Chapter LXI
Introducing Mobile Technology into an Australian City Council:
Experiences and Lessons Learned

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ABSTRACT

In an ongoing bid to provide high quality local government services, Penrith City Council partnered with the University of Western Sydney to derive a mobile strategy for the development of a range of handheld systems for use in the field. Several R&D projects aimed at determining the viability of using mobile technology for the conduct of off-site health, building and development and sewerage inspections and the allocation of parking and waste management infringements were conducted over a two-year period. Some significant issues relating specifically to the implementation of mobile technologies in a large Australian city council were encountered including: release hype vs. the implementation realities of mobile technology, technological options for the introduction of mobility, user acceptance of new technologies, management of client expectations, and local government standards and guidelines and their impact on development directions. The experiences and lessons that were learned from these projects can be of assistance to other local government agencies and similar organisations employing a heterogeneous workforce that is restrained by external legislation and policy.

INTRODUCTION

Penrith is a city on the western fringe of the Sydney metropolitan area, in east central New South Wales, Australia. Located at the foot of the Blue Mountains just 55 kilometres from the Sydney CBD, the City of Penrith covers an area of some 407 square kilometres. With an estimated resident population of approximately 178,000 (as at June 2004), there has been a 15% growth rate since 1991 (*Australian Bureau of Statistics*, 2004). With such rapid expansion and approximately 4,500 businesses operating in the local government area, Penrith

is a fast-growing metropolitan region, and in just a generation has grown from a rural town to the major regional service centre for the outer western Sydney area. In the bid to continue to provide high-quality local government services, the IT Department of Penrith City Council, working in partnership with the University of Western Sydney, undertook several projects aimed at determining the viability of using mobile technology for Council operations such as the conduct of off-site health, building and development, and sewerage inspections, and the allocation of parking and waste management infringements.

The introduction of the Penrith City Council Mobile Strategy evolved over a two-year period and provided some interesting experiences for the development teams and contributed significantly to their learning in many areas, including: release hype vs. the implementation realities of mobile technology, technological options for the introduction of mobility, user acceptance of new technologies, management of client expectations, and local government standards and guidelines and their impact on development directions (Bryan, Holdsworth, Sharply, Curry, & McGregor, 2002; Curry & Lan, 2004). This chapter provides highlights of the development work performed by "high-achieving" student groups, and discusses some of the resultant experiences and the detailed lessons learned from this work of incorporating mobility within the Council's business processes.

PROJECT BACKGROUND

In the mid-1990s Penrith City Council (PCC) entered into a partnership with the University of Western Sydney (UWS) for engaging final-year computing students for Research and Development and Prototyping projects. This chapter concentrates and expands on a few select "high-achieving" student projects deal-

ing with incorporation of mobility within the Council's business processes that were conducted between March 2002 and December 2004. These are invaluable projects for both their academic importance as well as their practical importance to the Council, wherein their overall aim is to reengineer existing processes for PCC field officers required to complete official documentation off-site. Field officer work ranged from inspections for development and building applications, food and hygiene surveillance reports, and issuing of parking and general counsel by-law infringement notices.

Penrith City Council is required to make many inspections in areas such as health, building and development, and sewerage. The management of the data collection and data entry for inspections is becoming increasingly cluttered and time consuming using the existing manual system.

The current system requires a field officer (inspector) to attend an inspection site equipped with the necessary paper forms for collecting data. These forms are completed in duplicate on site: one copy for the subject of the form (e.g., the owner of the premises being inspected), and a duplicate copy for Council's records. Once all inspections have been completed for the day, the inspector returns to the office where the data for each inspection is typed manually into the database, either by the field officer or an administration clerk.

This resulted in double handling of the data, thus increasing the general workload for Council administrative staff, as well as making the duplicate form redundant once the data was entered into the PCC database. Data entry errors were also common, leading to corrupt data residing on the Council database leading to poor quality management reporting.

One of the key PCC goals in the achievement of this reengineering initiative was the introduction of mobile technology to the new

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