ATLANTA REGIONAL TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS (TSMO)

VISIONING WORKSHOP SUMMARY

BACKGROUND AND PURPOSE

On December 17, 2018, the Atlanta Regional Commission (ARC) held a regional Transportation System Management and Operations (TSMO) Visioning workshop. This workshop was held as the first element of a multi-stage effort to bring together regional stakeholders to develop a forward-looking, multi-agency TSMO Vision and Deployment Plan and an update to the regional Intelligent Transportation Systems (ITS) Architecture. The resulting Deployment Plan will served as a roadmap for regional TSMO activities, and is intended to be an actionable framework that ties regional systems, processes, technology, and people together.

The workshop brought together participants from both public and private sectors, including representatives of ARC, Georgia Department of Transportation (GDOT), MARTA, the State Road and Tollway Authority (SRTA), the Georgia Department of Natural Resources, Hartsfield Jackson International Airport, Georgia Tech, counties and municipalities, a community improvement district (CID), Georgia Power, and firms in the transportation industry.

The meeting had the primary purpose of bringing together key partners from across the region to provide input into development of a regional vision for TSMO. A secondary purpose was to provide an introduction to the ITS Architecture and kick off the development of the regional ITS Architecture update.

This document summarizes the results of the workshop and synthesizes key themes that arose in relation to a regional vision concept and goals associated with TSMO.

OPENING REMARKS AND TSMO OVERVIEW

Maria Roell and Kofi Wakhisi of ARC welcomed the participants to the workshop, and provided context on ARC's goals for setting out to develop a regional TSMO vision and ITS Architecture update.

Michael Grant (ICF) and Natalie Smusz-Mengelkoch (Kimley Horn) provided background on the overall effort, and a brief background on TSMO. Natalie noted that TSMO focuses on *actively managing the multimodal transportation network to improve safety and mobility outcome*s. It builds on systems and technology, but is more than ITS; effective TSMO emphasizes coordination and collaboration across a wide array of partners and jurisdictional boundaries in order to optimize the performance of existing infrastructure, improving the security, safety, and reliability of the multimodal transportation system.

Four representatives then provided some brief opening remarks and perspectives on TSMO activities occurring in the Atlanta region:

- Andrew Heath of GDOT provided a brief overview of the Regional Traffic Operations Program (RTOP). Through this program, GDOT actively manages traffic along significant corridors throughout the Atlanta region. This is accomplished through traffic signal timing, field hardware management, deployment of new technologies, and interagency coordination and collaboration.
- Tom Udell of the City of Johns Creek spoke about their traffic control center (TCC) which they use to actively manage and monitor traffic. The City continually refines timing plans based on conditions monitored from the TCC and data that is received through their various systems.
- Tom Sever of Gwinnett County briefly discussed their forthcoming Smart Corridor along Peachtree Industrial Boulevard. The project will focus on a 20-mile corridor which will be equipped with technology such as emergency vehicle preemption, adaptive signal system, and infrastructure to vehicle (I2V) devices, for the purposes of increasing safety, mobility, and reliability.
- Dr. Michael Hunter of Georgia Tech highlighted the evolving role of technology and data in transportation systems.

CREATING A TSMO VISION

In order to structure the disussion to develop ideas for a regional TSMO vision, Michael Grant first provided a brief introduction to the visioning process. He noted that a vision *provides a shared intention and direction for a program or focal point for the region.* It should speak to high-level outcomes and be consistent with and support the region's overall vision; it may identify core principles or goals for how the transportation system should be operated. He noted that the purpose of the meeting was not necessarily to craft a specific vision statement but to identify the key outcomes, goals, or elements that would form a vision for the future of TSMO in the Atlanta region.

He then provided context on the Atlanta Region's Plan Vision, which focuses on three pilars of world class infrastructure, healthy livable commmunities, and a competitive economy. The Plan Vision statement is:

> *"Atlanta is one of the world's most dynamic metropolitan areas, competing globally on the strength of our diverse population, robust economy, myriad cultural assets and attractive lifestyles. We will 'win the future' through intensive collaboration that honors and leverages the uniqueness of our communities."*

He also provided highlights of visions, goals, and objectives from other regional planning documents that relate to TSMO, including:

