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Northeastern Illinois ITS Architecture Update

Architecture Open House Web Cast

April 12th, 2007



Illinois Department of Transportation



Chicago Metropolitan
Agency for Planning



Web Cast Participant Details

Audio Conference Details:

To join the audio call dial: 1-800-839-9416
Passcode : 8812510

Web Conference Details:

Conference Link: <http://www.pc-conferencing.com/joinframe.html?schedid=s-09254415>
Passcode: 8812510



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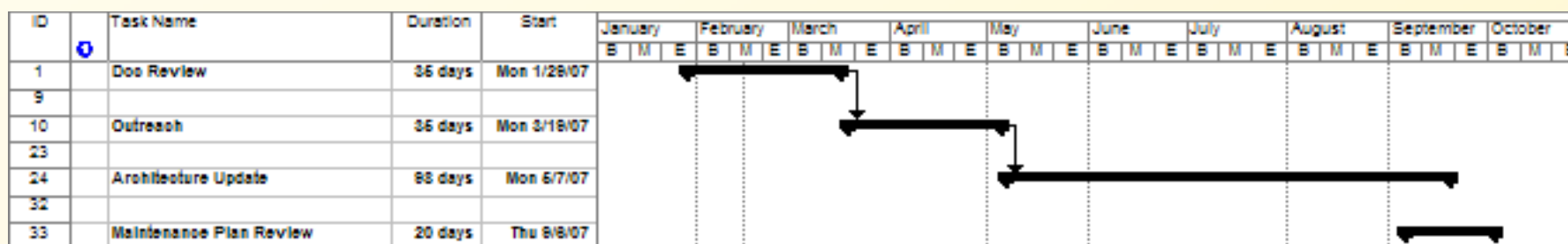


Welcome & Introduction

- You are participating in an Architecture Open House web cast for the Northeastern Illinois Regional ITS Architecture Update
- Presenting today is the Project Team of Trichord, Inc. with Edwards and Kelcey
 - Project Manager: Lee-Ann Seeling (Trichord)
 - Team Members: Matt Letourneau (EK), Mayank Goyal (EK), Craig Franklin (Trichord), & Gary Rylander (EK)

Project Overview

- **Contract signed Dec 2006**
 - Current plan is to complete all work by 3Q07 & on schedule



- **Four (4) major areas**
 - Review of existing documentation - *completed*
 - Outreach thru interviews & workshops - *underway*
 - Update Regional ITS Architecture - *preliminary mods begun*
 - Review of Maintenance Plan – *slated for summer '07*



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Why Have a Regional Architecture?

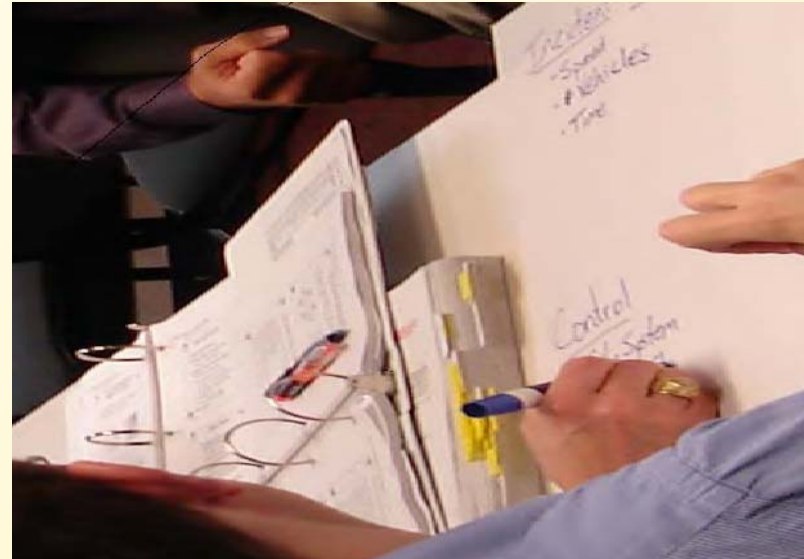
- FHWA Rule 940.11.c.1 and FTA National ITS Architecture Policy require federally funded ITS projects to conform to the National ITS Architecture and approved USDOT Standards

But it's also just a good idea because...

