LGFCU Excellence in Innovation Award Project Evaluation

Project ID	GG-11
Title of Program	LIFE (Local Inspection of Food Establishments)
Program Category	General Government
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FLSA Designation	Non-exempt
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Description of Productivity Improvement

While timely inspection of food establishments is vital for public health, the amount of paperwork is tough to swallow. A locally developed system serves up a lighter fare, balancing a diet of state requirements, mobile data collection, and electronic submission through web services.

The LIFE application was developed in-house using Visual Studio .NET and SQL Server with the Sync Framework. The look and feel of the state inspections forms were carefully preserved, making the transition from paper to the new system very intuitive for inspectors. Inspectors are able to take a lightweight Windows tablet device in the field, use the LIFE application with a stylus and keyboard to complete forms electronically on site at the place of business, and key the inspection observations and ratings. The restaurant manager's signature can be captured electronically, and inspectors have the option of going paperless and emailing the inspection document, or printing on on-site if needed, with a mobile printer. When inspectors return to the office, the device is simply connected to the county network and the central database is updated. Not only does it eliminate the problem of poor connectivity, it also reduces recurring costs by no longer needing mobile internet service.

The even greater time savings, accuracy, and efficiency improvement was in leveraging the state's web service to transmit inspection data, eliminating duplicate data entry work.

Using LIFE, Pitt County became the first county (to our knowledge) to utilize the state's web service to

electronically submit inspection data. In the end, everyone's a winner: the state no longer has to be a middle-man-software provider, the county is liberated from paper and duplicate data entry, and the hapless restaurant patron knows his health is being fiercely and efficiently protected. Since implementing LIFE, the system was expanded for inspecting not only food establishments, but hospitals and lodging.

Description of why this project was initiated

The problem Pitt County addressed with LIFE was administrative bloat and inadequate tools to perform a critical public health service. The solution cuts out paper, duplicated entry, and connectivity issues, allowing staff to focus on the myriad details that inspectors must observe such as temperatures, hand-washing, rat droppings, and the like.

Dateline brought national attention to the importance of restaurant inspections in their exposé, "Dirty Dining." The inspector's job is not enviable. It often involves driving to nether regions of the county only to be greeted with a dichotomy of professional courtesy and defensive animosity. The walk-through inspection can be tedious; with exposure to things they just can't un-see. And there is the more-than-you- can-stomach buffet of forms to fill out.

The state recognized some years ago that completing numerous multi-part paper forms manually and then later having to key the same information into a system was a problem in need of a solution. The state rolled out a system and it was used until two issues arose: (1) changes were made to the inspection forms and but limited resources delayed corresponding updates to the state application, and (2) the system relied on field Internet connectivity.

While county staff used the system as long as they could, even using mobile service was not always a solution for connectivity, as some locations were remote and would not reliably receive a signal. When the form requirements changed, counties had few options but to revert back to paper forms, purchase a third-party system, or develop in-house. The available third-party solutions were cost prohibitive, so we built a lightweight system using agile methods.

In the build we addressed the second problem as well: connectivity. The LIFE system, which is fully functional in the field, doesn't require it.

Quantifiable results (sustainability, cost savings, cost avoidance and/or a higher level of service). Indication of what resources were used and what was done with any accrued time savings

While food establishment inspections and systems are not new concepts, LIFE was ground-breaking because the underlying technology opens doors for potentially 100 disparate counties to meet state requirements without paper forms or duplicate data entry, even in rural counties, with limited connectivity or funds. Specifically, it was the first system in the state (to our knowledge) to utilize the state's web service for data transmission, and it uses Microsoft's SQL Sync framework for untethered application use.

- Reducing administrative burden per inspection, inspectors can better manage workload and inspect timelier.

- Untethered access means inspectors can work in remote areas and without the costs of mobile connectivity.
- Electronic signatures can be captured and results emailed or printed, simplifying the process for both inspector and establishment.
- Efficient and timely data transmission to the state helps government agencies work together more effectively to increase transparency and hold food establishments accountable to the public they serve.
- Recurring software licensing fees for a third party system avoided.

Helps the County Serve and Protect the Public More Effectively

Public health and welfare is of widespread concern, and a system that cuts the administrative fat out of preserving public food safety has the potential to save lives. The Environment Health inspector's job is taken for granted until there is local outbreak of Hepatitis A or Salmonella. Eliminating paper forms and duplicate data entry, and faster data transmission to the state translates into more field time for professional assessment and follow-up. That means public health threats are corrected or closed before problems escalate into a new story, or worse, hospitalizations and deaths.

Has the Potential to Benefit Other Counties

Happily, systems developed with government funds may be provided to other government entities free of charge. This system has a high probability of being used by other counties when they become aware of it: a likely outcome if selected for an award. Since many smaller counties in the state do not have the IT staffing level of Pitt County, being able to use a sister county's solution, and being spared the development and recurring license fee cost, would no doubt have a significant impact across the state. Using the Sync framework makes the system untethered and therefore accessible for even rural counties with limited connectivity.

Other descriptive information

Significant improvements in functionality to LIFE included adding lodging and inspection forms, enhancing the restaurant form, and developing an interface to the state's web service for data transmission.

Screen-shots available as *jpg files.