- the Regional Transportation Demand Management Plan (2013), which highlights customer convenience and user experience, transportation connectivity, and streamlined regional coordination;
- the Regional Freight Mobility Plan (2016 update), which emphasizes a productive operating enviionment for freight transportation, timely and fuel efficient supply of goods, and appropriate use of information, connective vehicle technologies, and driverless vehicles;
- the Regional Transportation Technology Policy Document (2016), which highlighted focus areas including data sharing and support, investments that take advantage of new and emerging

technoogy, actively managing travel demand and optimizing system performance, and equitable access; and

- the existing Atlanta Regional ITS Architecture (2004, updated in 2011), which has a vision for "developing an extensive communications network that will provide direct, real time information to any local and state transportation and incident response agency…", "provide real time traveler information…to the public", "provide an institutional environment that emphasizes efficient operations…", and "develop a process that monitors system performance and allows for system growth and enhancement."

Michael Grant then summarized initial results of a regional survey, in which over a hundred participants from governments, the private sector, and nonprofits provided input on regional strengths, challenges, and visions related to TSMO.

Participants were then divided into four breakout groups, each with a mix of representatives, who rotated across four key themes and held discussions on each:
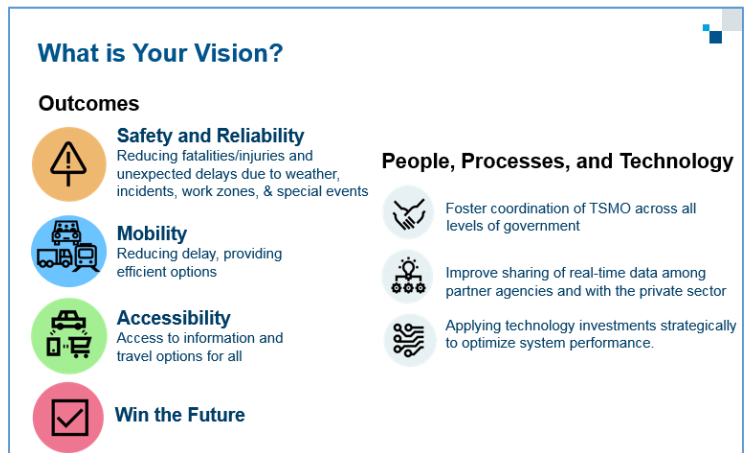
Participants were divided into groups focusing on four different outcomes and asked to consider the vision from three perspectives.

- **Safety and Reliabilty** – Reducing fatalities and injuries and unexpected delays due to weather, incidents, work zones, and special events;
- **Mobility** – Reducing delay and providing efficient options;
- **Accessibility** – Access to information and travel options for all; and
- **Win the Future** – Intended as a "catch all" to address other concepts that would be important to include in the regional vision.

Workshop participants were ask to address the question, "what does our regional vision look like?", and to consider what the vision would look like from the perspectives of:

- **People** (e.g., coordination across agencies and organziations)
- **Processes** (e.g., business processes related to transportation investment and operational decision-making), and
- **Technology** (e.g., applications of technology solutions to achieve goals).

Highlights of the discussions, organized by key theme, are provided below. [Note: Some topic ideas that came up under one theme discussion but that relate most closely to another theme have been shifted in order to most effectively summarize the results of the discussion.]

Safety and Reliability – Reducing fatalities/injuries and unexpected delays due to weather, incidents, work zones, and special events

Participants identified several key issues and desired regional outcomes for TSMO in relation to improving safety and reliability. Key high-level outcomes identified included:

- **Vision Zero** – Moving toward zero deaths. This vision emphasizes that the way the transportation system is managed and operated should emphasize roadway safety, including bicycle and pedestrian safety (using operations strategies, e.g., traffic signals, etc. to reduce pedestrian and cyclist crashes).

- **Improving resiliency of the transportation system** – Improving the ability to react to and recover from major incidents, weather or disruptions.

- **Shorter commute times** – Reducing (unexpected) delays in day-to-day travel. [Note: This also relates closely to the concept of "Mobility" addressed in the next theme area.]

These outcomes would be achieved by:

- **Reducing the number of crashes, accident severity, and crash clearance time (recovery from incidents)** – Reducing crashes will reduce fatalities and injuries, as well as reduce traffic delays, and clearing those crashes faster will help prevent secondary crashes and reduce the amount of delay; these safety improvements also have benefits in terms of air quality, health, and the environment.

- **Improved work zone safety, and recovery from work zones** – This is a specific application of managing the system to reduce crashes and delay time associated with lane closures and other work zone activities.