- Provides both a common vocabulary & a framework for planning, defining, and integrating ITS in the Northeastern Illinois region

What is a Regional ITS Architecture?

- **Shared vision** of how transportation systems **in a region** may work to **share information and resources** to provide safer, more efficient transportation system



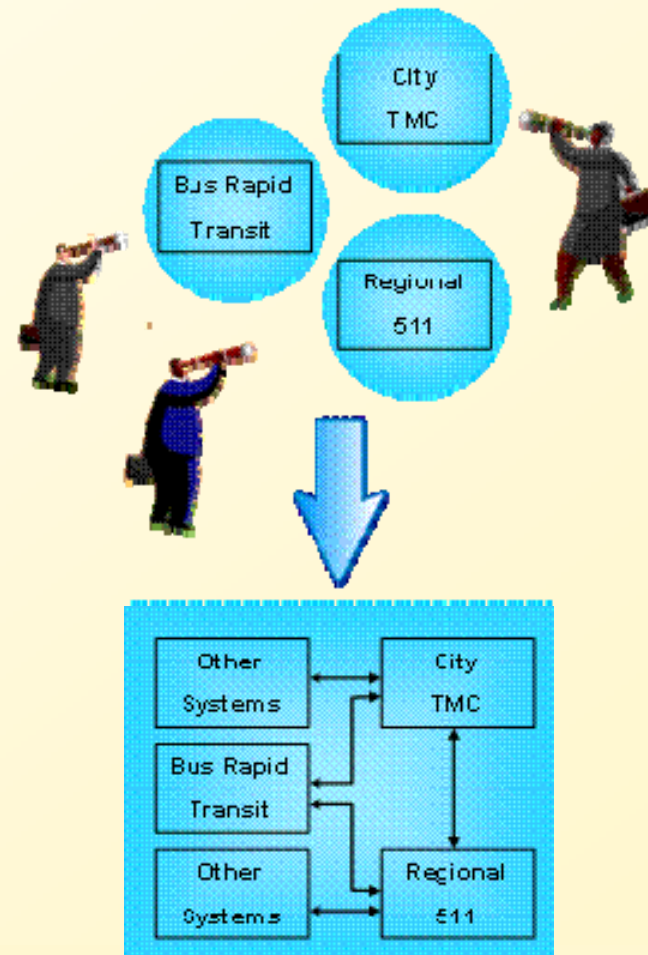
What's in a Regional ITS Architecture?

- **Contain details, including:**
 - **Stakeholders** such as
Public Officials, Transportation Planners, Law Enforcement, Emergency Management Personnel, Public/Private Transportation Providers, Civic Groups, Media & Information Providers
 - ITS systems (**elements**)
 - Transportation services (**market packages**)
 - Functional requirements
 - Information flows
 - ITS Standards



