UCR Selects MySQL Enterprise to Power the Medical Registries of 1.5 Million Patients

Healthcare

OS: Red Hat Enterprise Linux

Database: MySQL Enterprise Server

Language: Java

"We have chosen to purchase a MySQL Enterprise subscription from Sun Microsystems in order to ensure that the system will scale to handle this massive increase of critical patients' information with continuous high performance and availability."

Kalle Spångberg
Group Director, UCR

UCR Overview

Uppsala Clinical Research Center, UCR, is a national center of competence for healthcare quality registries in Sweden, and is an independent unit under Uppsala University Hospital and the Disciplinary Domain of Medicine and Pharmacy at the University of Uppsala. UCR's overarching mission is to develop and improve healthcare by offering service in clinical research, clinical testing, quality registries, and quality development. UCR's National Quality Registries include treatment and outcome data based on all hospital patients in Sweden, and is used by thousands of doctors, nurses, medical secretaries and representatives within county councils. This range of comprehensive coverage makes the National Quality Registries one of its kind worldwide.

The Business Challenge

UCR is currently in the process of integrating the Quality Registries with the digital patients' journals. The new Registries' data capturing process means that the MySQL databases now collects transferred patients' data automatically rather than through online Web forms. Moreover, digital treatment and outcome data from patients within the primary health care is also in the process of being integrated with the Quality Registries, which will lead to at least a twofold increase of patients' data.

"By automatically loading patients' data, both from the primary health and hospital care, into the MySQL database servers, the database load will increase significantly," says Kalle Spångberg, Group Director at UCR. "We have therefore chosen to purchase a MySQL Enterprise™ subscription from Sun Microsystems in order to ensure that the system will scale to handle this massive increase of critical patients' information with continuous high performance and availability."

The MySQL Solution

The National Quality Registries is based on UCR's technical platform "OpenQreg", which is powered by MySQL. OpenQreg is a free GPL platform for building Web based quality register solutions to be used primarily for medical and healthcare applications.

"Our prime concerns are high performance and availability, which is why we chose to power OpenQreg and the National Quality Registries with MySQL," said Kalle Spångberg. "The National Quality Registries is a comprehensive system of knowledge that is actively used at all levels for continuous learning, enhancement, management, and control of all healthcare and caring activities in Sweden and it cannot suffer any downtime."

The National Quality Registries is based on four MySQL servers. All in all, treatment data from about 1.5 million patients is registered in the Quality Registries.

The users of the National Quality Registries record patients, treatments and outcomes through the online Web form. The data is received by an Apache Web server which, in turn, sends a request to a Tomcat Java Application Server where logic and communication with the MySQL databases are managed. About 20 quality registries are allocated on two MySQL servers, "DB-Master" and "DB-Prod". Every night, the MySQL production database as well as the MySQL redundant slave database sends a batch of data to the analysis server, which produces dynamic reports through the National Quality Registries' on-line application.
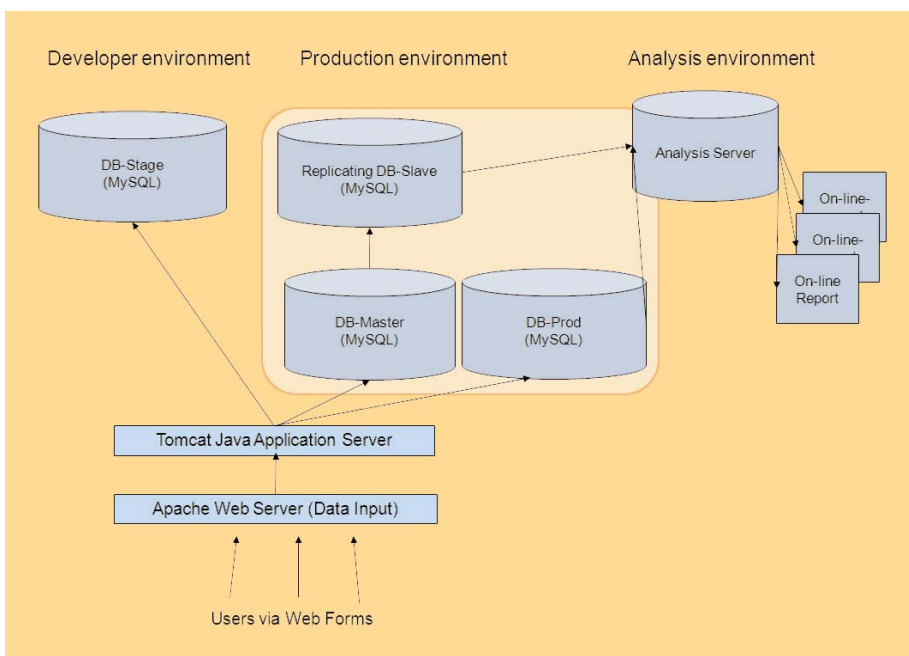
The Future with MySQL

The next step for UCR is to include treatment and out-come concerning pressure sores, malnutrition and falling accidents among elderly. The integration of "SeniorAlert" into the National Quality Registries will add depth into analyses and research for the prevention of these cases of illnesses.

SeniorAlert is a prevention program developed within Jönköping County and is sponsored by the Swedish Association of Local Authorities and Regions (SKL). The Swedish Government has decided to provide additional funding to SeniorAlert, in order to support a systematic and long-term improvement of research within elderly care.

"The integration of SeniorAlert will increase the number of registered patients and treatments from today's 2,000-3,000 registrations a month to 2,000-3,000 a day," said Kalle Spångberg. "The integration of SeniorAlert into the National Quality Registries is extremely valuable for future knowledge sharing within areas such as pressure sores and malnutrition concerning citizens from the age of 65. MySQL plays an indispensable role in these forth-coming developments within UCR's Quality Registries."

UCR IT Infrastructure

"Our prime concerns are high performance and availability, which is why we chose to power OpenQreg and the National Quality Registries with MySQL."

Kalle Spångberg
Group Director, UCR

MySQL Enterprise

Full Support & Less Risk for Your Production Database Applications

A MySQL Enterprise subscription includes the most comprehensive set of MySQL database software, services and support so your business achieves the highest levels of reliability, security and uptime.

Proactive database monitoring and advisory tools are available exclusively to MySQL Enterprise subscribers.

MySQL Enterprise includes:

- **MySQL Enterprise Server** – the most reliable, secure and up-to-date version of the world's most popular open source database

- **MySQL Enterprise Monitor** – GUI-based tools that continuously monitor your database and proactively advise you on how to implement MySQL best practices, including performance tips and security alerts

- **MySQL 24x7 production support** – with guaranteed response times to assist you in the development, deployment and management of your MySQL applications.

About MySQL

MySQL is the most popular open source database software in the world. Many of the world's largest and fastest- growing organizations use MySQL to save time and money powering their high-volume Web sites, critical business systems, telecommunication networks, and packaged software. At www.mysql.com, Sun provides corporate users with commercial subscriptions and services, and actively supports the large MySQL open source developer community.

For more information about MySQL, please go to **www.mysql.com/enterprise**

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

The World's Most Popular Open Source Database