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To: MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS  
(MOITS) POLICY TASK FORCE AND MOITS TECHNICAL SUBCOMMITTEE

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Subject: Metropolitan Washington Regional ITS Architecture (MWRITSA) Status

## **Background**

This memorandum provides an update on staff activities associated with updating the Metropolitan Washington Regional ITS Architecture (MWRITSA). The MWRITSA is a framework for describing and developing integrated transportation systems technology. The Regional Architecture is intended to provide a regional ITS framework for the foreseeable future, to define and validate ITS operations of regional significance, and to address national and statewide conformity in accordance with federal law and guidance. It is also designed to address interagency coordination among transportation and public safety organizations in the region that provide transportation services. The MWRITSA is a constantly evolving description of the region's systems, architecture flows, data flows, and interfaces. The existing MWRITSA was finalized in December 2007.

MOITS Technical Subcommittee created a strategic plan in June 2010 with the aim of promoting regional projects that help Management, Operations, and Intelligent Transportation Systems throughout the region. The Regional ITS Architecture influenced the Strategic Plan by helping define the goals, objectives, major system components, and key connections among regional stakeholders and systems. The current MWRITSA was developed prior to the MOITS strategic plan. The strategic plan also emphasizes the need to update the ITS architecture periodically. The MOITS Strategic Plan emphasized nine ITS architecture market packages and they are:

- ITS Data Warehouse
- Multi-Modal Coordination
- Transit Signal Priority
- Interactive Traveler Information
- Transportation Operations Data Sharing
- HOV Lane Management
- Regional Traffic Management
- Regional Parking Management
- Maintenance and Construction Activity Coordination

## **MWRITSA Update**

Staff has embarked on an exercise to update the MWRITSA during the current fiscal year as the plan is about 5 years old. Staff contacted representatives from the District of Columbia, Maryland State Highway Administration, and the Virginia Department of Transportation and obtained their most current ITS architecture plans, which will be guide the MWRITSA update. Virginia has a statewide plan as well as a Northern Virginia architecture plan. Maryland has only a statewide plan and the District of Columbia has a plan. A sample of important projects or elements which are part of the three state plans are listed below.

### **District of Columbia**

- Bike Station – Union Station Bike Station
- Cap View – Commercial Vehicle Information Exchange
- Car Electrification
- CLTV Upgrades
- DDOT- Data warehouse
- DDOT- Motor Coach/Freight Management
- District of Columbia – Public Traveler Information System -511
- DMS project
- Emergency Vehicle Preemption
- Fleet Share
- Intelligent Camera
- Lane Control System Upgrades
- Next Generation Parking Payment
- Onstreet Parking Upgrade
- Smart Bike DC
- Traffic Detection Enhancement
- Transit Signal Priority Upgrade
- Vitual Commercial Truck Enforcement

### **Maryland**

- Adjacent State TMC's
- Archived Data Management Centers
- Arterial Field Equipment
- Baltimore City TMC
- Capital Wireless Information Net (CapWin)
- CHART Centers
- Commercial Vehicles
- CVO Administrative Offices and Systems
- CVO Inspection Systems/ Facilities

Emergency Operations Centers  
Emergency Vehicles  
Freeway Filed Equipment  
Freeway TMC's  
Intermodal Freight Facilities  
ISP Centers  
Local TMCs  
Maintenance and Construction Management Centers  
Maintenance and Construction Vehicles  
Maryland State Police Centers  
MATOC / RITIS  
MDE Emergency Response Division Center  
MdTA Authority Operations Centers  
MdTA Police Centers  
MdTA Toll Field Equipment  
Media Outlets  
MIEMSS Center  
Montgomery County TMC  
MTA Centers  
MVA Offices/Emission Management Centers  
Other Local TMCs  
Other CVO Systems Centers  
Other Freeway TMCs  
Parking Management Centers  
Personal Traveler Information Devices  
Prince George's County TRIP Center  
Public Safety Offices and Dispatch Centers  
Transit Filed Equipment  
Transit Management Centers  
Transit Vehicles  
Vehicles  
WMATA Operations Control Center

### **Northern Virginia**

Alexandria Signal System Center/STC (Smart Traffic Center) Video Sharing Center  
VDOT Archived Data Management System (VDOTADMS)  
Capital Wireless Information Network (CapWin)  
Capital Beltway Hotlane Project

Commercial Vehicles/Inspection systems/Facilities  
Dulles Greeway/ Dulles Toll Road  
Emergency Operations Center  
Freeway TMCs  
Information Exchange Network (IEN)  
MWAA Center  
National Capital Region 511  
Fairfax County Public Safety Operations Centers (MPSTOC)  
Personal Travel information Devices  
RITIS  
STC field equipment deployment  
Transit Management Centers  
VDOT NOVA District Construction Management  
VDOT NOVA District Parking Management  
VDOT Video Clearinghouse  
WAWAS  
WAMATA Operations Center  
WMATA Smart Trip Card  
Woodrow Wilson Draw Bridge Operations Center

Using the three plans staff has started updating the MWRITSA using the Turbo 7.0 software the database recommended for developing ITS architecture. Staff would be contacting WMATA for their ITS architecture plans for regional public transit projects and incorporating them into the regional architecture. Based on a review of the projects, staff would recommend some additional market packages for consideration in the MOITS strategic plan and they are:  
ATIS05 – ISP Based Trip Planning and Route Guidance (RITIS is embarking on a prototype trip planning tool)

ATMS10 – Electronic Toll Collection (HOT lanes, ICC, and other potential toll facilities)

ATMS19 – Real Time Speed Monitoring

CVO06, 09, and 10 – Commercial Vehicle related market packages

Staff anticipates completion of a draft MWRITSA plan to be ready by the end of April for subcommittee review.