



Potential & Patience: Vehicle Fleet Monitoring for Recycling Collection

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March 24, 2016



This Is A Story...

- Ordinary people attempt the extraordinary!
- Setbacks occur.
- Small victories are won!
- Heroes emerge?





Who Are We?

The City of Raleigh Solid Waste Services

Department provides reliable waste management solutions to the Raleigh community through residential curbside collection and a variety of specialized services. The Department works proactively to reduce waste and to increase recycling in Raleigh, while demonstrating a commitment to sustainability in all areas of its operations.



What Do We Do?

- Curbside collection to 118,000 homes
- Fully automated
- Biweekly recycling
- 95, 65, 35-gallon carts
- Carts phased in from 2010 to 2013
- RFID chips embedded





What Did We Want?

- “a qualified and experienced vendor to provide and implement a Global Positioning System/Automatic Vehicle Locator (GPS/AVL), RFID, and routing solution”
- “a real time vehicle information management system for tracking and monitoring our vehicle fleet. SWS also wants a solution that encompasses RFID technology and the ability to implement Route Smart based routes.”



Why Did We Want It?

RFID readers for trucks

- Accurate data on recycling cart set-out
- More equitable routes
- Target education to low-participation areas

AVL system with greater reliability

- More consistent functioning
- Reduce unnecessary trips for missed pickup



Timeline

- Request for Proposals: October 30, 2014
- Vendor Demos: January – February, 2015
- Contract with FleetMind: July 2015
- Installation of readers: Summer 2015
- Training of staff: Fall 2015



Ch-, ch-, changes!

- Project manager left
- Other technology projects implemented
 - Call center
 - Work-order management system
- New hires needed for technical skills



Unexpected Challenges



If a house isn't on a route,
does it really exist?



Challenges



If a cart isn't in the right place, was it really picked up?



Challenges



Dude, where's my route?



What Doesn't Kill You

- Makes you smarter!
- Setbacks teach us
- Routes must be complete
- Additional carts should be tracked
- People need to be developed





This Is a Story....

- without an ending.





What's Next?

- Continue to work with FleetMind to address problems.
- Use experience to train personnel in project management.
- **We invested \$470,000. We.Will.Make.It.Work.**



Want to Know More?

- **Everyday Challenges:**

- Mr. Evan Brown, Assistant Operations Superintendent
- Email: evan.brown@raleighnc.gov
- Phone: 919.996.6893

- **Project Management:**

- Ms. Wesley Carter, Training & Development Manager
- Email: wesley.carter@raleighnc.gov
- Phone: 919.996.6871



Come Visit Us!



- "Technology of Trash"
- Friday, April 8
- 1:00 to 4:00 pm
- 630 Beacon Lake Drive
- www.ncsciencefestival.org