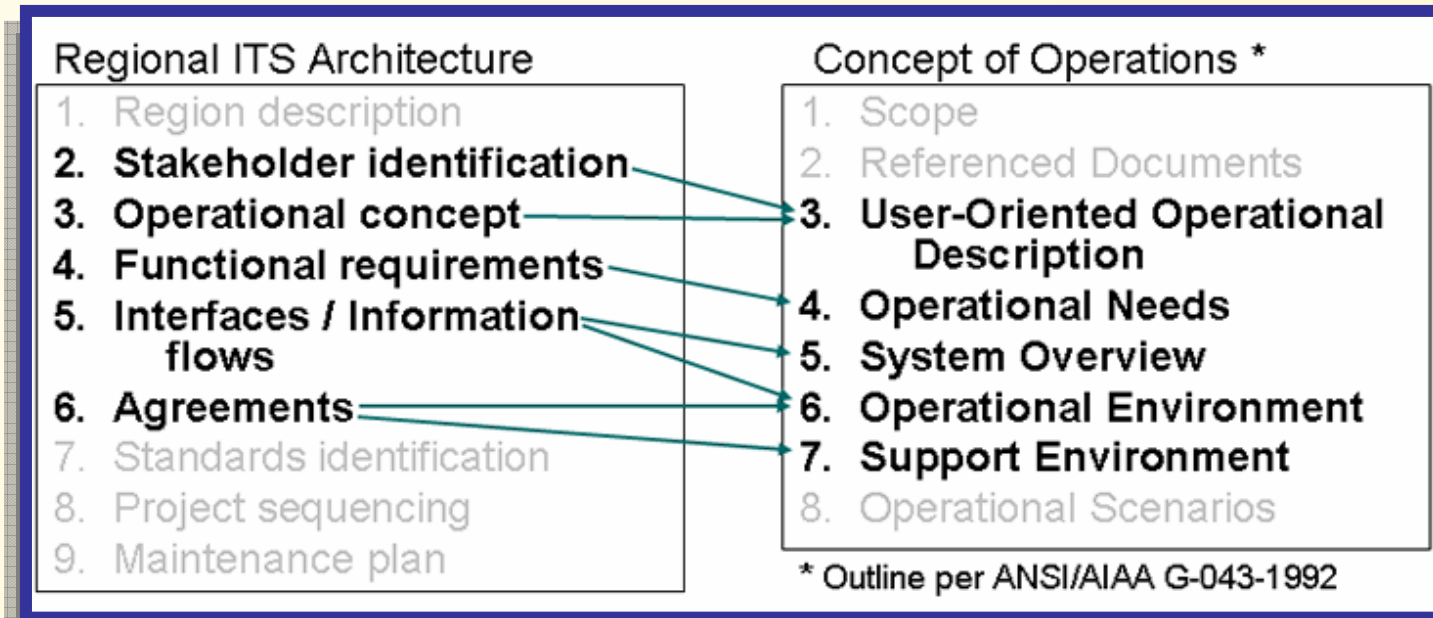
Uses of Regional ITS Architecture

- Using the regional ITS architecture as a basis for project implementation provides **regional context**
- It provides each project sponsor the **opportunity** to view their project in the context of surrounding systems.



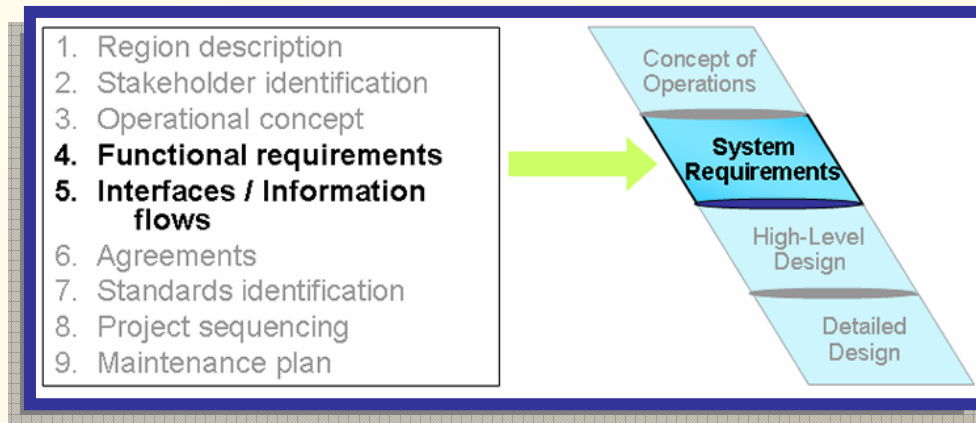
Example #1: Used to Develop Concept of Operations

- Provide **starting point** for developing concept of operations for an ITS project



