



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?



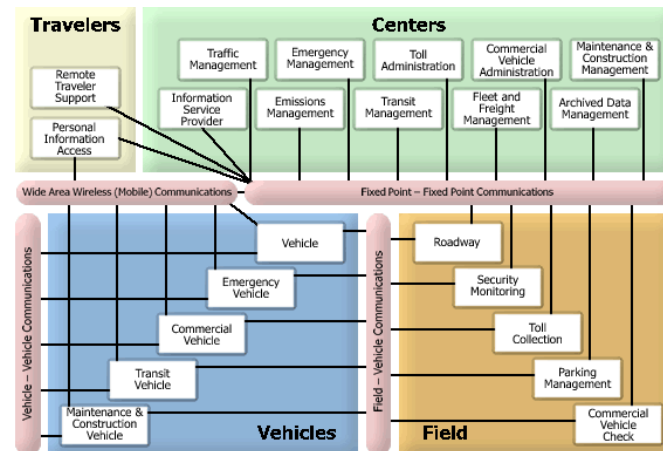
Overview and Role of Missouri ITS Architecture



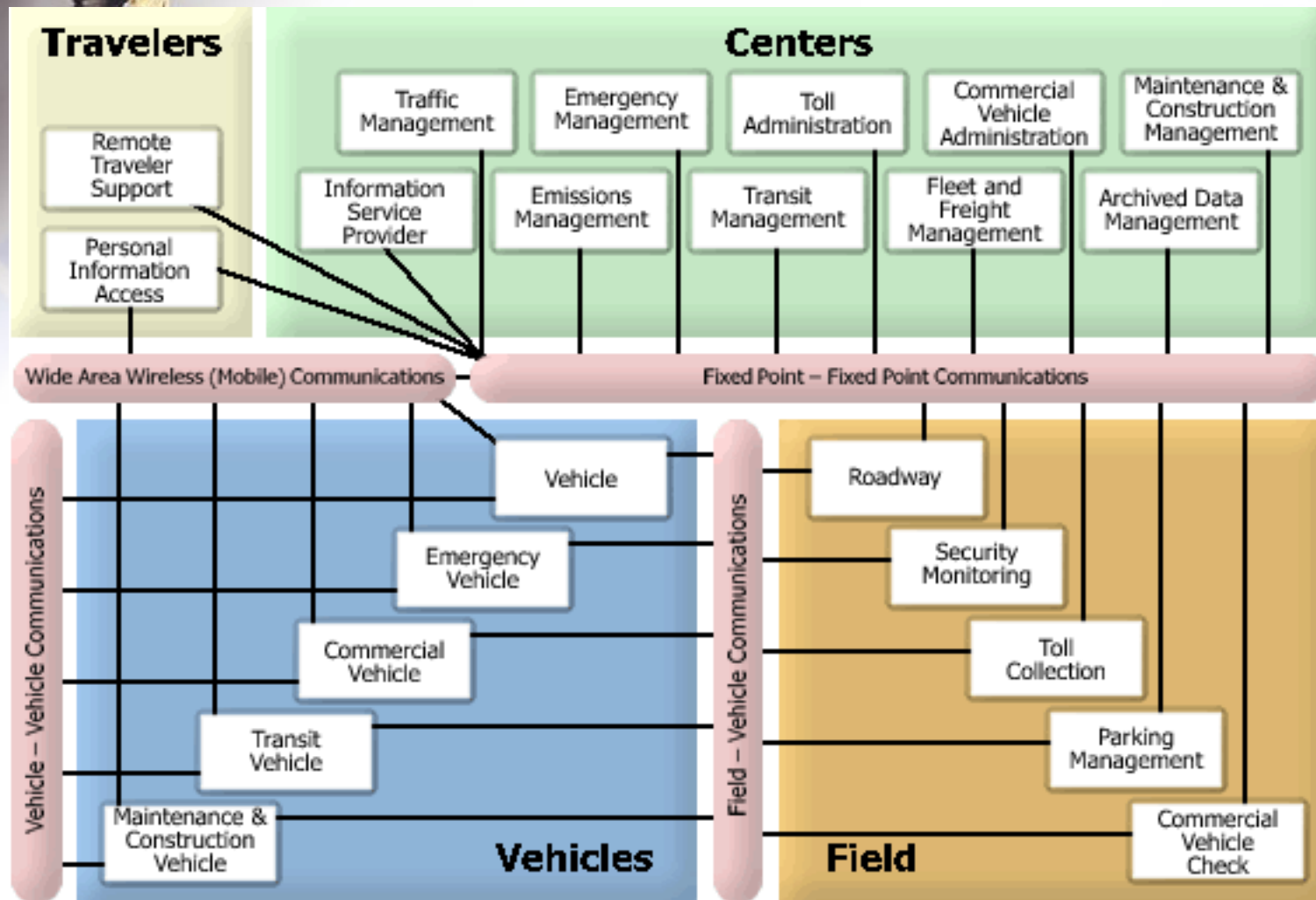
- What is the role of the St. Joseph MPO in the overall Statewide ITS Architecture?
- What are potential benefits for regional entities such as the St. Joseph Study Area/MPO?
- How can the St. Joseph study area better plan for and implement ITS projects?

