iTRACT

Improving Transport and Accessibility through new Communication Technologies
ITRACT central platform: Building Blocks

Skipton, Thursday 6 June 2013

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Version 3/6/2013
Agenda

- Emerging ideas
- Planning
- Building Blocks
- Central platform
- Examples
- Future

(35 slides in 30 minutes)
Emerging ideas

WP3
Srv Innov Workshop

WP4
Maturity M
input

Architecture & platform
Emerging ideas

WP3
- Srv Innov Workshop

WP4
- Maturity M
- Input

WP5
- Architecture & platform
- Input
- Build upon
- Improve

Inputs:
- Pilot def
- Pilot implem.
- Pilot run
Emerging ideas
Emerging ideas
Planning

- I1 + I2 + I3 = Iterations
- A + B + C = Ongoing activities
Specify & build

Run pilot

Evaluate
Agenda

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(35 slides in 30 minutes)
Building Blocks

- **BB1 = Ride sharing**
  Enter trip, orchestrate the ride, inform each other, generate route, inform pickup info, actions during pickup, actions during drop off

- **BB2 = Interactive map**
  Store routes and stops, live updates, service ‘bus on demand’, show interactive map on frontend

- **BB3 = Planning**
  Store trips, calculate routes, match traveller-driver, let driver initiate ‘start driving’, calculate route time and distance

- **BB4 = Financial**
  Make payments possible, initiate payment from ride, perform payment
Building Blocks

- BB5 = User profiles
  Normal user info, extended user info, trustworthiness, reputation

- BB6 = Dashboard
  Provide info for dashboard, events upon disruptions

- BB7 = Information
  Provide web-based content management

- BB8 = Traffic management
  (added) (cancelled)

- BB9 = Generic functions
  (added) Security functions
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<th>Pilot</th>
<th>Building Block</th>
<th>BB 1</th>
<th>BB 2</th>
<th>BB 3</th>
<th>BB 4</th>
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<th>BB 6</th>
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Central platform

- Proper architecture
  - Service oriented
  - Event based

- Research $\rightarrow$ expect the unexpected
  - Iterations
  - Plan to make mistakes

- Limited time and resources
  - Integrate
  - Building Blocks

- Universities $\rightarrow$ students
  - College and graduation
Central platform: off-the-shelf software suites

- One Bus Away
  Providing info at a bus stop

- Open Trip Planner
  Planning a ride with public transport

- Open Ride
  Facilitating car sharing

- Open Street Map
  Open alternative to Google Maps

- WordPress
  Content management system
Central platform: flexible implementation

- **Main entrance = ‘proxy’**
  Forwards to the right ‘virtual machines’ and does orchestration

- **Multiple software suites**
  Open Trip Planner, Open Ride, WordPress

- **Multiple instances**
  For performance reasons, e.g. for each country-group

- **Open Stack**
  Combining all available hardware, sharing identity management
Agenda

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(35 slides in 30 minutes)
Examples

- Demo? WP5, not WP4!
  WP4 only delivers the central platform

- WP4 has ‘webservices’
  Deliver results, provide trip orchestration, provide payment services,...

- WP4 does deliver part of the visual results
  E.g. maps with routes

- We integrate off-the-shelf software suites
  They have examples
One Bus Away - website
One Bus Away - website
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<td>De Wijert via Grote Markt</td>
<td>-3</td>
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<td>11</td>
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<td>2</td>
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<td>Vinkhuizen via CS</td>
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Open Trip Planner - website
Open Ride smartphone
Open Ride smartphone
Future

- Already discussed:
Future

...is being made today!

Dr. Bunsen Honeydew and assistant Beaker
The Muppets Lab

Copyright The Jim Henson Company
Next: “Appy hour”!

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