

# UPDATE TO THE METROPOLITAN WASHINGTON REGIONAL ITS ARCHITECTURE (MWRITSA)

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TPB Systems Performance, Operations, and Technology Subcommittee  
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# Introduction

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- 23 CFR § 940.3 Definitions
  - Intelligent Transportation System (ITS) means electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system
  - Regional ITS architecture means a regional framework for ensuring institutional agreement and technical integration for the implementation of ITS projects or groups of projects.
- 23 CFR § 940.9 Regional ITS architecture
  - (a) A regional ITS architecture shall be developed to guide the development of ITS projects and programs and be consistent with ITS strategies and projects contained in applicable transportation plans



# Compliance Requirements

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- According to 23 CFR Part 940:
  - All ITS projects funded through the highway trust fund must conform to the Regional ITS Architecture
  - A Regional ITS Architecture must be developed to guide ITS projects and programs
  - The architecture must be consistent with ITS strategies and projects contained in applicable transportation plans
- Because of the linkages to existing planning processes, the states and metropolitan planning organizations are ultimately responsible for ensuring that the TEA-21 Rule's conditions are met for using federal funds
- To illustrate and document regional integration so that planning and deployment can take place in an organized and coordinated fashion



# TPB's ROLE in the Regional ITS Architecture

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- TPB develops and maintains the Regional ITS Architecture for the National Capital Region, in compliance with federal laws and U.S. DOT regulations
  - Systems Performance, Operations, and Technology Subcommittee
    - Provide expert advice on the development of MWRITSA
    - Leverage the MWRITSA to a more efficient and resilient transportation network
  - Commuter Connections Subcommittee
    - Leverage the MWRITSA to commuters for informed travel decisions



# Integration with the TPB's Planning Activities

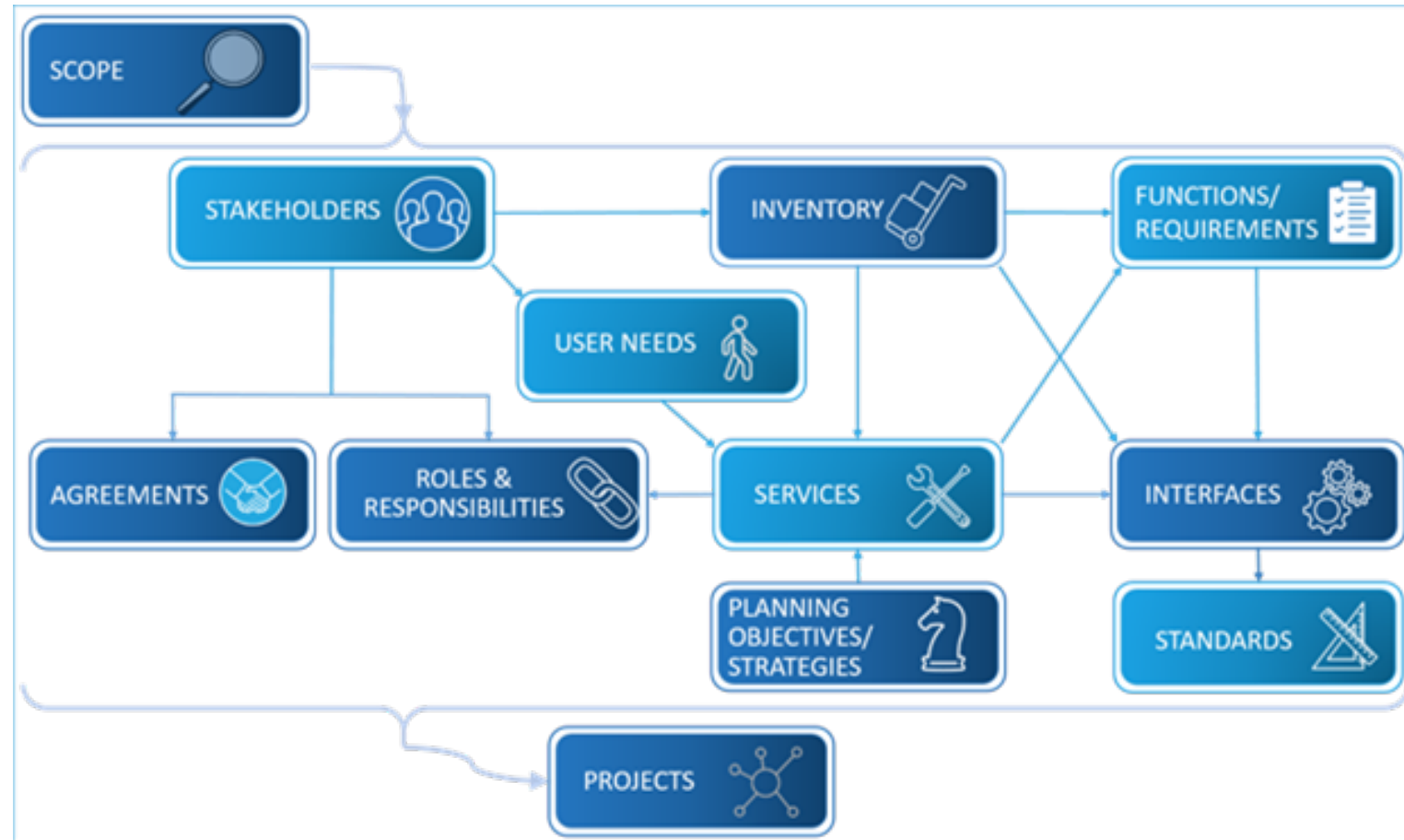
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- To enhance the efficiency and effectiveness of the region's transportation network
- Key mechanisms
  - Strategic Framework – to ensure that all ITS projects align with the TPB's long-term transportation goals and objectives
  - Data-Driven Decision Making – to support the TPB's performance-based planning approach
  - Enhanced Coordination – to facilitate coordination among various transportation agencies and stakeholders within the TPB
  - Support for Management and Operations – to ensure that the transportation system is managed efficiently and can respond effectively to traffic events
  - State and Agency Architectures - The MWRITSA is closely linked to
  - Future-Proofing – to ensures that the TPB's planning activities remain relevant and effective in addressing current and future transportation challenges



