The Eastern Transportation Coalition:

Web Summit: Innovative Capture and Dissemination of Data used for Traveler Information - April 1, 2021

Question and Answer Summary

Automating Social Media Notifications in Maryland

Q1: **Steve Novosad (HNTB):** Where are you currently housing your Security Operations Center while it is under construction?

A: Rick Dye (Maryland DOT-SHA): We have our traffic operation centers that do most of the day-to-day work out in the areas they manage. We have one in the DC area and the Baltimore area. The SOC is just in a training room. We took over enough space so that we could have our management and operations folks there. It worked out because the pandemic sent everyone else home.

Q2: **Sal Cowan (New Jersey DOT):** Can the annual report be shared or the link to it somewhere online? Also, the 2013-2014 year in that graph showed a significant increase. Are there any determining factors (new center new data)?

A: Rick Dye (Maryland DOT-SHA): Here is the link: http://chartinput.umd.edu/. This link provides access to all the reports. The reason for that increase is that we opened a new operation center. Events were happening that we weren't a part of, and now we are. We have more response vehicles and are working in an area we didn't work in before. This ties into what I previously mentioned– sometimes legislators will ask why the number of events hasn't gone down despite receiving a new operation center. It's kind of a catch-22 to explain that sometimes.

Q3: **Steve Novosad (HNTB):** Does your 511 do any social media activities or is it all done by CHART?

A: Rick Dye (Maryland DOT-SHA): 511 is also done by CHART. We have a 511 phone number that people can call. Currently, there's a voice that reads you the current major events. However, it has become so underutilized that we're in the process of getting rid of it. We tried to keep it to make sure that people with older phones have something to connect to, but we've seen such a decline in that use. Ultimately, we're going to just use the 511 website and engage with the public via social media outlets. We're going to disconnect our 511 phone number later this year.

Q4: **Sal Cowan (New Jersey DOT):** Is the Twitter feed for incidents the same as the Department's official Twitter feed or something specific to incidents statewide?

A: Rick Dye (Maryland DOT-SHA): It's specific to incidents statewide. The MD511State Twitter feed is just automated tweets coming from us. But if you look at the Twitter page, it also gives you the link to the Maryland DOT-SHA Twitter page, which is manned from Monday through Friday during certain times. If you want a person to respond to you, that's where you need to go. It tries to let people know that the MD511State Twitter is an automated feed that gives you live information in a consistent format.

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Q5: **Stan Young (National Renewable Energy Laboratory):** Great overview Rick. What are your needs moving forward?

A: Rick Dye (Maryland DOT-SHA): As far as social media, we will look into more automation (there are other social media options other than just Twitter), but I feel we will need to involve more Public Communications folks in our SOC at some point. The public wants immediate, authoritative, two-way communications.

Rhode Island's Wrong-Way Driving Systems: Experiences to Date & A Promising Future

Q6: **Eli Sherer (GEWI North America):** I see alerts are sent to email and SMS, do they also send to navigation and traffic service providers?

A: Russell Holt (Rhode Island DOT): As of right now in Rhode Island, no. Long term, I would like that to happen. As I mentioned, with the in-vehicle systems or even pre-trip, that's the way to go. My DOT wants to look at the right way to share data and get the information to private parties (such as Waze) so they can do their job, which they do very well.

Q7: **Eli Sherer (GEWI North America):** Are "cancel" messages sent when the wrong-way driver is cleared?

A: Russell Holt (Rhode Island DOT): That's a great question. I love that we saw an example of "cleared" messages in Rick's presentation. The answer right now in Rhode Island is no. I look to what Rick presented as an example of how to do it, and it's important to consider. We know that it's not as easy as just posting the event. People want to know when it's cleared, especially for a wrong-way event. For example, if you're coming down the road and you see a notification about a wrong-way driver, it might be miles away, and you can take an exit that's coming up. If the person has been apprehended or (worst case) crashed, you want to know that. I tried to hit that on my slide about the human factors. At the same time, all this is happening on the fly. It's not easy to post that message – what do you say? It's all about safety too. We want to minimize driver distraction and phones are a distraction. We can't guarantee that drivers have their phones docked in their vehicles, and they're not looking at it.

Q8: **Allen Greenberg (FHWA):** "Wrong Way Driver Use Caution" may not be the best sign, as it suggests that if you're choosing to drive the wrong way, please be cautious in doing so.