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



Ensuring Benefits

KANSAS CITY SCOUT
getting you there

[NEW! Scout Brochure.](#)
[Click here for information in p](#)

Your Morning Co
10:42 AM , Thu, Ap

Home About Scout Roadwork Links Scout Services AMBER Alerts "My KC Scout"

Map Legend

Check a Box to Display

- Cameras
- Signs: With Message
- Signs: Blank
- Incident
- Scheduled Closure
- Emergency Closure
- Special Event

Freeway Speeds (mph)

- 0-30
- 31-44
- 45 +
- No Data Available

Zoom Control

Kansas City Liberty

Map Zoom Levels

Kansas City Live Traffic

Kansas City Scout: Camera Snapshot - Microsoft Inter...

Sign Snapshot

KANSAS CITY SCOUT
getting you there

Sign message will update automatically

M070WBS-11

**RAMP CLOSED
70 WB TO 470/291 SB
USE ALT ROUTE**

170 W @ BEFORE LITL BLUE PKY



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

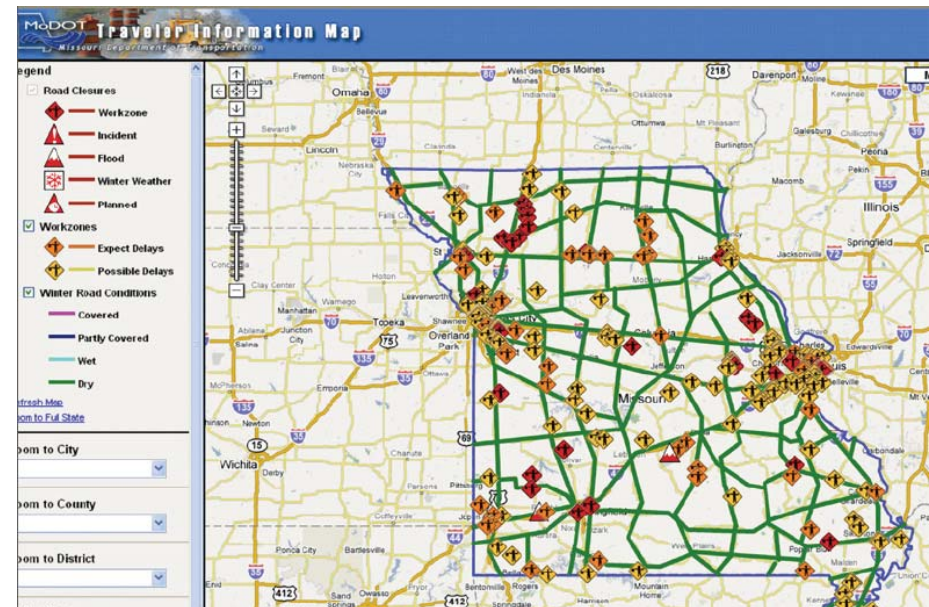


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Why do we develop an architecture? Future uses?

- Required when using Federal Funds
- System Engineering support document



A hand holding a set of keys is visible on the left side of the slide. In the background, a red alarm clock is on a table. The overall background is a soft-focus image of a person in a white lab coat.

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

The screenshot shows the RITA (Research and Innovative Technology Administration) website for Intelligent Transportation Systems. The header includes the RITA logo and navigation menus for 'About RITA', 'Components of Interest', 'Contact Us', 'Press Room', 'RITA Offices', and 'Site Map'. Below the header, there are links for 'Home', 'Private Version', and 'Architecture'. The main content area features a section titled 'National ITS Architecture Version 6.1' with a brief description and a list of links: 'National ITS Architecture web site' and 'How to Access the National ITS Architecture Documents - Version 6.0'. Below this is a diagram of the architecture and a section for 'Turbo Architecture Version 4.1'.

The cover of the 'Regional ITS Architecture Guidance' document features a teal background with a cityscape and a road. The title 'Regional ITS Architecture Guidance' is at the top. Below it, the subtitle reads 'Developing, Using, and Maintaining an ITS Architecture for Your Region'. The version information 'Version 2.0 July 2006' is displayed in a box. A larger box at the bottom right states 'Revised and expanded with added focus on Use and Maintenance'. The U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration logos are at the bottom. Various ITS components are labeled on the cover, including 'Remote Traveler Support', 'Personal Information Access', 'Wide Area Wireless Communications', 'Vehicles', 'Vehicular Safety', 'Commercial Vehicle', and 'Emergency Vehicle'.

A hand holding a set of keys with a red keychain. The background is a blurred image of a person in a blue shirt. The word "Summary" is written in blue text to the right of the hand.

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