



2035 Long Range Transportation Plan

ITS Stakeholder Workshop

August 25, 2009
11:00 a.m. – 12:30 p.m.
St. Joseph City Hall

URS



Agenda

- Welcome and Introductions
- St. Joseph Area 2035 LRTP Overview
- Existing & Planned ITS Systems: Local, Regional, State
- Overview and Role of the Missouri Statewide ITS Architecture in Local/Regional ITS Planning and Deployment
- Stakeholder Roundtable Input/Feedback
- Next Steps



Welcome and Introductions



Why are we here today?

- It is an important element of the Long Range Transportation Plan process
- Get more out of the existing transportation
 - Transportation related technology (or ITS) can help accomplish that goal
- Coordination is critical



2035 Long Range Transportation Plan

- Documentation for a dynamic 25-year planning process
 - considers social, environmental, energy, and economic factors in determining overall regional transportation goals.
- Includes short-range and long-range strategies
 - Promotes the development of an integrated, intermodal transportation system that facilitates the efficient movement of people and goods.



Existing ITS Systems

St. Joseph Region – Transportation Network

- Emergency vehicle preemption devices at signalized intersections along key emergency corridors.
 - Now covers over 100 intersections.

St. Joseph Region – Transit

- Buses are equipped with Automated Vehicle Location (AVL) systems to determine location of buses.
 - Benefits include, though not all inclusive, improved dispatch and operational efficiency; improved reliability of service; and is a planning tool based on utilizing the information from AVL for future applications.
- Buses are equipped with on-board surveillance equipment that includes two video surveillance systems and an event recorder system.
- “Paperless dispatching system”. Will be replaced with “Smart Bus” technology.



Existing ITS Systems

St. Joseph Region – Public Safety

- 800 MHz Trunking Radio System used by all police and fire agencies and paramedics at Heartland that provides communications to all of Buchanan County.
- Mobile Data Systems (MDS) to aid in communications, dispatch and reporting.

Missouri Department Of Transportation (MoDOT)

- St. Joseph part of the Kansas City Regional ITS Architecture.
- MoDOT has deployed 60 Dynamic Message Signs (DMS) on rural interstates statewide.
- Within the Kansas City/St. Joseph region, MoDOT operates six (DMS) on I-29 and I-229.
 - One sign located on I-29 on the south end of the St. Joseph MPA.



Existing ITS Systems

- Have we missed anything?



Proposed ITS Applications

St. Joseph Region – Transit

- “Smart Bus” integrated technology including:
 - **Electronic Fare Boxes with Automated Passenger Counting (APC)**
 - **Automated Voice Annunciator (AVA)** is a useful en route information to traveler with disabilities.
 - **Mobile Data Terminals (MDT)** installed on buses can display, record and temporarily store certain types of information about each passenger’s pickup and drop-off, and collect statistical and performance data on services provided.
 - **Enhanced Web-based Video Security Systems** will provide increased security .
- “Next Stop” passenger information systems using GPS might include:
 - **Dynamic Bus Stop Signs** posted at selected location to let passengers know how long the wait time is until the next bus.
 - **On-Board Information Displays** installed on buses to provide information regarding the next stop, connections, and destinations.
 - **Interactive Information Kiosks** placed at strategic locations allow users to make more informed decisions about overall trip information. (E.g. real-time next bus arrival/departure, link and transfer locations, route planning etc.).



Proposed ITS Applications

- Are there any other proposed ITS improvements?



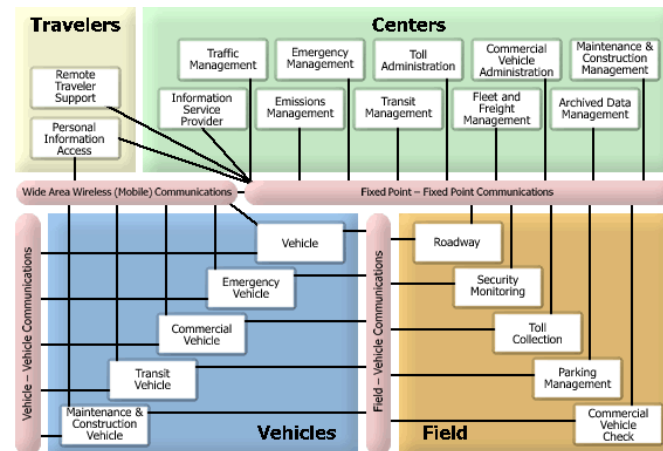
Overview and Role of Missouri ITS Architecture



