



Where software concepts come alive™

## Business Domain

Healthcare and Life Sciences

## Project Type

Tablet and Desktop Software complex

# Medical Startup Relies on Intetics to Create a Brand-New Application to Simplify Surgery Preparation

## Client

The initial Client is an entrepreneur in the medical field who had the idea of how to improve existing solutions and procedures for preparing for orthopedic surgery. In close collaboration with orthopedic professionals, software engineers created a clear picture of the product.

## Project

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.

## Objective

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 wanted a tablet and desktop application that could 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.

There were a lot of existing tools on the market, but their main problem were UI\UX, which were overloaded with tons of controls and elements that made it hard to use app without training. For that reason, a review of UI\UX was required, in order to create a very simple and effective solution.

## Team Reinforcement

Neither party had the software development experience to implement this project. The Client was looking for a partner with a solid background in creating highly technical healthcare applications. The startup team addressed Intetics with the request for software development.

# Challenge

The application should process tons of X-ray images in high quality and still run fast with a high performance level.

Every joint-replacement product has a unique type, size, material, etc. The application should help the doctor decide which joint-replacement product to use based on the X-ray image.

The Client had an idea for the project but was not able to create it technically, as they didn't have software development skills and experience. They required assistance from a specific vendor like Intetics.

While the Client has expertise in another field, they were not able to drive the project development by themselves. Doing so was not their goal. They decided to proceed with a professional team.

## Quick Facts

- ✓ 40-50% cost reduction with cross-platform development vs. development for each platform
- ✓ 50% reduction in total development costs using efficient technologies
- ✓ Intetics helped the Client to sell the product to Zimmer/Biomet

### Technologies

AWS / Microservices / C# / .NET / Angular / Java Script / Entity Framework / Web Api / Objective C / Java / REST / Windows Server / Microsoft SQL Server / C++

# Solution

## ★ 01

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

## ★ 02

After the product release, Intetics set up an Offshore Dedicated Team® (ODT®) that took care of maintenance and further enhancements of the application.

## ★ 03

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.

## ★ 04

The ODT® 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 applications.

## ★ 05

ODT® ensured the application was compliant with FDA standards and compatible with most existing X-ray management software used in hospitals.

## ★ 06

ODT® assisted with sales procedure, preparing all required documentation and organizing project audits.



## Client Reference



*Intetics' expertise 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.*

**VP R&D**

## Benefits and Results

- ★ Working with Intetics, the 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.
- ★ Setting up an ODT® for the Client also alleviated the pressure from the founders in regards to 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 the new features would be.
- ★ As a result of efficient cooperation, the startup was seen as a success and was acquired by a medical software giant. Intetics still runs support and maintenance for the Client.

### Techstack:

AWS, Microservices, C#, .NET, Angular, JavaScript, Entity Framework, Web Api, Objective C, Java, REST, Windows Server, Microsoft SQL Server, C++

### Team: 10+

Project Manager, System Analyst, Team Leads, Software Developers, QA Engineers