



Emerging V2I Deployment Coalition Framework

USDOT FHWA and ITS JPO Outreach Efforts to Establish V2I Coalition

- December 4, 2013, FHWA and ITS-JPO facilitated a discussion on establishing a V2I Coalition with ITE, ITSA, AASHTO, Academia, and Industry stakeholders
- In follow up, a wide range of stakeholder meetings were held in conjunction with 2014 TRB Annual Meeting
- Additional follow up discussions with AASHTO, ITE and ITSA were held to identify base level V2I Deployment Coalition (V2I-DC) using the following guidelines:
 - Collaborate with FHWA on 2015 connected vehicle deployment guidance
 - Promote collaboration among USDOT, owner/operator associations, AASTHO, and trade & professional associations
 - Support the development of second phase Connected Vehicle Footprint Analysis
 - The Vehicle-to-Infrastructure Deployment Coalition Chair and Connected Vehicle Executive Leadership Team Chair to provide executive input to other Federal, State, and local transportation groups associated with V2I technology deployment.

Vehicle-to-Infrastructure Deployment Coalition (V2I-DC) Proposed Objectives

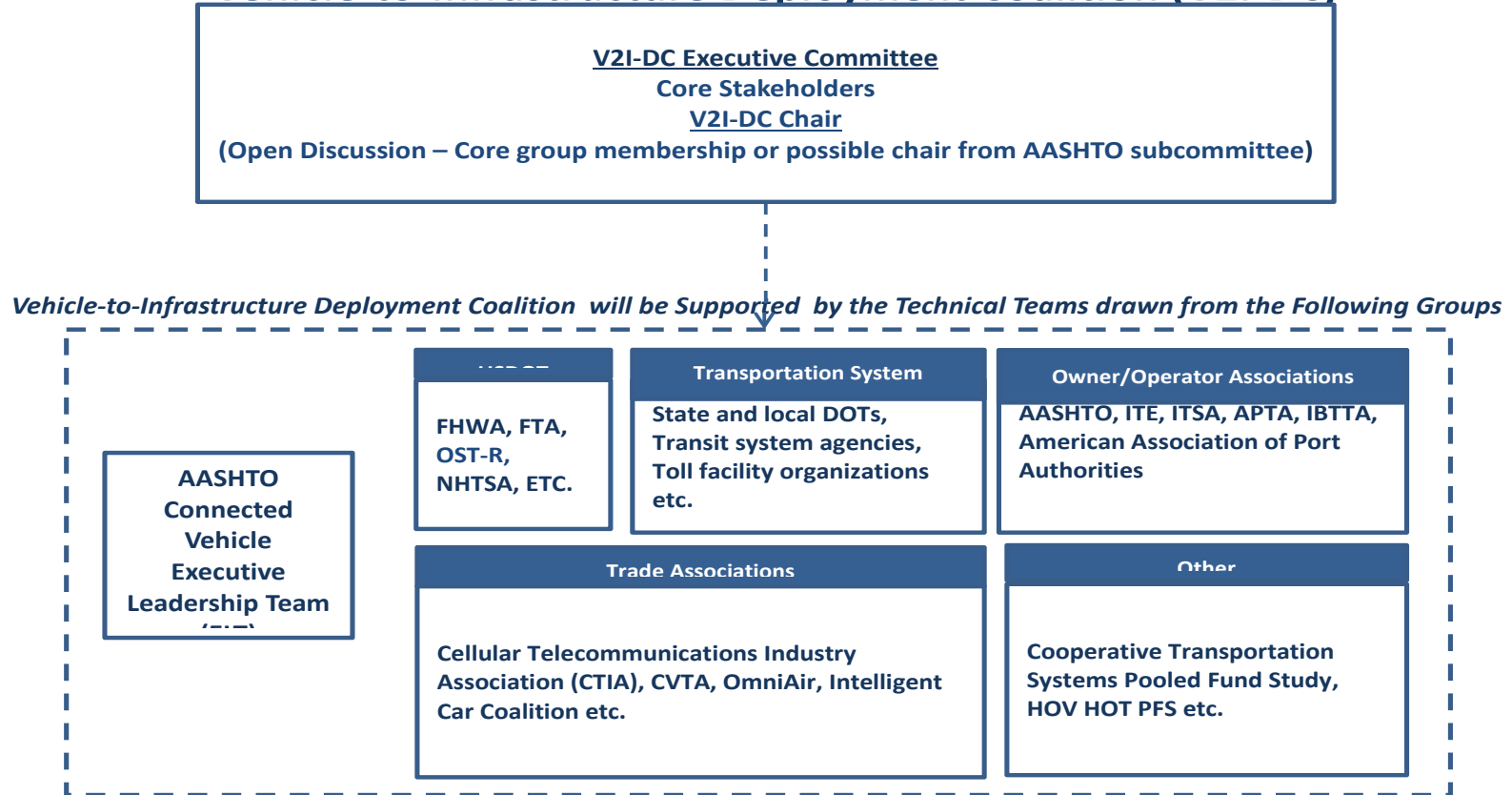
- Support implementation of FHWA's Vehicle-to-Infrastructure (V2I) Guidance
- Provide leadership on Connected Vehicle (CV) Deployment Guidance
- Establish Connected Vehicle (CV) and Automated Vehicle (AV) Deployment Strategies
- Lead and Provide Support on Continued Technical Research to Support CV and AV Deployment
- Support Standards Development

