

TRANSIT SIGNAL PRIORITY PILOT

The Cities of Sandy Springs and Dunwoody have embraced the challenge of improving the transportation system by integrating technology to better manage, operate, and enhance the travel experience. In partnership with Metropolitan Atlanta Rapid Transit Authority (MARTA), Georgia Tech, and the Atlanta Regional Commission (ARC), the Cities are studying the use of innovative Transit Signal Priority (TSP) technologies along MARTA Route 5.

Transit Signal Priority

Transit Signal Priority (TSP) is an operational strategy in which the transit vehicle communicates with the traffic signals along its route to request signal timing tweaks. When requests are made, the traffic signals can provide additional green time for transit vehicles to progress through the signal without having to stop.

TSP benefits can include:

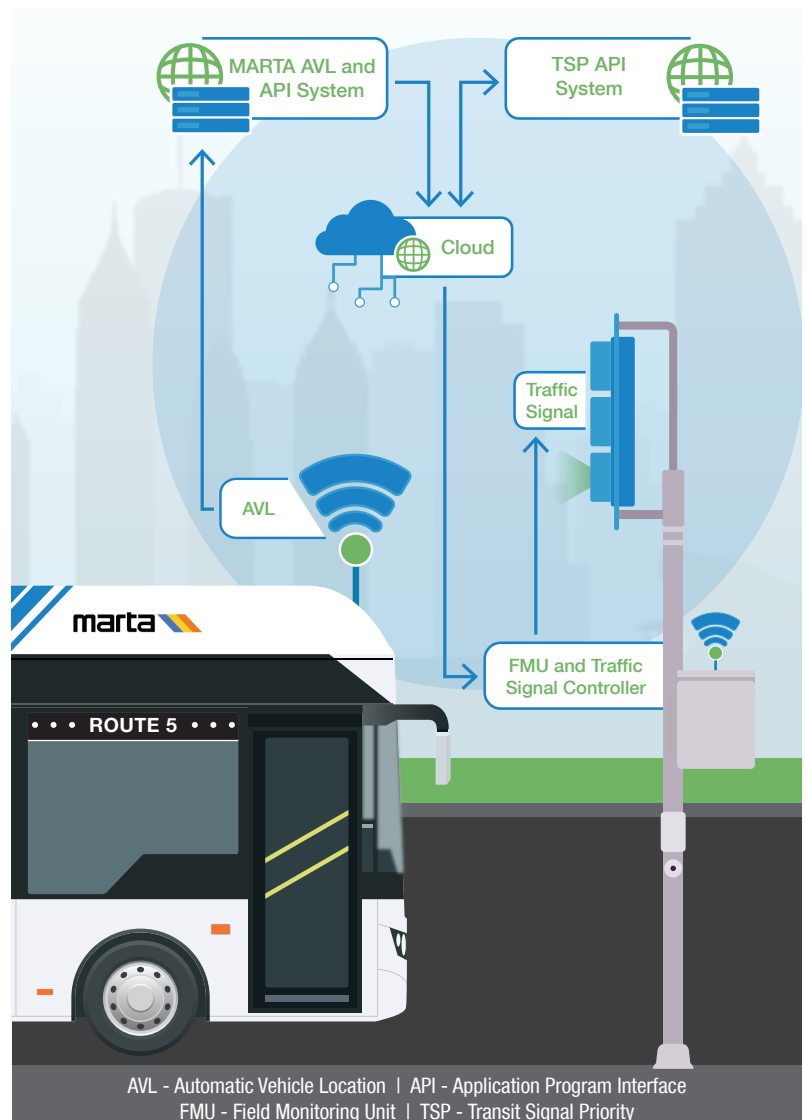
- increased adherence to transit schedules
- reduced transit delay at traffic signals
- increased ridership
- reduced operating costs
- reduced vehicle emissions

These systems can be configured such that priority is only given when the transit vehicle is behind schedule or has a lot of passengers. TSP can be deployed in various ways depending on characteristics of the existing transit and traffic signal infrastructure, policies and procedures of the transit agency, and resources available for implementation.

Sandy Springs TSP Pilot Project

The Sandy Springs TSP Pilot Project is using bus location data published through an application program interface (API). This is different than other currently deployed methodologies which require additional hardware on board the bus.

The pilot project will test TSP on a segment of MARTA bus route 5 which connects the Dunwoody and Lindbergh MARTA rail stations and operates with 15-minute headways. The TSP functionality and interoperability across jurisdictions will be tested. Transit on-time performance and travel times along this route will be evaluated as well as any additional operational impacts to the transportation network.



Georgia Smart Communities Challenge

The Georgia Smart Program provides support for local governments to explore, plan, and implement “smart” technologies to achieve their community’s goals. Communities throughout the State of Georgia are eligible to apply for funding. Selected communities are provided resources, a partnership with a Georgia Tech research team, networking opportunities, and access to additional, unique partnerships to execute their projects over the course of the year. The city of Sandy Springs was one of four communities awarded this opportunity in 2020. The Sandy Springs and Dunwoody TSP Pilot Project will inform communities throughout the metro region and has the opportunity to shape how communities throughout the State will implement TSP to support better transit ridership, reliability, and efficiency.