



2015 Executive Committee

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**ITS Technical Committee  
Meeting Minutes  
Tuesday, February 2, 2016**

Name	Agency
Ray Starr	MnDOT
Steve McHenry	SRF
Dan Nelson	AECOM
Morrie Luke	MnDOT – RTMC
Jim McCarthy	FHWA
Durga Panda	Retired

**Meeting Location:** MnDOT Waters Edge, Conference Room A  
**Meeting Topic:** Turning Connected Vehicle Data into Traffic Measures Using V2I Emulator  
**Meeting Presenter:** James McCarthy, FHWA

1. Introductions / Sign-up sheet
2. Approve Minutes of Tuesday, December 1, 2015
3. Review Agenda of Tuesday, February 2, 2016
4. Discussion Topic – Turning Connected Vehicle Data into Traffic Measures Using V2I Emulator. Presented by James McCarthy
  - **It was a good session even though it was small!**
  - Jim discussed two activities:
    - V2I emulator software development- Trajectory Conversion Algorithm (TCA) version 2
    - Performance estimation using BSM variants
  - TCA was developed to emulate V2I messaging variants BSM Part 1 and BSM Part 2 with DSRC, cellular, and both, including latency and data loss.
  - Three products are available:
    - TCA 2.X Offline Analysis Software
    - TCA-V 2.X VISSIM API
    - TCA-P 2.X PARAMICS API
  - TCA 2 also contains performance measure calculation algorithms
  - Diagram below show concept of operation of the software in offline mode.

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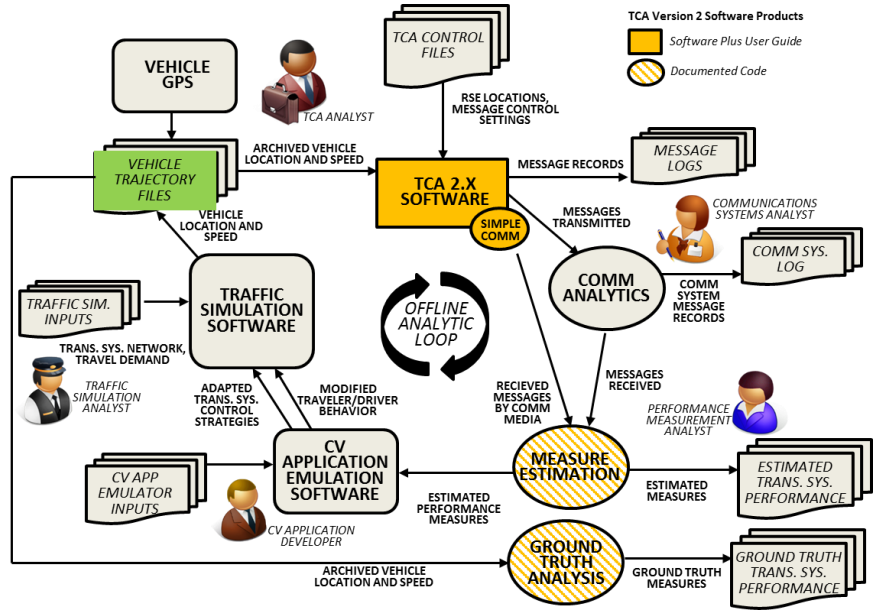
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- The products are available via OSADP [www.itsforge.net](http://www.itsforge.net).
  - Performance measures were estimated using BSM variants at various market penetrations.
  - Key finding from performance estimation:
    - BSM and PDM is more effective in performance estimation when used in combination than individually.
5. Round Robin: None.
6. Other:
- Due to winter storm the meeting had very few attendees.
    - **Jim McCarthy is willing to give an encore presentation if the committee members want-**
      - **please let us know by emailing to:**  
[dppanda@hotmail.com](mailto:dppanda@hotmail.com) or [morris.luke@state.mn.us](mailto:morris.luke@state.mn.us).
  - Next meeting will be held on Tuesday, April 5, 2016, 1:00pm-to-3:00pm at Waters Edge Conference Room A.
    - Meeting Topic: Remote Monitoring Systems Engineering, by Ginny Crowson, Athey Creek.