

Regional ITS Planning and Coordination Committee (RIPCC) & Stakeholder Group

Central Massachusetts Region

Committee Meeting
August 4, 2011

Welcome and Introductions

Agenda

1. Welcome and Introductions
2. Committee Purpose and Goals
3. Recent ITS Procurement Presentation by the Worcester Regional Transit Authority
4. Central Massachusetts Final Regional ITS Architecture
5. Quick Clearance/Traffic Incident Management Presentation by the Massachusetts State Police
6. Items of Interest for Future Committee Meetings

Committee Purpose and Goals

RIPCC Vision and Mission Statement:

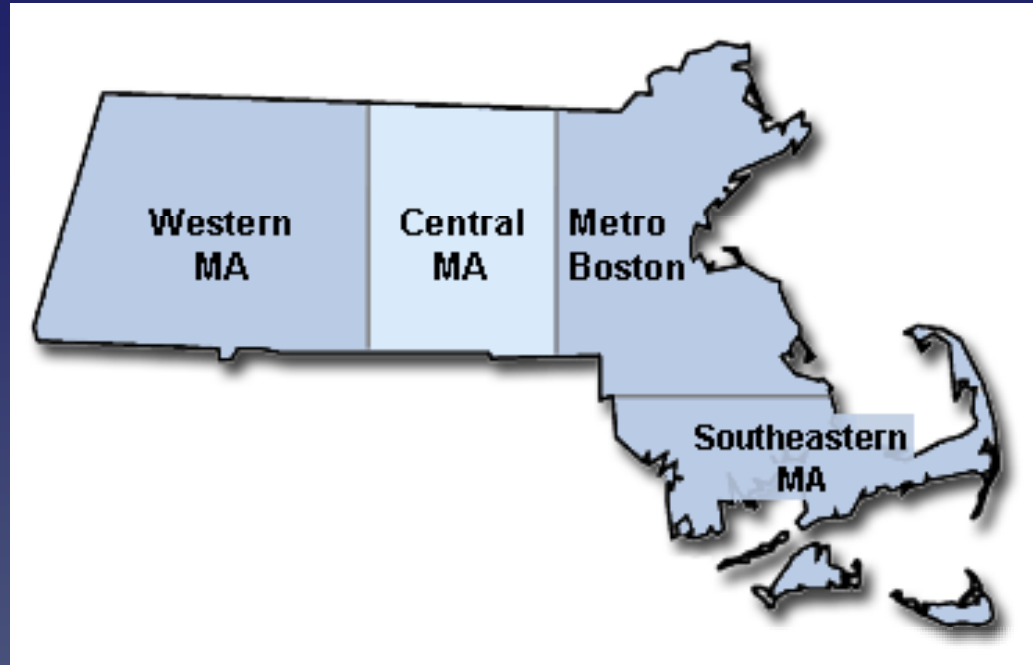
- Vision for the ITS Planning and Coordination Program:

“The vision for the Commonwealth of Massachusetts ITS Program is to enhance public safety, increase mobility, and promote sustainability through broad coordinated application of transportation technology.”

- Mission Statement for the RIPCC:

“The mission of the Regional ITS Planning and Coordination Committees is to support improved transportation systems through interagency technology coordination and partnerships.”

