

# Chattanooga Regional ITS Architecture Update

Stakeholder Kickoff Meeting



June 24, 2021



# Workshop Overview

- Welcome and Introductions
- Overview of the Regional ITS Architecture Project
- Review of Existing and Planned ITS Projects in the Region
- Review of Regional ITS Needs
- Review Action Items and Upcoming Stakeholder Outreach Activities
- Wrap Up



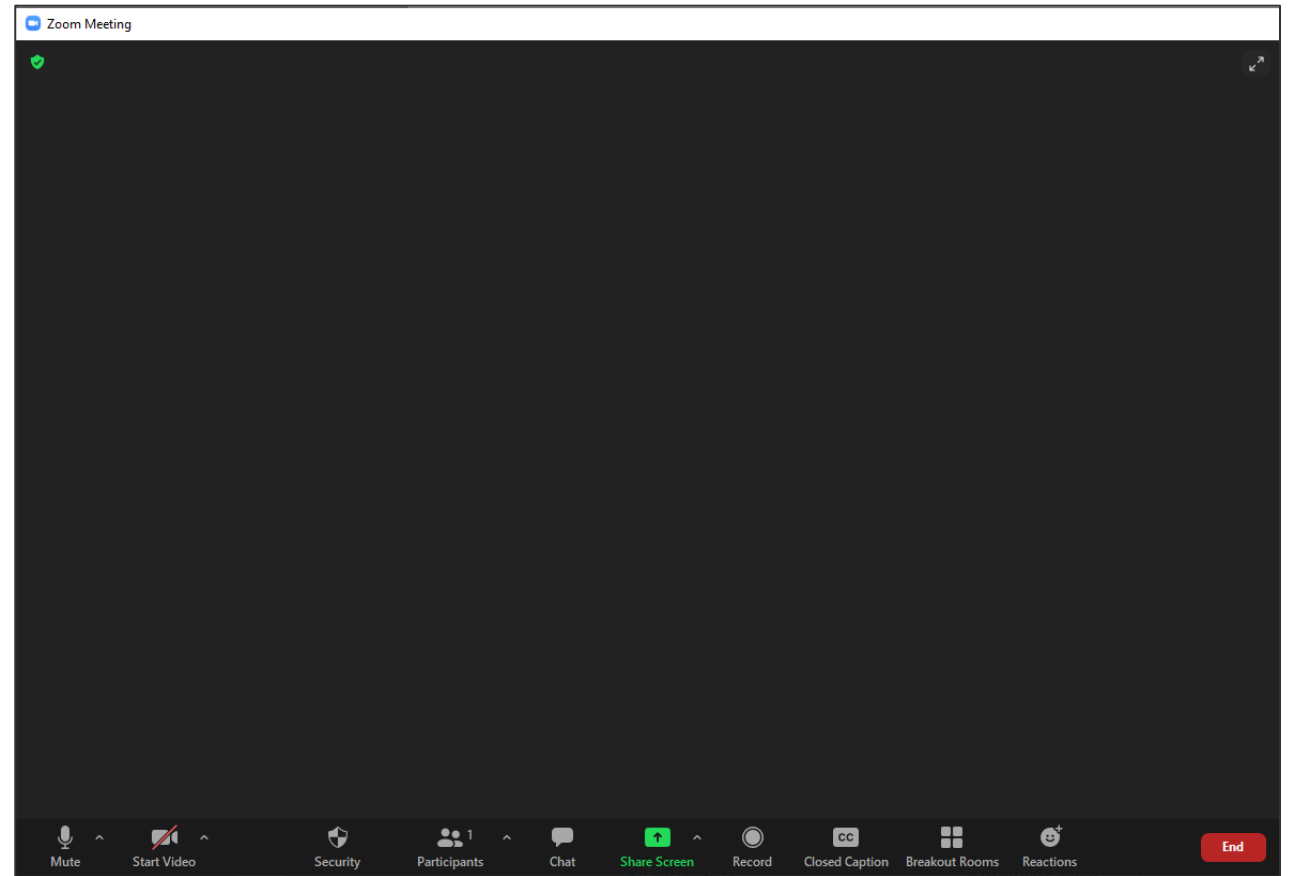
# Housekeeping

Please add your name and agency in the CHAT box

Please stay on MUTE unless asking a question...but please come off MUTE during the discussion

Please come off MUTE or use the CHAT box to add information during the discussion

If you were not invited to the workshop but would like to be added to our contact list, please add your email to the CHAT box



➔ MUTE

➔ CHAT



# Overview of the Regional ITS Architecture Project



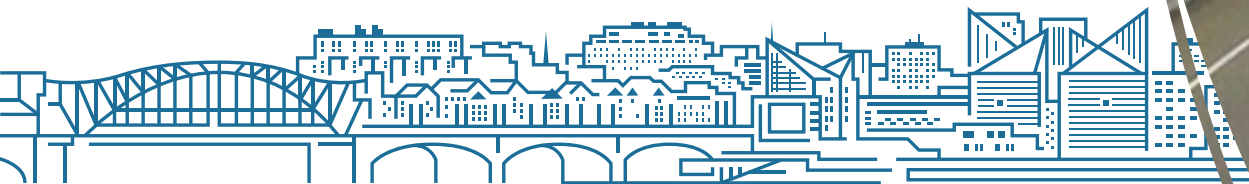
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# What is ITS?