- **More, or better, travel options** – Improved travel options would improve system reliability**.** In addition, transit is safer than privately owned vehicles, so encouraging more people to use transit should improve safety and system reliability (although there are more pedestrian crashes near transit due to more exposure, emphasizing the importance of bicycle/pedestrian safety). Improved transit options could include queue jump lanes for buses and transit signal priority to improve bus reliability and travel times.

- **Enhanced special events management** – Improved coordination, including for private events using police officers, who at times are managing the traffic to leave parking facilities but disrupt overall traffic flow.

- **Enhanced travel demand management** – Incentives for flex-time to spread the peak, encourage travel during less congested, more reliable times. Can we create incentives at a higher level than current TDM programs through TSMO?

- **Improved traffic signal coordination** – Building on existing successes, extend scope.

- **A network-based approach** – Agencies need to change the mentality around jurisdictional boundaries. What happens on the state network affects the county or city network, so agencies need to work together seamlessly. The vision includes having the wide array of agencies work together.

- **Implement Freight Corridors** (e.g. I-75 Truck Lanes) – Put a focus on freight reliability, and separating services in the right places (e.g., freight, transit).

- **Applying technologies, such as connected and automated vehicles (CVs/AVs)** – These technologies offer the potential for large increases in safety, as well as gathering of data to better understand safety interventions (e.g., using cameras to log near misses).
- **State of good repair investments** – Ensure that the highway and transit systems are in a state of good repair in order to reduce closures/breakdowns.

In the context of people, processes, and technology, ideas included the following:

Figure 1. Safety and Reliability Vision Elements

PEOPLE	PROCESS	TECHNOLOGY
- A single point of contact for the public to call when they see a problem - Cross jurisdictional coordination – changing the mentality from city/county to cross jurisdictional; also including better coordination between transportation and public safety - Bring non-transportation agencies who perform work at the roadside (e.g. Georgia Power, AT&T) into the maintenance reporting network. Another aspect of this is police providing traffic control (and lane closure) for private groups (e.g. churches).	- The entire system should be treated as one network – seamless to travelers regardless of what agency owns/operates - Increase investment in safety related projects, as well as state of good repair to reduce system disruptions - Provide more consistent or improved signage (e.g., for road closures) - Integrate priority bus treatments into road design, such as queue jump lanes for buses - Improve coordination among venues, agencies, and other partners for special event management - Enhance access to/and coordination of public/private traveler information sources	- Automatic pothole notification - Extending scope of interconnected traffic systems (city to county to state) - Geotagged regional reports on maintenance - Transit signal priority - Expand what cameras are used for (counts and driver behavior) - CVs/AVs (for safety) - Cameras in vehicles - Predictive technologies for safety and reliability, e.g., commute times (allow people to see the impact of shifting their trip start time). - Traffic signal optimization including using traffic flows to alter things like flashing turn indicators

Mobility – Reducing delay, providing efficient options

Participants discussed several key issues and outcomes related to mobility, which focused on the day-to-day travel experience to enhance travel efficiency and quality (e.g., managing recurring congestion, reducing travel times). Some of the key overarching outcomes, philosophies, and strategies that were identified include:

- **Focus on moving people and goods rather than vehicles** – This requires a paradigm shift from managing traffic and vehicle movement to focusing on people and goods throughput.
- **An integrated/multimodal travel experience** – A seamless, multimodal, integrated view of the transportation system. This involves strategies such as:
  - **Improved first-mile, last-mile connections** for people (e.g., to transit) and for freight,
  - **Integrated multi-modal trip planning** using mapping apps that integrate across modes for each trip (e.g., take your car to this bus route, and then bus).
  - **Complete (real-time) information available to travelers (and agencies/service providers)** – Extensive data exchange, including use of open data platforms and standards for sharing data across the region.
  - **Mobility As A Service (MaaS)** – Promote MaaS to provide the riders with easy, convenient and cost effective transportation solution for the entire region; consider role of ARC in MaaS, creating a vision for MaaS and developing roles and responsibilities for various stakeholders.
- **Efficient transit options** – Ensure that people can get to where they need to go most efficiently by transit. This would include strategies such as
  - **An expanded transit network**, with supportive right-of-way requirements to enhance transit operations
  - **A unified fare structure**
  - **Improving transit speeds**
  - **Unified ITS deployment for transit** (e.g., coordinated scheduling, real time transit information, common standards for communication even with different back end systems). A better system than Breeze, which is expensive and difficult to get reports; an integrated travel planning and travel payment system.
  - **Use of micro-transit and flex shuttles** – To serve more users, enhance connectivity
- **"Right-sized" mobility** – Includes vehicle occupancy optimization (e.g., carpools) as well as vehicle size factors (e.g., smaller vehicles with smaller environmental and pavement space footprints)
- **Freight mobility** – Give priority to freight in off-peak directions on certain roads; enhance truck parking mobility/information
- **Enhanced travel demand management** – Consider technology and private sector role; for instance, Waze has a carpool option that supports picking up users along your commute.
- **Incentives, including potential for region-wide congestion pricing options** – Consider a future where there would be congestion pricing for different vehicles at different times of the day, so every lane becomes a managed lane. This could substitute for fuel taxes and send a price signal to incentivize efficient mode choices and travel routes.
- **Automated vehicles** – Being applied at the airport, and expanding.
- **Using real-time analytics to reduce travel delays** (e.g., real time data on traffic conditions in order modify signal timing, traveler information, etc.)
- **Making government more flexible and adaptable to better manage new technology** – Teaching elected officials, government staff, and the public is a challenge as part of this.

In the context of people, processes, and technology, ideas included the following:

Figure 2. Mobility Vision Elements

PEOPLE	PROCESS	TECHNOLOGY
• Inter-jurisdictional coordination – across boundaries and modes • First and last mile connectivity for people and freight • Right sized mobility – car pools and smaller cars • Collaboration between transit agencies like MARTA and technology companies	• Measure of efficiency is not just throughput of the vehicle – it is focused on throughput of people and freight • Multimodalism and coordinated transit – a common platform that allows for end to end transit through multiple modes and providers • Incentives for congestion reduction –such as for off-peak hour deliveries • Develop curb space policy, in relation to taxis, ride-share, delivery, etc. recognizing a wide array of providers (may have to pay curb space fees); enhance curb side management (e.g., electronic enforcement) • Develop approach for a unified fare structure • Develop ways for the government to provide mobility in areas where it is not profitable for the private sector to do it, especially in the context of MaaS	• Open data platforms and use of standards for sharing data in region • Business intelligence (BI)/analytics for better decision making • Apply transit signal priority (TSP) – A MARTA/ SRTA/ CCT/ GCT vehicle can travel through traffic more efficiently via TSP/optimized traffic signals • Use mapping apps to showcase multi-modal options in a way that is integrated across modes for each trip • Standards – deployment of systems based on standards • Monetization of technology solutions and data • Use of micro transit and flex shuttles

Accessibility – *Access to information and travel options for all*

Participants discussed several key issues and outcomes related to accessibility. While accessibility is closely related to mobility, the focus of this discussion was intended to address meeting the travel needs of all population groups. Some of the key outcomes that were identified include:

- **Safe, equitable transportation options for all users** – Ensuring that users of all ages, including senior citizens, can use available mobility options

- **Universal access to information** – Recognize that not everyone has access to the internet or other technology; they may not be able to afford it; they may be visually impaired. A vision is to overcome these barriers so everyone has the information they need to make decisions, regardless of who they are or where they are in the region.

A breakout group focusing on "Accessibility" brainstormed ideas on a vision for TSMO to enhance regional accessibility.

- **Providing actionable, reliable real-time and predictive information to help people make decisions** – Although uncommon, we have snow days or late openings due to black ice. Can we find better ways to let people know when traffic is expected to be particularly bad so they can adjust their schedules? Can we develop better ways to inform people when there will be a bad ozone day so people can adjust to telecommuting or other options?   Deliver pro-active "real-time" communication available to all citizens.

These outcomes would be achieved by:

- **Developing collaborative public/private partnerships** – Maintain regional perspective and be flexible/adaptable, leverage existing resources.
- **Leveraging data** – Across multiple partners. This involves issues related to data privacy, security, ownership, generation, storage, and ensuring accurate/reliable information. This also involves cross-referencing a wide array of data, including not only traffic, but weather, school schedules, work zones, and other inputs.
- **A transit app that includes all transit agencies with real-time information** – Enabling more seamless travel across providers. Potentially work with Google or other big data/travel information providers; need to ensure the accuracy of the information.
- **Addressing gaps in the network (i.e., transportation deserts)** – Need to fill gaps in locations where residents might have to take multiple transit modes or multiple bus routes and walking to get to work each day, resulting in very long commutes.
- **Addressing freight** – The American Transportation Research Institute (ATRI) has identified 4 of the top 25 bottlenecks in the country as being in Metro Atlanta, and with the expansion of the Savannah and Brunswick ports, the region expects even more freight movement, including trains that will block roads at crossings. Can we better alert drivers in advance?
- **Ensuring infrastructure backbone to support data** – Broadband fiber, 5G, etc.
- **Minimum service standards for all** – Ensuring that all residents have a basic level of service.