Four Regional ITS Coordination Committees

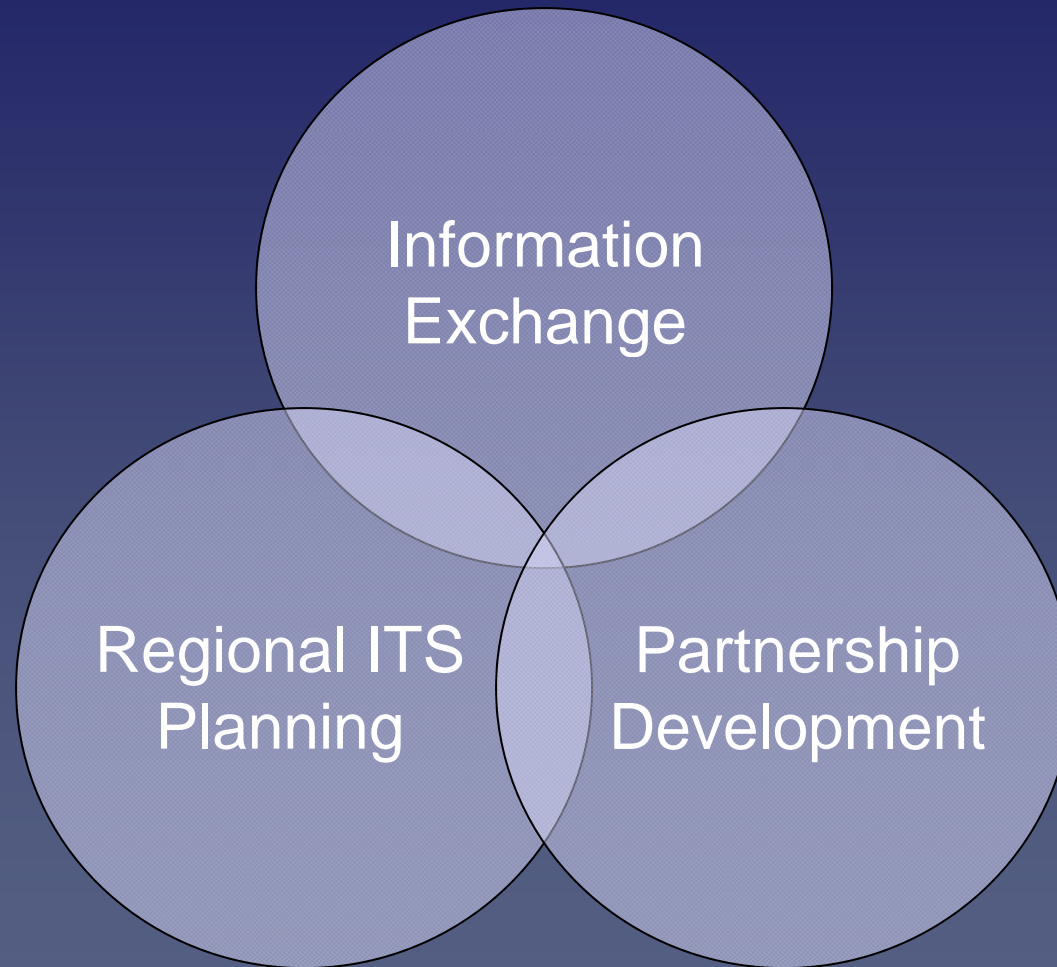


- One of four regional committees that will support the statewide ITS program.
- While similar, each region's committee is intended to focus on priorities and issues specific to that region.

Central Massachusetts RIPCC Goals

- Improve transportation system reliability
- Design ITS systems better
- Encourage shared use of infrastructure
- Create a transportation system with a customer service focus
- Maximize cost-effectiveness of transportation funding
- Improve the safety of the transportation system
- Develop education and advocacy strategies
- Support economic development through ITS

Committee Activities



Committee Member Responsibilities

- Regularly attend and participate in committee meetings
- Collect and share information on their agency's ITS initiatives, as appropriate
- Provide meaningful input and agency-specific perspective on committee activities
- Communicate committee findings and objectives to other key decision-makers within their organization
- Serve as a primary point of contact for regional interagency ITS coordination efforts involving their organization

Recent ITS Procurement by the Worcester Regional Transit Authority

Central Massachusetts Final Regional ITS Architecture

Why Use the Regional ITS Architecture?