# Regional ITS Architecture Components

- Regional ITS Architectures across the US share similar components, developed over the past 20 years
- The scope defines what will be included in each of the other components
- Stakeholders are related to the Inventory, Agreements, and the Roles and Responsibilities



Source: Regional ITS Architecture Guide Document, U.S. Department of Transportation ITS Joint Program Office



# Regional Architecture Development for Intelligent Transportation (RAD-IT)

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- RAD-IT provides support for the 23 CFR § 940.09 with features like:
  - Stakeholders and associated Inventory
  - Project sequencing support
  - Operational concept (i.e. agency roles and responsibilities)
  - Functional requirements support
  - Support for list of agreements, selected based on interfaces between stakeholders' elements
  - User tailored list of standards-based communications solutions
  - Transferring project information between RAD-IT and the Systems Engineering Tool for Intelligent Transportation (SET-IT)



# Get Access to MWRITSA

## MWRITSA 2019 Version 1.0

**Home of MWRITSA**

- Scope
- Planning
- Stakeholders
- Inventory
  - By Physical Object
  - By Stakeholder
- Services
- Roles and Resp
- Needs
- Interfaces
- Standards
- Agreements
- Projects

### MWRITSA 2019 Version 1.0

This Regional ITS Architecture is a roadmap for transportation systems integration. The architecture was developed through a cooperative effort by the region's transportation agencies, covering all modes and all roads in the region. It represents a shared vision of how each agency's systems will work together in the future, sharing information and resources to provide a safer, more efficient, and more effective transportation system for travelers in the region.

The architecture provides an overarching framework that spans all of the region's transportation organizations and individual transportation projects. Using the architecture, each transportation project can be viewed as an element of the overall transportation system, providing visibility into the relationship between individual transportation projects and ways to cost-effectively build an integrated transportation system over time.

The purpose of this regional ITS architecture web site is to encourage use of the regional ITS architecture and gather feedback so that the architecture is used and continues to reflect the intelligent transportation system vision for the region. The menu bar at left provides access to the stakeholders, the transportation systems in the region (the Inventory), the transportation-related functions that are envisioned, and the existing and planned integration opportunities in the region.

