Development of a Regional Intelligent Transportation System Architecture

Public Forum
Overview

In cooperation with:

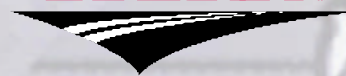**Wichita-Sedgwick County Metropolitan Area Planning Department**
City of Wichita
Sedgwick County
Kansas Department of Transportation
Federal Highway Administration

Presented by:

ITERIS

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

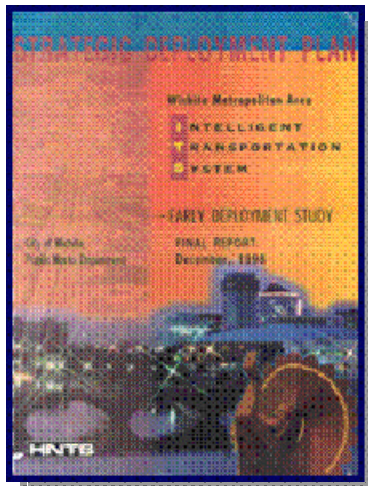Structure or framework for deploying Integrated Transportation Systems
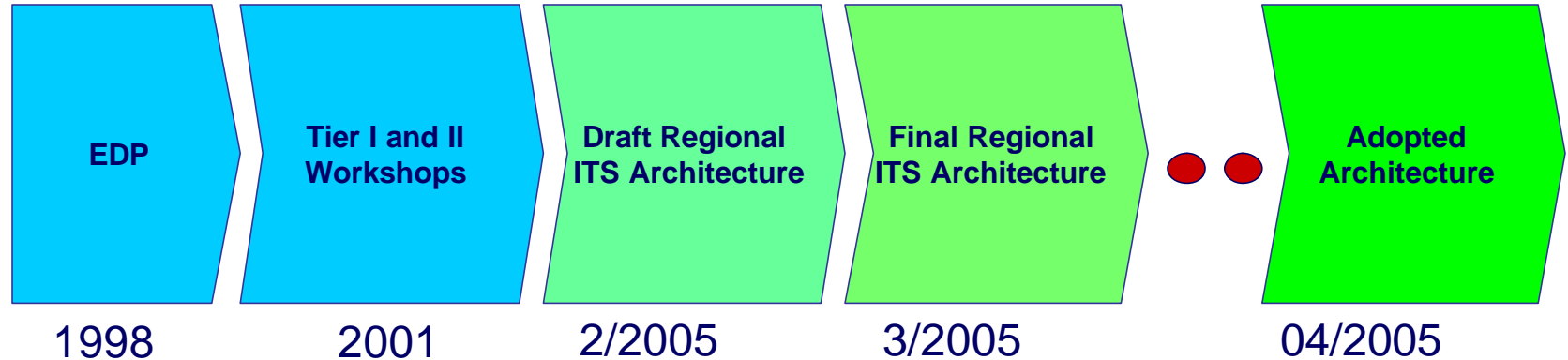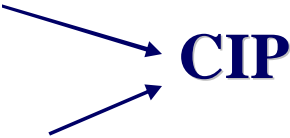- blueprint for effective cooperation

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

Wichita – Sedgwick County Regional ITS Architecture

EDP	Tier I and II Workshops	Draft Regional ITS Architecture	Final Regional ITS Architecture	Adopted Architecture
1998	2001	2/2005	3/2005	04/2005

