

# JOHNSON CITY REGIONAL ITS ARCHITECTURE AND DEPLOYMENT PLAN KICKOFF WORKSHOP MINUTES

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**MEETING DATE:** November 10, 2021

**MEETING TIME:** 10:00 AM – 11:30 AM

**MEETING LOCATION:** Virtual Teleconference

## ATTENDEES:

- Matthew Balogh, City of Elizabethton
- David Bell, Johnson City Fire Department
- Mark Best, TDOT
- Glenn Berry, Johnson City MTPO
- Troy Ebbert, TDOT
- Logan Engle, City of Elizabethton
- Said El Said, TDOT
- Melissa Furlong, FHWA
- Pamela Heimsness, FHWA
- Michelle Matson, Tennessee Emergency Management Agency
- Chase Milner, First Tennessee Development District
- Tyler Morris, City of Johnson City
- Andrew Padgett, TDOT
- Brian Ramsey, TDOT
- Jeff Rawles, Johnson City Transit
- Sean Santalla, FHWA
- Ronda Sawyer, TDOT
- Rusty Sells, Washington County/Johnson City Emergency Management
- Anthony Todd, City of Johnson City
- Jake Wilson, TDOT
- Tom Fowler, Kimley-Horn and Associates
- Dan Malsom, Kimley-Horn and Associates
- Kate Stankiewicz, Kimley-Horn and Associates

**SUBJECT:** Johnson City Regional ITS Architecture Update – Stakeholder Kickoff Workshop

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## INTRODUCTIONS

The Stakeholder Kickoff Workshop for the Johnson City Regional ITS Architecture and Deployment Plan Update was held on Wednesday, November 10, 2021. The purpose of the workshop was to solicit input from stakeholders to assist the Johnson City Metropolitan Transportation Planning Organization (MTPO) with the update of the Johnson City Regional ITS Architecture and Deployment Plan. The purpose of a regional ITS architecture update is to provide a vision and framework for the implementation and operation of ITS in the region as technologies, infrastructure, population, and land uses evolve. A regional ITS architecture update is also necessary in order to meet the FHWA and Federal Transit Administration (FTA) ITS architecture conformity requirements for any ITS projects in the region that use federal transportation funds. Although updating the regional ITS architecture does not guarantee funding for the MTPO Region, it does allow the Region to be eligible for federal funding of ITS projects.

The workshop began with Glenn Berry of the MTPO welcoming everyone and thanking stakeholders for their participation in the update. The consultant team from Kimley-Horn consisting of Tom Fowler, Dan Malsom, and Kate Stankiewicz also introduced themselves. Kimley-Horn will be assisting the MTPO with the update of the plan. Everyone in attendance introduced themselves in the meeting chat and identified the agency or organization they were representing.

## PROJECT OVERVIEW PRESENTATION

Tom Fowler gave a presentation on the Johnson City Regional ITS Architecture and Deployment Plan Update project. The presentation included an overview of ITS, including a discussion of ITS benefits and applications that may be considered in the Johnson City plan. Following the overview, Tom Fowler led a discussion on the Regional ITS Architecture Update process. The discussion included soliciting input from attendees regarding regional ITS needs, existing and planned ITS projects, and additional stakeholders to include in the process.

In addition to the Kickoff Workshop, there will be a series of individual stakeholder interviews conducted in November and December to develop a more detailed picture of what changes have been made since the last update, determine what each agency has planned for the future, and identify any ITS needs. Once the interviews have been completed, a draft Regional ITS Architecture and Deployment Plan Update report will be developed. A second workshop, tentatively planned for January 2022, will provide stakeholders the opportunity to comment on the document before it is finalized.

A list of stakeholder agencies that were invited to participate in the process was also presented. Tom Fowler encouraged everyone to extend an invitation to anyone else within their own agency that they thought might be interested in participating.

## STAKEHOLDER DISCUSSIONS

Representatives from the stakeholder organizations present at the workshop shared knowledge of planned and existing projects and identified ITS needs for the Region. Topics and notes from the discussion are listed below. The Kickoff Workshop discussion will assist the project team in preparing a draft of the Regional ITS Architecture and Deployment Plan update prior to the next workshop.

- TDOT shared that the agency completed an update of the Statewide ITS Architecture in 2019 and that the Statewide ITS Architecture includes all TDOT-specific ITS deployments for each TDOT Region. TDOT noted that the MTPo Regional ITS Architecture Update should still include relevant service package instances where TDOT elements interface with elements maintained by regional stakeholders.
- The MTPo noted that they have been maintaining the Regional ITS Architecture between major updates as ITS technologies are deployed. These updates will be shared with Kimley-Horn as they complete the full Regional ITS Architecture Update.
- TDOT suggested that stakeholders in the MTPo region focus first on identifying needs as a way of identifying service packages and potential projects.
- Stakeholders confirmed that the study area boundaries for the Regional ITS Architecture have not changed since the 2015 update. While most projects would be within the urbanized area, the Regional ITS Architecture Update study area will still include the full MTPo planning region.
- The 2015 update included a project for the installation of CCTV cameras and dynamic message signs (DMS) along Interstate 26 from Johnson City to the Virginia border. TDOT has not yet implemented this project, and it is still a project of interest for deployment.
- Either separately or as part of the larger project along Interstate 26, TDOT would like to install CCTV cameras and DMS units in the vicinity of the Interstate 26/Interstate 81 interchange.
- Beginning several months ago, TDOT has been piloting its safety service patrol (TDOT HELP) along Interstate 26. This Rural Assist Program operates during rush hour periods – from 7-9 am and 3-6 pm. Patrol vehicles may also travel along Interstate 81 up to the state line if assistance is needed along that corridor as well.
- Sunrise glare has been a challenge along Interstate 26 recently. There have been several crashes over the past few days alone, so TDOT has posted DMS messages along the corridor to provide travelers warning about glare.