Vehicle-to-Infrastructure Deployment Coalition (V2I-DC) Key Tasks

- V2I Strategies
- V2I Readiness
- V2I Research
- V2I Standards and Deployment support
- V2I Outreach

Figure2. Connected Vehicle Deployment Coalition (V2IDC) Framework

Vehicle-to-Infrastructure Deployment Coalition (V2I-DC)



1. Collaborate with FHWA on connected vehicle V2I deployment activities
2. Promote collaboration among transportation system owner/operator associations, AASTHO, and trade & professional associations
3. Support the development of second phase Connected Vehicle Footprint Analysis
4. The Vehicle-to-Infrastructure Deployment Coalition Chair and Connected Vehicle Executive Leadership Team Chair to provide executive input to other Federal, State, and local transportation groups associated with V2I technology deployment.

Vehicle-to-Infrastructure Deployment Coalition (V2I-DC) - AASHTO

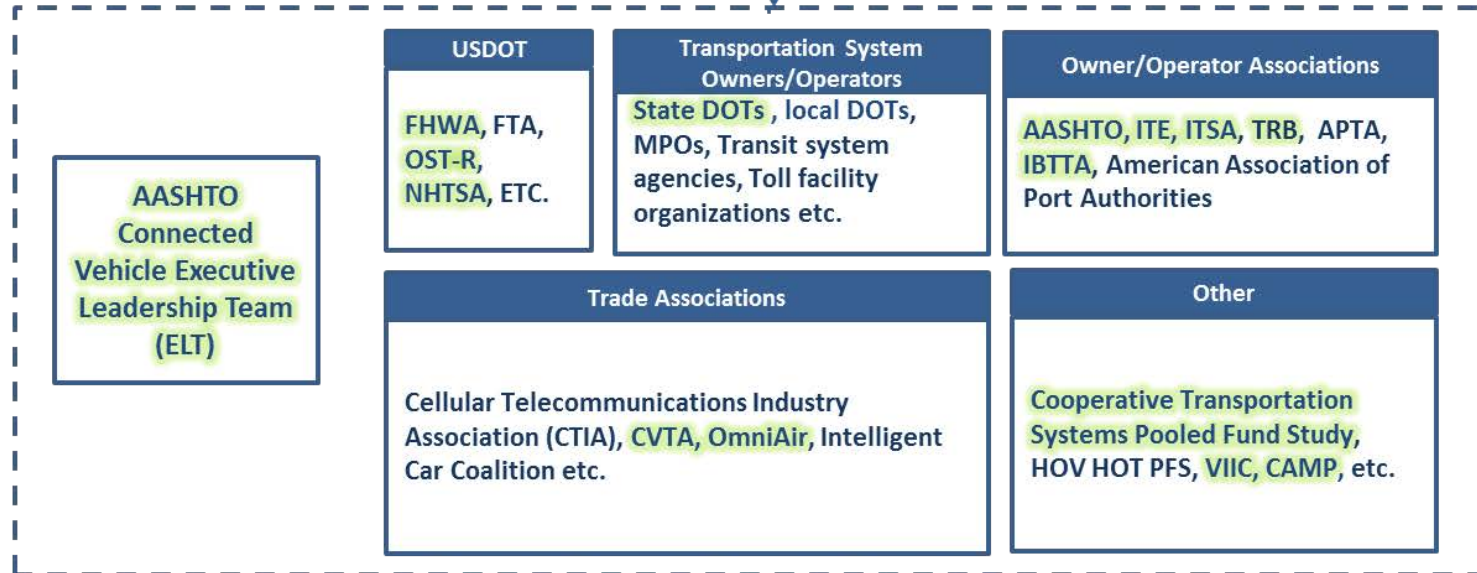
V2I-DC Executive Committee

Core Stakeholders

V2I-DC Chair