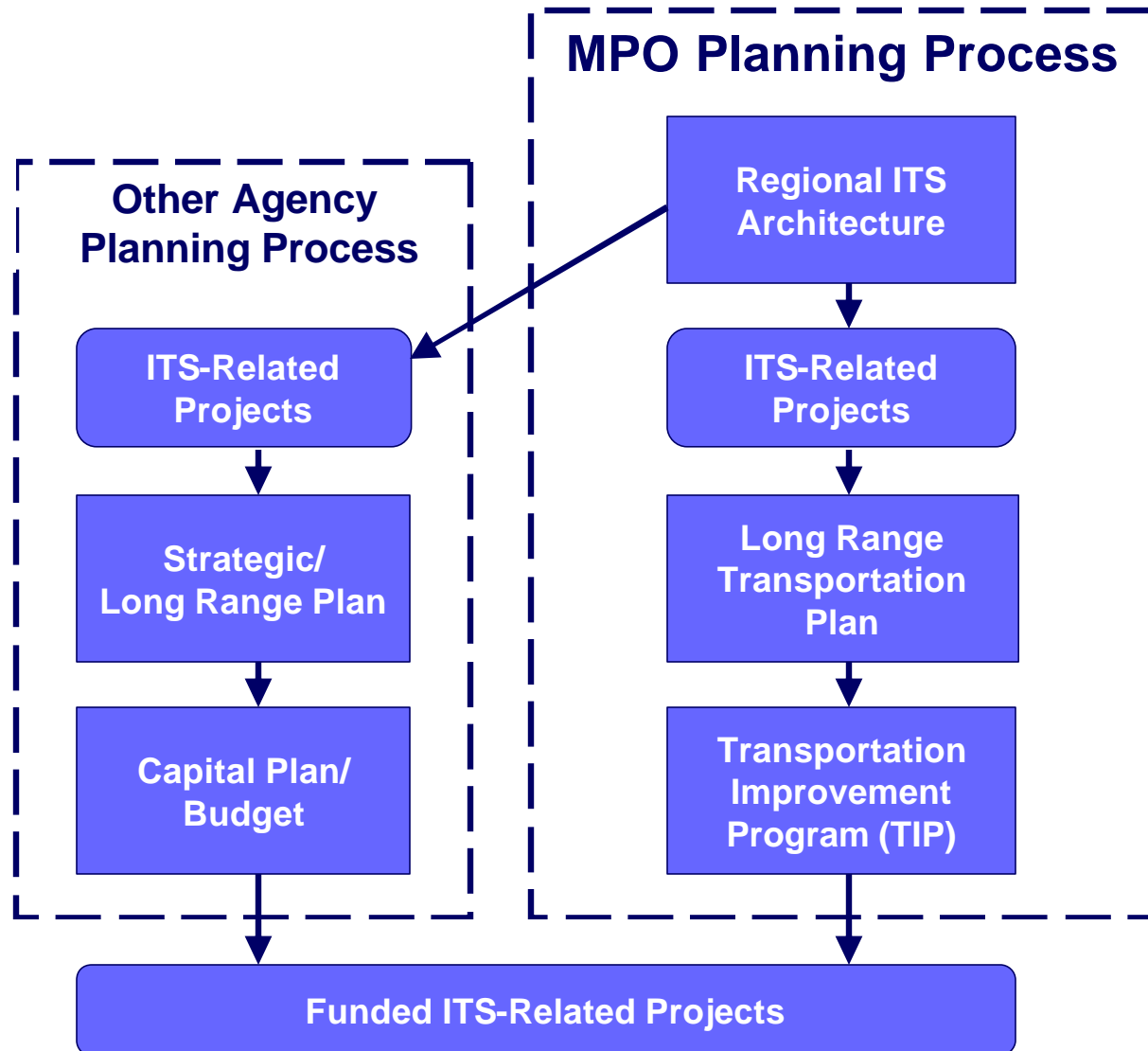Based on 1998 ITS Strategic Deployment Plan and 2001 Regional ITS Architecture

