Traffic Management / 511 System Foundation
For Desktop and Mobile: WICHway

Esri User Conference
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WICHway.org

- Wichita, Kansas Area Traffic Management
- View **Travel Speeds**, **Cameras**, **DMS**, **Road Conditions**, and **Construction**
- Redesign?? Technology and/or design
- Considerations
  - Users
  - DOT resources
  - Latest Technology
511 - Traffic Management
511 - KDOT

• Developed Concept
  – Current website is functional
  – Current website about 3 yr old
  – Needed a more efficient website to meet the current user
  – Redesign ??
WICHway.org Timeline

• Developed Requirements
  – Similar functionality with mobile consideration
  – Innovation
  – New Ideas
  – Efficient
  – Several options
WICHway.org Timeline

• Wrote RFP with options
  – Based estimate with current functionality and innovation
  – Options
    • Tweets from DMS
    • Streaming Video
    • Cloud
    • Emails and/or Texts
    • Smartphone application******
WICHway.org Timeline

• Environment
  – Esri
  – SQL Server
  – HTML 5, JavaScript
  – Browsers – IE, Firefox, Chrome, & Safari
  – Mobile devices including – phones & tablets
WICHway.org Timeline

- RFP
  - Include fast timeline
  - Awarded February 2013

- Final Code August 1, 2013
WICHway.org Timeline

• DTS concept
  – Mobile user does not need GIS - New
  – Mobile website - New
  – Less one map – efficient - NEW
  – Agile process - New
  – 4 types of users
WICHway.org

• 4 Types of Users
  – Commuter - Bookmark
  – Traveler –
  – Trucker
  – Weather watcher
Timeline

- Agile Project Management
  - KDOT - IT people had Standup Meetings
  - KDOT – SharePoint for documents
  - DTS - Sprints surprised some and went slow for others
Timeline

• Content planning

• IT Architecture
  – New hardware, software, testing
  – New software – Esri
  – Major
    • Consultant Programmer/Designer left
• User Guide
• Administrator’s Guide
• Installation Guide
meet with users
Annette
Local Commuter

Annette lives 23 miles from her office and commutes both ways during peak traffic. She has a smart phone and access to the internet at work.

Interaction: “Just the facts”

Preferred Interface: List View

Goals:
• Avoid Traffic on the way to/from work

Usage Pattern:
• pre-commute check

Interface
Data Used:
• Construction projects
• Road closures & detours
• Weather conditions
• Current Speeds
Bernie
Winter Weather User

Bernie uses the site when a storm is rolling through and he sees the url on the news. He has a smart phone and a computer at home.

Interaction: Quick status on roads

Preferred Interface: Maps and Lists

Goals:
• Avoiding bad weather conditions

Usage Pattern:
• Immediately before or during a storm event

Data Used:
• Weather conditions
• Current Speeds
Conner
Long-Haul Trucker

Conner drives for a major company, and crosses the state every few weeks.

Interaction: “total picture”

Preferred Interface: Map and List

Goals:
• Optimize drive time by avoiding closures, construction and incidents
• Locate rest-stops

Usage Pattern:
• Always-on while in Kansas

Data Used:
• Construction projects
• Road closures & detours
• Weather conditions
• Current Speeds
The Dollins
Out-of-State Travelers

Dawn and Dave Dollins travel the country in their RV for 6 months of the year. They have a laptop that they connect to wifi in camp grounds.

Interaction: “total picture”

Preferred Interface: Maps

Goals:
• Avoiding closures, construction and incidents
• Locate rest stops

Usage Pattern:
• Pre-planning for a day

Data Used:
• Construction projects
• Road closures & detours
• Weather conditions
• Current Speeds
create the backlog

Things TO DO ...

Date: February 8, 2008

Priority
1. Build login screen
2. Print preview
3. User management
4. Format graphics
5. Align text
6. Save files
7. Simple queries
8. Edit graphics
9. Undo last action
10. Add quick effects
11. Export to PDF
design the interfaces
Wireframes
Mock-ups
code.code.code.
code.code.code.
code.code.code.
iteration mechanics

Sprint 2 Weeks

Daily Scrum

Product Backlog

Sprint Backlog

Product Increment
high quality
tested
complete
done.
release early
release often
receive feedback
inspect and adapt
Deployment/Load Testing & Launch
looking into the future
Lessons Learned

• Software – online training
• Meeting notes – for those not attending
• Content – design before development
• Architecture – design before development
• Needed software – design before development
• Agile process – started too soon, schedule
  – Train personnel involved
• Devoted time by stakeholders
Lessons Learned

• Sprints – not all stakeholders
• Change process
• Contingency schedule
• Load testing prep
• Set requirements – not during development
• Have an involved sponsor!!!
Thank you

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questions?
Thank you.

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