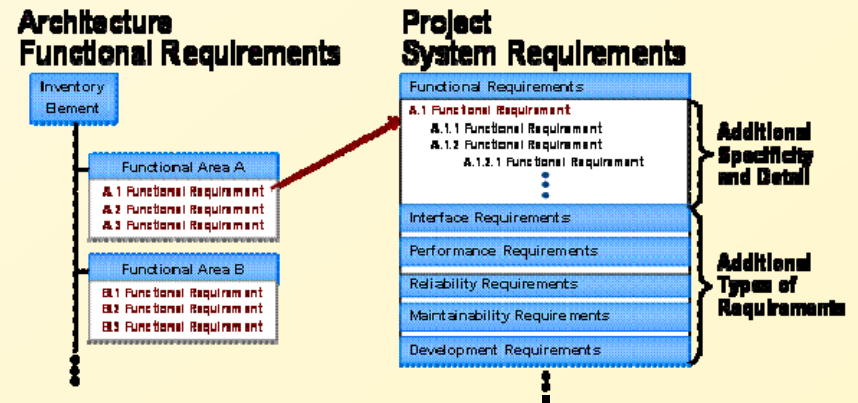
* Ref: FHWA's Regional ITS Architecture Guidance Document

Example #2: Used to Develop System Requirements



- Used as input to system requirement definition

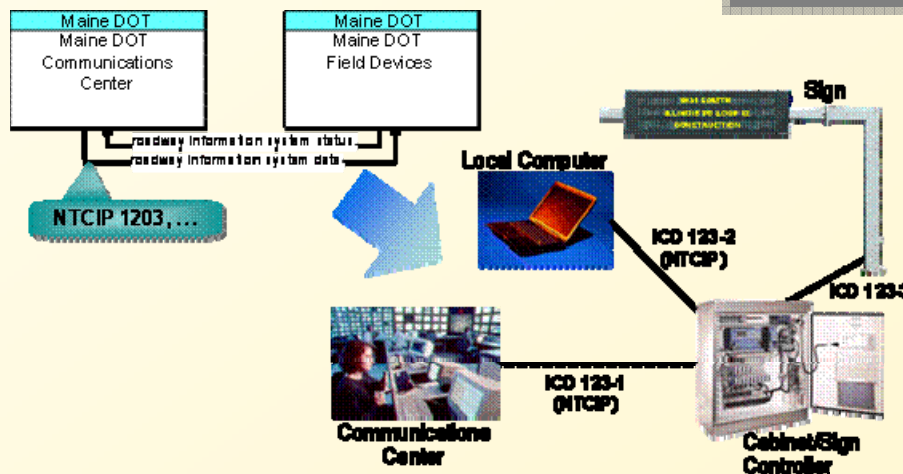
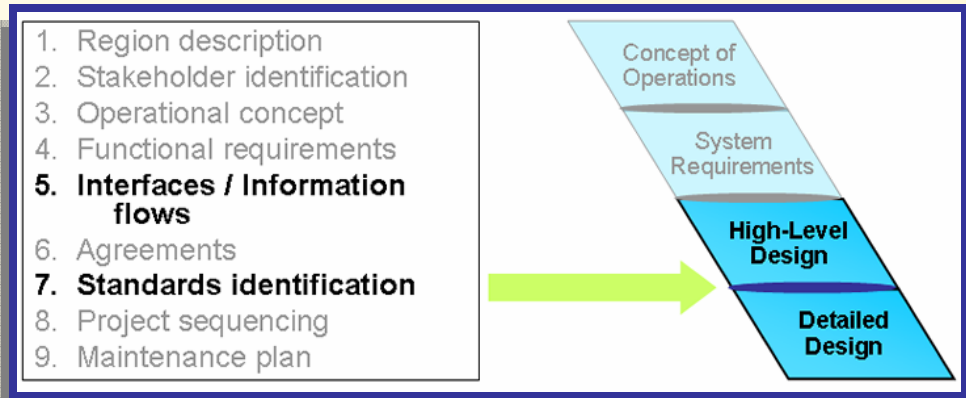
- Provided additional details not provided in high-level design (Regional Architecture)



