server)

MySQL Network

All-in-One Enterprise-grade Database, Support and Services from the Developers of MySQL

MySQL Network is a comprehensive set of certified software, production support and premium services that help a corporate IT staff ensure the highest levels of reliability, security and uptime for their business critical database applications. As a proactive service that helps eliminate problems before they occur, MySQL Network is a single, easy-to-buy offering, providing developers and DBAs with everything they need to successfully develop and deploy solutions with MySQL.

About MySQL AB

MySQL AB develops and supports a family of high performance, affordable database products – including MySQL Network, a comprehensive set of certified software and premium support services. The company's flagship product is the MySQL Server, the world's most popular open source database, with more than 10 million active installations. Many of the world's largest organizations, including Yahoo!, Alcatel, The Associated Press, Suzuki and NASA are realizing significant cost savings by using MySQL to power high-volume Web sites, business-critical enterprise applications and packaged software.

With headquarters in Sweden and the United States — and operations around the world — MySQL AB supports both open source values and corporate customers' needs in a profitable, sustainable business. For more information about MySQL, please visit **www.mysql.com**.

The World's Most Popular Open Source Database

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