- Provides a framework for ensuring institutional agreement and technical integration of ITS initiatives at a regional level
- Consistency with Architecture is a requirement for federal funding
- Benefits:
 - Provides background on existing and planned ITS
 - Identifies stakeholders and potential technology partners
 - Broadens funding opportunities
 - Supports improved infrastructure sharing
 - Potential cost savings
 - Increases interagency collaboration and communication

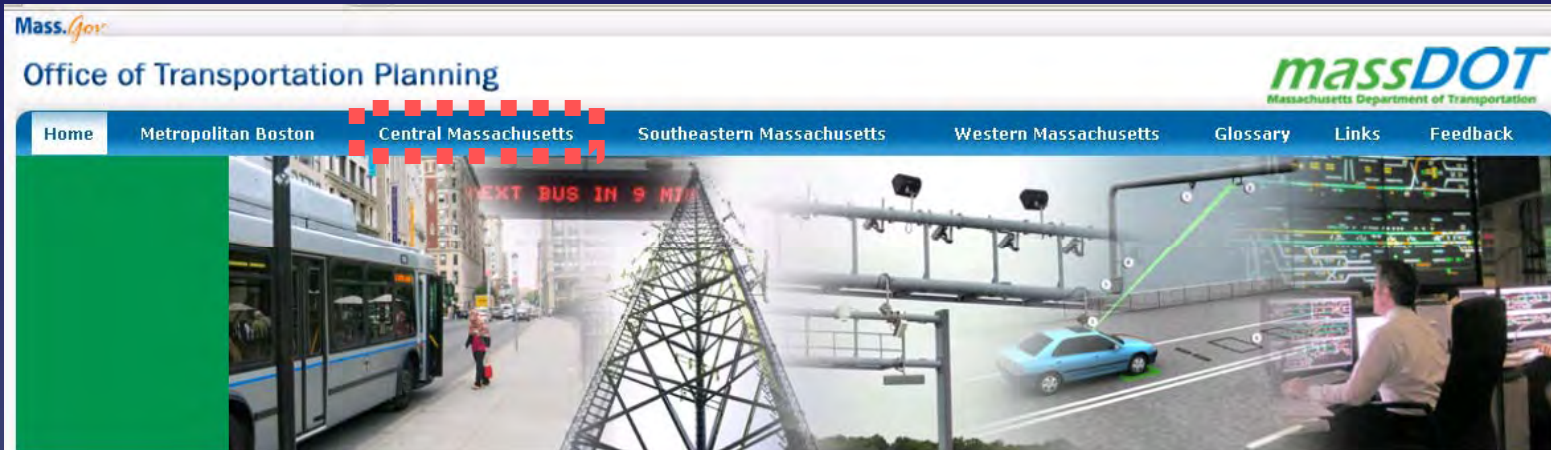
Project Status

- Stakeholder input and review of recommended changes were used to develop a draft Website and Draft Final Reports.
- Stakeholders submitted feedback during a review period. (Ended June 17, 2011)
- Feedback is being used to create a final Website and Final Report. (Expected to be live in the Fall of 2011)

Final Website

- The Website contains architecture information on:
 - Over 40 stakeholders
 - Over 180 different ITS Elements
 - Nearly 200 different market package instances
- Website offers:
 - Stakeholder access to each region's architecture and an opportunity for ongoing feedback
 - Glossary of architecture terms
 - Links to project documents
 - Links to other resources

Website Homepage



▶ ABOUT COMMONWEALTH OF MASSACHUSETTS REGIONAL ITS ARCHITECTURES

Welcome to the homepage for the Regional Intelligent Transportation Systems (ITS) Architectures for the Commonwealth of Massachusetts. The Commonwealth, through the Massachusetts Department of Transportation (MassDOT), Office of Transportation Planning, has developed the current Regional ITS Architectures with extensive input from four Regional ITS Planning and Coordination Committees consisting of agencies and organizations involved in transportation throughout Massachusetts. The efforts of these Committees and other transportation stakeholders involved in the process have resulted in four Regional ITS Architectures, each one representing a vision for integrated and coordinated deployment of ITS.

Intelligent Transportation Systems encompass a broad range of advanced technologies in the field of transportation. ITS improves transportation safety, enhances productivity, and increases personal mobility through the integrated application of these technologies. To fully maximize the potential of ITS technologies, ITS deployment requires an approach to planning, implementation, and operations that emphasizes collaboration between relevant entities and compatibility/interoperability of individual systems. At the core of this process is an architecture that provides overall guidance to ensure coordination and integration of individual ITS deployment projects, without limiting stakeholder design options.

