South Carolina's Greenlink Manages ITS with EQUANS

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By Richard Tackett

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The agency

Created in 1974 and operated by South Carolina's City of Greenville, Greenlink is responsible for 12 fixed routes covering destinations all across Greenville County. Whether traveling to work, school or a medical appointment, Greenlink's goal is always to provide its ridership with a safe, convenient and affordable transportation option.

However, according to James Keel, executive director of Greenlink, when he joined the team in December of 2015, he was immediately struck by the scale of work needed to bring the agency into the 21st century.

"I knew that over time we would need a significant overhaul," Keel said. "What was driving a lot of the thought process at the time was dealing with same-day changes, driver shortages, what happens if you don't have enough drivers, what kind of modifications can you make to your blocking or scheduling without disrupting rider's experience. A lot of that thought really went into the scope of work and how we were going to be able to provide better customer service."

Since 2015, the agency has made significant changes including the development of a new operations and maintenance facility, the deployment of electric buses, and upgrading over 300 bus stops in the system. But Greenlink wasn't ready to stop there.



The partnership

In the summer of 2022, the agency put out an RFP seeking a complete reconstruction of its Intelligent Transportation System (ITS).

"What we were really trying to do is figure out how to get better information in order to make clearer, data-driven decisions," Keel said. "When we went to market, there were several different CAD/AVL vendors that came to the table. Ultimately, what drove us to EQUANS was their vast experience in solving a lot of the problems that we had just started encountering over the past couple of years."

EQUANS's Intelligent Transport Systems (ITS) and CAD/AVL suite named NAVINEO has been designed specifically for public transit operators whose personnel work with real-time transportation management tools to ensure and improve communication between their fleet and drivers. Its function is to make bus operations more fluid, from the dispatching of vehicles, in order to guarantee optimal management of daily operations, reduce costs and ensure seamless communication with passengers. EQUANS's CAD/AVL System is fully mobile, as staff can access it from a tablet or a smartphone.

"EQUANS partners with cities as large as Paris, which has 4,000 buses. We work with many large cities including Dubai, Brussels,Geneva, andQuebec City, which has 700 buses in its fleet," said Kilian Ollivier, Director of Business Development for EQUANS. "Comparatively, Greenville is 26 buses, but it works just as well and is configurable for any size agency to be equally effective."

The combined system of Computer-Aided Dispatch (CAD) and Automatic Vehicle Location (AVL) offers the advantage of optimizing service performance, increasing reliability and

enhancing passenger safety. Supervisory personnel can manage vehicles using connected devices and respond to field disruptions by creating detour or canceling trips. After accepting EQUANS's proposal, the two companies quickly got to work putting together a detailed scope of work, implementing ideas often seen in much larger transit systems such as ensuring that APCs were statistically validated in order to track average passenger trip length for NTD reporting; instituting essential integrations necessary for the Transit app, Google Maps, Bing and Apple; planning for SMS text and Interactive Voice Response (IVR) capabilities for rider updates.

The onboarding process

"They started with an onsite visit and fleet analysis to determine the condition of our fleet, all the integrations that would need to take place, and to get a feel for what the technical capacity of our maintenance team was," Keel said.

After a thorough configuration assessment, EQUANS prepared a comprehensive training program for the Greenlink drivers and operation staff that would launch with the first stages of the installation process.

"We always train on site," Ollivier said. "We are with them in the same room and that usually starts at the pilot stage and is continued throughout the entire installation process. We have class sessions, but we also have hands-on sessions where we use a bus-in-the-box to train for real-world scenarios."

Maintenance training also happens during this period. According to Ollivier, during the installation process, maintenance staff are brought on site to observe installation in order to gain a better knowledge of hardware, maintenance and troubleshooting.

Once the primary training has been completed, EQUANS provides a full year of free followup training for agency staff, which Olliver says is a critical time frame when introducing a new system.

"That first year is key," Ollivier said. "You are starting to use a brand-new system, so you want your staff to be as comfortable and capable as possible. As humans we have a hard time with change. We, at EQUANS, understand that, so we want to make sure that we are available to help our client through that change."

The results

Once equipment installation and staff training were complete, a 30-day testing phase was implemented to ensure the system was up and running effectively.

"It has very much been a methodical process of looking at what is the facility capacity, where do the people have our proficiency, getting them trained, implementing, and then go live with it," Keel said. "All of that took months to pull off, but at the end of the day very little went wrong in any of those phases that wasn't rectified within a couple of hours or a couple of days."

Greenlink then began its campaign to introduce the new system to its ridership and encourage users to download the updated Transit app.

"We really started pushing the public to download the Transit app, stop calling our dispatch

booth, call or text this new automated number."

According to Keel, with the installation of the new ITS system and the integration for SMS and IVR, Greenlink has seen a significant decrease in the number of phone call requests for a live agent and a simultaneous increase in the number of SMS and IVR uses from riders. "It has made life easier for our riders, our operators and it has made hiring and training easier," Keel said. "There is a lot of information up there, and honestly we were nervous that some of our dispatchers and supervisors were going to have a hard time adopting and adapting to a new system, but we all think that it is just the best thing ever."

To learn more about EQUANS and its NAVINEO system, visit here.