Figure 3. Accessibility Vision Elements

PEOPLE	PROCESS	TECHNOLOGY
• Consider equity issues – availability of internet access, etc.; how to support unbanked citizens • How to communicate with citizens who do not speak or understand English • Need to educate senior citizens on how to use smartphones, Lyft/Uber, and other technology/options [topic from mobility discussion] • How to enable first responders with fast, accurate and real-time information	• Provide timely and accurate information to citizens to make informed decisions regarding weather, school closures, road closures, special events, construction, etc. • Curbside – develop process to monetize the value of curb space, to optimize the balance between parking, rideshare, delivery, accessibility, etc. • Understand transportation deserts and areas impacted by freight	• Leverage existing and proven technology while evaluating new technology and trends • Provide internet access to all constituents • Develop infrastructure support including fiber and 5G • Utilize big data for predicative analytics • Develop comprehensive transit app that pushes real-time information to users • Recognize that autonomous vehicles are not the "silver bullet" solution

☑ Win the Future

Participants were provided with a draft vision as a starting point for discussion:

> "*For the region's residents, visitors, and freight haulers to have safe, reliable, efficient, and equitable travel through a variety of travel options.*"

Participants provided the following thoughts on enhancing or improving upon this vision:

- Need to more directly tie the vision to TSMO – As written, this could be a vision for transportation in the region in general, but need to specifically consider TSMO
- To improve/refine the vision, some words to consider:
    - Seamless
    - Flexible
    - Resilient
    - Cost-Effective
    - Innovative (foster innovation)
- Add a focus on business (e.g., "…to encourage competitive, sustainable business growth for a high quality of life")

High-level discussion themes for the vision included:

- Focus on business/economic development (remain attractive, competitive, and sustainable)

- Leverage TSMO to support a high quality of life in the region
- Foster innovation/"future proofing"
- Ensure solutions are cost-effective, flexible, and resilient
- Support a culture shift/change of mindset in the region and manage expectations accordingly
  - Need to deliver on what is promised
  - Be realistic in what is promised
- Leverage automation/predictive technology for all modes
- Ensure purposeful progression
  - Create benchmarks/measures
  - Develop regional standards (especially data)
- Develop Performance Measures – with potential for a checklist to be applied to support decision making

A breakout group focusing on "Win the Future" discussed what should make up the region's vision for TSMO

Key outcomes or goals discussed included:

- **Safety** – Make sure that this is context sensitive (regional/local focus, recognizing different needs in relation to enhancing safety in urban, suburban, exurban, and rural areas). Consider the specific need before identifying a solution – one size does not fit all.

- **Reliability** – Multimodal reliability is important, including air travel
  - Particularly the reliability of travel to Hartsfield Jackson International Airport for both passengers and freight)
  - Reduce the number, magnitude, and duration of incidents/crashes

- **Equity** – Ensure accessibility to all, including considerations related to the reliability and efficiency of all modes, costs, and access points
  - Provide flexible options, and a spectrum of attractive options
  - Equal opportunity

- **Efficiency** – Efficiency relates to many metrics/issues, including:
  - Communications
  - Vehicle hours of delay
  - Vehicle hours traveled
  - Vehicle miles traveled per capita
  - Cost per passenger or freight mile

- **Reduce Dependence on single occupant vehicles (SOVs)**

- **Benefit the environment** – This is a by-product of TSMO solutions, but important to recognize that TSMO can support reduced air pollution and public health.