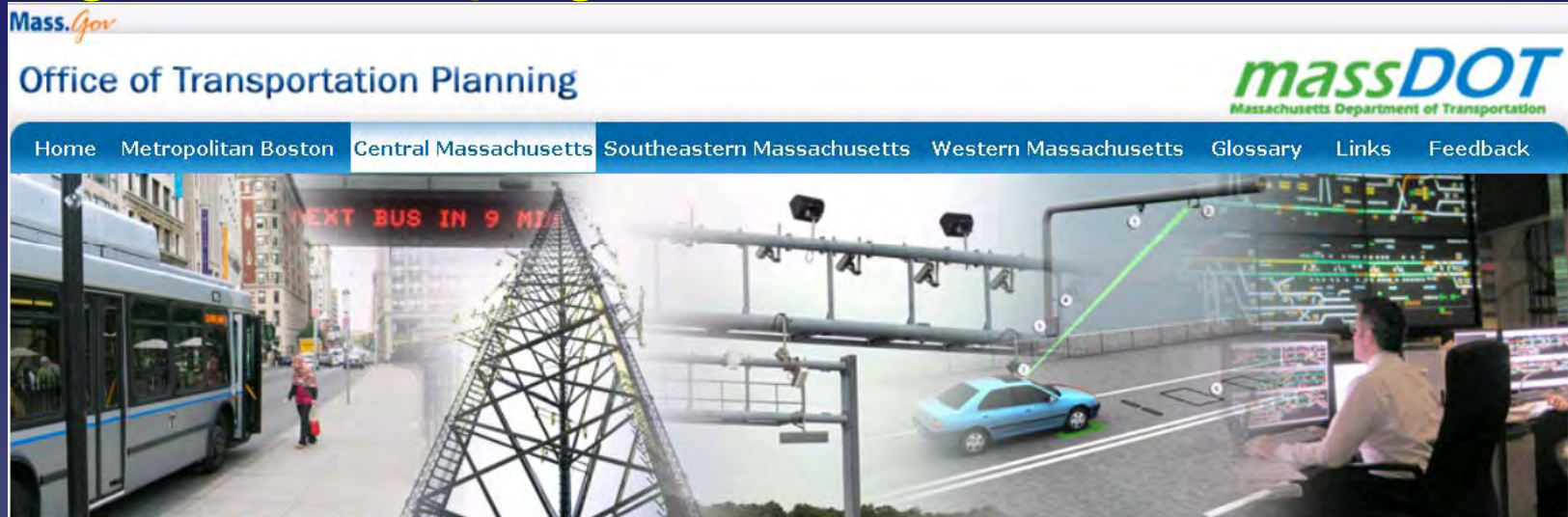
This website is designed to assist planners of ITS projects in reviewing their projects in relation to the appropriate Regional ITS Architecture. The architectures also serve as useful tools throughout the project development process, focusing stakeholders on ensuring the compatibility and interoperability of ITS systems, products, and services.

For the Commonwealth of Massachusetts, four Regional ITS Architectures have been developed, covering the following regions:

- ▶ [Metropolitan Boston](#)
- ▶ [Southeastern Massachusetts](#)
- ▶ [Central Massachusetts](#)
- ▶ [Western Massachusetts](#)

The current architectures are the result of a formal update conducted during 2010 of the original four architectures completed in 2005. The development of these architectures was a multi-year, collaborative effort by numerous agencies, organizations, and other transportation stakeholders across the Commonwealth. To remain useful and relevant, all

Region Homepage



REGIONAL ITS ARCHITECTURE HOME PAGE



Welcome to the homepage for the Regional ITS Architecture for Central Massachusetts. The Commonwealth, through the Massachusetts Department of Transportation (MassDOT), Office of Transportation Planning, has developed this architecture in cooperation with agencies and organizations involved in transportation throughout the region.

This architecture serves a framework for transportation systems integration in the Central Massachusetts area. For the architecture development process, "Central Massachusetts" was defined as the Central Massachusetts and Montachusett MPO planning areas. For an explanation of the Architecture Development Process, [click here](#). For a Summary of Changes made to the architectures in 2010, [click here](#). Further information, including an Executive Summary, is available in the [Project Documents](#) section of this website.

