



Rico Beti

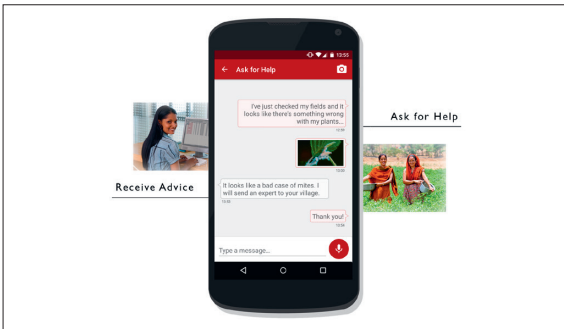


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Subject Area	Internet-Technologien und -Anwendungen
Project Partner	Helvetas Swiss Intercooperation, Nepal

HELVETAS Horticulture System for Nepal

Development of a System for Streamlining Communication with Local Farmers

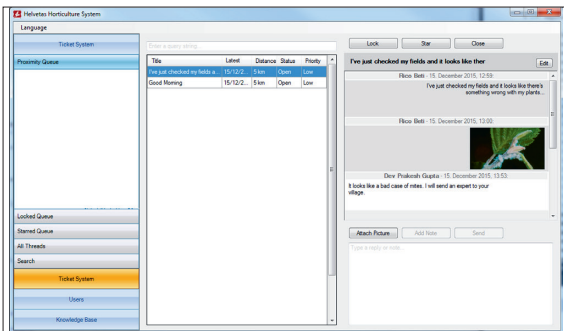


Main scenario of HELVETAS Horticulture System

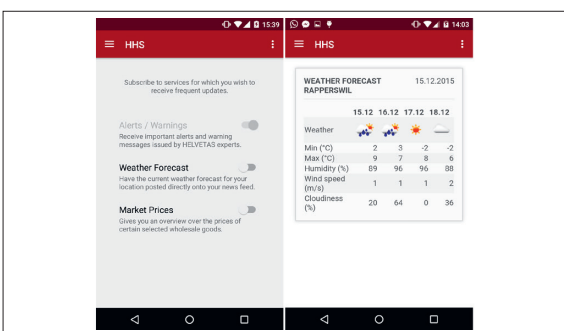
Introduction: Farmers in Nepal are scattered and often live in remote communities far away from other villages and cities. They generally do not have easy access to markets and their products are of little interest to local businesses. These circumstances make it incredibly difficult for HELVETAS Nepal to provide help effectively and efficiently as personal visits are extremely time-consuming. HELVETAS Nepal realized that mobile network coverage in Nepal is quite acceptable, even in remote areas. As mobile phones are getting cheaper and more affordable, HELVETAS Nepal saw an opportunity for improvement.

Approach/Technologies: The most important parts of this bachelor thesis are the analysis of the current situation, the establishment of concepts, and the development of a prototype that reflects parts of the required functionality. With larger goals in mind, the system shall be designed with a generic core so that it may be extended onto other domains, such as health-care and education. As this will be a distributed system that is required to operate on cost-effective low-end hardware with efficient communication, several different technologies will have to be addressed and incorporated, which will be elaborated in detail in this report.

Result: The results of this bachelor thesis include an in-depth analysis of the problem domain, the establishment of a sophisticated solution that is meeting the requirements of HELVETAS Nepal, and a working prototype system that is ready for further development. As for the prototype, the following three artifacts have been developed and delivered: A server back-end application that provides most of the requested functionality. A Microsoft Windows Client application intended to be used by HELVETASNepal employees and volunteers for providing assistance to farmers. An Android application that is to be distributed among farmers in Nepal which allows them to request help and ask questions.



Ticket System – Windows Administration Client



News Feed – Android Client