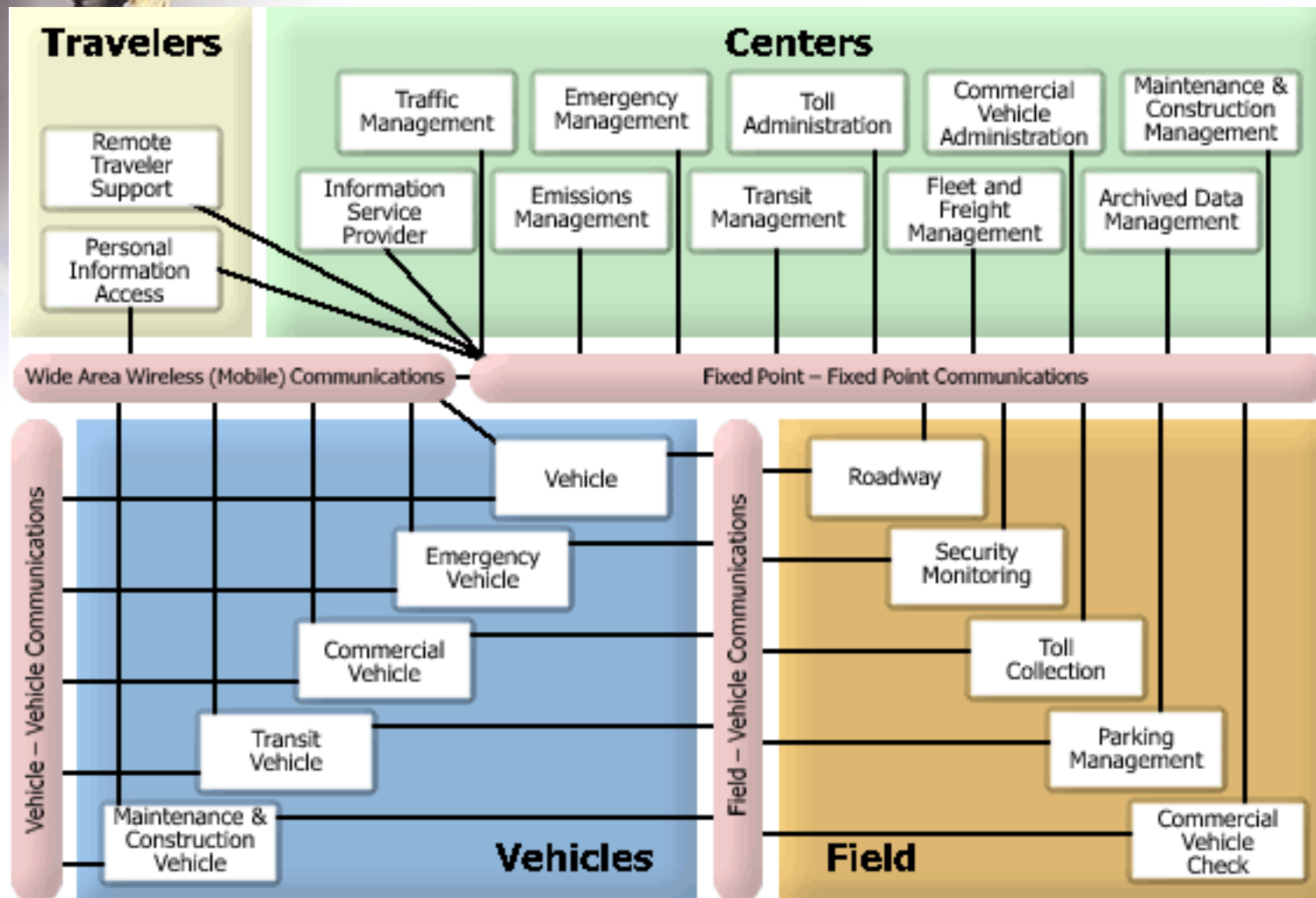
- What is the role of the St. Joseph MPO in the overall Statewide ITS Architecture?
- What are potential benefits for regional entities such as the St. Joseph Study Area/MPO?
- How can the St. Joseph study area better plan for and implement ITS projects?

What is an ITS Architecture

- Snapshot of ITS elements, Stakeholders, etc.
- Defines information flows
- Subsystem (ITS components)
- Information Flow (Traffic info, Incident info, surveillance, etc.)
 - **By and between the system and the stakeholders**



What is an ITS Architecture





ITS Architecture in Missouri

- Statewide Architecture
- Regional Architectures
 - **St. Louis**
 - **Kansas City**
 - **Springfield**
 - **Cape Girardeau/Jackson**
 - **St. Joseph (some stakeholder, system inventory efforts)**
 - **Joplin (in discussion with MoDOT)**
 - **Jefferson City/Columbia**

