Nomination for Probation Officer Smartphone Application

Cover Page

Title: Probation Officer Smartphone Application

Category: Information Communications Technology

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Executive Summary

The Probation Officer Smartphone Application is a custom-developed “app” that runs on an Android-based smartphone. It was developed by the IT staff at the North Carolina Department of Correction (now Department of Public Safety). It provides probation officers with the ability to see and search for their own caseload of 60-100 offenders, and also to search all probationers or offenders, active or inactive, in North Carolina.

The app provides a set of tools to facilitate common activities officers must perform each day:

- Search a caseload to see who needs a visit.
- Find contact information for the offender (home and work phone numbers).
- Once at that visit, record common findings via drop-down menus.
- View the calendar for the offender or the officer.

Additionally, it leverages the phone’s intrinsic functions to do things like:

- mapping
- driving directions
- photography (still and video)
- speech-to-text conversion
- officer location monitoring

The power of the app is that it combines all of these useful, but otherwise independent functions, into an integrated tool, where information comes from a real-time statewide database, and entries by the officer are recorded immediately on that database.
Description of the Business Problem and Solution

North Carolina has over 120,000 offenders on probation and parole. As states look to reduce their budgets, one of the common strategies is to move the boundary line between who goes to prison and who can safely be supervised in the community. Therefore, North Carolina will be seeing an increasing number of offenders supervised in their communities to save prison costs. At the same time, budgets simply are not there for probation officer staffing to grow at the same rate, causing a need for tools to help our officers work more efficiently. And because they now supervise some very dangerous offenders who, in past years, would have been prison inmates, we need tools to make sure officers can be safe.

For several years, we have provided officers a data-rich, web-based dashboard that shows them critical information about their caseload, which is usually between 60 and 100 offenders. This is a great tool if an officer is in the office. And it can be helpful if the officer is equipped with a laptop and is at a safe stopping place in the field. But it lacks true portability and utility for an officer trying to find an offender’s residence late at night, or when the officer is doing a curfew check in a housing project, or in a number of other situations that are part of a typical officer’s day.

We needed a tool that was much more portable, but had the power to provide our rich data as well as other functions that would help the officer work and be safe. We had been watching smartphone technology, waiting for good coverage, good battery life, larger screens, and a powerful set of functions. We finally saw those factors converge, and began developing a tool that would put our dashboard on the phone, not just as a web application, but as an app that used the phone’s core functions in a compelling way.

In developing our web-based Probation Dashboard, we had worked extensively with officers and knew quite a bit about what data was useful to them, how they searched for it, and how they wanted it presented. The Smartphone App provided some new challenges. We were targeting how the officer works in the field, and we didn’t know as much about that. So our analysts spent time with officers, first by bringing them in to talk about how they organized their day, and ultimately, by going out in the field with them to do some home visits and curfew checks. We were able to see that:

- The caseload is large and fluid, and keeping up with new addresses and contact information is difficult.
- Finding a new location can be hard, and trying to read a map or look at a screen while driving is dangerous.
- There is a core set of data (for example, “did curfew check/was or was not there”), which even though simple, could be cumbersome to record.
- A visit often resulted in other information that could be useful but was non-standard.
- Good case management meant good narrative case notes, but those were difficult to record in the field, and an officer’s recollections get stale at a rapid rate. Case notes recorded the day after a visit lack the detail of those recorded immediately.
- Keeping up with the combined calendar of the officer and 60+ offenders is very difficult.

The resulting app tries to address those needs with the following tools:

- A beginning menu that lets officers see scheduled visits, their full caseload, or search all offenders.
### Today's Scheduled Visits

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth Date</th>
<th>Address</th>
<th>Drug Scr.</th>
<th>Crime</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRANT, GEORGE L</td>
<td>11/27/1963</td>
<td>891 NAGLE STREET APEX NC 27627</td>
<td>04/04/12 / NEG</td>
<td>MISD INDECENT EXPOSURE</td>
</tr>
<tr>
<td>OLIVER, JANELLE L</td>
<td>05/24/1958</td>
<td>7807 CLOVER CREEK CT RALEIGH NC 27613-5216</td>
<td>05/01/12 / NEG</td>
<td>BRIBERY OF HORSE SHOW JUDGES</td>
</tr>
<tr>
<td>SMITH, JAMES W</td>
<td>01/05/1974</td>
<td>2124 MAGNOLIA LANE CARY NC 27522</td>
<td>03/02/12 / POS</td>
<td>HABITUAL IMPAIRED DRIVING</td>
</tr>
<tr>
<td>TAYLOR, DAVID W</td>
<td>07/21/1958</td>
<td>455 BAYLOR ROAD RALEIGH NC 27613</td>
<td>03/22/12 / NEG</td>
<td>ASSAULT ON FEMALE</td>
</tr>
</tbody>
</table>

**Notes:**

- A screen that shows details of visits scheduled for today.
A screen for each offender, showing:
- Safety issues, gang activity, domestic violence, prior crimes, sex offenses
- Upcoming appointments
- Last contact
- People who live with the offender
- Actions needed
- Other photos
and providing:
- The ability to record coded events (curfew check, offender home)
- The ability to speak a narrative for subsequent transcription

Harnessing the power of the phone, we added:

- **Using the phone’s GPS:**
  - A built-in GPS application that will select routes for a series of addresses and allows the officer to touch a particular address to receive talking driving directions. This is excellent for safety in dangerous areas, especially at night, and saves time and gas.

- **Using the phone’s camera:**
  - A photo-id system to let officers take offender pictures and load them instantly into our offender database.
  - The ability to take photos of surroundings, evidence and associates, and load them into the database, linked to the offender.

- **Using the phone’s communication capability:**
The ability to look up people they encounter during a visit to see if they are current or ex-offenders, to address safety issues.

An instant alerting system that notifies officers if their offender has had a new interaction with courts or law enforcement.

Part of the power of the smartphone is that there is a broad community of developers creating apps. We are already seeing the officer embrace this power, finding apps created elsewhere that provide additive value to what we have created. An example is an officer who has downloaded a pill identifier app to his phone. He is using it to identify drugs he finds on offenders. If they are street drugs, or if they are prescription drugs without a corresponding prescription, he uses the camera to document them, and can make an immediate arrest.

**Significance to the Improvement in Operations of Government**

- For the officers:
  - The ability to get out of the office, perform better supervision, and to accomplish more activities, all while having rich data at their fingertips
  - Improved safety in dangerous situations

- For the department:
  - Better real-time data
  - A more commanding view of what is happening with supervised offenders across a large state
  - Less chance for something to be missed (visits, court dates, immediate response to violations, early action on absconders)

- For our coordinated efforts and data sharing with law enforcement and courts:
  - Fewer missed court dates by our offenders (because the app lets us see their appointment and remind them)
  - Immediate data sharing with law enforcement. We have already seen instances on joint teams with law enforcement where we have been able to tell law enforcement about a range of offenders.

**Benefits of the project (Financial and Non-financial)**

We carefully considered the financial cost/benefit of this new approach. While the smartphone data plans do add a cost layer, we saw that we were increasingly providing officers with laptops, which are more expensive to buy and support, and which are more prone to break. We were also signing up for aircards for those laptops. We think that added net cost of the smartphone approach is minimal in light of reducing laptops and aircards.

The non-financial benefits are compelling. Now our officers are not trapped in the office waiting for offenders to come to appointments. Instead, they are out in the community, seeing offenders at their home or jobs. There is much more opportunity to see the real picture and to influence outcomes. This also allows us to maintain better contact and build relationships with law enforcement.