* Ref: FHWA's Regional ITS Architecture Guidance Document

Example #3: Used in Project Design

- Starting point for the project high-level design

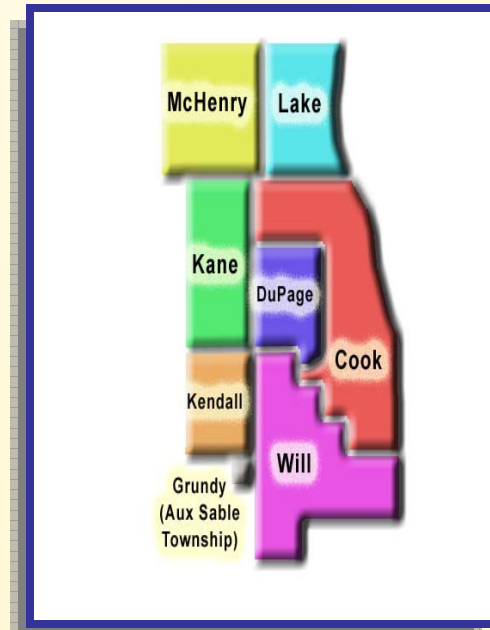


- Identify the ITS standards that may be applicable

* Ref: FHWA's Regional ITS Architecture Guidance Document

Review of Existing Regional ITS Architecture

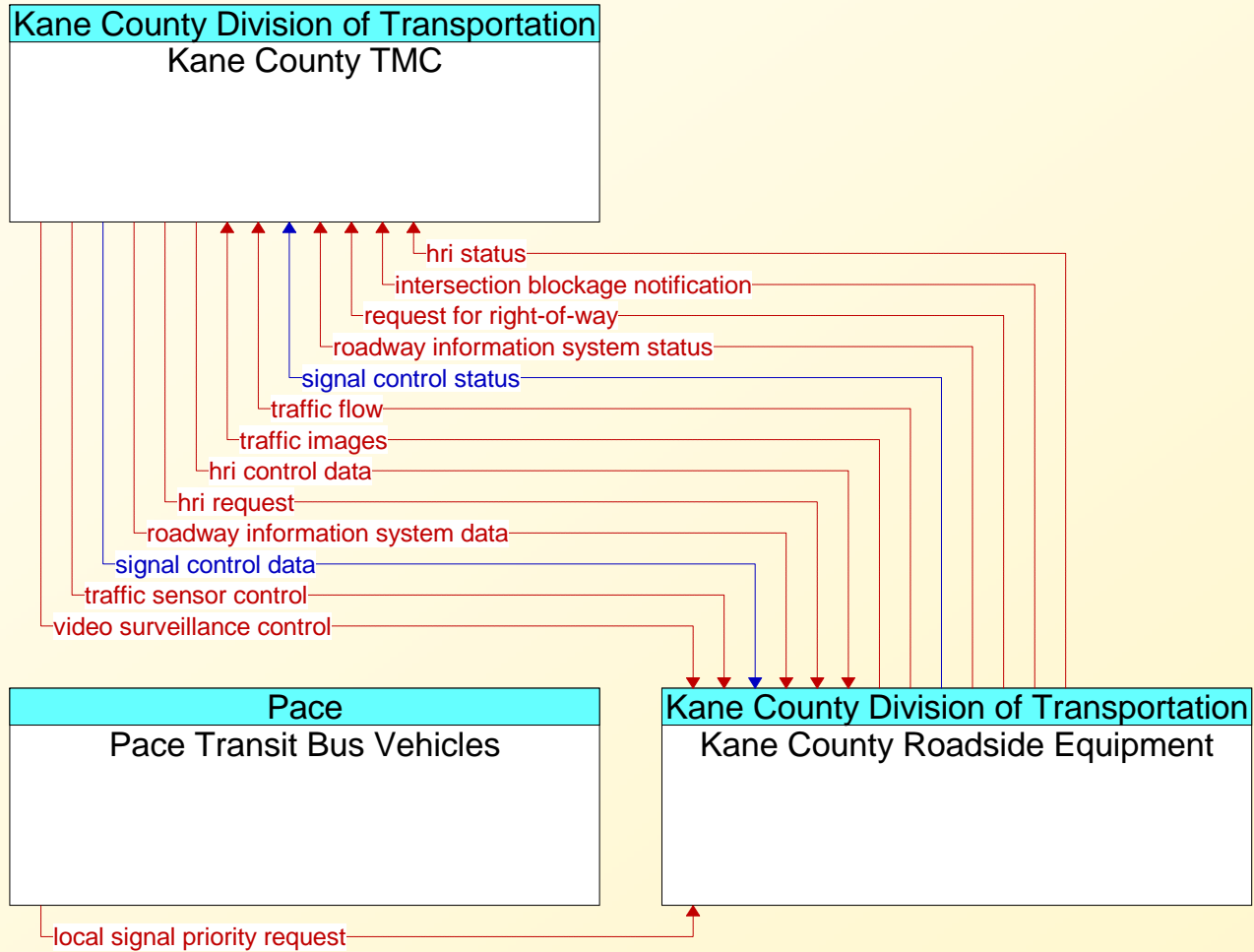
- The existing Regional ITS Architecture can be viewed at www.catsmpo.com/itsarc/illinois-final-arch/neil/neilintro.htm
 - Effective timeframe: **15 years**
 - Geographical area: **CMAP planning boundaries**