- **Support the Region with continuing to be a national transportation hub**

- **Focus on managing congestion, not reduction of congestion** - "Keep it from getting worse"

Strategies highlighted in the discussion included:
- Create a network of managed lanes
- Make transit a permanent piece of the transportation landscape
- Leverage technology for safety and future proofing
- Many others (see table below under technology)

Figure 4. "Win the Future" Vision Elements

PEOPLE	PROCESS	TECHNOLOGY
• Culture shift • Not just a change for government, but today's drivers may need to give up control/freedom (e.g., to increase use of alternative modes, most effectively optimize system performance) • Provide education • Change perception of transit • Increase safety across all modes (automation) • Provide information on all transportation options • Collaboration	• Create a feedback loop (systems engineering-like) • Manage expectations • Remove silos around transportation functions • Develop regional data standards • Support regional-scale coordination • Management of operations (collaboration/cohesion) • Plan for maintenance • Ensure purposeful progression • Help government purchase innovation • Communicate the intent of the system	• MaaS • Paratransit as MaaS • CVs/AVs • Resilient technologies • Expand transit via TNCs/other tech • "Remove the Humans" – Automation • Improve reliability of all modes • Open data/seamless travel • Predictive technology • Convert Local Bus to ART • Balance AV with other technologies • Tolling

THEMES THAT EMERGED FOR A REGIONAL VISION

While the workshop did not yield a specific vision statement, building on the discussion and common themes that emerged across the groups, a potential vision statement (which could be further refined) is highlighted below:

> *Transportation systems across the Atlanta region are managed and operated to optimize safe, reliable, and efficient travel for all system users – people and freight – contributing to sustainable economic growth and a high quality of life.*

Key elements of this vision include:

- **Optimizing safety** through how we operate and manage transportation systems – Applying technologies (advanced application of connected and automated vehicles) and context-sensitive

approaches that emphasize roadway safety, including bicycle and pedestrian safety, in order to achieve zero fatalities on our roadways.

- **Reliable travel times** through enhanced incident management, work zone management, special event management, and other strategies – Advanced approaches to communicate and manage both planned and unplanned disruptions to the system reduces unexpected delays and enables the public and freight shippers to plan for on-time arrival. Travel is reliable on all modes, including roads and transit services.

- **Efficient, seamless travel** – People have efficient travel choices and mobility is managed to optimize mobility for people and goods.
    - *Travel demand management strategies* incentivize transit, ridesharing, bicycling, walking and other non-single occupant vehicle mobility options.
    - *Readily accessible, multi-modal, real-time and predictive travel information* help system managers to readily predict, adapt, and respond to changes and travelers to choose the most efficient options.
    - *Coordinated systems,* including traffic signals, managed lanes, transit services, and integrated corridor management approaches across jurisdictions optimize travel times and reduce unnecessary delays.
    - *Seamless travel across modes* enables people to efficiently access jobs, recreation, health care, and other needs with easy, convenient, and cost-effective transportation solutions across multiple services and providers (including private sector mobility options)
    - *Transit choices are efficient*, with a unified fare structure, coordinated scheduling, and integrated travel planning and payment systems that connects with private-sector mobility options.

- **Equitable access for all** is achieved by ensuring that travel information and transportation services are managed and operated so that people of all ages, abilities, languages, backgrounds, and incomes have access to safe, reliable, and efficient mobility options.

These outcomes are delivered through a foundation of:

- A regional operations philosophy focused on moving people and goods, rather than moving traffic or vehicles, resulting in priority to higher-occupancy modes and incentives for use of transit, ridesharing, bicycling, and walking)
- Collaboration across jurisdictional boundaries, public and private sectors, and service providers
- Data sharing across public and private data providers and users
- Advancing application and deployment of innovative technologies and approaches, and fostering a culture of innovation and adaptability to change.

ITS ARCHITECTURE KICK OFF

Following the discussion of the regional vision, Bruce Eisenhart (ConSysTec) provided an introduction to the Regional ITS Architecture and roadmap to the activities that will be undertaken to develop the update.

The architecture is a plan for the deployment of ITS in the region. Some of the benefits of the Regional ITS Architecture include:

- Use as a transportation planning tool
- Description of regional information sharing opportunities
- Basis for institutional agreements when information crosses boundaries
- Addresses FHWA rule/FTA policy on ITS Architecture and Standards
- A useful guide for project developers.

The ARC ITS Architecture will be organized around a series of service packages

The Regional ITS Architecture is based upon the National ITS Architecture (now called ARC-IT), which is organized around 12 areas of Service Packages. The architecture presents a customized view of how these services are deployed now or in the future in the region.