Partnering <u>Memorandum of Understanding</u> 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*
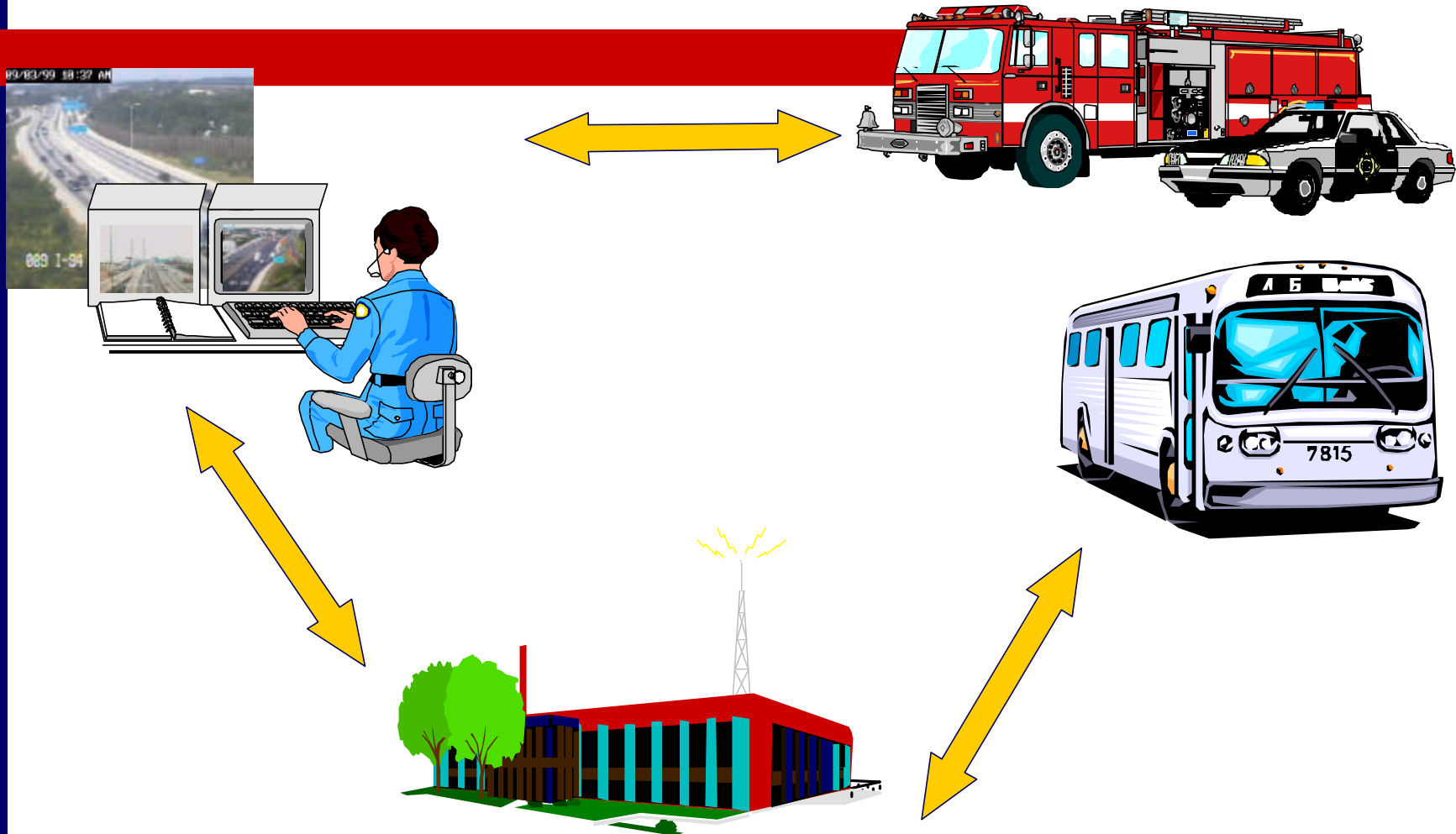
Partnering
Additional Federal Earmarks

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

ITS Planning Process

MPO Planning Process

Regional ITS Architecture

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ITS-Related Projects

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Long Range Transportation Plan

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Transportation Improvement Program (TIP)

