

Optimize Traffic Flow in Real Time

Smart Traffic

Improve safety and reduce congestion on your roads with always connected, AI-powered signal infrastructure

Traffic congestion challenges nearly every municipality. While urban and suburban roadways have grown, traffic management practices have not kept pace with 21st Century innovations: the majority of traffic intersections are treated as single nodes on an un-managed network, running on fixed timing programs that are manually measured and re-timed every three or more years. In most municipalities, signal infrastructure has changed little in decades with fewer than 25% of traffic signals even connected to a network.

Rogers Smart Traffic is an AI-powered traffic signal solution that connects road users to the city grid, digitizing urban intersections to help municipal agencies improve the safety of road users while increasing the efficient flow of traffic. Using data from multiple sources, including cameras and radar, coupled with AI-based detection and analytics, the platform eliminates the need to re-time signals to manage traffic variability, while future-proofing cities for the connected and autonomous era.

Key benefits



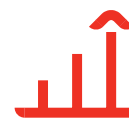
Reduce congestion and emissions

Edge based computing optimizes traffic flow by calculating tens of thousands of possible traffic flow scenarios for every roadway user - including motorized vehicles, bicycles and pedestrians - and picking the best one in real-time every second. measuring delays at every intersection of every roadway user, including motorized vehicles, bicycles and pedestrians, and applies agency-defined policies to serve traffic objectives.



Improve safety at intersections

Automate prioritization for first-responders, public transit, or cyclists, and extend or delay traffic lights to reduce frustration while generating insights about near-misses to develop effective safety countermeasures.



Harness big data analytics

Real-time reporting of traffic conditions with a broad range of elements provides detailed data gathering of key metrics such as arrival on green, delay times, side-street efficiency, traffic equality and more, generating safety reports about speed and red light violations.

Plug-and-Play AI

Rogers Smart Traffic modernizes and replaces legacy traffic intersection infrastructure. Using a common, highly scalable, light overlay hardware architecture, Smart Traffic integrates with Rogers wireless technology, including 5G, to communicate between intersections and upload data to the cloud-based platform.

AI-Based Sensors

The sensors use computer vision algorithms to identify, classify, and project the behaviour of any type of road user with human-eye accuracy. Featuring 99.999% detection accuracy in all weather conditions, the sensors automatically detect incidents, and self-calibrate to eliminate re-alignment or manual updates.

Other features include:

- › Connected vehicle capabilities (DSRC, C-V2X) integrated directly into the sensor units
- › Emergency Vehicle Pre-emption (EVP)
- › Transit Signal Priority (TSP)
- › Red Light Extension (RLE)
- › Pedestrian/Bicycle prioritization

Traffic Apps Engine

Installed in the traffic light cabinet and compatible to retrofit all types of existing traffic controllers, the Traffic Apps Engine augments the edge-computing of the AI-based sensors by aggregating and processing sensor data from the entire grid, to monitor safety, calculate variables, and autonomously optimize traffic signals to reduce delay times across the city grid.

Virtual Management Center (VMC)

The cloud-native user portal serves as the primary system interface for configuration, monitoring and reporting, enabling municipal agencies to define and implement transportation policies for specific intersections and on a city-grid scale. Users select from a variety of user-friendly traffic policy preferences such as prioritizing pedestrians at certain intersections or establishing a public transit corridor along a bus route.

Get the Green Light.

To discuss how Rogers Smart Traffic can help your municipality overcome its traffic congestion and safety issues, please contact us at:

rogers.com/business/contact-us