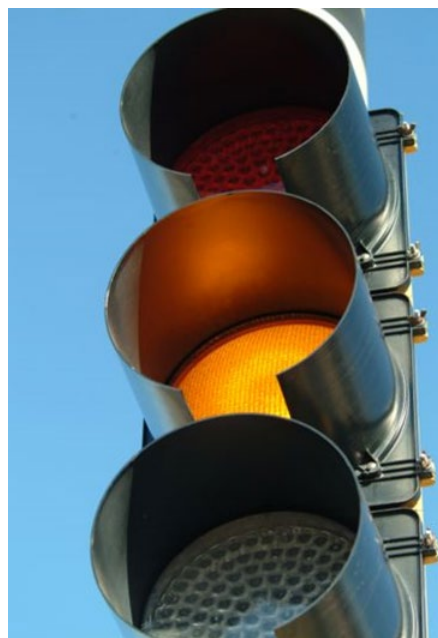
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**ITS**  
Intelligent Transportation Systems

**One Definition of ITS**  
The application of data processing and data communications to the surface transportation system to increase safety and efficiency



# What is ITS?



# Emerging ITS Technologies

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Connected Vehicles

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Automated Vehicles

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Active Traffic Management

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Integrated Corridor Management

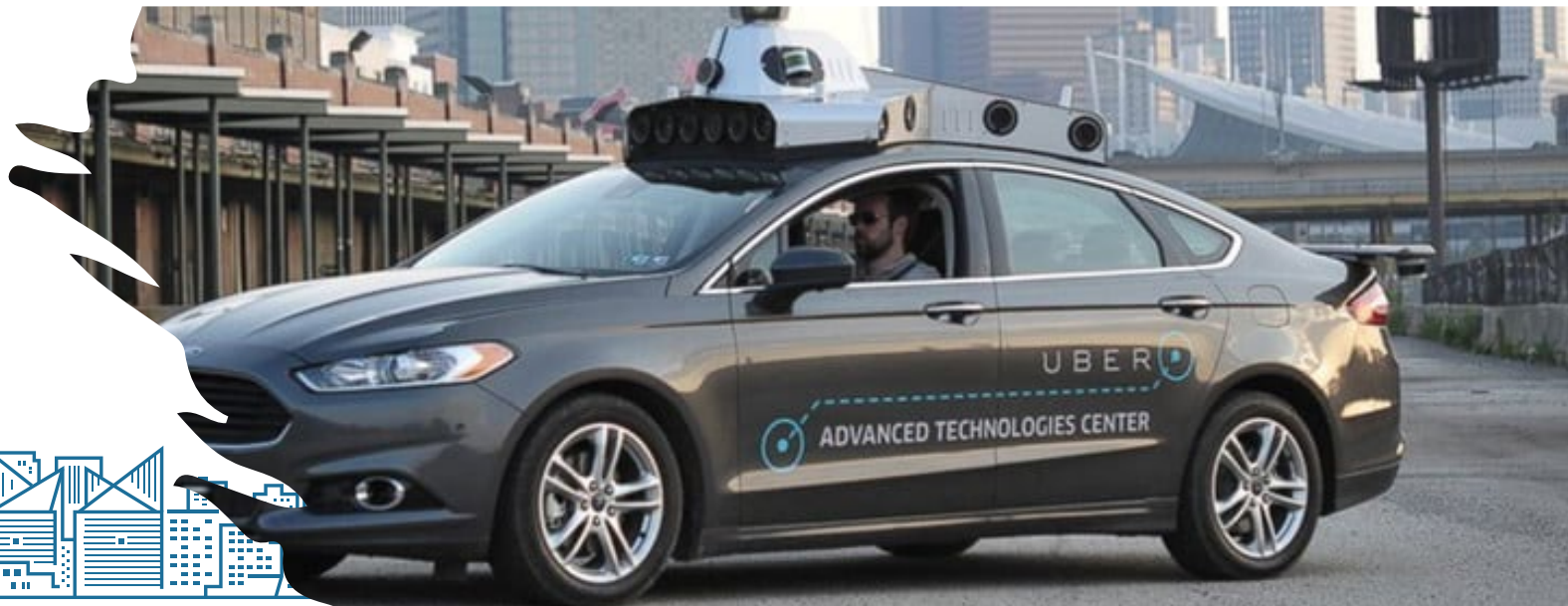
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Decision Support Systems

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Privatized Traffic Data

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# Why Deploy ITS?

**INCREASE SAFETY:** In 2020, Tennessee had 1,217 traffic fatalities and Georgia had 1,516

**REDUCE CONGESTION:** Congestion costs Americans almost \$200 billion in additional travel time and wasted fuel cost\*

**IMPROVE RELIABILITY:** Travels report variability in travel times to be one of their greatest sources of frustration

*\*from the Urban Mobility Scorecard*

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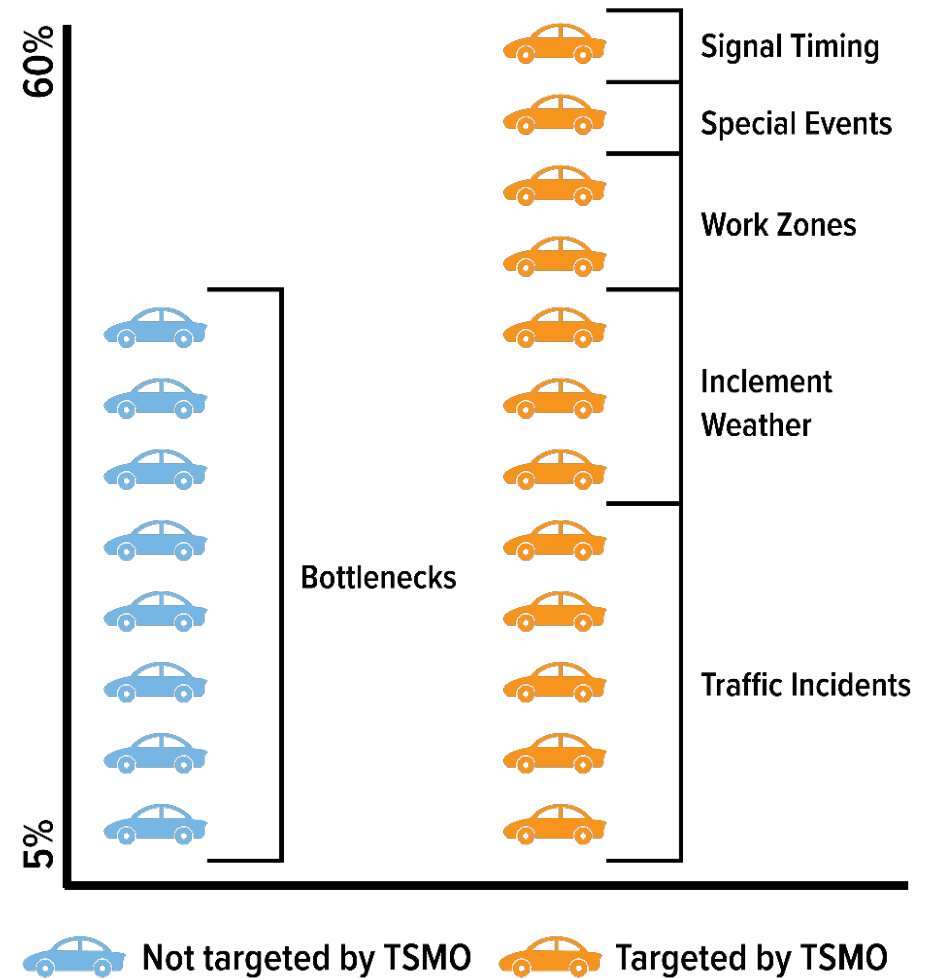