This Regional ITS Architecture identifies the existing and planned ITS components in the region and the interfaces among them. Collectively, these components and interfaces define a framework for planning and deployment of ITS in the region. This architecture has a time horizon of up to fifteen years, with particular focus on those systems and interfaces that are likely to be implemented in the next ten years. Components in the architecture are classified as either "existing" or "planned". Components classified as "existing" are those whose interface

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Inventory by Stakeholder

INVENTORY BY STAKEHOLDER



Each stakeholder is associated with one or more systems or 'elements' that make up the regional transportation system. This table sorts the inventory by stakeholder, so each stakeholder can easily identify and review the information for all elements that they own and operate.

Select

Stakeholder	Element
Amtrak	Amtrak Operations
Central Massachusetts Convention and Visitors Bureau	Central MA Convention and Visitors Bureau Archive
	Central MA Convention and Visitors Bureau Archive Users
City of Fitchburg	City of Fitchburg Field Equipment
	City of Fitchburg Maintenance Garage
	City of Fitchburg Maintenance Vehicles
	City of Fitchburg TMC
	City of Fitchburg Traffic Signals
	Fitchburg Municipal Airport
City of Gardner	City of Gardner Traffic Signals
City of Leominster	City of Leominster Field Equipment
	City of Leominster Maintenance Garage
	City of Leominster Maintenance Vehicles
	City of Leominster TMC
	City of Leominster TrafficSignals
City of Worcester	City of Worcester Alternate Parking Lots
	City of Worcester Field Equipment
	City of Worcester Maintenance Garage
	City of Worcester Maintenance Vehicles

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Market Packages by Stakeholder

MARKET PACKAGES BY STAKEHOLDER



Each stakeholder is associated with one or more transportation services that are important to the Region. The following table lists each stakeholder and the ITS Services that the stakeholder has been identified with, so each stakeholder can easily review its role in providing ITS services for the Region.

Select

Stakeholder	Market Package
Amtrak 	APTS07 - Multi-modal Coordination - WRTA
Central Massachusetts Convention and Visitors Bureau 	AD1 - ITS Data Mart - Regional Tourism Councils AD3 - ITS Virtual Data Warehouse - MassDOT Office of Transportation Planning
City of Fitchburg 	APTS02 - Transit Fixed-Route Operations - MART APTS03 - Demand Response Transit Operations - MART (1 of 2) APTS03 - Demand Response Transit Operations - MART (2 of 2) ATIS05 - ISP Based Trip Planning and Route Guidance - Private Traveler Information Services ATMS01 - Network Surveillance - City of Fitchburg ATMS03 - Surface Street Control - City of Fitchburg ATMS06 - Traffic Information Dissemination - City of Fitchburg ATMS06 - Traffic Information Dissemination - City of Fitchburg (TM to EM / ISP) ATMS07 - Regional Traffic Management - Local City/Town

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Glossary

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GLOSSARY

Full glossary available from the [National ITS Architecture Website](#).

Architecture	A framework within which a system can be built. Requirements dictate what functionality the architecture must satisfy. An architecture functionally defines what the pieces of the system are and the information that is exchanged between them. An architecture is functionally oriented and not technology-specific which allows the architecture to remain effective over time. It defines "what must be done", not "how it will be done".
Architecture Flow	Information that is exchanged between subsystems and terminators in the physical architecture view of the National ITS Architecture. Architecture flows are the primary tool that is used to define the Regional ITS Architecture interfaces. These architecture flows and their communication requirements define the interfaces which form the basis for much of the ongoing standards work in the national ITS program. The terms "information flow" and "architecture flow" are used interchangeably.
Element	This is the basic building block of Regional ITS Architectures and Project ITS Architectures. It is the name used by stakeholders to describe a system or piece of a system.
Equipment Package	Equipment packages are the building blocks of the physical architecture subsystems. Equipment Packages group similar processes of a particular subsystem together into an "implementable" package. The grouping also takes into account the user services and the need to accommodate various levels of functionality.
	Information that is exchanged between subsystems and terminators in the physical architecture view of the National ITS Architecture. These