- TDOT expressed kudos for Washington County Emergency Management staff. The agency updates its Twitter page with crash information immediately upon dispatching a response. TDOT staff have been instructed to set alerts on their phone to notify operators whenever a new message is posted, and this has helped to improve TDOT's incident response time.
- TDOT asked whether the Regional ITS Architecture Update would include any technology elements or projects that would involve the use of Bluetooth reader detection to provide corridor travel time information.
- TDOT does not yet have permanent CCTV cameras in the Johnson City area, but there is a portable camera that has been deployed at the Boones Creek exit (Exit 17) along Interstate 26.
- The City of Johnson City has camera feeds that they can view at intersections, but the City has not yet been able to share these camera feeds with others. Washington County Emergency Management noted that having access to Johnson City camera feeds would be very helpful during emergency situations such as severe weather events. The city is also able to record and store camera footage so that it can be analyzed for review when needed.
- The City of Johnson City included adaptive traffic signal control technology for city signals as a project on the deployment list as part of the 2015 update. This system has not yet been implemented but is still a project of interest for the city.
- The City of Johnson City has partnered with Traffic Technology Services (TTS) so that TTS can access real time traffic signal data and share with their user base, which includes connected vehicle users. The City has also partnered with Waze through the Waze For Cities program so that there is an ability to share planned road closure information more easily.
- The City of Johnson City is considering several ITS-related applications to support with parking information such as space availability at city parking garages. The City is also looking at potential ITS deployments to support stream monitoring and related road weather impact information.
- The City of Johnson City operates a traffic management center (TMC). The TMC is staffed generally during business hours, with dedicated staff attention given to traffic operations during morning and afternoon peak periods and more passive monitoring of traffic during the midday hours. While there is no set staffing for overnight or weekend TMC operation, there is a city employee who will often monitor traffic from home after hours and will sometimes remotely respond when an incident occurs.
- The City of Johnson City is in the process of further expanding its fiber optic cable network. City staff are also starting to think more about data management, including storing spatial data in a GIS database to allow for better analysis of crashes and other spatial transportation data.
- The City of Johnson City would like to receive better information from TDOT about plans for when oversize vehicles are routed through Johnson City. These vehicles can often cause traffic backups if city staff are not warned about them beforehand. TDOT said that their staff on the call could reach out to the TDOT commercial vehicle division for help addressing this issue.
- The City of Elizabethton does not have a TMC, but establishing one is still an area of interest for the city. City staff have been focusing on upgrading detection capabilities at traffic signals. Staff have noted issues with timing plans requiring frequent adjustment and have shown interest in technology that would allow for remote access to traffic signal controllers.
- The City of Elizabethton has encountered difficulties with maintaining their existing infrared sensor emergency vehicle preemption technology. There are no city maintenance staff that can resolve sensor issues, so the city is considering GPS-based technologies that would reduce the amount of field infrastructure required for the system.
- The City of Elizabethton does not currently have any CCTV cameras deployed. While city staff this they would be helpful, there are still concerns about the lack of in-house maintenance staff that would allow for the deployed cameras to remain online and in a state of good repair. Maintenance on ITS devices in the city currently require partnership with local electric utilities or the hiring of a contractor.

- The MTPo discussed that although the 2015 Regional ITS Architecture and Deployment Plan Update included a project for a regional data warehouse, this has not yet been created and is still likely a long-term project. The MTPo staff are already able to gather data that they need from other sources, which works well enough for the agency's purposes. FHWA staff suggested that data management project writeups in the Regional ITS Architecture Update should also include discussion about data security.
- The MTPo staff said that while there are some local stakeholders interested in electric vehicle infrastructure deployment, any related ITS project would likely be a longer-term implementation project. FHWA and TDOT have partnered on a statewide electric vehicle charging station project that would be centered along the Interstate 40 corridor further south. Locations along Interstate 26 could be considered in the future as a part of that statewide deployment effort.
- Johnson City Transit implemented a paratransit trip scheduling software (Paraplan) two years ago and said that the system has been successful so far. The software allows paratransit vehicle drivers to use iPads or Android devices to receive schedules and allows for drivers to send out automatic calls the day before a scheduled pickup to confirm appointments. Currently citizens book trips by calling into a dispatch center, but the agency plans to implement a new software module soon that would provide citizens with a smartphone application-based scheduling method.
- Johnson City Transit said that there is no existing smartphone application in place for fixed-route transit services, but the agency website provides real-time bus locations. Bus stops also have a phone number posted that citizens can text to receive upcoming bus arrival times.
- Johnson City Transit operates a central transit center, and plans exist for a second northern transfer center that may be constructed in the future. The existing transit center includes a DMS board that displays upcoming bus arrival times. The agency has discussed potentially deploying this technology at other bus stop locations.
- Johnson City Transit has programmed funding to purchase infrastructure that would eventually allow for electronic fare collection on agency buses. The initial deployment of this technology will likely be in the form of kiosks at the transit center and potentially other locations that could dispense fare cards and passes. These kiosks may be deployed in the next year, while the procurement of on-board fare collection technology will likely be farther off. The agency plans to continue allowing for cash fare payment as well.

## CONCLUDING COMMENTS AND NEXT STEPS

Glenn Berry and Tom Fowler thanked everyone for their participation. Stakeholders were encouraged to contact any of the project team members if they have any questions or if they would like to provide additional comments on ITS projects and needs. Stakeholders should also contact Glenn Berry or Tom Fowler if they would like for the project team to extend an invitation to any other agencies or individuals not currently included in the list of stakeholders.