<https://www1.mwcog.org/itsarch/>

[Send Email Comments](#) Phone Comments: James Li @ 202-962-3329 10/10/2019





# MWRITSA Stakeholders

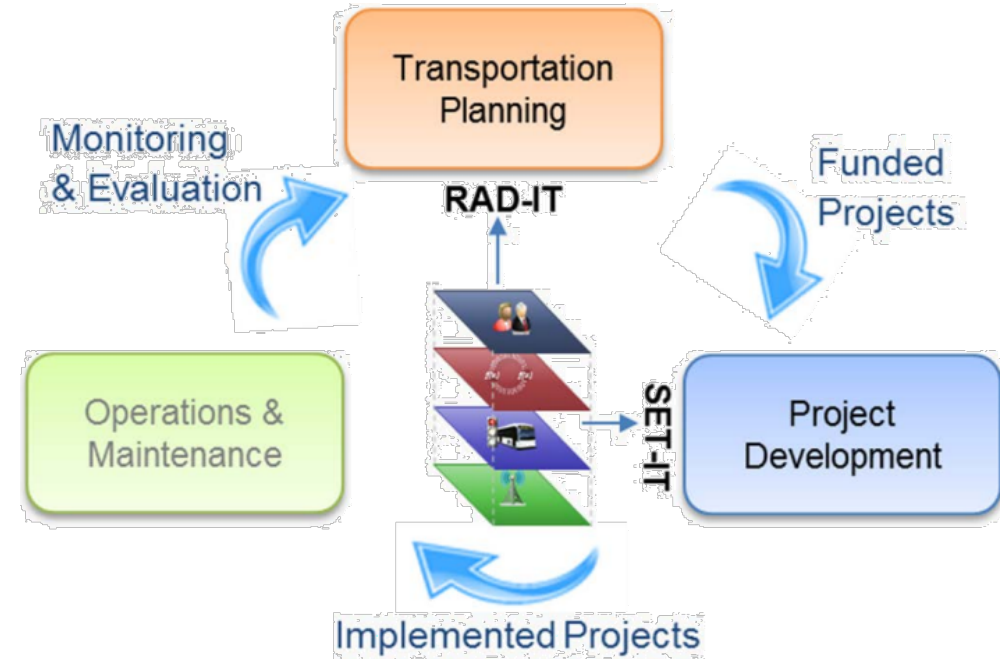
- Transportation agencies, including DDOT, MDOT, VDOT
- Public transit operators, including MTA, WMATA, VRT
- Local governments, including Fairfax County, VA, Montgomery County, MD
- Federal agencies, including FHWA, FTA
- Private sector partners, including Inrix, Metropia, Waze



MWRITSA 2019 Version 1.0															
Home of MWRITSA Scope Planning <b>Stakeholders</b> Inventory By Physical Object By Stakeholder Services Roles and Resp Needs Interfaces Standards Agreements Projects	<h2>Stakeholders</h2> <p>The Regional ITS Architecture resulted from the consensus input of a diverse set of stakeholders, encompassing traffic, transit, public safety, and many other operating agencies at local, state, and national levels. It includes both public and private sectors and spans the organizations that manage, support, or are impacted by the surface transportation system, with particular focus on agencies that operate transportation systems in the region.</p> <table border="1"> <thead> <tr> <th>Stakeholder</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><a href="#">Adjacent State Traffic Mgmt Agencies</a></td> <td></td> </tr> <tr> <td><a href="#">Archived Data Mgmt Agencies</a></td> <td></td> </tr> <tr> <td><a href="#">Arlington County Office of Emergency Management</a></td> <td>The Arlington County Office of Emergency Management manages the Arlington County Emergency Communications Center which receives 9–1–1 and non–emergency call and dispatches police, fire and EMS units.</td> </tr> <tr> <td><a href="#">Arlington County Public Safety Agencies</a></td> <td>The Arlington County Public Safety stakeholders are comprised of the Arlington County Sheriff, as well as the Arlington County Police and Fire Departments responsible for public safety in Arlington County.</td> </tr> <tr> <td><a href="#">Arlington Department of Environmental Services</a></td> <td>Arlington County Department of Environmental Services's focus is in critical policy areas of transportation, the environment, and capital investment as well as providing continuing operations and maintenance in these areas.</td> </tr> <tr> <td><a href="#">Arlington Transit (ART) and Specialized Transit for Arlington Residents (STAR)</a></td> <td>Arlington Transit (ART) and Specialized Transit for Arlington Residents (STAR) are responsible for providing transit services for Arlington County. STAR is a part of ART serving Arlington residents who have difficulty using public transit due to the effects of age or disability.</td> </tr> </tbody> </table>	Stakeholder	Description	<a href="#">Adjacent State Traffic Mgmt Agencies</a>		<a href="#">Archived Data Mgmt Agencies</a>		<a href="#">Arlington County Office of Emergency Management</a>	The Arlington County Office of Emergency Management manages the Arlington County Emergency Communications Center which receives 9–1–1 and non–emergency call and dispatches police, fire and EMS units.	<a href="#">Arlington County Public Safety Agencies</a>	The Arlington County Public Safety stakeholders are comprised of the Arlington County Sheriff, as well as the Arlington County Police and Fire Departments responsible for public safety in Arlington County.	<a href="#">Arlington Department of Environmental Services</a>	Arlington County Department of Environmental Services's focus is in critical policy areas of transportation, the environment, and capital investment as well as providing continuing operations and maintenance in these areas.	<a href="#">Arlington Transit (ART) and Specialized Transit for Arlington Residents (STAR)</a>	Arlington Transit (ART) and Specialized Transit for Arlington Residents (STAR) are responsible for providing transit services for Arlington County. STAR is a part of ART serving Arlington residents who have difficulty using public transit due to the effects of age or disability.
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# A Living Document

- MWRITSA
  - A framework for ensuring institutional agreement and technical integration for the implementation of ITS projects in the national capital region
  - A resource for better communications
    - Between stakeholders
    - Between systems
- Your input matters



Source: U.S. Department of Transportation ITS Joint Program Office



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National Capital Region  
**Transportation Planning Board**