# Why Deploy ITS?

ITS is a key tool used for **Transportation Systems Management and Operations (TSMO)**

## Causes of Congestion

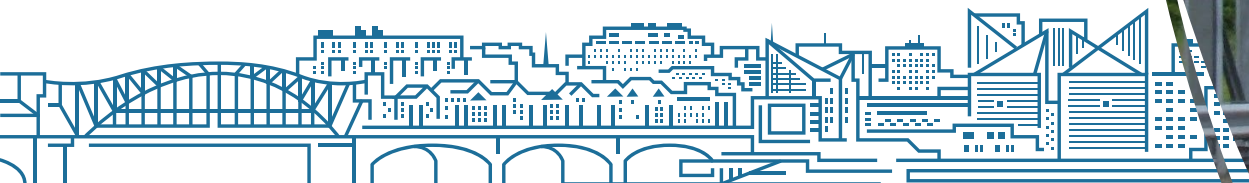


# What is a Regional ITS Architecture

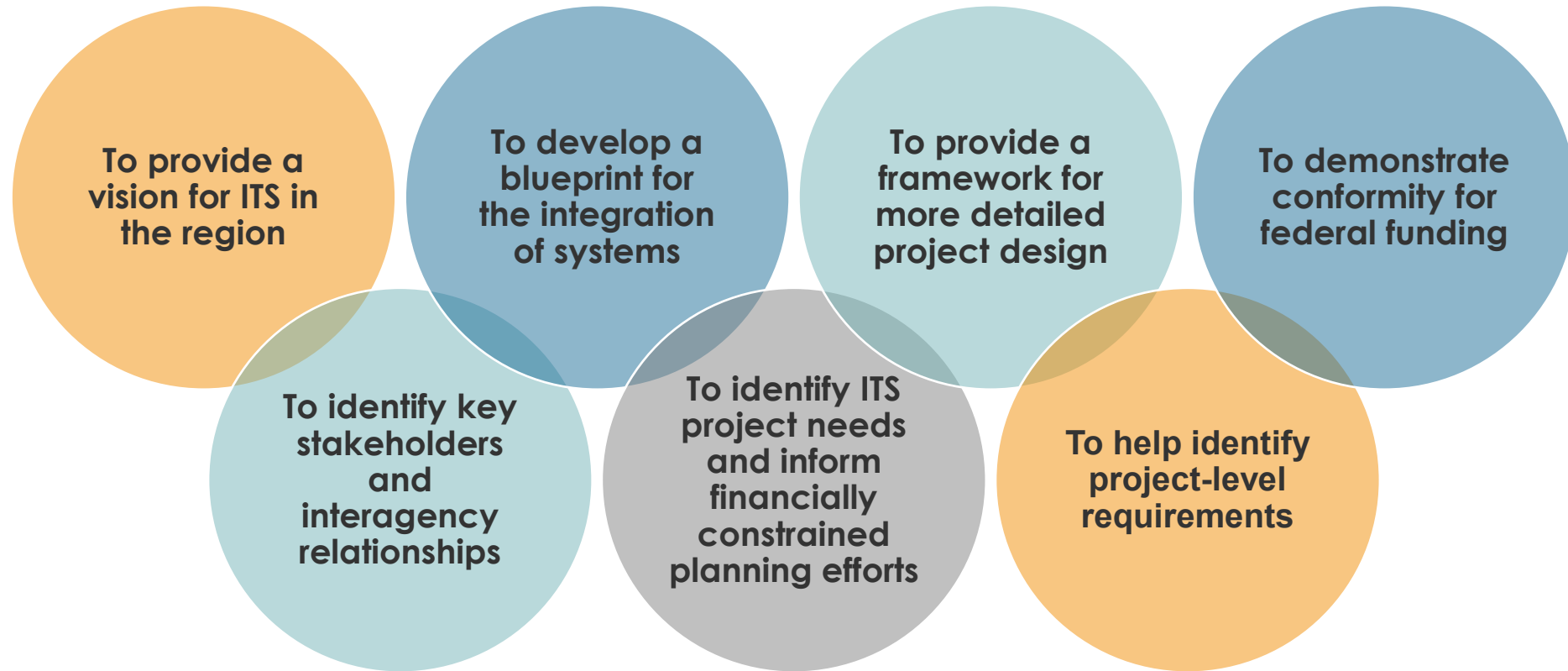
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A plan for the deployment, integration, and operation of Intelligent Transportation Systems in a Region

