Committee on Transportation System Operations (CTSO)

Working Group Meeting August 27, 2018



Agenda

- ITS Working Group Committee Mandate
- ITS Working Group Meeting Discussion Topics
- ITS Working Group Survey Results
- Feedback
- Membership/Contributions
- How to Proceed
- Benefits to the Transportation Community
- Interactions with Other Working Groups



Committee on Transportation System Operations





Working Group on ITS

- Co-Chairs
 - Raj Ponnaluri, Florida Department of Transportation
 - Brian Simi, Caltrans
- Others?



Working Group on ITS Goals

Advance the state of practice & **deployment** of systems operations

Advance the state of practice and **performance** of TIM

Facilitate the <u>safe</u>, <u>efficient movement</u> of freight by truck and promote national coordination

Implement state DOTs **best practices** with TSM&O system **integration**, **operability**, **standards**, and **cybersecurity**

Existing <u>communication technologies</u> remain <u>available</u> for DOTs and capture the <u>benefits</u> of new and emerging communication technologies

<u>Standardization and consistency</u> of ITS <u>deployment and modernization</u> of technologies and their integration into agency operations

Enable organization members to <u>advance</u> transportation system <u>performance</u> and the state of practice with TSM&O strategies and technology through application of data, analytics and performance management techniques

Working Group on ITS

• Topics:

- ITS equipment, data
- Management of ITS assets
- Identifying, addressing emerging and sun setting technologies
- Identifying, disseminating best ITS practices
- Engage vendor community to identify emerging technologies, practices, opportunities
- ITS standards and guidelines
- ITS data, technology integration with member departments
- Coordination with other committees and nationals organizations
- Related research initiatives
- Education and outreach
- Data/performance management needs





Previous Meeting Overview

- NCHRP Project 20-07/392-A Plan for an AASHTO Operations Guide
- Survey Results Discussion
- Goals, Objectives and Strategy document has been updated





Survey Priorities

- Priority 1 (Score: 2.21) Identify and share best practices and techniques to: 1) Maintain and extend the useful life of ITS infrastructure; and 2) Determine when a system reaches obsolescence
- Priority 2 (Score 2.67) Develop ITS Standards/Guidelines
- Priority 3 (Score: 2.79) Continually identify emerging technologies for the mainstream TSO community
- Priority 4 (Score 2.93) Develop best practices for developing and maintaining the needed workforce to support ITS infrastructure

Based on 14 responses





- CTSO will share best practices and identify techniques to maintain and extend the useful life of operations technology, and determine when technology reaches obsolescence.
 - Categorize technology focus areas (e.g. cameras, DMS, communications infrastructure, sensors, etc.) to allow for targeted information gathering.
 - Gather information from member agencies in an organized manner, to solicit best practices and experiences.
 - Identify any relevant literature that may be available to inform this task.
 - Synthesize findings (consider whether this could be a research synthesis topic, e.g. NCHRP)
 - Share best practices with the CTSO community (NOCoE and other venues). Capitalize on opportunities for early distribution of findings through presentations or webinars by agencies.





- CTSO will develop ITS design standards/guidelines
 - Survey member DOT agencies to collect ITS design standards/guidelines
 - Identify standards gaps, including the need for new standards, modification to existing standards, and other coordination activities as needed. Utilize the Operations Guide to help identify ITS systems/devices for standards development.
 - Summarize/distill findings (current standards and gaps) into general guidance
 - Create an ITS design standards "Green Book"





- CTSO will identify emerging technologies for the mainstream TSMO community and pilot these technologies through deployments within the member agencies.
 - Reach out to member agencies to identify technological needs/gaps that could be addressed by emerging ITS technologies
 - Poll members to identify technologies (existing products and current R&D efforts) that may meet the needs identified by member agencies.
 - Identify and seek out venues for reaching the vendor community to better understand the state of research and product development efforts.
 - Document these emerging technologies and share experiences (e.g. evaluation results or other as available) from DOT agencies who have piloted relevant technologies.
 - Investigate the use of independent evaluation methodologies and share results with the larger ITS user community.





- CTSO will develop best practices for developing and maintaining the needed workforce to support ITS infrastructure.
 - Collaborate with NOCoE to support workforce development efforts
 - Promote the TSMO Capability Maturity Model as the framework for developing the employee skills, organizational structures, information systems, and agency policies for transportation agencies to actively manage their ITS infrastructure.





Membership Advancing ITS-WG Mission

- Membership will bring a wider knowledge and experience base to the ITS-WG
- Accomplish the goals across the United States
- Help spread the Mission and Goals across organizations





Expected Production

- What we expect to produce?
 - Strategies
 - Performance Enhancement
 - Best Practices
 - Standardization and Consistency
- Benefits to the transportation community:
 - Available Resources
 - Advanced Programs





Other Working Group Interactions