NE IL Regional ITS Architecture Update

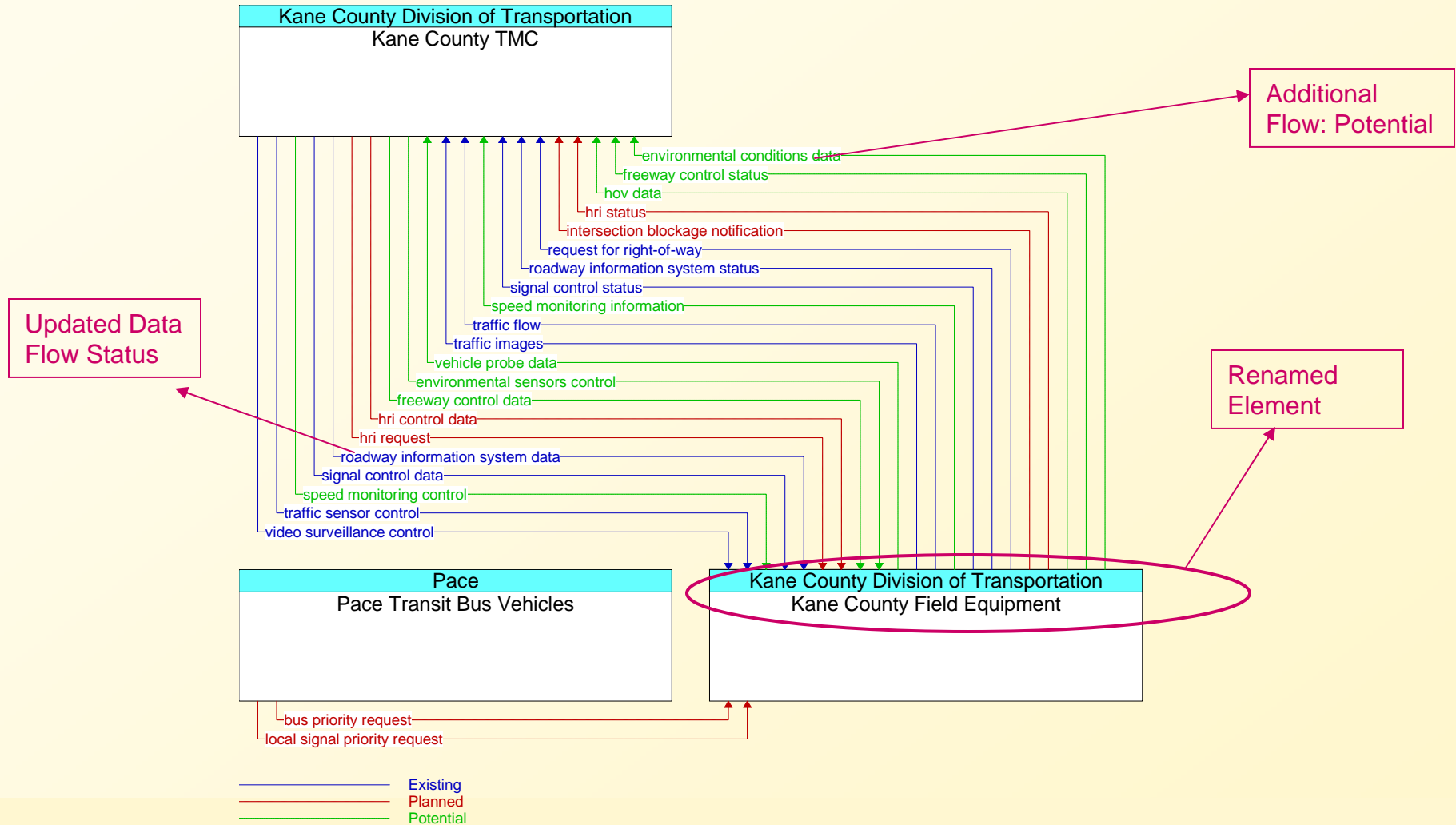
- Research into the region has yielded modifications ahead of workshops
- Change Sources:
 - NE IL Regional ITS Deployment Plan Update document
 - DuPage County TCI Project
 - Kane County ITS/TMC Feasibility Project
 - Outreach Process