Often referred to as a RITSA, the plan includes traffic, transit, and emergency services



# Purpose of the Architecture



# Why Should You Care?

All transportation projects funded through the Highway Trust Fund must conform with a Regional ITS Architecture



... plus, Regional ITS Architectures can:

- Help scope projects appropriately
- Ensure regional interoperability
- Offer a focused perspective for long-range planning
- Ensure preparedness for future deployment of technology



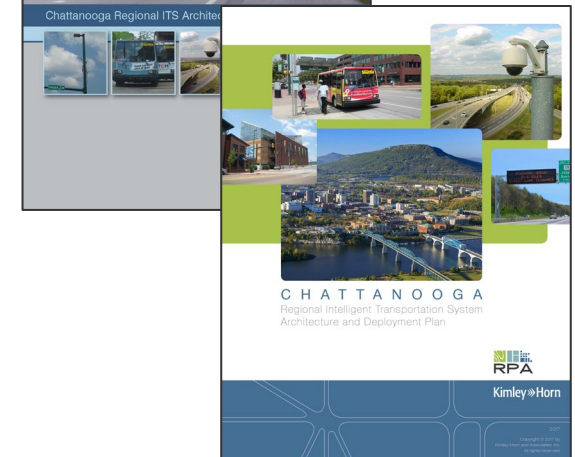
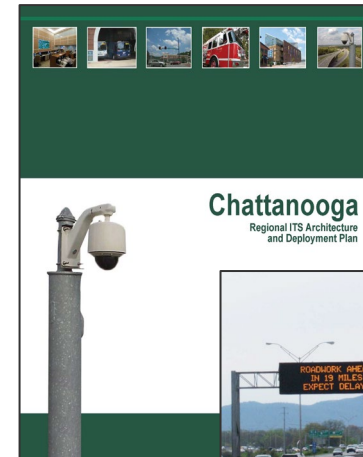
# History in Chattanooga Region

First Developed in 2010

Updated in 2014

Last updated in 2017

A living document updated in coordination with the Regional Transportation Plan update



# Requirements of a Regional ITS Architecture

- Stakeholder Agencies
- Regional ITS Needs
- Inventory of ITS Elements (Existing or Planned)
- Identification of ITS Services (ITS Service Packages)
- Interfaces/Information Flows
- Standards
- Project Sequencing (ITS Deployment Plan)
- Agreements
- Maintenance Plan



# Requirements of a Regional ITS Architecture

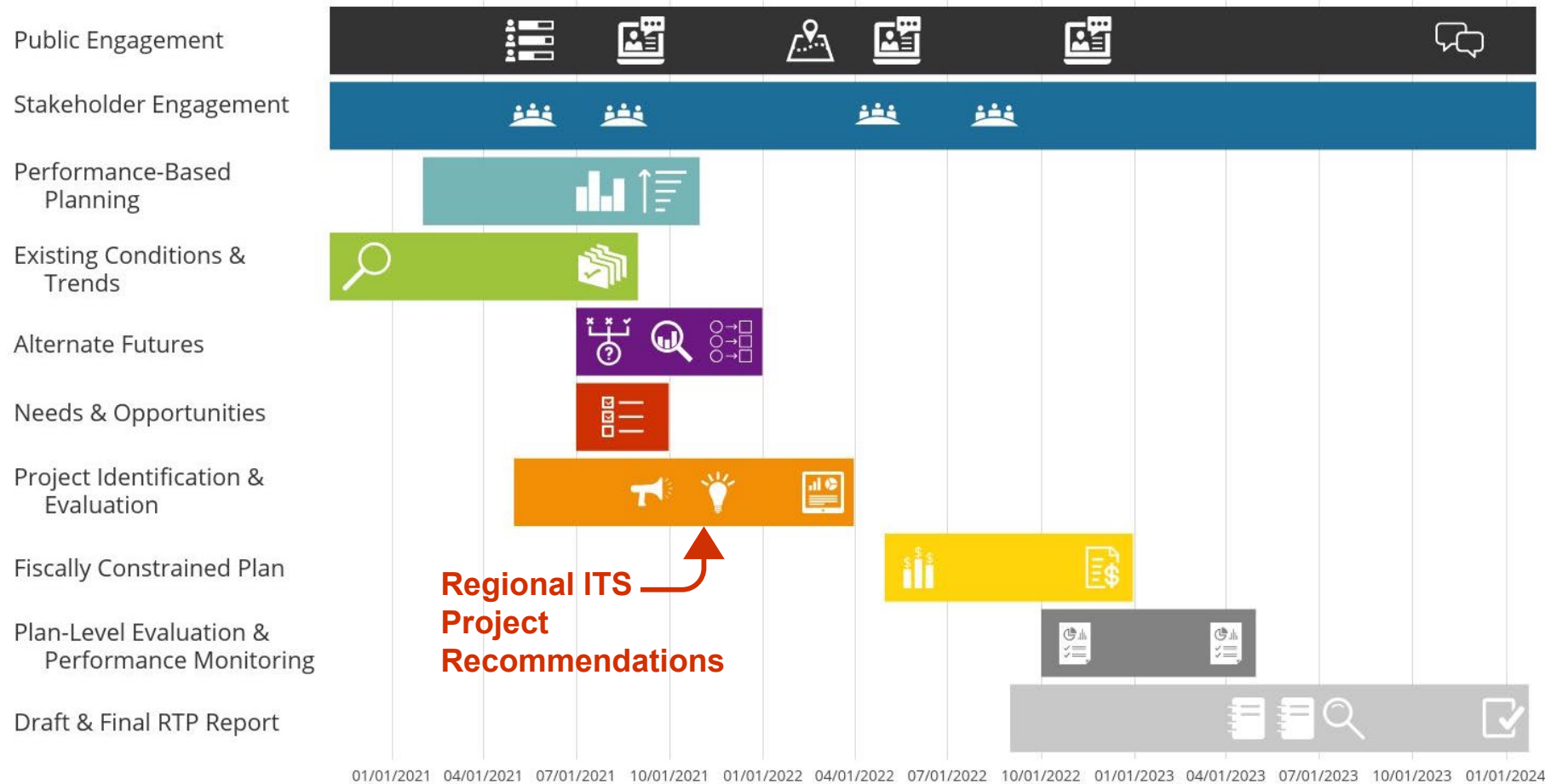
These are not required but will be added to the Chattanooga Regional ITS Architecture and Deployment Plan Update:

