City of Auburn
Home of Auburn University

July 16, 2012

Brandi Allen
Conferences & Education Director
Alliance for Innovation

Dear Ms. Allen,

Please accept this case study presentation application as our submission to the Alliance for Innovation's Call for 2013 Conference Case Studies.

A: Cover Sheet

Case Study Title:	Collective Knowledge for Better Public Safety
Case Study Category:	Partnerships (but could also be included in the Organizational Design category)
Jurisdiction Name:	City of Auburn, Alabama
City Manager Name:	Charles M. Duggan Jr.
Consideration for Innovation Award:	Yes
Consideration for Rapid Fire Session:	We think it would be challenging to adequately represent this case study in a Rapid Fire Session but we would be willing to try to do so if that is what the selection committee proposes.

Project Leader:

James C. Buston
Assistant City Manager/CIO
Office of the City Manager/Information Technology
(334) 501-7201
jbuston@auburnalabama.org
144 Tichenor Ave, Auburn, AL 36830

Presentation Team Member:

James C. Buston
Assistant City Manager/CIO
Office of the City Manager/Information Technology
(334) 501-7201
jbuston@auburnalabama.org
144 Tichenor Ave, Auburn, AL 36830

Christopher Graff
GIS Manager
Information Technology Department
(334) 501-7207
cgraff@auburnalabama.org
144 Tichenor Ave, Auburn, AL 36830

B: Synopsis - Collective Knowledge for Better Public Safety

Summary:

In 2011, the City of Auburn, Alabama in cooperation with Auburn University embarked on a multi-phased Public Safety system integrating internal and external data into a map-based Public Safety application. This web-based solution leverages multiple real time data systems within an interactive map at minimal cost and without changing the data providers' business practices.

Story of Innovation:

The City of Auburn, home to Auburn University, provides all public safety services (police, fire, codes inspections) for Auburn University. There is no university police department. Because of this somewhat distinctive public safety environment, the City of Auburn's Information Technology (IT) and Public Safety Departments teamed up with university staff from various schools to develop a visual tool to aid daily and emergency public safety operations both on campus and throughout the city. The tool was simply named the Public Safety Map.

The goal was to use the City's already extensive Geographic Information System (GIS) technology to unify wide-ranging data resources into a common toolset. Moreover this toolset had to easily fit within existing business practices, was easily learned, was simple to use and was effortlessly maintained. The final product had to be accessible, in the field, by Auburn's first responders.

The approach taken was a complex combination of strategic planning, practical public safety input and the use of the latest GIS technologies. In the beginning, discussions were held with staff from all agencies involved, including Police, Fire, Communications (911), and various Auburn University schools. It was readily apparent that to be successful with such a data-rich and far reaching application a model minimizing impact on the data providers was critical. It was also crucial that the integration of data resources did not change the data provider's existing business processes.

After combing through massive amounts of data, each module of the Public Safety Map was built, tested, and integrated into a single map application currently in use by Auburn's first responders. The first part of the system went live in January of 2011. The plotting of active 911 calls on the map along with live vehicle locations went live in March 2011 providing for a real-time operations dashboard. By May 2011, public safety professionals were using the system to analyze response times, historic crime and fire and traffic incidents by location, type or severity. Shortly thereafter a sex offender module was added, greatly simplifying the analysis and notifications needed for a registered offender to locate in a particular area. In August 2011, the application was integrated with Auburn University's facility management software providing first responders real-time access to campus floor plans including live camera feeds, emergency equipment locations, room capacities, and other relevant campus information included on these floor plans.

Results and Real World Practicality:

The City of Auburn's 911 calls have increased steadily each year with 171,695 emergency calls received in FY2011. It is imperative that the City's first responders have access to tools providing timely information and accurate geographic data so they may react to emergency events with speed, efficiency and clarity no matter if those events occur in the community or on the Auburn University campus. The Public Safety Map addresses these needs. The map can be tailored to the user's responsibilities whether that includes crime analysis, mission planning, incident response or operational awareness. Tabular 911 data can be isolated or combined with other data and displayed on a map within seconds of the actual event. A very useful tool in the Public Safety Map is the automatic vehicle locator (AVL) which offers a real time view of police and fire vehicle locations and provides a wealth of data about the vehicles and the incident to which they responded.

The effectiveness of the Public Safety Map is achieved through the availability of a comprehensive array of data and tools for Public Safety personnel; including GIS, 911 & Auburn University facilities data, and analytic & reporting tools. The elegance of this particular solution is that it has achieved these results at little to no cost to the data providers or necessitated any changes to how data is produced or maintained. No new or duplicated data needed to be produced. No data needed to be exported or imported. The application consumes the raw data provided by the most current and authoritative data sources even though those data sources exist in disparate institutional networks. As data changes in those sources it is instantly available for Public Safety personnel for analysis and reaction.

The Public Safety Map affords better operational awareness and improved decision making. As soon as an emergency is reported, it's visible in real time, directly from the native databases to the map. By tapping into these native data sources, field personnel are equipped to make informed decisions based on up to date information. The analysis of a situation or the relationships between features are done at the click of a button rather than through a drawn out manual processes. The easy accessibility of information and tools directly equate to increased responsiveness and higher quality of service to Auburn's citizens.

Integrating existing information systems without fundamentally changing any of them is a relevant model for any interdisciplinary project, but in particular it addresses the acute needs of Public Safety for current, authoritative data. The City of Auburn's solution provides greater operational awareness without burdening data providers to change existing routines. The minimum cost coupled with high user functionality makes this model transferable to other organizations. Particularly of interest are municipalities providing public safety to large institutions such as in a university setting. Based on the Public Safety Map's successes a dialog has been opened with the State of Alabama, Department of Public Safety to share this solution and detail its transferability to the Virtual Alabama project.

The application was built entirely by City of Auburn IT staff. No outside consultants were used.

C: Presentation Style

We will use a team approach to demonstrate the application real-time using the actual application in use by Auburn's first responders. We will have two staff presenting at the conference and we will link (video and audio) live to staff back in Auburn. We will augment the real-time demonstration with PowerPoint tools outlining our processes from beginning to end and articulating our successes and failures throughout the project. We will present a video (developed in house) showing the actual use of the system by Auburn's first responders. We will also show how this exact same system is used during "disaster" events to not only track emergency responses from our police, fire and EMS personnel but to also track location and responses from our Public Works, Environmental Services, Parks and Recreation and other department personnel involved in responding to the "disaster" event. Finally, we will show how all of this activity is seamlessly integrated into our work order system so that we track personnel hours worked and the personnel costs associated with that work as well as other costs associated with the event such as equipment used, outside contractors engaged, etc. Using a variety of technologies to present our story will engage and entertain the audience while at the same time effectively demonstrating to the audience the feasibility of adopting this system in their communities.