intetics
Where software concepts come alive

ZIMMER BIOMET STARTUP RELIES ON INTETICS TO CREATE A BRAND NEW APPLICATION TO SIMPLIFY SURGERY PREPARATION

> " *Intetics was crucial to creating our automated orthopedic templating system, which will revolutionize the process of joint replacement selection for years to come. They did this professionally, quickly and without maxing out our budget.* "

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OBJECTIVE

To create a tablet and desktop software application to facilitate orthopedic surgeries and improve the process of selecting proper joint-replacement products based on a patient's X-ray images (orthopedic templating) prior to surgery.

CHALLENGE

A few orthopedic surgeons identified a problem in their daily work: selecting and ordering joint replacements prior to surgery took a lot of time and was sometimes inaccurate.

They realized this process can be more accurate and faster if it's automated and paired directly with their provider's joint ordering process using the provider's database of product parameters. They created a startup and discussed the idea with their joint replacement provider, who agreed that such an application would be beneficial for all surgeons. Neither party had the software development experience to implement this project. They were looking for a partner with a

solid background in creating highly technical healthcare applications. The startup team addressed the Intetics with the request for software development.

They wanted a tablet and desktop application that would be integrated with X-ray management systems in hospitals, have secure multi-user access and have syncing capabilities with the central server using secure cloud solutions. They needed the application to be compatible with existing X-Ray technologies found in most hospitals and used by the majority of surgeons in the industry. Most importantly, the application had to meet FDA standards for medical software.

SOLUTION

The Intetics team started with requirements analysis, discussed the business idea with the Client and suggested a roadmap for the application development.

Intetics offered to use the cross-platform development technology that allowed developing both iPad (tablet) and Windows (desktop/web) versions of the application using the same code base. With the application, the patient's X-ray images could be securely

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transferred to the application screen, where joint replacement parts could be measured and selected by users with correct access rights.

The Intetics team used the latest secure cloud techniques paired with strict registration procedures to guarantee the secure handling of confidential patient data. They used Amazon Web Services (AWS) for better application performance. Among those were:

- Load balancer,
- Amazon EC2 cluster with MS SQL server,
- Amazon S3 for backup storage,
- Amazon SES for email sending,
- Amazon CloudWatch for infrastructure monitoring,
- Amazon SNS for notifications.

Intetics also ensured the application was compliant with FDA standards and compatible with most existing X-ray management software used in hospitals. After product release, Intetics set up an Offshore Dedicated Team ® (ODT®) that took care of maintenance and further enhancements of the application.

RESULTS

Working with Intetics, our Client received a continuously maintained, highly specialized software application that enabled surgeons to select hardware faster and more accurately in preparation for surgery. The application received FDA certification, affirming the solid quality assurance and development standards employed.

The use of the same source code shared across different platforms minimized delivery time and project costs. The Client saved an estimated 40-50% on development costs, compared to separate development for each platform. The use of cross-platform coding technology not only reduced the cost of development, maintenance, and addition of new features, it also minimized the time needed to complete the application and implement future modifications. With the planned addition of new platforms and features, the Client is estimated to save up to 50% of total development costs using technologies suggested by Intetics.

Setting up an ODT® for the Client also alleviated the pressure from the founders of building their own technology department. It allowed the founders to focus on the promotion of the platform to surgeons in the industry, collect

feedback and decide what new features were necessary, rather than solve technological and implementation issues.

In the result of efficient, cooperation the startup was acquired as a success by a medical software giant. Intetics still runs support and maintenance for the client.

QUICK FACTS

- ✓ *40-50% cost reduction with cross-platform development vs. development for each platform*

- ✓ *50% reduction in total development costs using efficient technologies*

- ✓ *Offshore Dedicated Team® allowed founders to focus on promotion and app improvement rather than technology*