Sample Changes Made

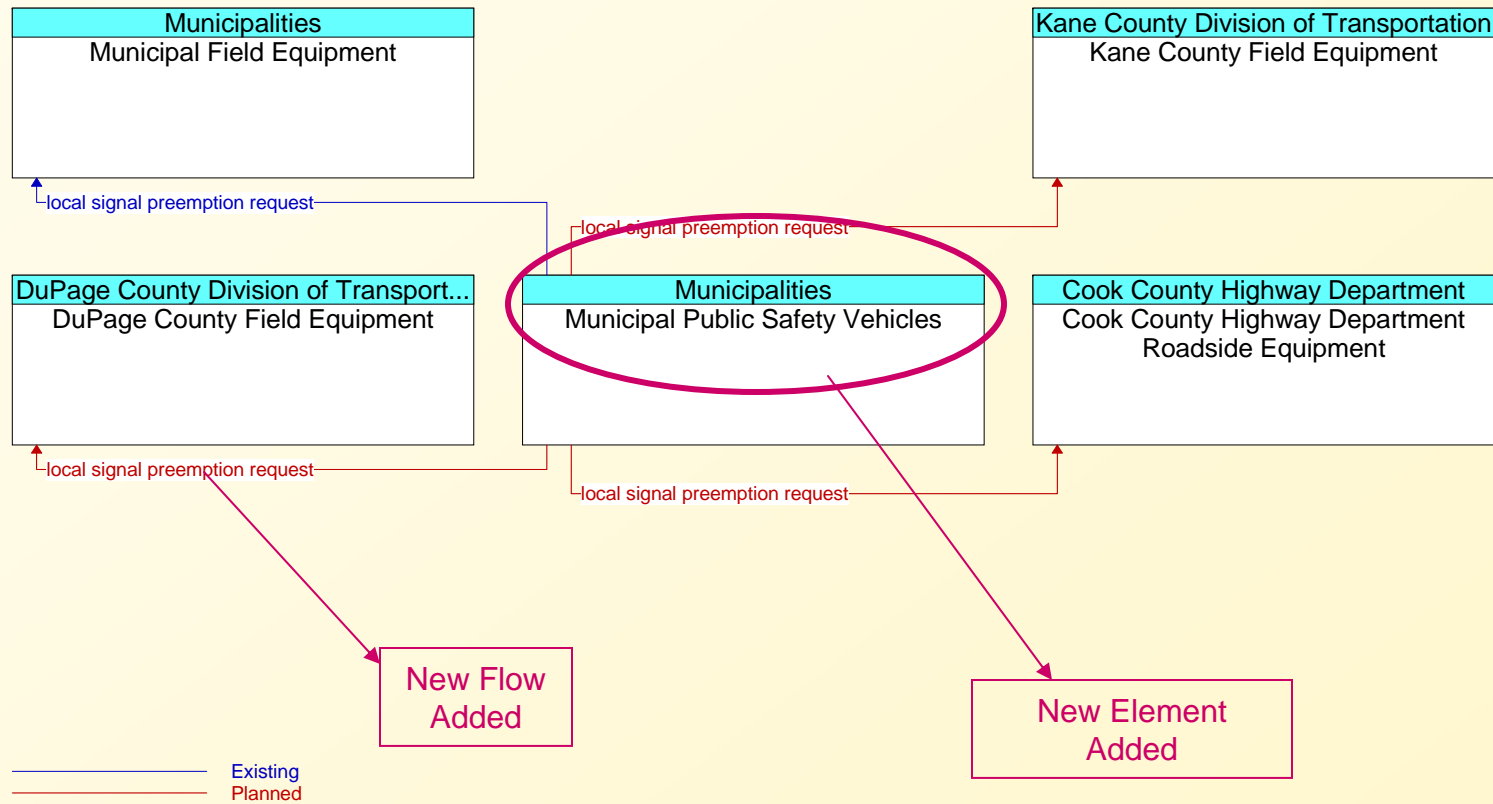


Existing
Planned

Sample Changes Made



Sample Changes Made



Sample Changes Made

The screenshot displays a software interface for managing Market Packages. It is divided into two main sections: 'Market Packages' on the left and 'Market Package Attributes' on the right.

Market Packages: This section contains a list of packages. The 'Selected Market Packages' tab is active, showing a list where 'ATMS01: Network Surveillance' is highlighted. Other packages include ATMS02 through ATMS18, MC01, MC03, and MC04.

Market Package Attributes: This section shows details for the selected package, ATMS01. The ID is 'ATMS01' and the Status is 'Existing'. The Name is 'Network Surveillance'. The Description is: 'This market package includes traffic detectors, other surveillance equipment, the supporting field equipment, and fixed-point to fixed-point communications to transmit the collected data back to the Traffic'. Below this, there are two tabs: 'Selected Elements' and 'All Related Elements'. The 'Selected Elements' tab is active, showing a list of checked items: 'City of Chicago Department of Aviation Field Devices', 'City of Chicago DOT Roadside Equipment', 'City of Chicago Skyway Operations', 'City of Chicago Skyway Roadside Equipment', 'City of Chicago TMC', 'Cook County Highway Department Roadside Equipment', 'Cook County TMC', 'DuPage County Field Equipment', 'DuPage County TMC', 'IDOT District 1 Bureau of Traffic Signal Unit', 'IDOT District 1 Bureau of Traffic Signal Unit Field Equipment', 'IDOT District 1 ComCenter', and 'IDOT District 1 ComCenter Roadside Equipment'. A pink oval highlights the first two items, and a pink arrow points from the text 'New element added to Market Package' to the 'City of Chicago DOT Roadside Equipment' item.



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Upcoming Workshops

- **Currently scheduled at the CMAP offices downtown the week of May 7th**
 - 1 session Tuesday & Thursday, 2 on Wednesday
- **Proposed functional area workshops:**
 - Arterial Operations
 - Emergency Management and Security
 - Expressway Operations
 - Transit Operations
 - Traveler Information, Construction, Maintenance and Data Archival would be addressed in each session

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