



# MySQL Enterprise powers 2 Million Referrals in Central Hospital Registry



## Healthcare

OS:	Solaris
Database:	MySQL Enterprise Server
Language:	Java

*"The Central Registry is an extremely mission critical application that must never go down or face interruptions. Powering the Central Registry with MySQL Enterprise helped us ensure that the system is reliable and highly available while very performant and flexible."*

### Jan Fridén

Medical Doctor, Sahlgrenska University Hospital

## Sahlgrenska University Hospital Overview

Sahlgrenska University Hospital (SU) is one of the major hospitals in Europe and was founded in 1997 when three hospitals in Sweden merged; Mölndal Hospital, Sahlgrenska Hospital and Östra Hospital. Sahlgrenska provides emergency and basic care within the city of Göteborg with 700,000 inhabitants, as well as highly specialized care for the Västra Götaland county with 1.7 million inhabitants. Furthermore, Sahlgrenska is Sweden's centre for certain specialized care, especially in pediatrics (pediatric heart surgery, incubator care for premature babies, as well as treatment in pediatric endocrinology). The hospital is also well known for its successful transplant activity, treatment of cardiovascular diseases, immunology (research into rejection mechanisms) as well as research into vaccines. Sahlgrenska University Hospital is one of six teaching hospitals with medical education in Sweden.

## The Business Challenge

Every year, Sahlgrenska University Hospital records two million referrals and comments through the Central Registry system which is powered by MySQL. All in all, the Central Registry manages about 100 gigabytes of data with up to 2,000 concurrent users on a yearly basis. Moreover, Sahlgrenska's various care units have different requirements regarding the set up of the patient's medical profile within the Central Registry, which calls for a flexible and adjustable database solution.

"Our major business challenge is to provide doctors, nurses and medical secretaries with a flexible system which never fails," says Jan Fridén, Medical Doctor at Sahlgrenska University Hospital in Sweden. "The Central Registry is an extremely mission critical application that must never go down or face interruptions. Powering the Central Registry with MySQL Enterprise helped us ensure that the system is reliable and highly available while very performant and flexible."

## The MySQL Solution

By purchasing a MySQL Enterprise™ subscription, the Sahlgrenska University Hospital has been able to adjust the database setup in order to meet the various needs for information exchange within different kinds of care units.

"We have chosen to base the Central Registry on MySQL Enterprise to get high performance, availability, and security at a fairly low cost," Jan Fridén continues. "The system has been running without any failures or interruptions and I am extremely satisfied with MySQL Enterprise as a reliable database solution for mission critical healthcare applications."

The Central Registry (CR) is a Java-based system where referrals and comments are registered - either illustrated by images, graphs or as plain text. The registry can be integrated or connected to digital medical records, but can also be used as a stand-alone system.

The Central Registry is integrated with Lab Information System (LIS) which receives, processes and stores information generated by the medical laboratories in a Solaris ReplyServer.

Referrals and outcomes are processed by the Central Registry where referral pre-orders, orders, incoming registrations, outcomes etc. are stored in xml-format in a MySQL server.

At the ward units the Central Registry graphical interface (GUI) is integrated with the application LabBest, an order and result system used by the Sahlgrenska University Hospital as well as 200 district health care centers and out-patient clinics. The GUI presents patients' data from the MySQL server and shows doctors, nurses and medical secretaries the medical profile of the patient complemented with pictures, diagrams or referral forms. The system is also prepared for information exchange through mobile devices.

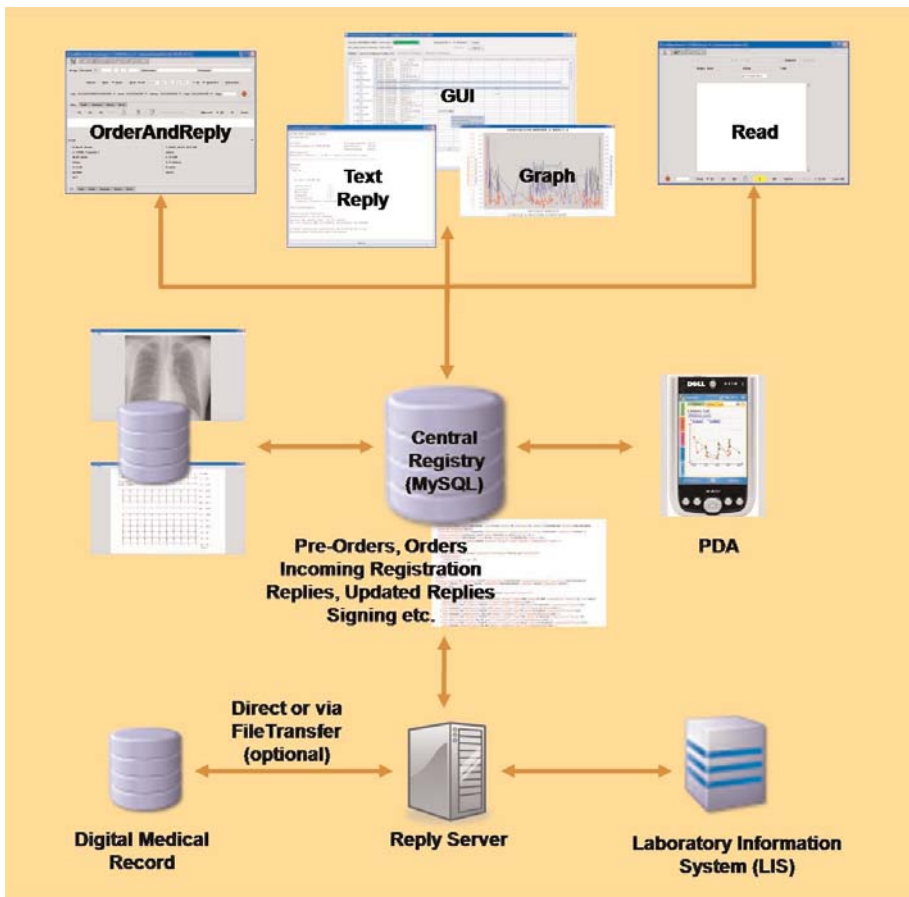
### The Future with MySQL

Today, LabBest is used by all SU hospitals, as well as primary health care and private clinics, within the Göteborg region. The system could in the near future be implemented within the whole Västtra Götaland region, which would result in a data load of several terabytes.

Going forward, the Central Registry is dimensioned to scale to handle clinical data not only from the whole Västtra Götaland region but from all hospitals in Sweden.

"A number of 4,000 concurrent users would not be a problem thanks to the high performance of the MySQL Enterprise solution," Jan Fridén concludes.

### Central Registry IT infrastructure



*"We have chosen to base the Central Registry on MySQL Enterprise to get high performance, availability, and security at a fairly low cost."*

**Jan Fridén**  
Medical Doctor, Sahlgrenska University Hospital

# 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 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 Websites, critical business systems, communication networks, and commercial software.

For more information about MySQL, please go to [www.mysql.com/enterprise](http://www.mysql.com/enterprise)

To contact MySQL online or via telephone, please go to [www.mysql.com/contact](http://www.mysql.com/contact)

**ORACLE®**