Mobile Application Case Study:

 The City of Avondale, AZ

The City of Avondale was one of the first cities in Arizona to pursue use of mobile technologies, starting with MyAvondale, introduced in 2010. This smartphone application for iPhone and Android provides citizens a convenient way to report concerns in their community. Residents enter issues by selecting from a list of common problems, submitting photos, and providing contact information. The application determines the user’s location based on their smartphone GPS. Once submitted, the application forwards the information to the appropriate City department for follow-up and mitigation. The application covers a wide array of categories, including: code violations, graffiti, parks maintenance, potholes, sidewalk defects, missed street sweeping, and traffic signs.

The App-Order.com Case Management System was subsequently developed to replace a paper-driven and inefficient work order system. The system is an Android based code enforcement case management application that allows Avondale’s code enforcement officers (CEO’s)to open new cases, update and manage existing case information, generate notices, take and upload photos directly into cases, all in real-time from the their smartphones in the field.

***By improving the business process to a tight flow, code enforcement staff productivity has improved by almost 63%.***

**The application replaces an existing system**

MyAvondale was designed to complement and supplant existing telephone, Internet, and in-person methods available to citizens for reporting common concerns. Prior to implementation, citizens were primarily limited to calling various departments to report a problem, including non-emergency calls directed to Avondale’s police and fire departments. While those methods are still available, MyAvondale allows citizens and businesses to bypass figuring out what City department handles specific issues. *The application allows them to report issues twenty-four hours a day, seven days a week*.

**The business process has been improved as a result of the application. The following data demonstrates this improvement.**

***Efficiency And Productivity Gains:***

1. Graffiti removal time decreased from ~**4 days to less than 24 hours**
2. **Case management staff time reduced by ~63%** (office and travel time)
3. Notices of violations produced instantly for mailing
4. Services were improved with no additional budget (FY2010-FY2012)
5. Cases received by staff in real-time for faster response
6. Fewer location errors due to GPS coordinates being communicated
7. Time savings have allowed for new, pro-active enforcement programs—City now inspects all neighborhoods annually instead of once per five years

**The economic benefit of the application (cost savings, cost avoidance, etc.)**

***Direct Economic Benefits (Cost Savings):***

**The direct and indirect economic benefits of both applications include:**

1. The system costs $8,000 less annually than the previous system.
2. Hundreds of hours saved by the direct routing of citizen issues that would have been handled through several telephone calls, visits, and emails.
3. The City of Avondale firmly believes in its fast-response strategy to removing graffiti within twenty hours. By removing vandalism of this type quickly, it maintains the perceived quality of neighborhoods, maintains property values, supports citizen activity in neighborhoods, and discourages overall graffiti activity.
4. The City saves $1,650 every two years by eliminating camera replacement costs. CEO’s now use their mobile devices to take photos of violations. These are automatically time stamped and saved with case records.
5. Prior to the App system, CEO’s spent an ***average of four hours per day per code enforcement officer on administrative tasks—travelling to and from the office, time spent downloading images from cameras, time used to download and attach photos to case records, as well as updating case information***. Those tasks are now handled in the field with a few simple steps on their mobile phones, in minutes.

**Resident benefits from the use of this application**

Use of the MyAvondale smartphone application directly benefits the citizens and businesses of Avondale, as well as the City organization. Citizens are able to easily report concerns through one easy-to-use app while the City enjoys the convenience of direct routing of issues to appropriate staff. The improved communications and resolution of issues is reflected in the City’s high scores from its annual citizen satisfaction survey.

The application directly benefits the code enforcement staff and management through simplified case management and comprehensive statistical report generation. It also indirectly benefits the citizens of Avondale through improved staff efficiency resulting in increased code enforcement activity, which translated into cleaner and safer neighborhoods.