

SunGuide Software

User’s Group

Meeting Minutes

**Date: February 18, 2021**

**Time: 2:30-3:30 EST**

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| Agenda: |  |
| Topic | **Led By:** |
| Item 1: SG-4649: Keep DMS device icons on map when using TVT configuration.Item 2: SG-3632: Investigate discontinuous lane blockages in relation to open roads durations.Item 3: SG-4806: Response Plan “511 ATIS” preview section does not match what is posted to FLATIS.Item 4: SG-5629: Trauma AlertItem 5: SG-3570: Capture Additional BSM1 and BSM2 Data from Connected Vehicles | Tucker BrownTucker BrownTucker BrownTucker BrownMark Dunthorn |

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| Attendees: |  |
| Justin Merritt, D1Robbie Brown D1Luis Hernandez, D1Margaret Treiber, D1Ray Mikol, D1Tom Arsenault, D1Jason Evans, D2Jason Summerfield, D2Tanesha Sibley, D2Amy DiRusso, D3Kevin Mehaffy, D3David Nelson, D3Richard Hemming, D3Greg Reynolds, D3David Roark, D3Robert Briscoe, D3Dee McTague, D4Jacques Dupuy, D4Shannon Watterson, D5Kyle Higgins, D5Eddie Grant, D5John Hope, D5 | Jeremy Dilmore, D5Jay Williams, D5Gary Rutledge, D5Alex Mirones, D6Mike Crawson, D7Karla Smith, FTECherie Phillips, FTEUmesh Subramanyam, FTEJermaine Da Silva, FTEBrent Poole, CFXAJ Skillern, SwRITucker Brown, SwRIChristine Shafik, COMark Dunthorn, COAlex Brum, COJennifer Langford, COJuan Abreut, COKarthik Devarakonda, COMike Clark, COCarla Holmes, CO |

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| Discussion: |  |

Christine Shafik: Welcome to the SSUG meeting, we have a few items to discuss today. For the purpose of taking notes, we will be recording this meeting as usual. Before we start roll call, I would like to introduce our new SunGuide Project Manager Carla Holmes. She is from the consultant side and we are glad she is joining us. She helped with the ITS Architecture project and is a senior TSM&O Engineer with Gretchen Smith and she will be assisting the SunGuide team on the project management side.

Carla Holmes: Thank you Christine, I am happy to be here and look forward to working with you all.

**Item 1: SG-4649: Keep DMS device icons on map when using TVT configuration.**

Tucker Brown: Right now, when you go in and you’re going to build up a TVT travel time link one of the options is you can click a button in the ribbon and select the TSS link from the operator map. When you do this the operator map clears everything except the TSS links. When someone is building this, they might not know where that DMS sign is going to be. The change request was to leave the DMS icons on the map so it would be easier to determine at which link to end the travel time. It is an easier way to determine which link to pick. This is a simple change, are there any questions?

John Hope: We went back and looked at the original ticket in JIRA, I believe Jason Summerfield summited this and what he described was keeping the icons on the map when adding a variety of devices which would be a lot more useful than what you are proposing.

Kevin Mehaffy: We had a similar request while putting in EM location and I thought this would be included in the same thing – leave the devices on the map while doing configurations.

Tucker Brown: There is a request for that as well, this was just a secondary one.

Kevin Mehaffy: Is it possible they could be combined into one or are they totally different?

Tucker Brown: There are a number of modes and variety of places you can get into on the map that are independent of each other. So, for each change we have to be in a different spot on the map, but it is doable. For instance, if I got into this mode, it knows it is TVT selection, so I am only looking at the TSS links. So, if we were to do that, we would have to put that in place. If what you are talking about is more event locations, when doing event locations, you go into that mode, so each is independent of each other when we go into that particular mode.

Kevin Mehaffy: Yes, thank you.

Tucker Brown: We can do this in a variety of spots, and we can incorporate this as part of that. We just need to know what the spots are. I suggest we just leave all of the icons on the map all of the time. There are requirements against that and there are cases where it is helpful to be able to remove items from the map, so you don’t click on them by accident. For instance, when doing the drawing of TSS links in general. There are a lot of things you have to click on (start points, mid points, end points) and if you start clicking on devices instead of the map itself that could be an issue. There are exceptions to putting down everything, so we need to go one by one here.

John Hope: We were talking about that and we were wondering if the icons you are not configuring would still remain on the map but would be grayed out and not clickable? That way you would have a point of reference for where the start and end points are for the links.

Tucker Brown: For this case you want to leave everything on the map but gray out what is not specific for whatever you are doing?

John Hope: Yes, and make them not clickable so that way if you miss clicked it wouldn’t select something you didn’t want.

Jason Summerfield: Would it be possible to have a drop-down selection for each one of these pages to select what you want to see?

Tucker Brown: So that makes it a little harder, basically a configurable set of icons makes it a lot more challenging. The grey out feature could be doable but I would have to go and investigate it a little further. I think we need to determine which modes we want this for. With the grey out option, I think it can be applied globally. Being able to click the icons on and off gets into a user configuration and it does make it a little more challenging for sure.

John Hope: In either case it sounds like we would want to revisit this after you have time to investigate.

