

Chapter 7

Enhancing Complaint and Problem Management: Design and Evaluation of an M-Service Using Pictures and Positioning

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ABSTRACT

M-government is an emergent area for mobile applications, where citizens and organizations can interact with government and municipal agencies through mobile devices. One promising area for m-government is complaint and problem management, where mobile applications using the integrated functions of a cellular telephone can offer citizens convenient ways of rapidly reporting problems. The problems reported can then be effectively managed by the municipality using state-of-the-art workflow techniques. Furthermore, the municipality can inform citizens and companies of problems already reported or addressed, which can be visualized through interactive maps. In this study, a municipal e-service for complaint and problem management is transformed into an m-service and put into operation in a Swedish municipality. The experiences from developing the m-service comprise of a suggested design and several identified challenges. Suggestions for future research include the application of new technologies for positioning and the adaptation of the m-service to new cellular telephone models.

INTRODUCTION

Today, the public sector in many countries seeks to improve citizen service and transform its operations to become leaner and more cost effective (United Nations, 2008). To accomplish

this transformation, many governments apply information and communication technology to establish what is referred to as “e-government”. Important characteristics of e-government include the establishment of a secure government infrastructure and web-based service delivery (Moon, 2002). Citizens and organizations can interact

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with government agencies through the use of personal computers connected to the Internet. A natural extension to e-Government is mobile government, or m-government. M-government is an emergent area for mobile applications, where citizens and organizations can interact with government and municipal agencies through mobile devices. M-government supports mobility of citizens, organizations and internal operations of the governments. Mobile services will enable government agencies to be more proactive in citizen service and operations by offering citizens more choices of interaction and by providing real-time information to government officials on the move (Kushchu & Kuscus, 2004).

This study was undertaken to explore the possibilities and challenges imposed by m-government at municipal level. The intention of the study is to serve as an experience report to research. More specifically we intend to:

- Identify a widely used e-service where both citizens and municipal employees would benefit from increased mobility
- Investigate how an e-service for municipal complaint and problem management should be transformed into an m-service
- Analyze challenges when transforming a municipal e-service for complaint and problem management into an m-service

In this study a mobile service for reporting municipal complaints and problems in Sweden has been developed and evaluated. The study gives important insights in m-government on municipal level. First, complaint and problem management is identified as a promising area for municipal m-government since mobility could simplify both problem reporting and problem resolution. Complaint and problem management is also the most common e-service offered by Swedish municipalities. Therefore m-government can be introduced as a natural extension to an existing e-government infrastructure. Second, an m-service

design for complaint and problem management is presented. The design was chosen to achieve a high degree of user friendliness on an ordinary cellular telephone while on the same time integrate with administrative back-office systems used by Swedish municipalities. Third, the study identifies challenges of building an m-service for complaint and problem management by transforming an available e-service.

The paper is divided into several sections. In the next section, m-government and its relationship to e-government are discussed. In section three the municipal process of complaint and problem management is examined together with the case of Upplands-Väsby. Section four contains the method used in the study. Sections five and six present the design of the m-service for complaint and problem management and the results from the evaluation of the m-service. Section seven presents the challenges that were identified during the design and implementation of the m-service. Finally, section eight and nine provide discussion and conclusion.

MOBILE GOVERNMENT IN SWEDEN

Sweden is ranked as the leading country in e-government readiness (United Nations, 2008) and the average level of weekly Internet use in Sweden is 83% for women and 86% for men (Statistics Sweden, 2008). E-government is used to improve services to citizens and organizations and to improve back office government operations. Swedish municipalities start to integrate e-services with workflow systems that enable the administrators to work more effectively by sharing and reusing information. In order to stimulate the development of e-government the Swedish government has established the Infra-service agreement (Swedish Agency for Public Management, 2005a). It is a technical solution for e-services that include electronic ID authentication and signature, secure information exchange over

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