(Open Discussion – Core Group membership or possible chair from AASHTO Subcommittee)

Vehicle-to-Infrastructure Deployment Coalition will be Supported by the Technical Teams drawn from the Following Groups



Connected Vehicle Deployment Coalition key functions

1. Collaborate with FHWA on connected vehicle V2I deployment activities
2. Promote collaboration among transportation system owner/operator associations, AASTHO, and trade & professional associations
3. Support the development of second phase Connected Vehicle Footprint Analysis
4. The Vehicle-to-Infrastructure Deployment Coalition Chair and Connected Vehicle Executive Leadership Team Chair to provide executive input to other Federal, State, and local transportation groups associated with V2I technology deployment.

Vehicle-to-Infrastructure Deployment Coalition (V2I-DC) - ITE

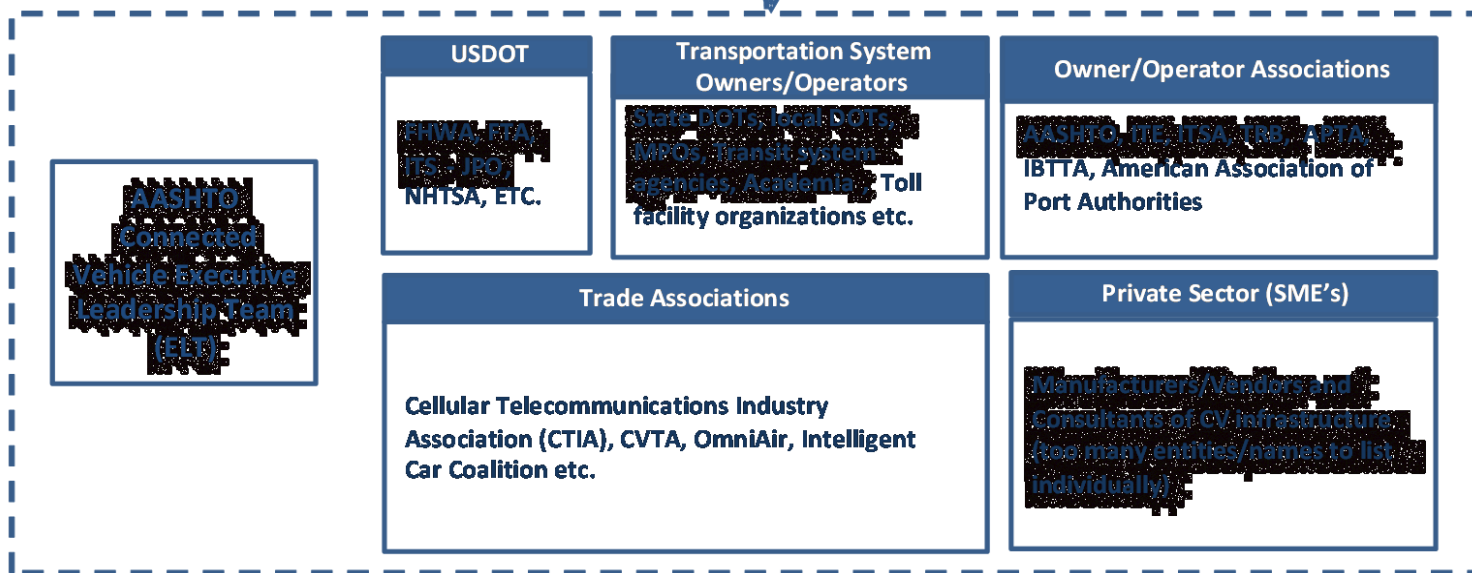
V2I-DC Executive Committee

Core Stakeholders & USDOT (FHWA, OSTR – ITS JPO, NHTSA, FTA, etc.)