- Enhanced Regional ITS Architecture Website
- ITS Project Database
- ITS Project Location Map
- Documentation of Existing and Planned Communication Systems
- Guidance on Ensuring Projects in the TIP Meet ITS Architecture Conformity Requirements



# Regional Transportation Plan

## 2050 Regional Transportation Plan Schedule



2050

REGIONAL  
TRANSPORTATION  
PLAN

R T I P

Greater Chattanooga/North GA Region



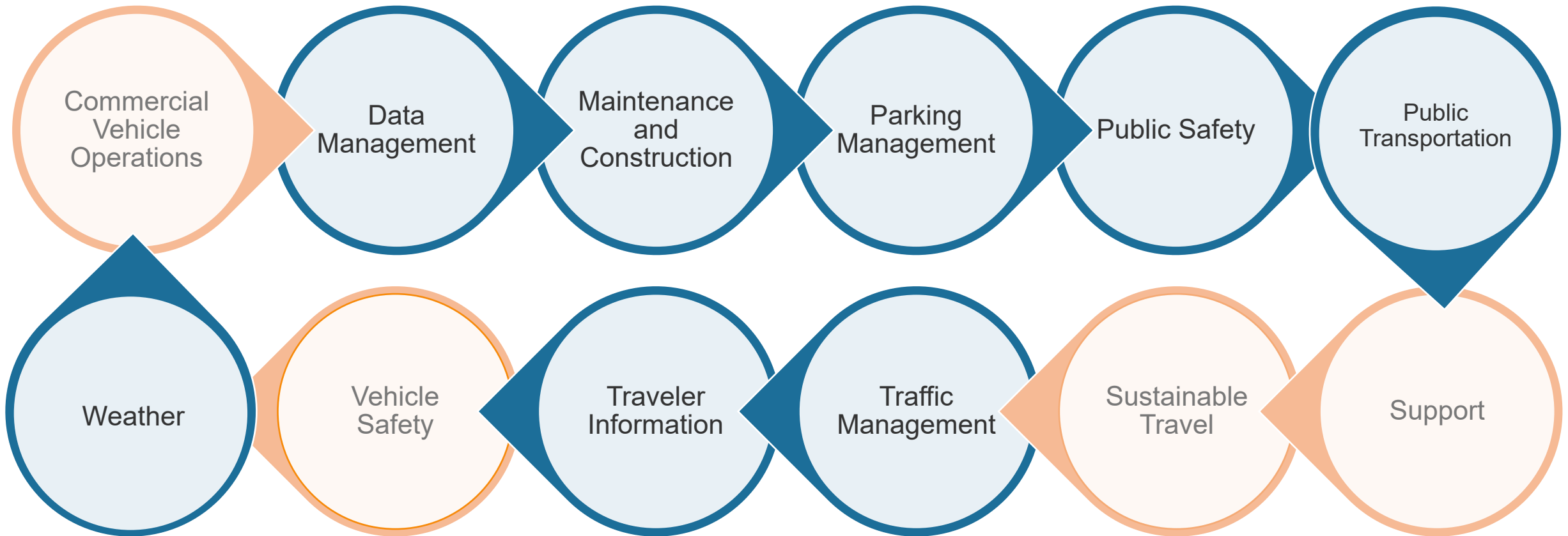
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# ITS Service Package Areas

