GoTime!

Presented by
Mark Haberle, GISP, PMP

September 7, 2017
Agenda

- Background
- Solution
- Challenges
- Next Steps
- Innovation
- Q&A
Background: ITS Strategic Plan
Background: GoTime Coverage

- 700+ miles
- 140+ signs
- 330+ routes
- 2M+ motorists
- Physical signs
- Virtual signs
- PVMS
Background: GoTime Evolution
Background: Project Intent/Purpose

Over half of American adults own smartphones

Changes in smartphone ownership, 2011–2013
% of all U.S. adults who own.

Source: Pew Research Center's Internet & American Life Project April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 13, 2013, tracking surveys. For 2013 data, n=2,252 adults and survey includes 1,127 cell phone interviews. All surveys include Spanish-language interviews. / PEW RESEARCH CENTER
Background: Project Objectives

✓ Free public data
✓ Free App download
✓ See signs from home
✓ Targeted audience
✓ Proof of Concept and API
Background: GoTime!
Demo... No time today...
Background: Scope of Work

✓ SOW (13 bullet email)

- Rapid deployment of mobile companion to RTTM roll-out
- Native code: iOS & Android
- Visually appealing and easy to use
- Geometry and travel time from MassDOT API
- Functional and non-functional requirements
Background: Risk Evaluation

✓ **Triple Constraints**
  - Time
  - Budget
  - Functionality

✓ **Buy-in**
  - Developer
  - Client
  - VHB
Background: Timeline

- 7/11 Initial ping
- 9/21 Notice to Proceed
- 9/29 Kick-off
- 10/14 Sprint #1
- 10/27 Sprint #2
- 11/03 Poised in App stores
- 1/13 Official Release
Solution: Architecture
Solution: Team

Principal in Charge
Steve Anderson, GISP

Project Manager
Mark Haberle, GISP, PMP

On Call Contract Lead
Ron Hartman

Development Lead/Services
James Samek

Legal Lead
Kristopher Gregoire

Deployment Logistics Lead
Dan Wheeler

Development Lead/UI
Gary Stevens

Graphic Design
Victor Cabrera
Solution: Tools

✓ Mockups – Moqups
✓ Architecture – Visio
✓ UI Code – App Studio
✓ Services – Visual Studio
✓ Design – Photoshop
✓ Testing – TestFlight
Challenges: Application Expectations

✓ **App expectations**

“Just build an App” pattern vs. real-world logistics
Traffic/Routing/Maps app expectations
Verbiage: Routing vs. RTTM Routes
Challenges: Dev Environment

✓ Single code base for rapid updates
  Xamarin or App Studio or Native

✓ App Studio
  Load screen flicker (small item = big time sink)
  Draggable lists for favorites (functionality obfuscation)
  Scale factoring and layout (“look like signs in field”)
  Android “back” button integration
  Viewport issues for Route screen
  Group layer
Challenges: API and Data Fitness

- Original scoped against XML API
- Access limitations: credits
- Route gaps
- Route alignment with real world
- Start and end nodes in routes
- PVMS in API
- Last updated definition ("blankout" period)
- Sign layout standards: "multiString"

{"API":"101"}
Challenges: Publishing Logistics

✔ Google Play Store = easy!
  Copy/paste
  24 hours propagation

✔ Apple Store = not so much...
  Human Interface Guidelines review (1-3 days)
  24 hours propagation
  Support website

✔ Ownership and “publishing on behalf”
Challenges: Legal Review

- Terms of Use and liability tolerance
- Disclaimers
- Google’esque Icon
Challenges: Quality Control

- Time line constraints to review and testing
- Sign imprint quality control
  API → database → app = real world imagery
- Route verification
  Start/end nodes, alignment, connectivity
Innovation

✓ Simple objective – show signs
✓ Meeting users where they are at – Mobile usage
✓ Phone UI matches real-world signs
✓ Complex data made simple
✓ RAD tool to meet project constraints
✓ API and open data by MassDOT
Next Steps

- Vector tiles
- Favorites access workflow
- Route status (Route and Map screens)
- Integration of PVMS
- Addition of tutorial
Thanks for listening...

Mark Haberle | mhaberle@vhb.com | 617.607.0068