

Development of a Regional Intelligent Transportation System Architecture

MPO Executive Overview

In cooperation with:

Wichita-Sedgwick County Metropolitan Area Planning Department
City of Wichita
Sedgwick County
Kansas Department of Transportation
Federal Highway Administration

Presented by:



In association with

RCC Consultants

March 10, 2005

Project Objectives

- Develop a **Regional ITS Architecture** for the Wichita-Sedgwick County region (**Volume 1**)
 - Integrating advanced technologies
- **Development of Implementation Plan (Volume 2)**
 - Planning of ITS projects
 - Regional project development
- **Development of Communications Plan (Volume 3)**
 - Identify Communications Resources
 - Analyze Communications Needs
 - Identify Network Architecture Options

What is ITS?

“ITS represents the application of information processing, communications technologies, advanced control strategies, and electronics to the field of transportation.”

23 CFR Parts 655 and 940



ITS Architecture

Structure or framework for deploying Integrated Transportation Systems

- blueprint for effective cooperation

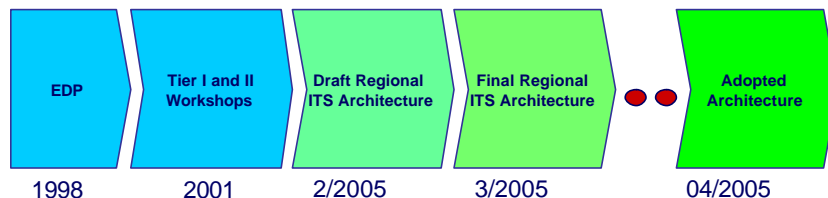


ITS Legislation

Section 520.6(e) of the Transportation Equity Act for the 21 Century (TEA-21) requires that all ITS projects funded through the Highway Trust Fund be in conformance with the National ITS Architecture and applicable standards

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Wichita – Sedgwick County Regional ITS Architecture



Based on 1998 ITS Strategic Deployment Plan and 2001 Regional ITS Architecture

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Partnering Memorandum of Understanding January 2002

- \$6.25 Million Total
 - \$3.75 Million (60%) KDOT
 - \$1.25 Million (20%) City of Wichita
 - \$1.25 Million (20%) Sedgwick County
- CIP
- MAPD - lead local coordinating agency
 - Guiding Document – *Wichita Metropolitan Area ITS Strategic Development Plan*

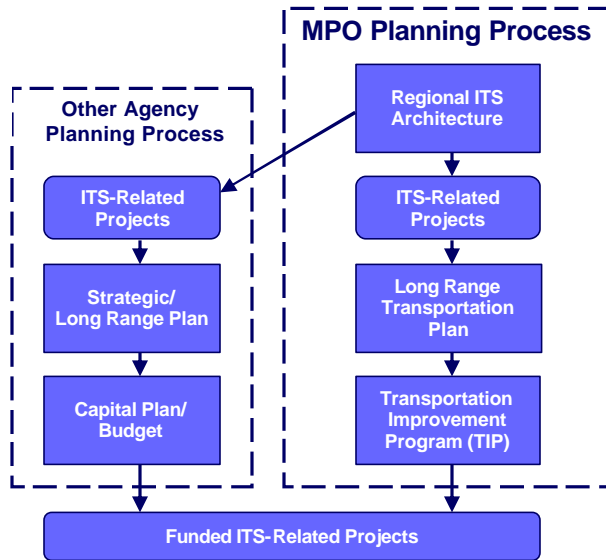
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Partnering Additional Federal Earmarks

FY	Grant	Recipient
• 2002	\$1.00 Million	City of Wichita
• 2003	\$4.00 Million	MAPD
• 2004	\$0.75 Million	Wichita Transit
• 2005	\$1.25 Million	MAPD

