

## Project Proposal

# Effector Mobile Cross-Platform

## 1 Introduction

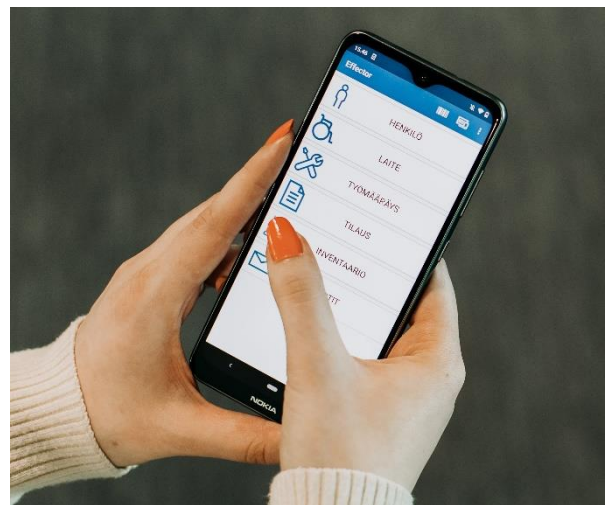
Polycon Oy is a software company from Espoo. Our main product is the Effector product family which is widely used in the Finnish public sector. Currently our customer portfolio covers 19 out of 20 Finnish healthcare districts. The Effector ecosystem is mainly used in the internal and supportive processes of healthcare, such as distributing assistive equipment and maintenance.

Effector is an important daily tool for many healthcare professionals. In addition to the Effector desktop application Polycon has developed the Android application Effector Mobile that gives users access to certain key functionality in the field. Some customers have wished to use the Effector Mobile app on iOS devices as well. Responding to this customer demand would enable an even bigger distribution for our application. This could also enable a steeper learning curve for some customers as the iOS system might be more familiar to them. In addition, the iOS system might be a requirement in future procurement tenderings and Polycon wants to respond to this possible requirement in advance.

## 2 Project goals

The main goals of this project are:

1. Develop a new cross-platform architecture for Effector Mobile
2. Develop a usable application with selected Effector features
3. To gain knowledge of new technologies that can be applied for mobile application development
4. To receive user feedback from an expanded user base



## 3 Technologies

We recommend using Xamarin but we are open to suggestions if the group has a clear vision and good arguments.

The suggested platform is suitable for cross-platform mobile app development. Polycon can provide limited support, since we are exploring a new area of development through this project.

Polycon provides an existing back-end for data retrieval and persistence that communicates over an encrypted HTTPS connection using XML format for messages. Polycon uses Git for version control.

## 4 Requirements for the students

Familiarity with object-oriented programming, common algorithms and data structures are important corner stones. As a company we value a hands-on and can-do attitude. Combined with an interest and enthusiasm to learn new skills and a desire to conscientiously develop high quality applications that meet or exceed expectations you get a winning package. The desire to develop user-friendly applications is essential. Knowledge of databases and/or web service integrations is beneficial, but not required.

The difficulty of the topic is moderate. The technology is probably not familiar to the students but it gives a good opportunity to learn mobile app development. The requirements of the mobile application are well known to the client, which helps keeping the project on track.

Finnish knowledge is needed, since Polycons working language and customer base is Finnish.

## 5 Legal Issues

The client gets all IPRs to the results and signing the non-disclosure agreement (NDA) included in the Aalto's contract template is required.

## 6 Client

Polycon Oy was founded in Otaniemi in 1987 and the company has grown ever since and is the market leader of its own market segment. The goal of the company is to develop comprehensive, yet user friendly applications for both healthcare professionals and patients. Our customer relations are long and our products are constantly developed in intensive collaboration with our customers. We want to respond to customer requirements but at the same time offer new tools and perspectives.

Polycon employs about 40 professionals, many of which have studied at Aalto University / Helsinki University of Technology. In this project the project team will get support from the main developer and the product owner of the Effector Mobile application.

Polycon can offer the team a private Git server, a test backend server and test devices. If there is a need for a working room during working hours this is usually possible, but we can discuss it later on.

## 7 Client representatives

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