V2I-DC Chair

(Open Discussion – possible chair from AASHTO subcommittee or core group membership)

Vehicle-to-Infrastructure Deployment Coalition will be Supported by the Technical Teams drawn from the Following Groups



Connected Vehicle Deployment Coalition key functions

1. Collaborate with FHWA on 2015 connected vehicle deployment guidance
2. Promote collaboration among USDOT, owner/operator associations, AASHTO, and trade & professional associations
3. Support the development of second phase Connected Vehicle Footprint Analysis
4. The Vehicle-to-Infrastructure Deployment Coalition Chair and Connected Vehicle Executive Leadership Team Chair to provide executive input to other Federal, State, and local transportation groups associated with V2I technology deployment.

Additional ITS America Outreach Opportunities

Leadership Circle – V2I Start-up

Coordinating Council

Policy and Business Council

Standards Community –
TC204 (working groups 9, 12,
14, 16)
Also link to TC22 (OEMs)

ITS America Member Organizations

Transportation System Owners/Operators

State/local DOTs
Transit agencies
Tolling authorities
MPOs
Etc.

ICT Community

Verizon
AT&T
Google
Apple
IBM
Etc.

OEMs

GM
Ford
Toyota
Honda
Etc.

Device Manufacturers

Tom Tom
Denso
Econolite
Kapsch
Arada
Etc.

