



# Medical Screening Device

## AT A GLANCE

### INDUSTRY

Health care

### OBJECTIVES

- Develop software for a medical screening device
- Provide project management services
- Provide integration services
- Ensure the final software product is reliable and fully functional

### RESULTS

- A working Android application that measures BP, ABI and ECG

### TECHNOLOGY

- NodeJs
- MongoDB
- Native android development

## *Comtrade helps a medical device and solution start-up break into the market with an innovative screening device*

Comtrade teamed up with MESI, a Slovenian start-up, to help the company develop fully-functioning software for their new medical screening device that helps doctors measure blood pressure, ankle-brachial index and electro cardiogram parameters.



*By delivering first-class software for a medical screening device, Comtrade helped the client compete effectively in a crowded marketplace.*

## *Objectives*

MESI, a Slovenian start-up company that operates in the field of medical devices and solutions, was working on developing an automated Ankle-Brachial Pressure Index (ABPI) measuring device that helps medical professionals diagnose peripheral arterial disease.

The company's co-founder who has extensive experience in cardiovascular medicine has observed the inefficiencies of the traditional Doppler ultrasound method for measuring ABI. He set out to create a device that would enable doctors to better diagnose patients.



The company had a vision to create an all-in-one diagnostic device, but lacked the software technical perspective, the know-how and expertise to develop fully functioning software for an Android application. They needed to engage a reliable and experienced partner with knowledge and experience in Android development and expertise in medical device software development. Comtrade fulfilled all of the client's requirements and was brought on board.

Comtrade used the Agile approach to ensure the client's product reaches the market in the quickest time possible.



## Our Approach

Comtrade engaged with MESI as an equal partner in the process, where the client provided ideas, direction and feedback, while our team brought our knowledge, expertise and innovation to the table.

Comtrade provided the following resources and expertise:

- A product manager
- Android developers
- Software testers
- Integration domain knowledge
- SW product development processes knowledge, practice and experience

The project lasted eight months and consisted of the following steps:

- Product architecture
- Viable prototype
- Product engineering
- Testing



## APPLICATION FUNCTIONALITIES

- Login (for the user - doctors)
- Add/update/select a patient
- Real time measurements of BP and ABI shown on a live graph for easy visualisation
- Measurements saved to the server
- History of measurements for a particular patient
- Slick and visually appealing design

Comtrade used the Agile approach to deliver the product in line with the client's expectations and agreed timelines. The Agile approach also enabled our team to be flexible enough to meet the client's frequently changing technical requirements. Furthermore, using the Agile approach ensured speed-to-market, as well as high-quality end product as testing was integrated throughout the lifecycle enabling regular inspection of the working product as it was developed.

## Results Delivered

Comtrade delivered a working application that has better usability in comparison to the competitors, as well as additional features that make it stand out on the market. The finished product met the client's requirements of being easy to use and able to provide medical professionals with accurate and objective measurement readings of ABI, BP and ECG.

By delivering first-class software for MESI's screening device, we enabled the client to compete in a crowded marketplace with a top-notch product. MESI's innovative product has been recognized by a number of awards - The Rector's Award for Best Innovation, the finals of the best Slovenian start-up, the Best Slovenian Innovation at the Slovenian Forum of Innovations in the start-up category and the Golden Award for Innovation from the Chamber of Commerce and Industry of Slovenia. MESI's device is also widely accepted and recognized by physicians across Europe.



## About the Client

*MESI is a start-up company located in Slovenia that developed an automated Ankle-Brachial Pressure Index Measuring Device (MESI ABPI MD). The device was created as an improvement to the traditional Doppler ultrasound method for measuring ABI, which helps doctors diagnose peripheral arterial disease. The company operates globally, being present on more than 25 markets.*

More about MESI: [www.mesimedical.com](http://www.mesimedical.com)

# Creating value through partnership

Comtrade is a leading IT organization in South East Europe specializing in the fields of IT solutions, system integration and hardware distribution. With more than 900 satisfied customers and offices across Europe and the USA, Comtrade has become a recognized name on the global stage. Founded in 1990, Comtrade now employs over 1,500 business and IT experts, including 1,000+ software engineers. With a proven track record of delivering IT solutions and services that help reduce business complexities and costs, we are a trusted technology partner to medium and enterprise businesses.

**1500+**

Total employees

**30**

Strategic partnerships

**1000+**

Software engineers

**10**

Development campuses

**900+**

Loyal customers

**03**

Technology centers

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