

Advanced Traffic Management System (ATMS)

May 26, 2020

The logo for Addison, featuring the word "ADDISON" in a bold, blue, sans-serif font. The text is centered within a white circle, which is set against a blue background. The blue background is part of a larger graphic on the right side of the slide, consisting of a blue triangle pointing upwards and a grey triangle pointing downwards, meeting at a diagonal line.

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- Background information
- System selection criteria
- ATMS core areas of usage
- Glance – Cloud based preemption system
- Q&A



Background Information

- Initial discussion – Fall of 2018
- Creation of a Bond Advisory Committee – Late 2018
- Identified bond-eligible projects (21 projects), including ATMS – 2019
- Bond Advisory Committee's presentation to the Council – June 11, 2019
- Held bond election for five (5) separate propositions – November 5, 2019
- All propositions were approved, including proposition E - ATMS
- Released a Request for Proposals (RFP) – January 13, 2020
- RFP closed – February 13, 2020

System Selection Criteria

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- Proposed system must offer Cloud based preemption technology and Cellular public network technology as the primary and the secondary communication backhaul
- Proposed system should be easy to manage and should offer over-the-air updates
- Proposed system must offer a total solution



ATMS Core Areas of Usage In Transportation

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Connected
School
Beacons

(1)



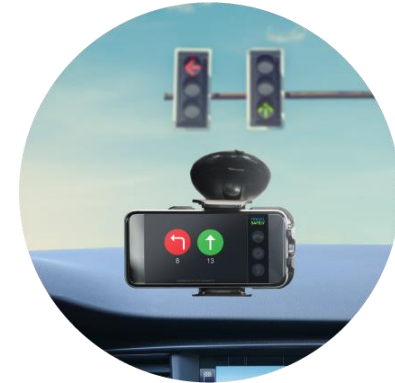
Connected
Signal
Controllers

(2)



Preemption
& Priority

(3)



Smartphone
Apps

(4)

ATMS CORE AREA (#1)
Connected School Beacon System
Stay Connected, Stay Informed

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- Wirelessly monitors, and controls flashing beacons
- Remotely changes schedules
- Sends component failure alerts
- Monitors system health and battery back-ups

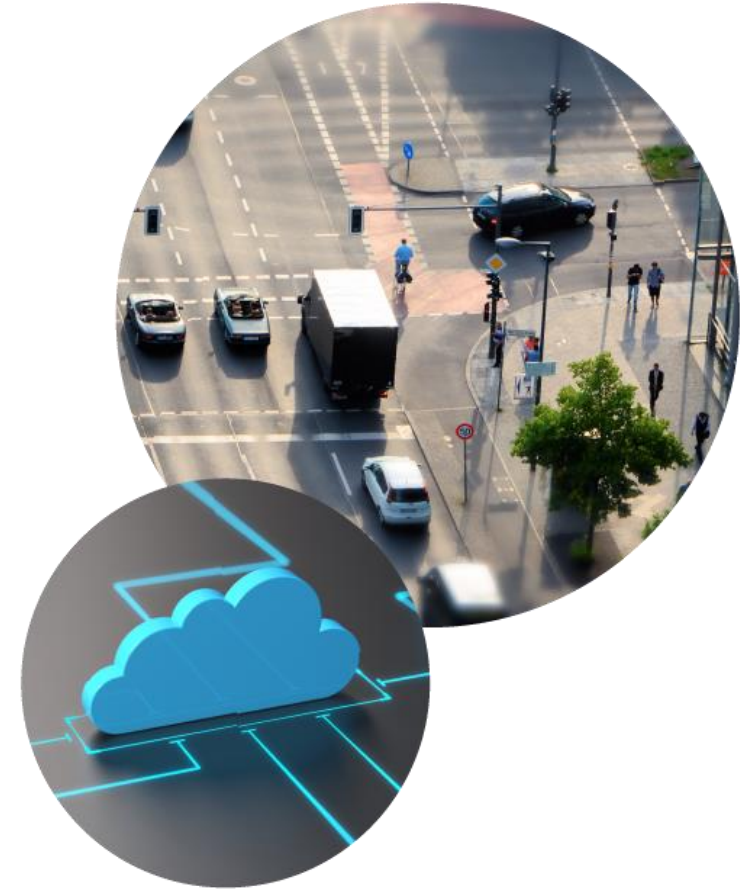


ATMS CORE AREA (#2)

Connected Traffic Cabinet System

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- Wirelessly can monitor, and maintain all traffic signal controllers
- Supports Town's Virtual Private Network (VPN)
- Streams live video
- Eliminates unnecessary maintenance trips
- Utilizes high speed cellular network connections
- Remotely cycles power



ATMS CORE AREA (#3)

