Random Generation & Tracking (RGT), Child Protective Services (CPS) and Efficient Order Entry

Industry: Forensic Drug Testing
Project Size: 175 Person months
Delivery model: On-site -Offshore

Technology Used:
Java
JSP
Servlets
EJB
Sybase EAServer 4.1
Windows 2000

Tools Used:
MPP
VSS
JBuilder 7.0

Key Requirements:
Complex algorithms for random generation
Dynamic requirements

Customer:
Qatalys' Client is a leading independent laboratory providing integrated drug testing products and services globally.

History:
In America, as part of regulated drug testing, employees need to randomly test a percentage of their employees for drug abuse. Child Protective Services and the legal system also need suspects and convicts to be tested randomly from time to time. A computerized random generation of lists of people to be tested is much needed, to avoid abuse of authority.

Situation Presented to Qatalys:
Qatalys' Client would like a system that will not only randomly generate testing and re-testing orders to individuals, but also inform the closest laboratory, track all samples collected and shipped to the central lab, and generate results to the relevant authority. The Client would also like this system to have an Orders feature where Federal Agencies and Retails outlets can place orders for specific tests.

Key Challenges:
This application needed Complex algorithms for random list generation
Data security was important
This system should also be designed to accept orders for drug testing equipment.

The Qatalys Solution:
Qatalys developed a web-based system in n-tier architecture with the following features:
Presentation, business logic and data access clearly separated to enable scalability and flexibility.
Sensitive data like passwords and credit card information encrypted using SSL.
A familiar and user-friendly web-based environment
Role based personalization and data security

The Qatalys Advantage:
Qatalys' n-tier based architecture created reports in popular word processor formats
Qatalys developed a self-descriptive, easy to use, and highly navigable user interface.
The system offers quicker evaluation and generation of reports
The system was also designed to handle product orders and tracking of shipments