Breakout Summary and Workshop Wrap-Up

Kate Hartman
USDOT Intelligent Transportation Systems Program Manager, CV Pilot Deployment Program
Session 6-I: Building a Pilot Deployment Concept and Partnerships

- **Session Objective:**
  - Gather feedback from stakeholders about recommended leaders and partnerships for a successful pilot deployment.

- **Activity Summary**
  - Intro, Discussion, Example Pilot Deployment Walkthroughs

- **Key Findings**
  - State Agencies need to lead deployments - they will be the operators of the infrastructure
  - Community involvement
  - OEMs may be leaders of safety applications
  - Takes time to get partnership teams together
  - Consider staged procurement and developing a draft RFP
  - Or, staged effort may take too long – state and local agencies that are ready to put skin in the game want assurance of their investments
Session 6-II: Pilot Program Phases and Waves

- **Session Objective:**
  - Engender stakeholder feedback on the proposed program structure and timing to ensure that the schedule is both practical but not too conservative.

- **Activity Summary**
  - Intro, Survey Form, General Discussion

- **Key Findings**
  - In general, employ System Engineering process
  - Don’t prescribe timeline for planning (size of the site and complexity of the proposal)
  - Consider USDOT reporting and review requirements
  - CV experience affects waves but does not necessarily affects timeline
  - Data privacy, cyber security, and liability are critical elements but not significantly impact schedule
  - Integration with existing operations
Session 6-III: Security Management and Certification

- **Session Objective:**
  - Collect feedback on how USDOT can best help CV pilot sites incorporate Security Management and Certification Systems into the pilot tests.

- **Activity Summary**
  - Intro, Discussion, Voting on Four Proposed SCMS Approaches

- **Key Findings**
  - Should USDOT provide a working security design?
    - Consensus: **Yes, sites need this level of support.** Also, there should be commonality across the pilots. Some commented that some flexibility for innovative approaches should be allowed
  - Consider specifying existing standards for physical security (e.g., FIPS-140 level 2); also must consider security interconnected legacy systems
  - Are the goals of the CV pilots to test applications (only), security (only), or both in combination? This drives some of the SCMS answers
  - Consider running a separate series of tests for alternative security approaches
Session 6-IV: Open Source

- **Session Objective:**
  - Explore ideas on how Open Source applications can help the development and support of the CV pilot program.

- **Activity Summary**
  - Intro, Voting Exercise, Discussion

- **Key Findings**
  - Mobility and safety apps make most sense for open source
  - Public (infrastructure-based) apps better suited for open source
  - Basic libraries and toolkits more important than all software
  - Documentation and test data important for all forms of open source code
  - IP Rights approach needs flexibility to accommodate different approaches (commercial vs. research)
Session 7-I: Communications: Role of DSRC

- **Session Objective:**
  - Collect feedback on the extent to which DSRC should be a key component of CV Pilot tests and what alternatives are being considered.

- **Activity Summary**
  - Intro, Discussion, Exercise on Role of DSRC in Example Pilot Deployment Concepts

- **Key Findings**
  - Varying views on keeping DSRC as a requirement: encourage but not require
  - Safety requires DSRC, other apps should be able to use other methods if they meet requirements
  - We want CV pilots to be test of DSRC channel utilization – will usage for mobility apps interfere with safety apps?
  - DSRC is more than sending BSMs. Other apps use DSRC also
  - We want to leverage data from vehicles beyond currently available commercial offerings
Session 7-II: Mobile and Carry-in Devices

- **Session Objective:**
  - Engender stakeholder feedback on the utilization of vehicle devices and future enhancement with the increase of integrated vehicle devices.

- **Activity Summary**
  - Intro, Matching Game, Questions and Discussions, Brainstorm
  - 14 in person participants / 48 online

- **Key Findings**
  - **Challenges:**
    - Concern of driver distraction with mobile devices – need to be integrated (bluetooth)
    - Text to speech/voice recognition is important
    - For safety applications – Mobile and carry-in devices are more difficult
    - Carry-in devices will fade away
  - **Most appropriate role:**
    - Smart phone can be gateway to making any vehicle a connected vehicle
    - Vehicle can act as probes and give drivers information to make smart decisions
Session 7-III: Evaluation and Performance Measurement

- Session Objective:
  - Solicit stakeholder input on:
    - Definition of successful CV pilot deployments
    - Motivators for encouraging adoption and continued deployment of connected vehicle technology and applications
    - Measurement of value of connected vehicle applications in concert with CV pilot deployment activities

- Activity Summary
  - Discussion

- Key Findings
  - Measure of successful CV Pilot Deployments include:
    - Interoperability with legacy systems and applications
    - Sustained return on investment
    - Clear value to the general public
  - Key motivators to encourage adoption and deployment of CV:
    - Demonstrate benefits to broad group of stakeholders
    - Go to sites that have a clear need/problems
    - Creative approach required to incentivize new stakeholder groups (tolling, insurance)
  - Assessment of application value:
    - Need to look at individual applications as well as synergistic bundles of applications
Session 7-IV: Open Data

- **Session Objective:**
  - To explore ideas on how Open Data can be used to help the development and support of the CV pilot program

- **Activity Summary**
  - Open Data Overview and Quiz, Priority Card Game, General Discussion

- **Key Findings**
  - Data Quality & Latency were highest priority
    - Needed to test real-time applications
  - Sanitize data at the source
  - Private Sector needs incentive to share data in CV Pilots – ROI, Value Prop.
  - Opt-in services could be possible for applications, but PII still needs to be preserved
  - Standard data formats – we have time to develop standard data formats – tremendous benefit on the backend
Getting Ready for Pilot Deployments

- Get familiar with USDOT connected vehicle research products

- Attend upcoming stakeholder events

- Find like-minded partners from the public and private sectors to create a pilot deployment concept
  - Grounded in local needs, i.e., solving real transportation problems
  - Targeting specific and meaningful performance goals
  - Built around a cost-effective collection of connected vehicle applications that leverages common data capture and dissemination
# Upcoming Stakeholder Events

- Connected Vehicle 101 Workshops at ITS America State Chapter meetings:

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<td>Sep. 7</td>
<td>ITS World Congress</td>
<td>Detroit, MI</td>
<td><a href="http://itsworldcongress.org/">http://itsworldcongress.org/</a></td>
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Upcoming Stakeholder Events

- Plug-Fests: http://www.its.dot.gov/testbed/plugfests.htm#calendar
  - Detroit Area: May 13-15, 2014
  - Palo Alto, CA: June 24-26, 2014
  - Detroit Area: August 5-7, 2014
  - Hackathon: Late 2014/January 2015, Novi, MI

- Regional CV Pilot Workshops (TBD)

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Thank You For Your Participation

Kate Hartman
USDOT Intelligent Transportation Systems
Program Manager, CV Pilot Deployment Program