Emergency Vehicle Preemption System

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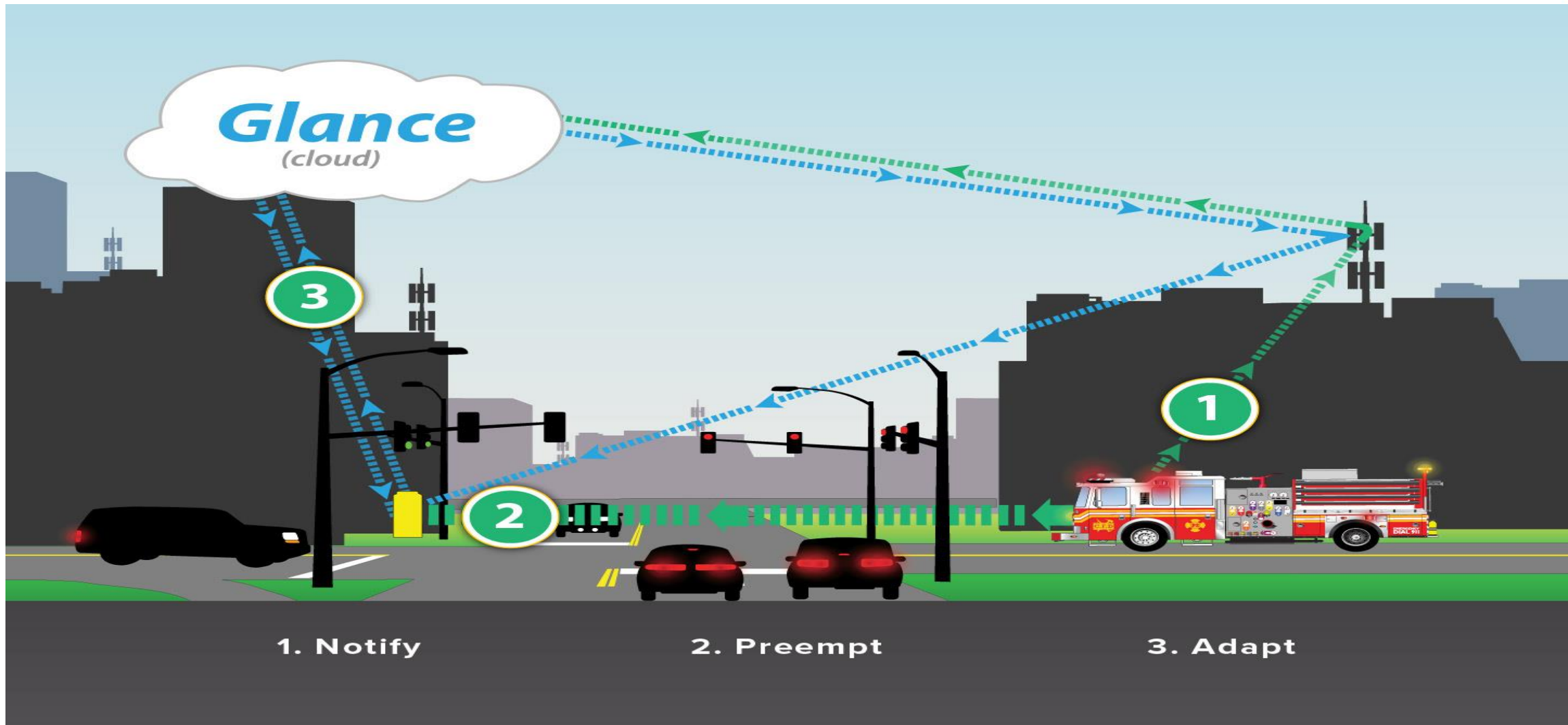
- Supports simultaneous Cloud and Line-of-Site Technologies
- Supports connected vehicle technology
- Supports 900MHz radio and cellular network
- Supports preemptive green lights to emergency vehicle



ATMS CORE AREA (#3)

Glance – Cloud Preemption Technology

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ATMS CORE AREA (#4) Smartphone Apps

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- Connects vehicle to vehicle through the TravelSafely App
- Connects citizens to the smart city technology
- Revolutionizes traffic in the Town



ATMS CORE AREA (#4)

Travelsafely App

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- School bus active ahead warning
- Railroad active ahead warning
- Wrong way vehicle warning
- Active pedestrian in crosswalk
- Congestion ahead warning
- Weather warning
- Event management parking information
- Display of signal timing
- Red-light running at traffic signals
- Bus/transit priority
- Intelligent school beacons
- Emergency vehicle getting through the signal
- Where is the emergency vehicle coming from?
- Motorist – Cyclist communication
- Motorist – Pedestrian communication
- Work-zone warnings
- Curve warning/reduce speed
- Rear end collision warning
- Virtual/advance traffic detectors to make signals work better



■ Q/A