Other Agency Planning Process

ITS-Related Projects

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Strategic/ Long Range Plan

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Capital Plan/ Budget

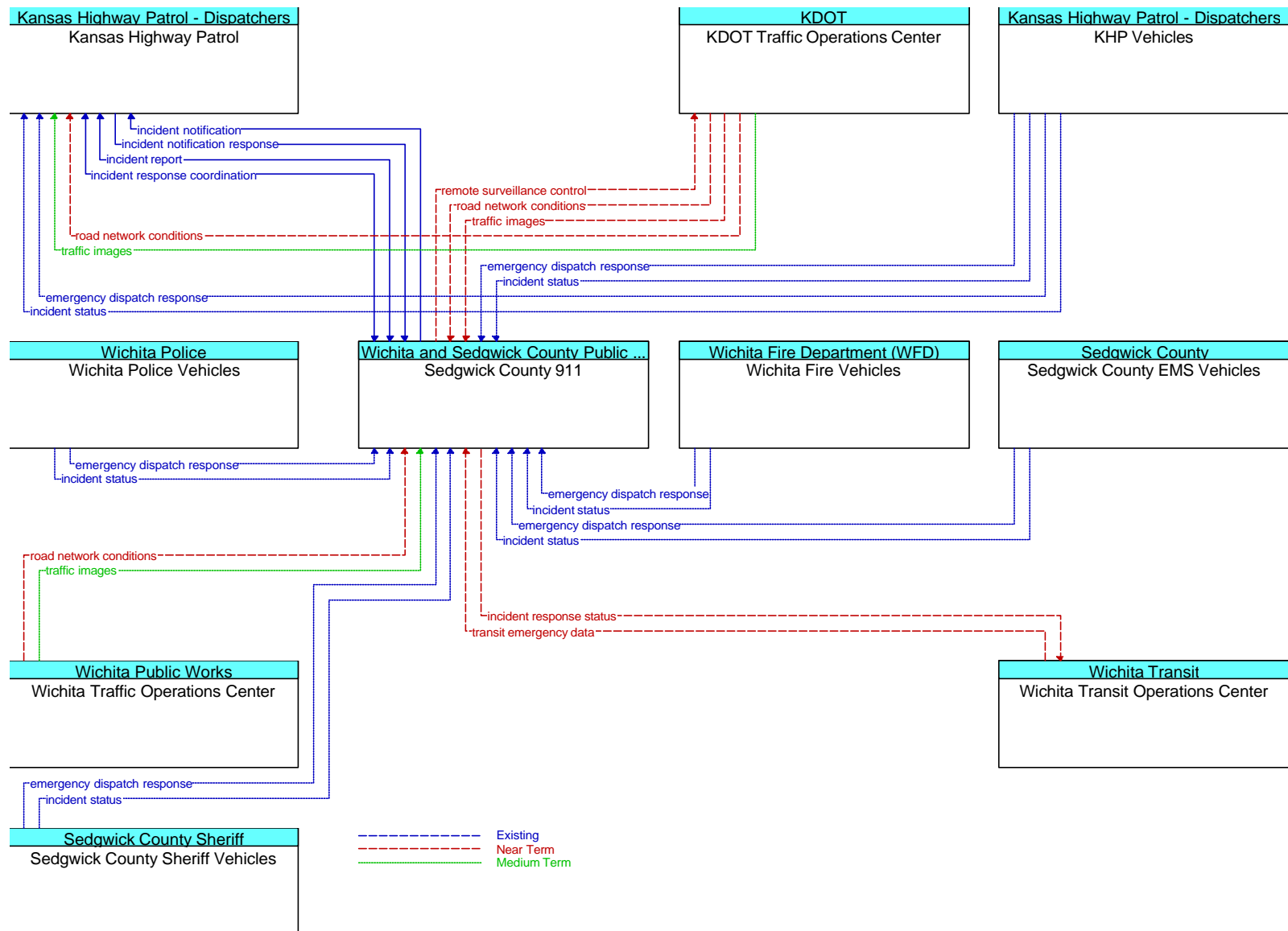---

Funded ITS-Related Projects

Partnering Projects
Sedgwick County AVL System

Emergency Call Taking and Dispatch

Partnering Projects
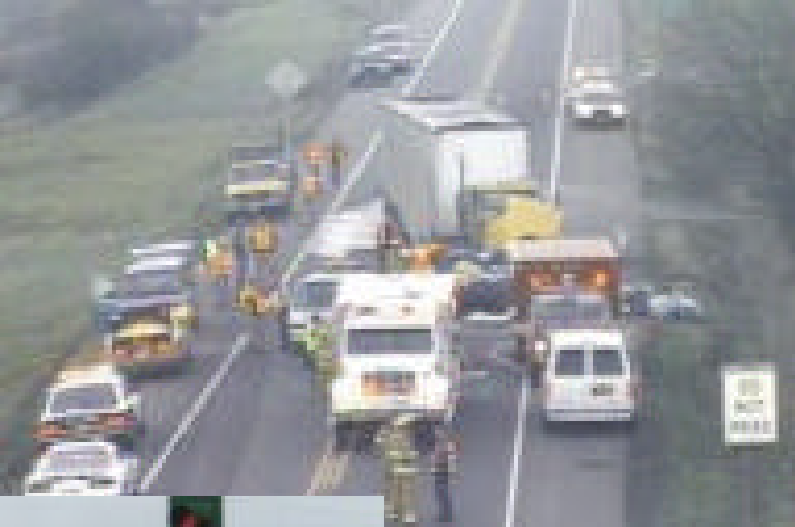## Traffic Signal System Upgrade