ITS in Missouri

MoDOT Rural
DMS, Hand Holes
and CCTVs
2009

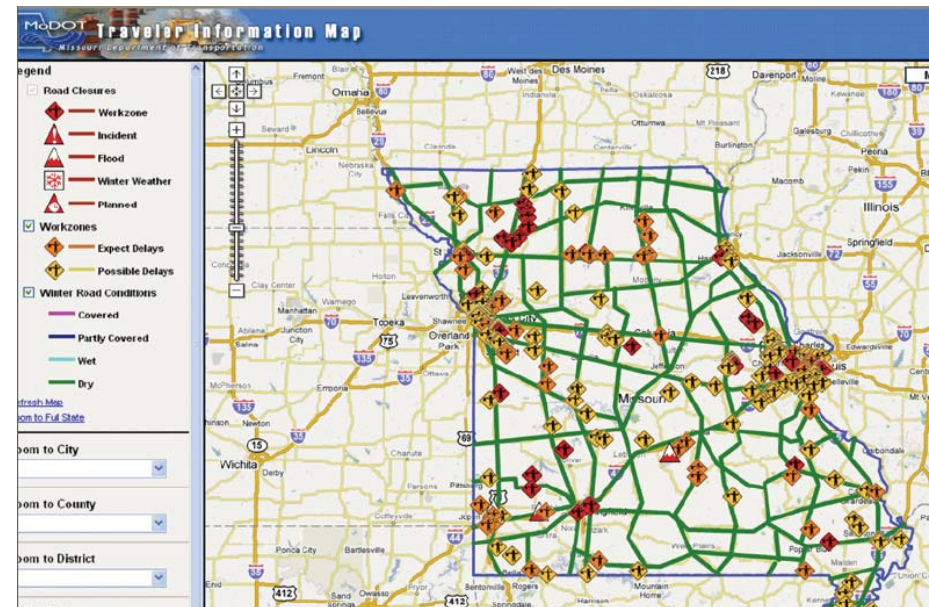


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Why do we develop an architecture? Future uses?

- Required when using Federal Funds
- System Engineering support document





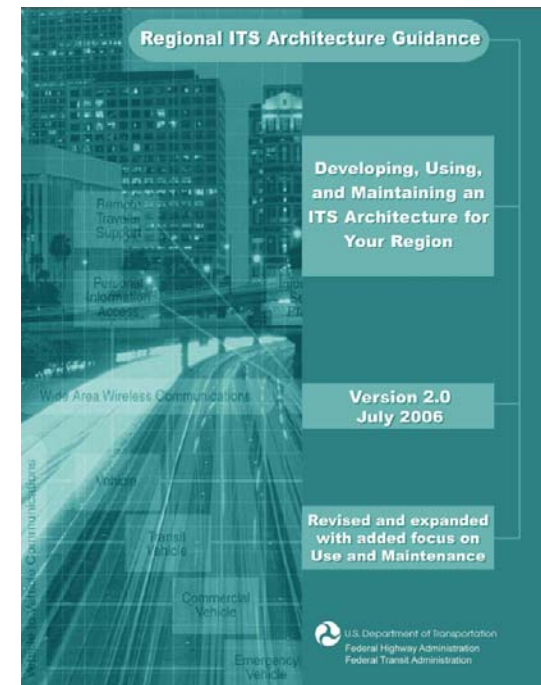
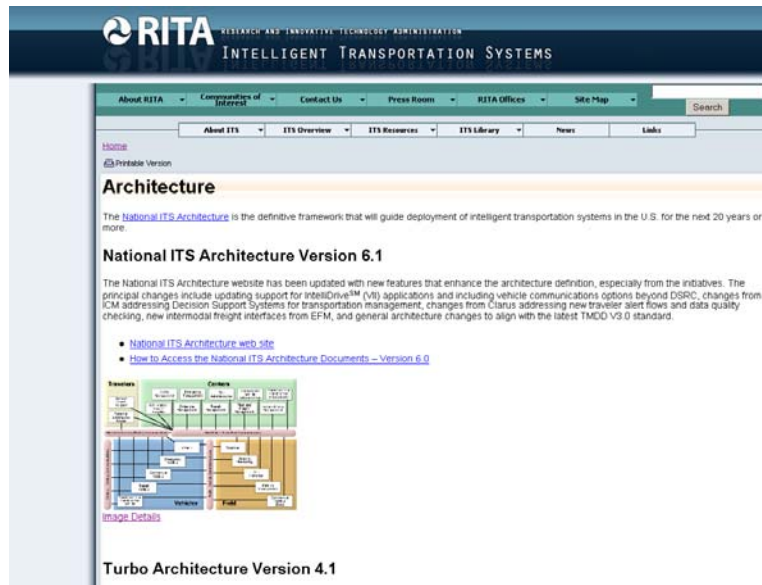
Roles and Responsibilities

- Stakeholders own and maintain the architecture
- Identified within the Architecture
- Funding may determine responsibility for Architecture development and revision
 - **Earmarks, Grants, etc.**



Resources

- FHWA
 - Local: Brian Chandler, FHWA Jefferson City Project Office
 - (573) 638-2616
 - National: Steve Sill, FHWA RITA - ITS
 - (202) 366-1603





Summary

- Primary Stakeholders
 - **MoDOT**
 - **Regional Planning Commissions**
 - **Cities, Counties, Law Enforcement**
- Build partnership that includes establishment of a base Regional ITS Architecture.
- Ongoing maintenance dictated by funding
- Performance Measures



Summary