

U.S. DOT Connected Vehicle PlugFests

Southeast Michigan Connected Vehicle Test Bed 2014 Project
Public Meeting

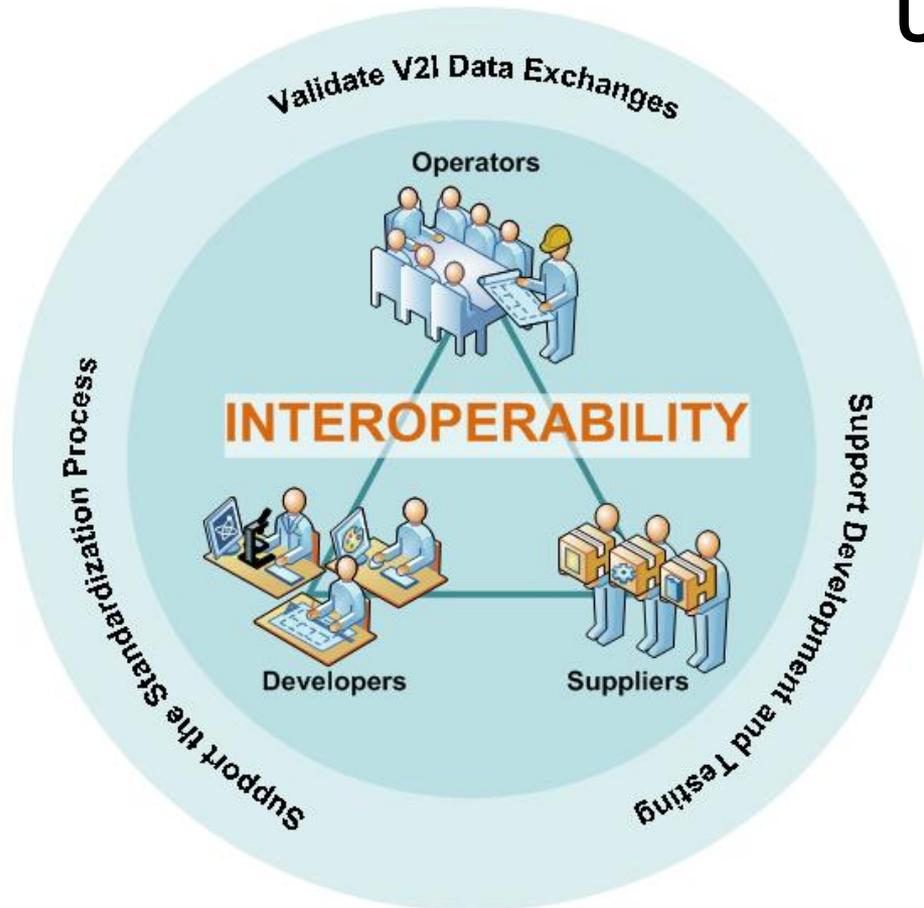
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Webinar

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Topics to Cover

- **What is a PlugFest?**
- **Why PlugFests?**
- **How are PlugFests organized?**
- **Who should attend?**
- **When and where will they take place?**
- **Next steps**

Why PlugFests?



USDOT-RITA VISION:

“Harness the collective abilities of [stakeholders] to transition [connected vehicle] technology toward full deployment by allowing for the exchange of information, the sharing of deployment lessons learned, developing a common technical platform, and expanding test bed options for users.”



How are PlugFests Organized?

- Vendor to vendor test sessions assess the level of interoperability and the correct understanding of the base standard requirements for the Southeast Michigan Connected Vehicle Test Bed Deployment
- Classroom training and lab environment providing connectivity, instruction, and facilities
- Multiple day event replicated at test bed sites across the country

Source: <http://www.ertico.com/2nd-cms-interoperability-event-follow-it-live/>

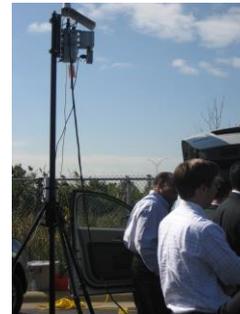


Source: <http://celebrate.tech.co/schedule/hackathon/>



How are PlugFests Organized? (cont.)

- Testing will take place at various test beds
 - Data Logging
 - Standards Validation/ Lessons Learned
 - Interface Development Support
- Participants will transmit messages over the air
- Available equipment includes:
 - Roadside Equipment (RSEs) – DSRC
 - Test vehicles equipped with Vehicle-Awareness-Devices (VADs)
 - SPaT enabled intersections
 - Access to backhaul network



Scope of PlugFests

- Primary (Initial) Focus is on technical (syntactic) interoperability:
 - Two or more systems are capable of communicating and exchanging data
 - Guarantees the correct transmission of data
- Secondary Focus on semantic interoperability (at a later date):
 - Ability to automatically interpret the information exchanged meaningfully and accurately

Phase	Details
Phase 1: V2I Interoperability	<ul style="list-style-type: none">• Architecture – Level 0• Primary focus on infrastructure interface testing• Based on SE MI Deployment Project
Phase 2: Application Development	<ul style="list-style-type: none">• Use of connected vehicle data, RDE data, microsite and other data inventories• Based on SE MI Deployment Project Architecture Layer 1• Second/Third Round Plugfests will focus on feature app and security testing
Phase 3: Security Interoperability	<ul style="list-style-type: none">• “Hackathon”• Ensure trust, counter-cases, intrusion attempts

Proposed Schedule

- Inaugural PlugFest: January 2014, Turner Fairbank Highway Research Center, VA
- Midwestern PlugFest: March 2014, Novi, MI
 - Kick-Off ITS World Congress Demonstrators Tech Support
- Western PlugFest: June 2014, Palo Alto, CA
- Bimonthly World Congress Mini-Fests:
 - May 2014 – Novi, MI
 - July 2014 – Detroit, MI
 - Mid August 2014 – Detroit, MI
 - World Congress Demonstrator Preparation
- Hackathon: Early November 2014/January 2015, Novi, MI

Target Participants

- Tier 1 and 2 automotive suppliers
- Wireless community and DSRC equipment manufacturers and solution providers
- Vehicle application developers and network users, interested in data
- University research centers



Key Preparation Activities

1. PlugFest FAQs and Reference Materials	<ul style="list-style-type: none">• Will be published in advance of Plugfest - before January 2014• Specific standards and tests documentation/reference materials posted to webpage
2. Informal Industry Interviews/Webinar	<ul style="list-style-type: none">• Pre-screening questionnaire will be issued in coming month to:<ul style="list-style-type: none">○ Screen participants○ Identify testing priorities (from a set list of options)○ Capabilities○ Platforms – hardware, software and UI
3. Mandatory Registration and Prequalification	<ul style="list-style-type: none">• Affiliated Test Bed Agreement must be signed before testing
4. Venue/Logistics	<ul style="list-style-type: none">• Coordination between USDOT and Affiliated Test Beds• Develop requirements for additional venues/equipment, etc.



Why Should You Attend?

- Test your implementations together with experts and help ensure interoperability across multiple implementations and standards
- Get support from experienced connected vehicle deployment experts to improve your equipment
- Learn how to integrate open standards implementations into your software project
- Provide feedback and discuss with experts which features are needed for your applications or use cases
- Develop personal relationships with leading developers and open source project experts in the industry



Source: <http://www.ertico.com/2nd-cms-interoperability-event-follow-it-live/>



To Learn More...

- **PlugFest Information**

<http://www.its.dot.gov/testbed.htm>

- **Event Registration:**

www.itsa.org/plugfest

- **Point of Contact:**

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U.S. Department
of Transportation



Connected Vehicle
PlugFest