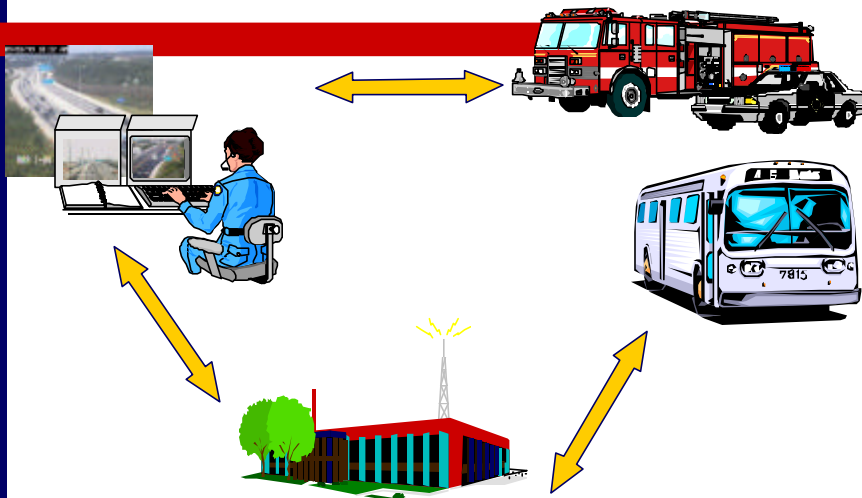
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ITS Planning Process



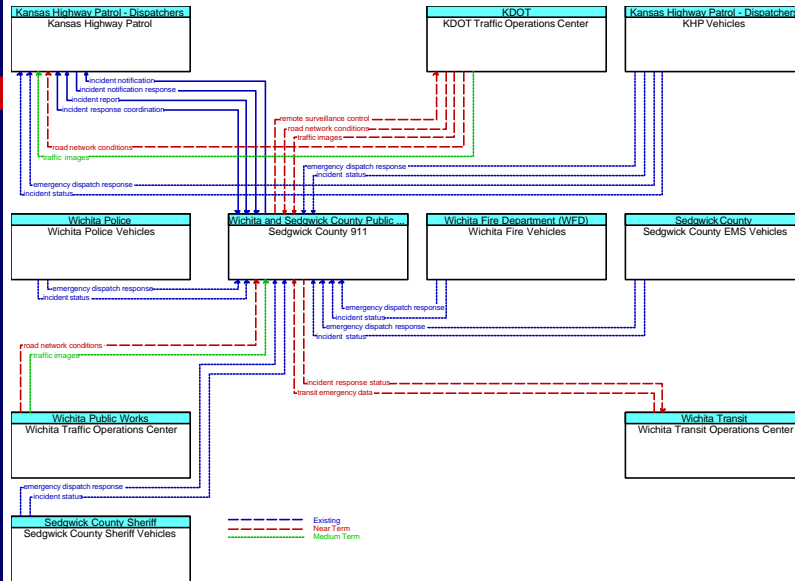
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Partnering Projects Sedgwick County AVL System



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Emergency Call Taking and Dispatch



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Partnering Projects Traffic Signal System Upgrade



- Coordinated signals
 - City Wichita: 380 intersections
 - Sedgwick County: 35 intersections