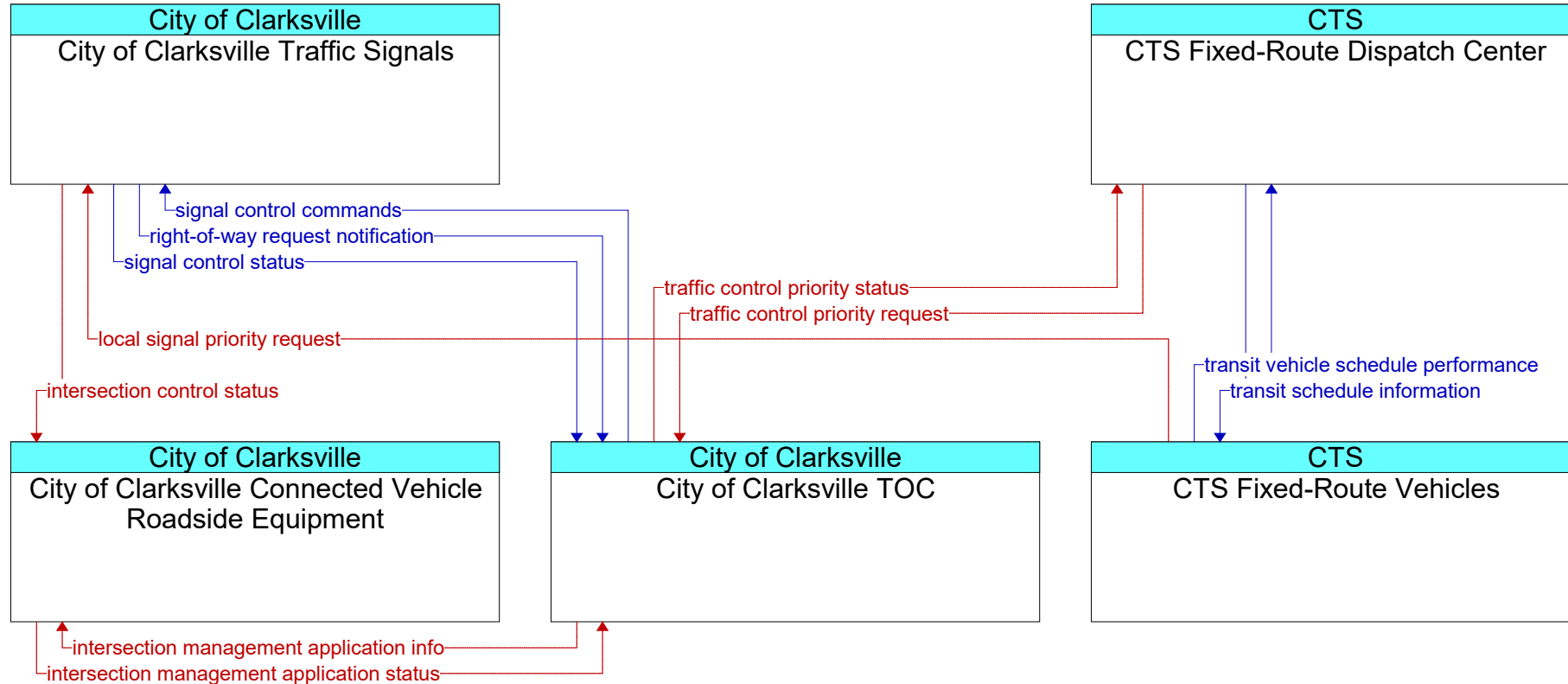


# ITS Service Package Areas



# ITS Service Package Example

## ITS Service Package – PT09 Transit Signal Priority (Clarksville)

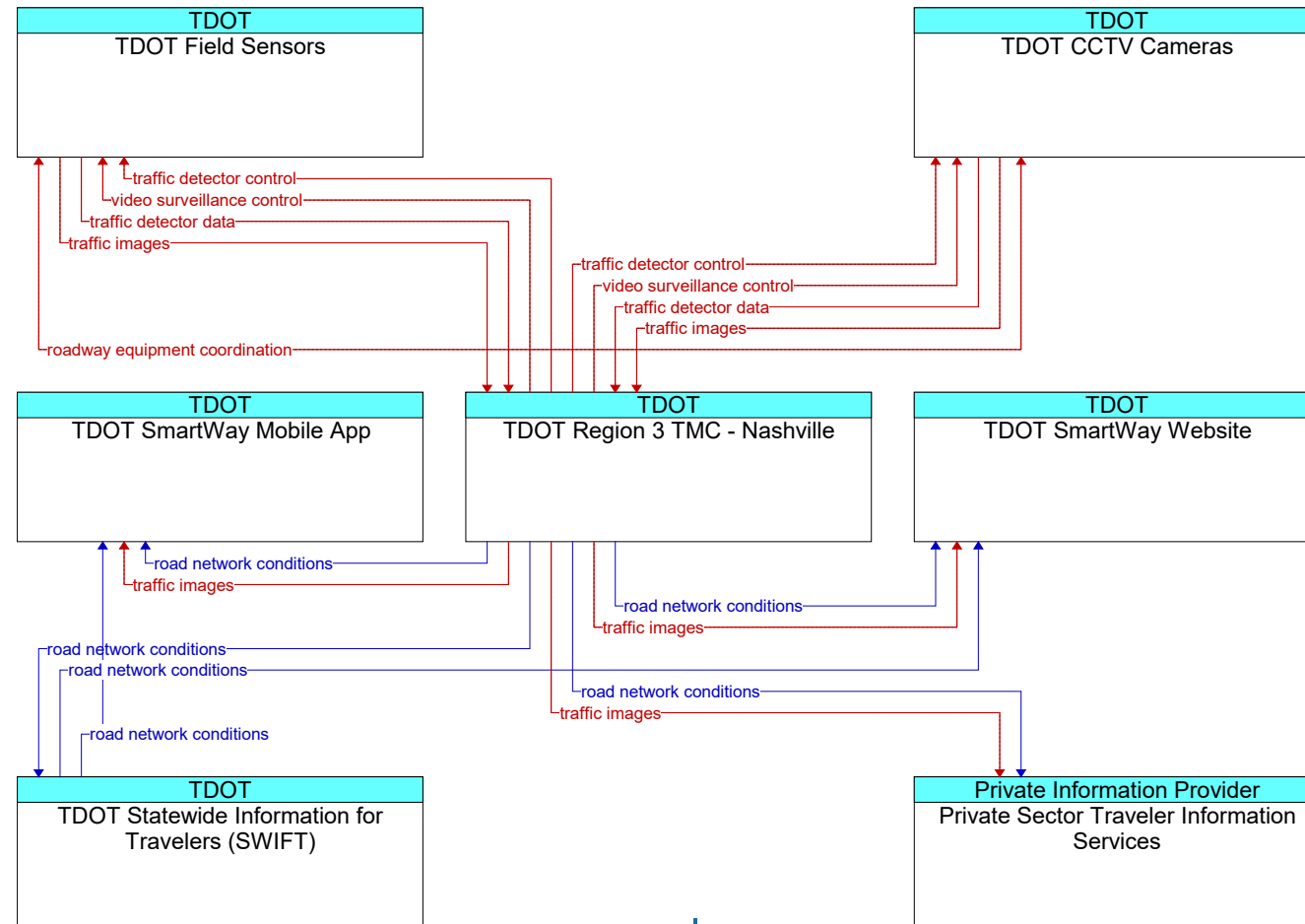


Existing  
Planned

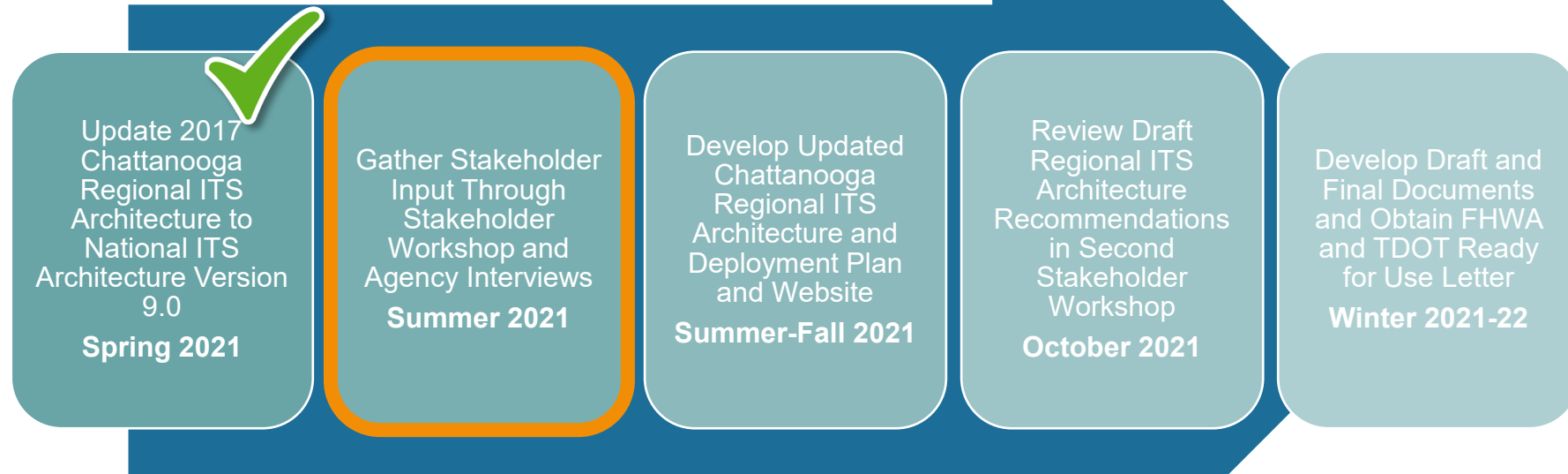


# ITS Service Package Example

## Example ITS Service Package – TM01 – Infrastructure Based