MAXTIME CV

BROADCAST AND INGEST CV DATA DIRECTLY FROM YOUR ATC CONTROLLER

OVERVIEW

MAXTIME cv is an edge-based traffic signal control solution that enhances real-time communication between traffic signals and connected vehicles by processing data locally at the intersection, without relying on a central system.

By operating directly at the intersection, MAXTIME cv supports advanced safety and mobility applications such as:

- Preemption/priority for emergency and transit vehicles
- Dilemma zone detection
- Red light runner detection
- Advanced pedestrian and bicycle service
- Suggested vehicle speed

It also broadcasts crucial information, including signal and preemption/priority status. This localized approach optimizes traffic flow, reduces emissions, enhances safety, and empowers transportation agencies with real-time data for performance monitoring and ongoing optimization.

BENEFITS

- Exchange real-time signal and connected vehicle data
- Improve traffic flow and enhance road safety
- Run directly on same controller as MAXTIME ic – no additional hardware required
- Real-time data with <100 ms latency
- Broadcast key signal data: SPaT, MAP, SSM, TIM
- Ingest key CV data: SRM, BSM, PSM
- View and configure in a web browser
- Connect with a broad set of DSRC radios, CV2X radios, or cellular LTE devices

Access from any web-enabled device

Enhanced intersection safety

Secure communication

Real-time traffic optimization

FEATURES

BROADCAST SIGNAL DATA

Broadcast traffic signal data (i.e., SPaT, MAP, SSM, TIM) in real-time to enable:

- Position and lane tracking
- Next phase
- Time to green/red
- Actual and suggested speed
- Preemption/priority notification
- Traveler information message

INGEST CV DATA

Ingest real-time data from connected vehicles (i.e. SRM, BSM, PSM) to enable:

- Vehicle location and type information
- Vulnerable user type and information
- Preemption/priority requests

COMPATIBILITY

Leveraging the Linux kernel and the ATC API Standard v2.06b, MAXTIME cv can run on the same physical ATC engine board as Q-Free MAXTIME ic intersection control software reducing overall hardware cost of the connected vehicle deployment.

- ATC 5.2b or later ATC controllers
- Runs on same ATC controller as MAXTIME ic intersection control software

COMMUNICATIONS

MAXTIME cv communicates directly using NTCIP 1201, 1202, and 1211 message sets. It then creates and broadcasts, or ingests valid J2735 messages via a connected DSRC or C-V2X radio, over LTE, or the connected vehicle module of Q-Free's Kinetic Mobility ATMS platform, Kinetic CV.

APPLICATIONS

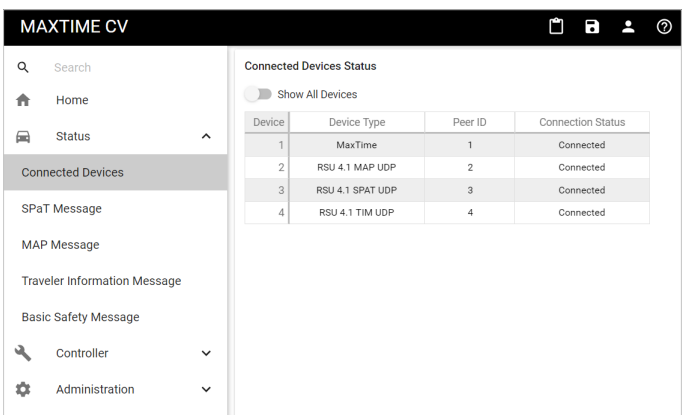
Enable and support a variety of safety and mobility applications such as:

From ingestion:

- Advanced preemption and priority
- Dilemma zone detection and support
- Red light runner detection and support
- Advanced pedestrian/bicycle service

From broadcast:

- Information dissemination based on signal activities
- Preemption/priority status notifications
- Actual/suggested speed (from sharing data), etc



MAXTIME cv web interface