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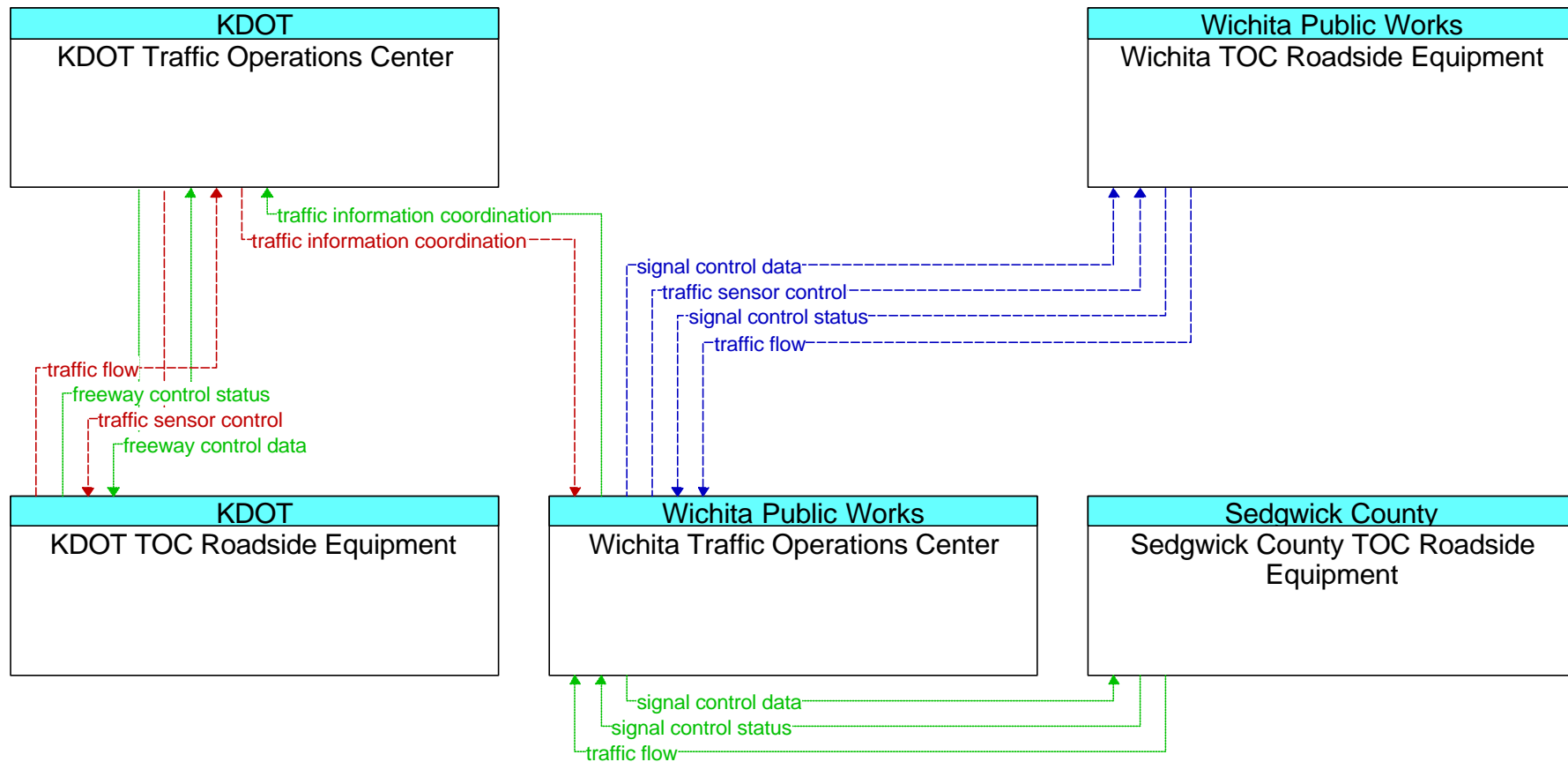 - Sedgwick County: 35 intersections

Partnering Projects
Advanced Traffic Management System (ATMS)

- Incident response
  - Freeway diversion

Regional Traffic Control

KDOT
KDOT Traffic Operations Center

Wichita Public Works
Wichita TOC Roadside Equipment

traffic information coordination
traffic information coordination

signal control data
traffic sensor control
signal control status
traffic flow

traffic flow
freeway control status
traffic sensor control
freeway control data

KDOT
KDOT TOC Roadside Equipment

Wichita Public Works
Wichita Traffic Operations Center

Sedgwick County
Sedgwick County TOC Roadside Equipment

signal control data
signal control status
traffic flow

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

Wichita Architecture Website
www.iteris.com/wichitaarchitecture

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

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

Wichita – Sedgwick County Regional ITS Architecture Information

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- Project Web Site
  - www.iteris.com/wichitaarchitecture

Recommendation

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