Traffic Surveillance (TDOT Region 3)













# RITSA Update Process



# RITSA Update Process

One-on-One Outreach Planned for the Following Agencies

-  CARTA
-  City of Chattanooga
-  City of East Ridge
-  City of Red Bank
-  City of Soddy Daisy

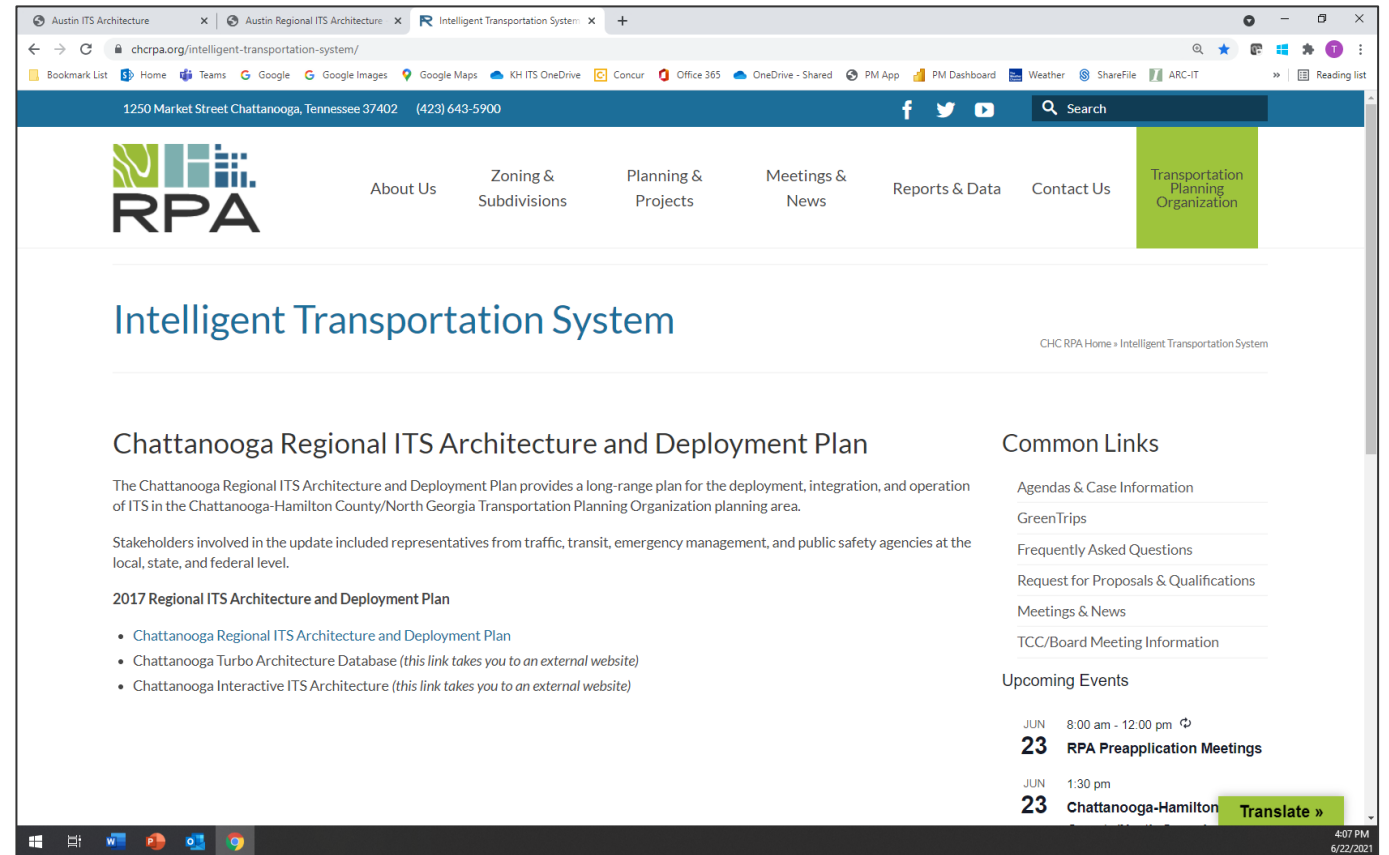
-  Georgia DOT
-  Hamilton County
-  SETHRA
-  Tennessee DOT
-  Others?



