

CASE STUDY

APPLICATION FOR CYTOGENETICS LABS



Client Background

Our client, Clariant, is a leading US provider of cancer diagnostic services ranging from technical laboratory services to cellular assessment and cancer characterization to professional interpretation of test results and therapy selection.

The services are focused on the delivery of the most advanced oncology tests and diagnostics both onsite and over the Web.

Business Challenge

Clariant was planning a deployment of a new laboratory department to perform cytogenetic karyotyping. Previously, such tests were outsourced to other referenced laboratories. The deployment of a new cytogenetics laboratory was intended to increase profits from conducting the testing inhouse and substantially increasing the capacity for performing these tests.

SoftServe was asked to implement an innovative solution that would support processes in this newly launched in-house cytogenetics laboratory. The important features implemented into the application included:

- Detailed workflow tracking
- Fine grained data management
- Chain of custody for specimen and materials tracking

softserve

From the technical perspective, the application had to be designed and implemented in accordance with the client’s Service Oriented Architecture guidance and longterm vision of the enterprise IT infrastructure development. This system was meant to be a showcase for a chain of custody implementation and SOA-based approach to enterprise IT infrastructure.

Project Description

The project had to accommodate a tight implementation timeline which was set for a cytogenetics laboratory deployment by the client’s business leadership. Since a large number of departmental processes were built together with the development of an IT system that would support them, there was a close collaboration between cytogenetics laboratory management and the staff on the project.

During the project, the SoftServe Business Analyst was working on-site to streamline the elicitation of the requirements. He worked closely with the client’s experts and technical representatives to identify the distinct business needs and translate them into accurate functional and system requirements. Due to the strict limitation of time for the project implementation, the chosen iterative approach for the requirements was defined as the user stories. To facilitate communication with the end users, the mockups were extensively employed throughout the entire requirements process.

Case # - SD09-456123 - SETUP

Case Info

Cultures

Type:

A (24 hours)

▼

Auto - Complete In:

20

hours

Specimen Used:

ml

Specimen Info

Type: blood

Volume: 10 ml

Remains: 0 ml

Add Culture

Culture:	Auto - Complete In:	Specimen Used:	Setup Date	
A (24 hours)	20 hours	5 ml		✕
B (48 hours)	40 hours	5 ml		✕

Case Comments ▼

Complete Out

Close

The project was implemented in seven iterations. Each iteration included two Quality Assurance (QA) cycles: the first one performed by the SoftServe team and the second one by the client’s QA team. The deliverables of each iteration were deployed into the production environment. End users were able to start using available features of the application in order to validate departmental processes and procedures and to provide feedback to the development team.

Value Delivered

The application for cytogenetics laboratory delivered by SoftServe provided an effective support for business processes and procedures used by cytogenetics department of the Clariant's laboratory. The system automated data management and workflow tracking to ensure that all of the information related to the patient's medical record was securely stored and effectively used in cytogenetic karyotyping process. The implemented chain of custody provided end users with robust and reliable tracking for specimens and other artifacts created during the testing process.

The software development process proposed and delivered by SoftServe allowed Clariant to minimize the application's time-to-market and ensure fast turn around times for issues reported by the end users.

The system automated data management and workflow tracking to ensure that all of the information related to the patient's medical record was securely stored and effectively used in cytogenetic karyotyping process. The implemented chain of custody provided end users with robust and reliable tracking for specimens and other artifacts created during the testing process. The software development process proposed and delivered by SoftServe allowed Clariant to minimize the application's time-to-market and ensure fast turn around times for issues reported by the end users.

Case Setup

Harvesting

Side Drop

Banding

Analysis

Lab Review

Geneticist Review

All Cases

CG10-500128: Champs, SC

CASE INFO

CULTURES

CASE LOG

Type:
A (24 hours) ▼

Auto - Complete In:
18 hours

Specimen Used:
0,5 ml [Add Culture](#)

Specimen Info

Type: blood

Volume: 10 ml

Remains: 0 ml

Culture:	Auto - Complete In:	Specimen Used:	Setup Date	Action
A1 (24 hours)	0,0166666666666667 hours	0,25 ml	2/18/2010 9:19 AM	Delete
B1 (48 hours)	0,0166666666666667 hours	0 ml	2/18/2010 9:19 AM	Delete
C1 (72 hours)	0,0166666666666667 hours	0,25 ml	2/18/2010 9:19 AM	Delete
D1 (overnight)	0,0166666666666667 hours	0 ml	2/18/2010 9:19 AM	Delete
A2 (24 hours)	0,0166666666666667 hours	0 ml	2/18/2010 9:44 AM	Delete
C2 (72 hours)	0,0166666666666667 hours	0 ml	2/18/2010 10:06 AM	Delete

Case Comments

Comments	Step	Date Added	Added By
No data to display			

[Add Comment](#)

Technologies

- Service Oriented Architecture (SOA)
- XML Web Services
- Microsoft .NET 3.5
- IBM WebSphere Message Broker 6.1.0.3
- Microsoft SQL Server 2005/2008
- DotNetNuke 4.9.4
- Dev Express Components 9.1.5

ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation—from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience are built on a foundation of empathetic, human-focused design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy—No matter where you are in your journey.

Visit our [website](#), [blog](#), [Facebook](#), [Twitter](#), and [LinkedIn](#) pages.

USA HQ

201 W 5th Street, Suite 1550
Austin, TX 75703
+1 866 687 3588

EUROPEAN HQ

One Canada Square
Canary Wharf
London E14 5AB
+44 (0) 800 302 9436

info@softserveinc.com
www.softserveinc.com

softserve