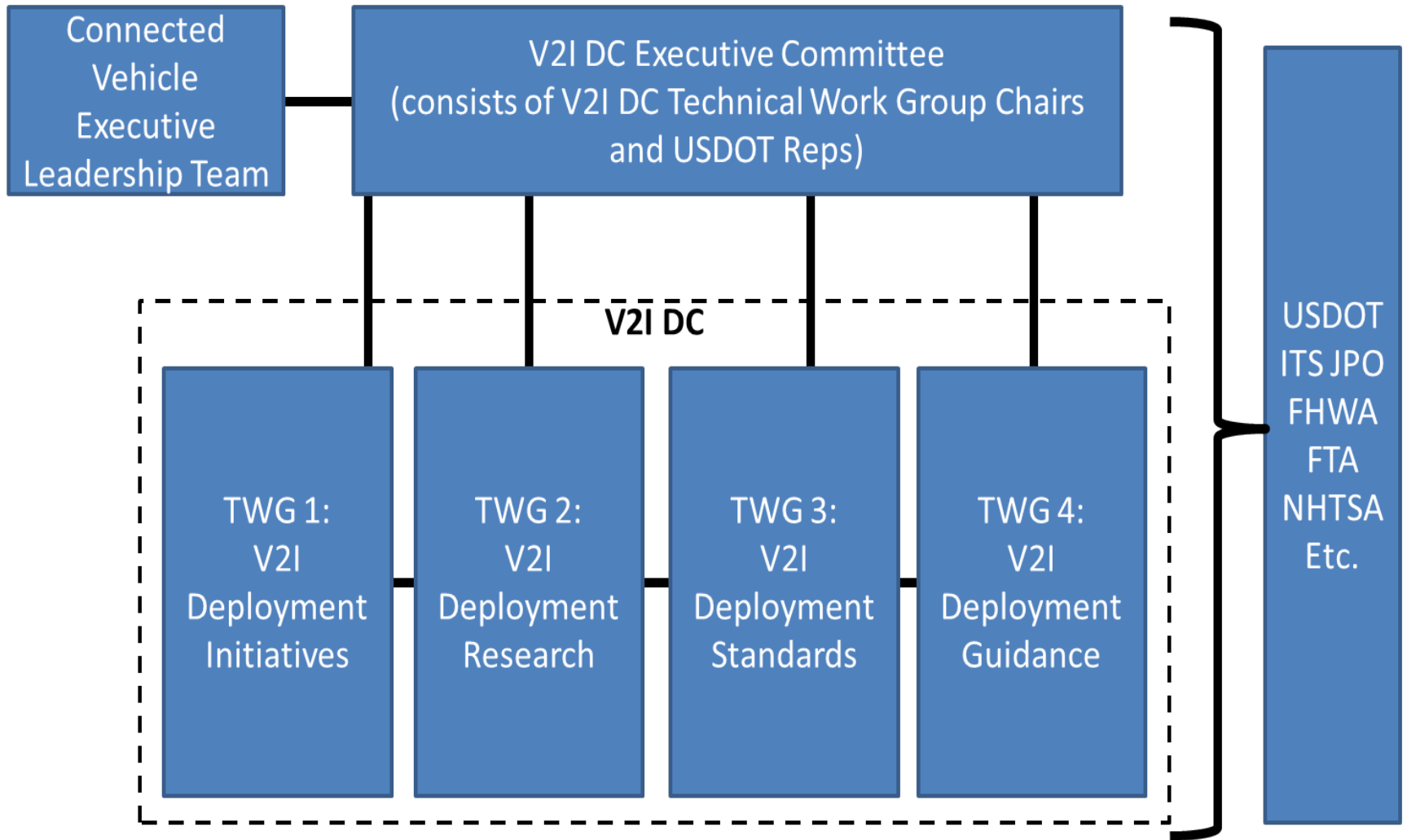
Academia

UMTRI
TTI
Cal Berkeley PATH
VTI
Carnegie Mellon
Etc.