Another key component of the architecture is the projects that stakeholders have planned, not just in the next few years, but going out 10-15 years. While the architecture is a planning tool, it is not fiscally constrained, and so it can include possible initiatives for the future, beyond those already defined in planning documents like the Transportation Improvement Program (TIP).

A key goal of the architecture update is to create outputs that will be useful to both planners and project developers. Key to this will be the creation of graphical outputs that represent customized service packages, displayed on a website where much of the information is organized by stakeholder, and containing a clear mapping of projects to the details of the architecture.

NEXT STEPS

Building on the results of the workshop, ARC and the consultant team will be working to use the input from the workshop and stakeholder survey to craft a long-range TSMO vision, as a foundation for the region's TSMO Deployment Plan. The team will be developing a regional ITS inventory, which documents the current ITS equipment and systems that are in place across the region. The team will also begin work on the ITS Architecture, including identifying service packages, partner organizations, and roles.

Participants are encouraged to look for opportunities to participate in future workshops, which will support development of the ITS Architecture, identification of pilot projects, and development of 5-year and 10-year action plans.

Appendix A: Workshop Agenda

ATLANTA REGIONAL TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS (TSMO)

VISIONING WORKSHOP

Date: Monday, December 17, 2018, 1:00 – 4:30 PM
Location: Atlanta Regional Commission, 229 Peachtree Street, NE, Suite 100

Purpose: 1) Collaborate with key partners and leaders across the region to develop a regional TSMO vision. 2) Kick off the development of the regional Intelligent Transportation Systems (ITS) Architecture update.

Agenda:

1:00 pm – 1:15 pm	Welcome and Introductions
1:15 pm – 1:45 pm	Background • ARC TSMO Project Overview • TSMO Background • Existing Regional Visions • Regional Examples of TSMO
1:45 pm – 3:15 pm	Breakout Sessions • Safety and Reliability • Accessibility • Mobility • Winning the Future
3:15 pm – 3:45 pm	Breakout Debrief and Group Discussion
3:45 pm – 4:15 pm	Introduction to ITS Architecture Update
4:15 pm – 4:30 pm	Wrap Up and Next Steps
4:30	Adjourn

Take and Share the Survey:
https://www.surveymonkey.com/r/ARCTSMOsurvey

Appendix B: Workshop Participants

Name	Affiliation
Bill Andrews	City of Sandy Springs
Tamika Brown	Atlanta Regional Commission (ARC)
Faye Dimassimo	Deloitte
Daniel Dower	Georgia Department of Transportation (GDOT)
Emily Dwyer	GDOT/Traffic Operations
Ashely Finch	GDOT
Jamie Fischer	State Road and Tollway Authority (SRTA)/Georgia Regional Transportation Authority (GRTA)
Sally Flocks	PEDS
Steven Foy	Paulding County
Farrah Glasgow	Utilicom Supply
Gil Grodzinsky	Georgia Environmental Planning Division (EPD), Department of Natural Resources
Dan Harris	Metro Tech/ Technology Association of Georgia (TAG)
David Haynes	ARC
Andrew Heath	GDOT
Alex Hofelich	Gwinnett County
Winter Horbal	Temple/ITS Georgia
Michael Hunter	Georgia Tech
Vintant Joshi	SRTA
Habte Kassa	GDOT
Kyung-Hwa Kim	ARC
Brittany Lavender	Federal Transit Administration (FTA)-Region 4
Xuewen Le	ITS Georgia
BJ Martin	Spalding County
Greg Norris	Federal Highway Administration (FHWA)

John Orr	ARC
Shayna Pollock	Atlanta Region Transit Link (ATL)
Christine Primmer	Georgia Power
Stan Reecy	Aerotropolis CID
Joe Robison	Fayette County
Maria Roell	ARC
Tom Sever	Gwinnett County
Caitlin Shankle	City of Sandy Springs
Daniel Studdard	ARC
Kirk Talbott	MARTA
Tom Udell	City of Johns Creek
Kofi Wakhisi	ARC
Bill Wells	ITS Georgia/App Inf
Lorn Whittaker	Hartsfield Jackson Atlanta International Airport
Ben Williams	FHWA Resource Center
Consultant Team	
Bruce Eisenhart	ConSysTec
Michael Grant	ICF
Jignesh Patel	Lumenor
Natalie Smusz-Mengelkoch	Kimley-Horn
Angela Strickland	ICF
Beth Tucker	Kimley-Horn