Links

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LINKS

- [National ITS Architecture](#)
- [FHWA ITS Architecture Implementation Program](#)
- [Massachusetts Department of Transportation](#)
- Regional Planning Agencies:
 - [Berkshire Regional Planning Commission](#)
 - [Cape Cod Commission](#)
 - [Central Massachusetts Regional Planning Commission](#)
 - [Franklin Regional Council of Governments](#)
 - [Martha's Vineyard Commission](#)
 - [Merrimack Valley Planning Commission](#)
 - [Metropolitan Area Planning Council](#)
 - [Montachusett Regional Planning Commission](#)
 - [Nantucket Planning and Economic Development Commission](#)
 - [Northern Middlesex Council of Governments](#)
 - [Old Colony Planning Council](#)
 - [Pioneer Valley Planning Commission](#)
 - [Southeastern Regional Planning and Economic Development District](#)
- Transit Authorities:
 - [Berkshire Regional Transit Authority](#)
 - [Brockton Area Transit Authority](#)

Final Report

- The Final Report provides context for the architecture. It includes information on:
 - Regional transportation needs
 - Broader agency initiatives and priorities
 - Interagency interfaces and agreements
 - ITS program areas and initiatives
 - Information on using and maintaining the architecture to demonstrate consistency, meet federal requirements, facilitate planning and coordination efforts


Final Report

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PROJECT DOCUMENTS



Document Type	Document Description
Draft Report	Draft Final Report - 2010 Update - November 2010
Report	Final Report - March 2005
Report	Executive Summary - March 2005
Report	Operational Concept - March 2005
Report	Implementation Plan - March 2005

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Final Report

Commonwealth of Massachusetts

REGIONAL ITS ARCHITECTURE FOR
CENTRAL MASSACHUSETTS





Deval L. Patrick
Governor

Timothy P. Murray
Lieutenant Governor

Jeffrey B. Mullan
Secretary & CEO

FINAL REPORT

October 2011



Maintaining the Architecture

Goals of Maintenance Strategy:

- Ensures that the architecture will remain current and reflect the most recent RTPs.
- Allows the architecture to be responsive to changes between updates.
- Facilitates an ongoing dialogue about ITS and the implementation of the architecture.

Maintaining the Architecture

The Regional ITS Architecture is a living document.

- Flexibility is intended to accommodate changing needs, priorities, and technology (maintain usefulness)
- When planned projects are initiated, they should be consistent with the architecture (federal requirement)

As you are aware of changes (evolving needs, implemented projects, etc.) that should be made to the ITS Architecture:

- use the website to submit feedback, or
- email peter.sutton@state.ma.us

Formal update every four years.

Feedback

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▶ ABOUT COMMONWEALTH OF MASSACHUSETTS REGIONAL ITS ARCHITECTURES

All Market Packages Market Packages by Stakeholder **Send Your Comments** (ATMS01-3)

ATMS01 - Network Surveillance
City of Fitchburg

Next Steps

- MassDOT will send notification when final website and report are posted
- Continued ITS outreach and awareness

Quick Clearance/Traffic Incident Management Presentation by the Massachusetts State Police

Items of Interest for Future RIPCC Meetings

Statewide ITS Strategic Plan and Planning Process

- A consultant has been hired and work has been initiated.
- We anticipate a draft statewide plan in 9 months.
- The RIPCCs are part of this process.
- We will be contacting you regarding your involvement in the process.

Items of Interest for Future Committee Meetings

- Previous RIPCC topics:
 - Worcester Regional Mobility Initiative by CMRPC
 - Statewide 511 Traveler Information Initiative
 - ITS Initiatives by the MBTA (Open Data Initiative)
 - Transit ITS Procurement by PVTA
 - Cape Cod National Seashore ITS Initiative
 - Tour of the HOC
 - Tour of MBTA Operations Center
- Topics for the next RIPCC meeting (Winter)?

Thank You

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