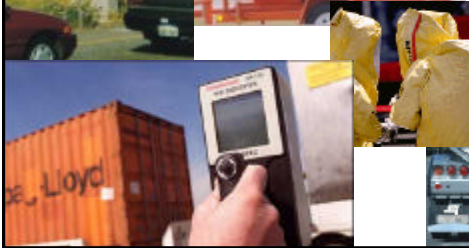
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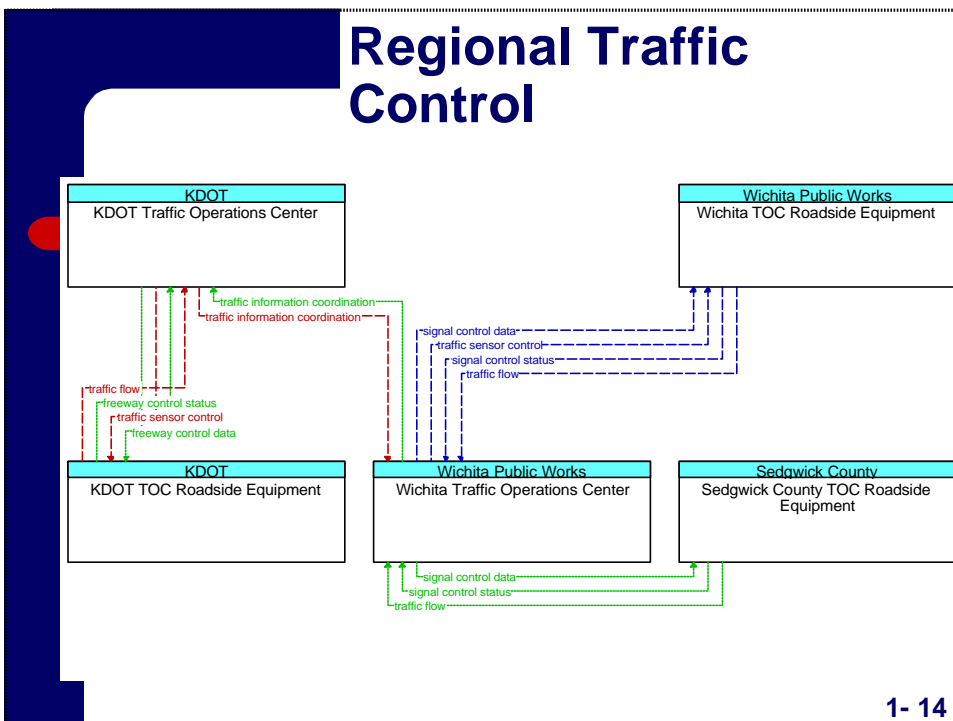
Partnering Projects Advanced Traffic Management System (ATMS)



- Incident response
 - Freeway diversion



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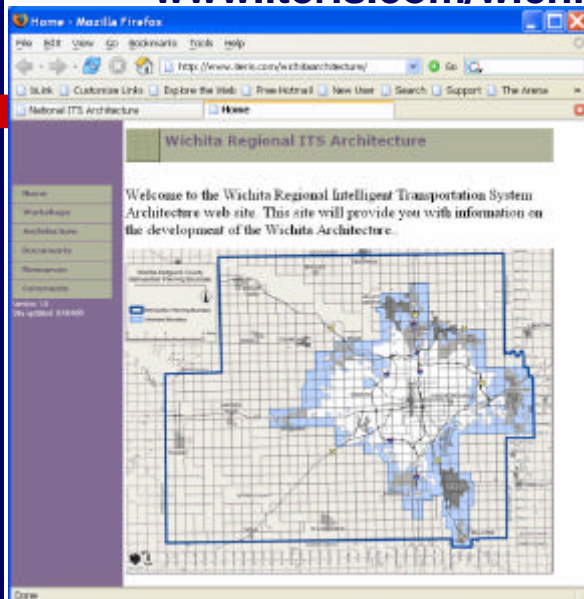
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Workshops

- Three Workshops to review and gather inputs
 - Architecture
 - Implementation Plan / Communications Plan
 - (2) Three-day Workshops
 - Two days for Detailed Review
 - One half-day for Management
 - (1) One-day workshop to finish Emergency Management Services
- MPO – Executive Overview
- MPO-sponsored Public Forum

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Wichita Architecture Website www.iteris.com/wichitaarchitecture



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The Architecture is Ready for MPO Adoption

- This Architecture forms the Blueprint for Transportation System Integration for the Region
- This is Your Architecture and it Reflects Your Existing and Future ITS projects
- Over 60 stakeholders have participated on this activity

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Periodic Architecture Maintenance

- The Wichita – Sedgwick County Architecture is a Living Document held by the MAPD
 - New Projects
 - New Stakeholders
 - Changing Priorities
 - Reorganizations
 - New ITS-related services
- Maintenance Process is addressed in the Implementation Plan

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 - www.iteris.com/wichitaarchitecture

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Recommendation

- Review the Regional ITS Architecture
 - Volume 1
- Set Public Comment Period (March 10 – 31)
- Set Public Hearing (April 14) to Adopt Volume 1

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