A: Russell Holt (Rhode Island DOT): I like that point. The message I showed is just a draft message, but I prefer the Michigan example I showed which is "Wrong-Way Driver Reported". I think most agencies use something like that. Another option to consider is "Wrong-Way Driver – Use Extreme Caution" – but what exactly does that mean? I

appreciate the input; Rhode Island DOT is thinking about the most appropriate message to post that minimizes the risk. All agencies have the responsibility to post things that are accurate, timely, and useful. In traffic control, if you don't do that you're asking for trouble, never mind the liabilities.

C: Michael Fitzpatrick (Massachusetts DOT): The wrong-way driver would be seeing the back of the sign.

C: Allen Greenberg (FHWA): Yes - "I like wrong-way driver reported" much better!

High Performance and Reduced Cost Traffic Monitoring using Fiber Optic Sensing in Georgia

Q9: **Russell Allen (Florida DOT):** Has any further internal discussion taken place to develop a multi-port box (e.g., monitoring a major interchange where fiber is available in all four directions)? Clarification: a single "hub" box in the middle communicating with four boxes down the road in different directions.

A: Paul Cooper (OptaSense): This might need a follow-up discussion to fully understand the question but I will try to answer as best I can. Firstly, it is currently possible to network together multiple OptaSense TMS to monitor very long distances or monitor multiple directions from a central point. Secondly, when we look at the key benefits of the OptaSense TMS, compared to alternative sensor sources, our view is that the 'sweet spot' for the technology is providing high-quality traffic information for long sections of major highways, arterials, and other strategic routes that already have fiber optic cables roadside. For more complex intersections/interchanges fiber optic sensing is possible where roadside fiber exists but it is probable that integration with complementary point sensor solutions will be required to gain the required traffic information. Ultimately, it would depend on the specifics of the situation.

Q10: **Ralph Volpe (FHWA):** Can the OptaSense technology detect vehicle classification?

A: Paul Cooper (OptaSense): We are currently able to count vehicles at fiber-optic road crossings, however, this counting is aggregated across highway lanes and not sufficient for classification. Fiber optic sensing has been commercially available for a little more than a decade and is continually developing – currently, we are working on next-generation solutions where highly accurate lane by lane counting and vehicle classification (to FHWA standards) will be possible. We hope to have that available soon.

Q11: **Steve Damron (Virginia DOT):** Does the OptaSense have to be in a building or could it be housed in an ATC-style cabinet?

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A: Paul Cooper (OptaSense): With the OptaSense TMS, our customers typically install the hardware away from the roadside in an existing equipment room or network hub building, which has many advantages. For a past project in North Dakota, they created a roadside cabinet with the necessary environmental controls and power systems. So, the OptaSense TMS can be installed roadside or away from the roadside – and that decision would be based on the specifications of the situation. I would happy to discuss it in detail with you.

Q12: **Hua Xiang (Maryland DOT):** What kind of noise from the vehicles is detected by OptaSense? Is the noise generated by vibration? Does the engine noise play a part too?

A: Paul Cooper (OptaSense): Mostly we detect the noise and vibration from the tire/road interface. Engine noise is very much secondary. Hope that helps. For more info; paul.cooper@optasense.co.uk

What Else Is Up Our Crowdsourcing Sleeve at the Pennsylvania Turnpike Commission?

Q13: **John Hope (Florida DOT):** You mentioned that the WAZE website which you demonstrated updates every two minutes. Is this how frequently WAZE updates or is this a constraint of the website itself?

A: John Parker (Pennsylvania Turnpike Commission): I think Waze is every 30 seconds to minutes. We chose two minutes for consistency with the other data coming in.

Q14: **John Hope (Florida DOT):** How frequently is travel time data provided from WAZE?

A: John Parker (Pennsylvania Turnpike Commission): Waze can be called every 30 seconds if you want. You can recall the travel time data anytime. I think it's 30 seconds.

Q15: **Caitlin Hughes (FHWA):** How does Law Enforcement/Emergency Response use your Traffic Incident Timeline?

A: John Parker (Pennsylvania Turnpike Commission): We meet with Maintenance and the Pennsylvania State Police (PSP) every three months to go over incidents and the overall timeline. We look at how we can do better with Towing/EMS/Fire. We invite them in for AARs all of the time.

Q16: **Caitlin Hughes (FHWA):** Is there any real-time tie-in to dispatching?

A: John Parker (Pennsylvania Turnpike Commission): We are just starting a pilot for dispatching via Waze.