BlueTOAD information can be used to monitor the effectiveness of congestion mitigation strategies, maximize throughput, and efficiently minimize delay.

BlueTOAD System Advantages

- TrafficCast proven algorithms for filtering and processing data inputs to compute real-time Travel Times and Speeds.
- Speeds/Travel Times updated in real-time on a secure web “Dashboard” and Speed Maps.
- XML schema is available for third-party integration such as an Advanced Traffic Management System (ATMS), agency website, or Dynamic Message Sign (DMS) software control.
- Secure web interface for generating statistical and analytical Reports covering Speeds, Speed Alarms, Travel Times, Origin/Destination, Level of Service, and before and after comparisons.
- Real-time monitoring of device status and performance.

Manage the Open Road...

BlueTOAD
Bluetooth Travel-time Origin And Destination.
Manage Congestion.
Maximize Traffic Flow.
Minimize Delay.
Freeway and arterial real-time and historical travel-times and speeds.

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REV-090112-7
BlueTOAD Travel-time Origin And Destination

BlueTOAD

The BlueTOAD system provides roadway segment speed and travel time data measured from minute-to-minute, 24/7, 365 days. In most cases, travel time and speed data can be used in "real-time" to assess the performance of the roadway and implement more effective signal timing strategies.

BlueTOAD information can be used to monitor the effectiveness of congestion mitigation strategies, maximize throughput (traffic flow), and efficiently minimize delay.

For federal, state, and local transportation agencies and Metropolitan Planning Organizations (MPOs), techniques to effectively manage mobility are critical to the development of performance-based transportation planning strategies. Transportation planners agree, travel times and speed data is the best foundation for managing mobility performance measures. BlueTOAD cost effectively meets this industry need.

How BlueTOAD Impacts Your ROI...

BlueTOAD turnkey solution delivers real-time Speed and Travel Time information displayed on a user-managed website.

By providing a quick integration path, the BlueTOAD traffic data technology easily merges with any agency's existing traffic management system. When existing communications infrastructure is used, BlueTOAD can be installed and operating in under an hour.

With BlueTOAD, statistical data reporting, Speed and Speed Alarms, Travel Time, Level of Service, and Origin/Destination information is aggregated to supplement any agency's archived and real-time travel user information needs. An agency can also share BlueTOAD data with other agencies using an industry-standard XML schema-based system.

BlueTOAD's automated speed alarms via e-mail, text messaging, and Web posts allows real-time notifications of potential incidents such as visual verification of congestion mitigation applications: dynamic message sign updates, advanced signal timing, traveler information website notifications, and Intelligent Transportation Systems (ITS) planned deployments.

The BlueTOAD turnkey system can be installed and operating in under an hour. Existing communications infrastructure is used, BlueTOAD devices are managed through a Web-based managed website.

Benefits include:

- TrafficCast's BlueTOAD devices collect Media Access Control (MAC) addresses from Bluetooth®-enabled devices such as cell phones, headsets, personal navigation devices, in-vehicle communications systems, and computers as vehicles travel along the roadway. In an effort to communicate with each other, these devices use a small Bluetooth transceiver to continuously transmit its hardware-specific MAC address.

- On the BlueTOAD roadside node, the hardware-specific MAC address is sent to a TrafficCast server, where it is matched, and paired with itself at another roadway location, while filtering outliers.

- These devices send, MAC addresses, sensor location, and time back to TrafficCast, not user information. TrafficCast then uses the hardware pairs to calculate Travel Times and Speeds between origin and destination locations. The BlueTOAD system provides the accuracy of toll tag readers, with the cost effectiveness and ease of installation of in-ground loop sensors.

- BlueTOAD performance is measured by the accuracy and speed of the traffic data it records. BlueTOAD Travel times and speed data is the foundation for managing mobility performance measures.

Why BlueTOAD Works...

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Transportation planners agree, BlueTOAD travel times and speed data is the foundation for managing mobility performance measures.

BlueTOAD Comparison Report

Performance Measure: Travel Time - Segment

Definition: The average time required to travel through a section of roadway in a single direction.

Applications: Planning and operations.

Example: Comparing the travel time on an arterial section before and after the installation of new signal timing. Evaluating the impact of an incident on the travel time of a freeway section.

BlueTOAD Level of Service (LOS) Report

Performance Measure: Vehicle Flow Rate

Definition: Quality of Service verification of vehicles traveling through a roadway segment.

Applications: Used by agencies to evaluate the transportation effectiveness of roadways for planning and operations.

Example: Evaluate the ability of a roadway or corridor to serve the vehicular demand between origins and destinations.

BlueTOAD Origin/Destination Report

Performance Measure: Planning of Roadway Network

Definition: Recording the traffic patterns and flows of the vehicles along user defined paths in the traveled network.

Applications: Roadway network improvements and planning of future usage.

Example: Verification of routes vehicles are utilizing through the network giving the Agency the ability to use real-world information to calibrate models for model verification.

BlueTOAD Comparison Report

Performance Measure: Travel Time - Segment

Definition: The average time required to travel through a section of roadway in a single direction.

Applications: Planning and operations.

Example: Comparing the travel time on an arterial section before and after the installation of new signal timing. Evaluating the impact of an incident on the travel time of a freeway section.

BlueTOAD Smoothed Speeds Report

Performance Measure: Real Time Speed

Definition: The aggregate speeds of vehicles for a single direction of flow at a specific location on a roadway.

Applications: Used by agencies for planning engineering and real-time operations for specific segments of roadway. Used to inform the public of existing traffic conditions on websites.

Example: Measurement of speed on an arterial section for calculating traffic signal offsets.