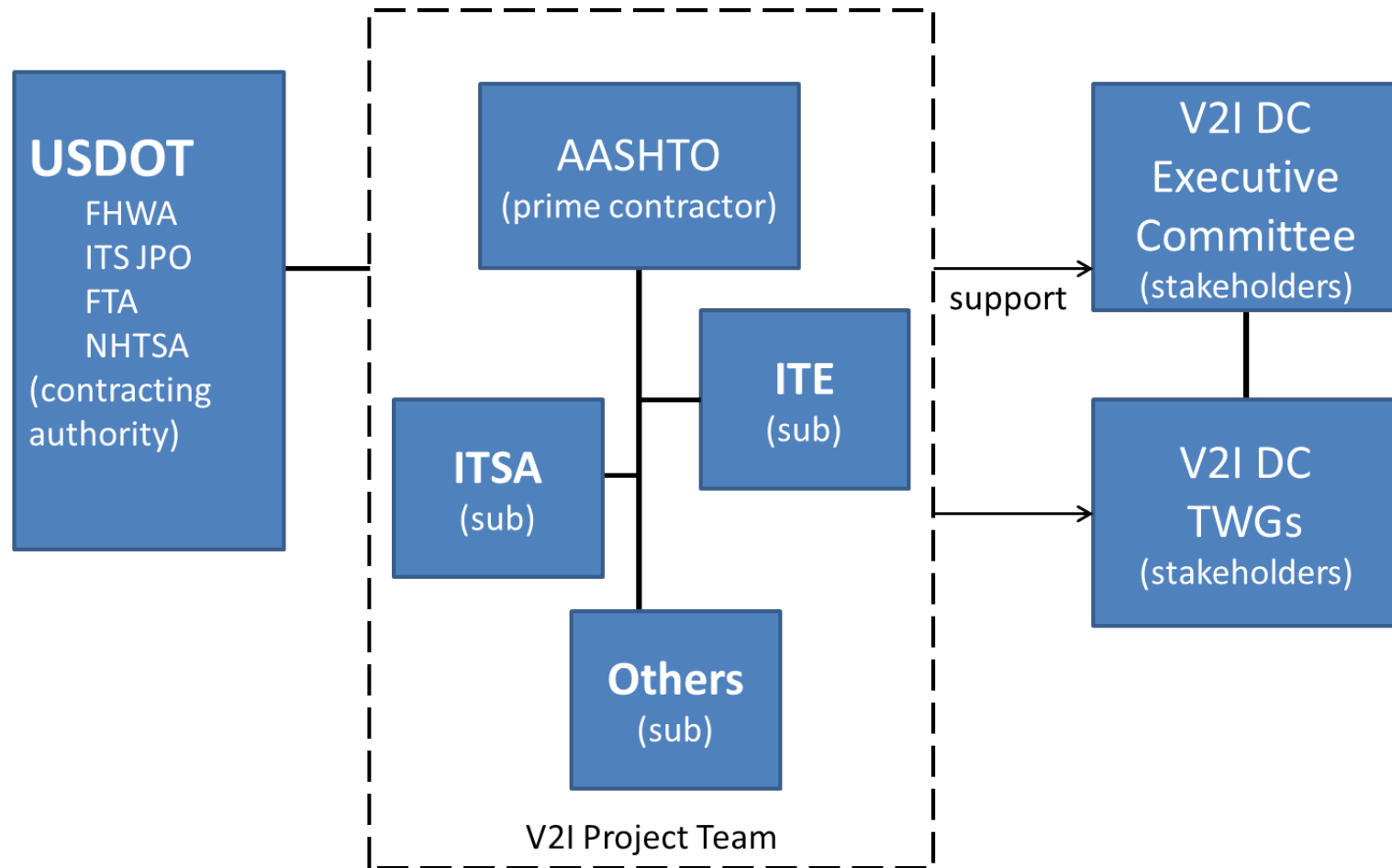
Services

RideScout
Car2Go
OnStar
Etc.

Figure 4: V2IDC Executive Committee and V2IDC Technical Working Groups



Vehicle to Infrastructure Deployment Coalition Project Team



Objective

AASHTO in collaboration with ITE, ITSA and USDOT will help establish the V2I DC that is capable to assume an expanded role to include comprehensive outreach to and feedback from all transportation modes and system owner/operators.

V2I DC activities include but not limited to:

- Gathering input through periodic open meetings on deployment issues through webinars and peer exchanges
- Fostering public sector participation
- Support USDOT in providing timely guidance to stakeholders on critical issues such as policy, privacy and deployment
- Providing support for V2I deployment planning
- Performing gap filling research activities
- Providing a peer exchange platform for public, private, industry, academia and other agency partners
- Providing leadership in the development and implementation of standards.

Overarching Tasks...and Roles and Responsibilities..

- AASHTO provides over all contractual and scope lead:
 - Serves as the primary contractor with FHWA, USDOT
 - Collaborates with ITE and ITSA in developing and responding to the primary contract SOW and RFP
 - Establishes subcontracts with ITE and ITSA following the execution of the prime contract.
 - Subcontracts with other entities will also be developed as required to commence the V2I DC activities.
- AASHTO serves as primary point of contact for establishing the State DOT Stakeholders to the V2IDC
- ITS America serves as point of contact to the OEMs, ITC community, device manufacturers, academia
- ITE serves as a primary point to contact representing owners/operators, SME's of urban transportation infrastructure at local, regional and municipal agencies responsible for transportation programs as well as the vendors and consultants who support them.

Over Arching Tasks...and Roles and Responsibilities..contd.

- AASHTO continues to lead and coordinate with AASHTO CV ELT and provide staff support to collaborate the AASHTO CV ELT, AASHTO CV Coalition, AASHTO CV PFS and NOCoE activities with V2I DC
 - Support CV Executive Leadership Team.
 - Support and lead collaborate AASHTO Day and AASHTO Executive participation at the ITSA and ITS World Congress annual events.
- ITS America continues to lead and coordinate with its Leadership Circle, Policy and Business Council, and Coordinating Council (and Technical Forums)
- ITE continues to lead, engage and outreach with its membership and provide review and feedback on US DOT CV programs through the ITE CV/AV Task Force, Management and Operations Council, ITE CV/ITS Standards committees, CV PCB training activities, as well as support to NTOC and NOCoE.

Proposed Key Tasks

- Provide Executive and Technical Leadership Support through the V2IDC
- Support the FHWA 2015 Implementation Guidance
- Provide Outreach to Stakeholders
- Provide Support Services for Public Meetings
- Provide Products Such as; Phase 2 CV FPA, Guide to incorporate V2I into Metropolitan Area TIPS, Prepare to “Guide to Incorporating V2I into Municipal Agency Performance Management and Asset Management ” (working title)

Proposed Key Tasks Contd.

- Provide stakeholder feedback and perspectives to USDOT on matters such as:
 - Security (cybersecurity and physical infrastructure)
 - Privacy
 - Spectrum use
 - Data
 - Coordination
 - Relationship to agencies' performance management and program management techniques.
 - Relationship to regional planning and programming of transportation improvements.
 - Relationship to agencies' life cycle and asset management programs for transportation infrastructure.
- Recommend actions to facilitate the implementation of V2I