The Computerworld Honors Program

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Final Copy of Case Study

Status:
Laureate

Year:
2013

Organization Name:
Anaheim Police Department

Organization URL:
http://www.anaheim.net/police

Project Name:
APD Maps for iPad

Please select the category in which you are submitting your entry:
Safety & Security

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

The Anaheim Police Department developed and implemented the APD Maps for iPad application to increase overall situation awareness and tactical response to police incidents. Traditionally, police officers have relied on paper maps and map books. However, they were not easy to use, they did not hold up well to the abuse of the job, and no additional information about locations was given. To solve this, a custom computer application was developed that uses the latest in Geographic Information System's data. A fully offline map with pan and zoom capabilities was developed. The base map was designed with specific care given to the color choices for low light and night conditions. Information was offloaded from the city's GIS servers and loaded into a database that the application references when a search for a location is given. Officers can quickly find

addresses, streets, intersections, places, and districts they are looking for. Additionally, the building plan PDF documents were loaded and made accessible via points on the base map. The PDF documents can now be quickly and easily pulled up by officers for better coordination between units. Challenges during this implementation were based largely on the technology available to build everything that it relies upon. First, a fully accessible offline map that is both pan and zoom capable was not available until after June of 2012. Re-designing the entire city base map required more time. Gathering, formatting, and exporting the GIS data into an iPad-friendly database format was required. Finally, the creation and compiling of the application itself was difficult due to the size of the data. Inventive ways were found to push the data into the application during a post-installation process.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

This project was implemented in December of 2012 and updated this month, as of this writing, in January of 2013. The technology is still being refined with updates to the application's functionality and capabilities being improved each month as needs arise.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

No, the implementation of this project is not complete. The project is still in a limited deployment phase with further refinements being made as time passes. With the addition of a mobile device management solution later this year, a full deployment to all of our mobile devices will be made. Further deployments to the Android and BlackBerry platforms will also be made available once the mobile device management solution has been finished.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

In the Air Support Bureau of Anaheim Police Department, the traditional map book that the pilots used to reference the city and coordinate with ground units were heavy, cumbersome, and fragile. Over the course of their use the books themselves would begin to fall apart and could not hold up to the abuse of flight. The map books also did not provide the pilots with the building plans of the structures they would be assisting officers with. Other problems developed where

the grid based map books were generally good as long as you were flying in an east or west direction, as flipping through the grids pages in the book went from east to west and vice versa. When pilots began to fly north or south it required more work to flip vigorously between several sections of the book just to pull and reference information about the area. As a result of the application, the pilots can now pan and zoom around the city freely and search for specific locations quickly. The pilots also have every building plan in the city at their fingertip with the tap of a point on the map.

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

This application would be an innovation for mapping technology in public safety and the mobile environment. It could be adopted and tailored by other organizations easily, given that they have the data to push into it. The key to this application's functionality is largely based on the GIS data that it relies so heavily upon.

If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

Appendix image 1 shows the Search View of the application where officers can quickly locate information. Officers enter information using the search input box, a list will generate from their search request. Upon selecting a search result from the list, Appendix image 2, the Map View, will appear showing their selected location in red with the building plan points in green. A tap over a building plan point will display the PDF document that pertains to that location.