# What's New for 2021 Update?

- Enhanced project website for users
- Enhanced instructions for establishing conformity tied to TDOT Systems Engineering guidance
- Continued support from the RPA to local agencies

<https://chcrpa.org/intelligent-transportation-system/>



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# Stakeholder Input



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# Stakeholder Input

**Review  
Regional Boundaries**

**Review  
Regional Stakeholders**

**Discuss  
Existing and Planned  
ITS Deployments  
in the Region**

**Discuss  
Regional ITS Needs**



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### TPO Area

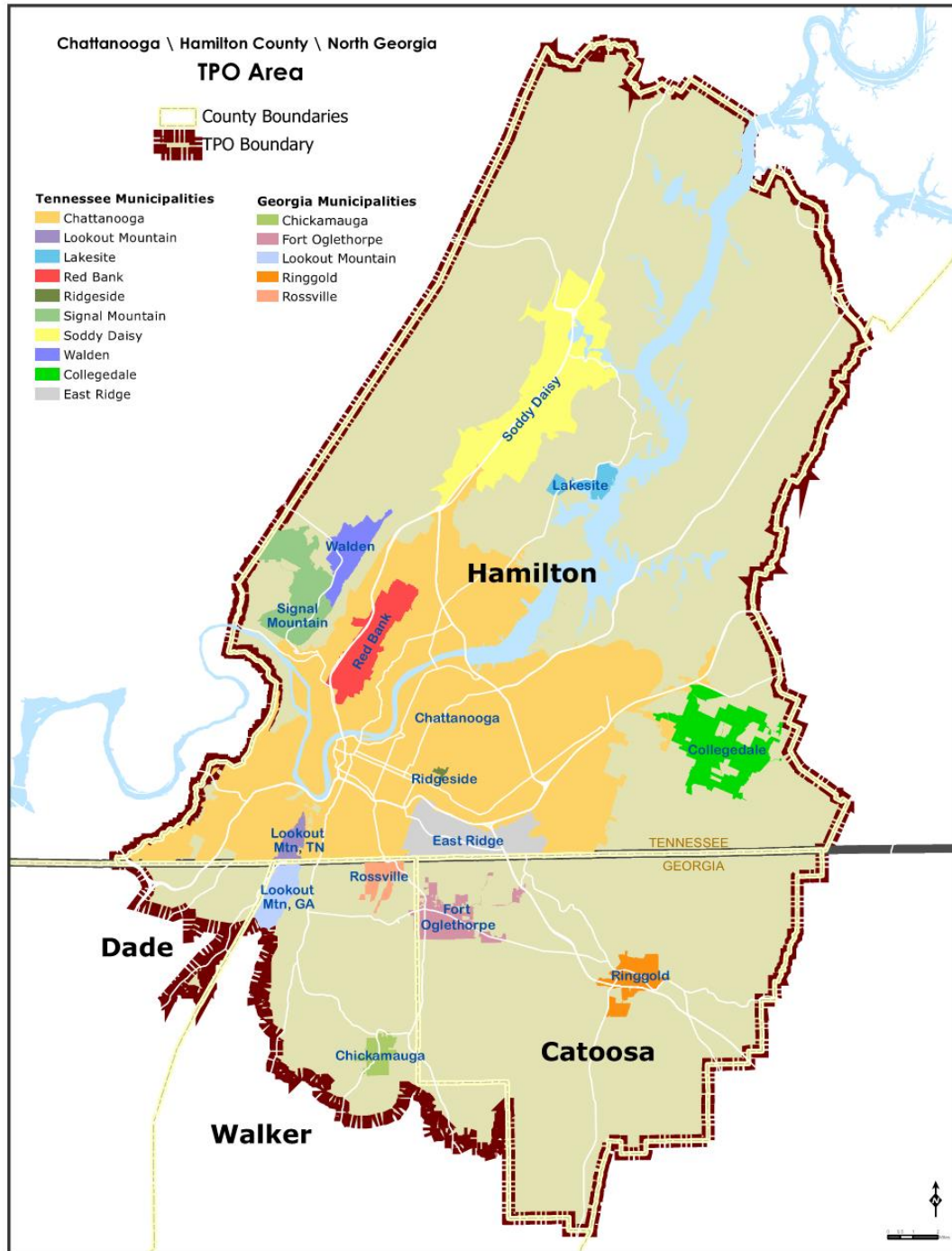
- County Boundaries
- TPO Boundary

#### Tennessee Municipalities

- Chattanooga
- Lookout Mountain
- Lakesite
- Red Bank
- Ridgeside
- Signal Mountain
- Soddy Daisy
- Walden
- Collegedale
- East Ridge

#### Georgia Municipalities

- Chickamauga
- Fort Oglethorpe
- Lookout Mountain
- Ringgold
- Rossville



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# Next Steps



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# Upcoming Project Schedule





# Deliverables

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- Revised Draft and Final Regional ITS Architecture Update and Deployment Plan Report
- Project Website
- Excel Table of ITS Projects
- GIS Map of ITS Projects
- RAD-IT Architecture Database (Version 9.0)
- Presentations to the TPO Technical Coordinating Committee, TPO Executive Board and Public



# Chattanooga Regional ITS Architecture Update

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## Contacts

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