Tucker Brown: In terms of bringing this forward, we can make a decision now on if we want them greyed or if we want them selectable or both.

Carla Holmes: So, for each application you want to do this for, how would you know what is relevant? Would you solicit input from the Districts on which icons they would want to see on the map, or would you just know?

Tucker Brown: The options here are:

* Put all of the icons on it greyed out and make them not clickable.
* Make it configurable for the user to pick which icons show.
* Do both of the above options where they are greyed out and the user gets to pick which ones, they want to see.

John Hope: District Five likes the first option – grey and not clickable.

Kevin Mehaffy: In District Three we like both.

Tucker Brown: Does anyone else want to weigh in?

Mike Crawson: Yes, District Seven likes both.

Jason Summerfield: When I put it in there it was mainly the signs, but I am fine with whatever as long as the camera icons are on top of the highway shields.

Tucker Brown: When referring to the highway shields are you referring to the user input highway shields?

Jason Summerfield: I am referring to us picking on Robert Heller ten years ago. But there are various places where you move a device on the map, and it hides all the other devices on the map so if you are trying to line it up with another device on the map it can be annoying. It could require guessing, a combination of hiding them or making them a color that is non-interactable is fine too.

Christine Shafik: Any other Districts?

Jacques Dupuy: District Four is okay with both options.

Luis Hernandez: District One is also okay with either option.

Alex Mirones: Ditto for Six.

Brent Poole: CFX is good with either option.

Karla Smith: Turnpike is okay with either option.

Tucker Brown: We will move this forward to the CMB, and the notes will reflect that.

**Item 2: SG-3632: Investigate discontinuous lane blockages in relation to open roads duration.**

Tucker Brown: This is a very old issue. This would have been back in 2016. When you were doing discontinuous lane blocking, you blocked a lane, and someone moved off the road, so you unblocked it but then later a tow truck had to come so you had to block the lane again then unblock it for clearance. The blockage time should have added the two blockages together but was not doing that correctly. The fix for this was done in 6.2 which would have been released in quarter 2 of 2016. So, the fix that would have been accurately getting the data would have been installed. At the time we suggested to build a tool to back fix any data. That tool was never actually built. This data is four to five years old, is anyone needing a tool to be built to fix data from five years ago? Or is this something we can clear out at this time?

John Hope: Just to be clear, what this would fix is the calculated blockage time not any of the event chronology or timestamps?

Tucker Brown: Correct.

John Hope: So even without doing this, we have all those timestamps.

Tucker Brown: Yes, and the tool would be using those to better capture that total blockage time.

John Hope: So, this is fixing one perimeter?

Tucker Brown: Correct, only when you had discontinuous blockage and only for the data that is four to five years old.

John Hope: How much effort is it? Is a $1,000 thing?

Tucker Brown: More like a $5,000 thing.

John Hope: This probably isn’t worth it.

Tucker Brown: Does anyone else have comments?

Luis Hernandez: We agree.

Jason Summerfield: District Two agrees.

Mike Crawson: District Seven agrees.

Jacques Dupuy: District Four agrees.

Kevin Mehaffy: District Three agrees.

Brent Poole: CFX agrees.

Tucker Brown: I think that was everyone so we can move on.

**Item 3: SG-4806: Response Plan “511 ATIS” preview section does not match what is posted to FLATIS.**

Tucker Brown: We went through this with District Seven and what they found was when looking at this when generating the FL511 item the response plan does not match the output at 511 and the DMS plan doesn’t match. The DMS and FLATIS both use the reference point from the location configuration. The response plan uses the location long name so there is a discrepancy for what those two actually say. We do not send the description of any kind to 511, we send the location and what is there. In this case, this item only shows up to the operators so it was requested to make it match what 511 and DMS would use. Really, we would be matching them up for operators use. This will have no effect on operations. Essentially the item in the response plan would show up as the reference point. Any comments?

John Hope: District Five likes this idea.

Kevin Mehaffy: District Three is good with it.

Brent Poole: CFX is good with it.

Luis Hernandez: District One is good with it.

Jacques Dupuy: District Four is okay with it.

Alex Mirones: Good for Six.

Karla Smith: Good for Turnpike.

Tucker Brown: Okay so we have good support for that. Let’s move on.

**Item 4: SG-5629: Trauma Alert**

Tucker Brown: The request was when you are doing injury types and you want to add a new one. The current behavior is when injury types are added but must be categorized. In reports, filtering is based on the categorized label, not the name. It was requested that we add a new one for trauma alert that had that type and a fatality type so we could filter against it. This would have to be something that the state would really want, and it would be a new injury type.

Two options:

* Add a new category for “Trauma Alert”.
* Add “Trauma Alert” as a new 8.0 attribute. This would require no software changes and would immediately allow reporting.

It depends on which area you would want to see this in. Are there any comments on if we see this as an injury type or an attribute to an event?

Kevin Mehaffy: With the second option there, it would make it searchable and you could run a report on it without making changes to SunGuide?

Tucker Brown: That is correct. There are two types of attributes that the system allows. One of those is a system level attribute and those are things you are not able to delete from the system. You can hide them, but you cannot delete them. Then there is a District level custom attribute that you added to your system independently. Most likely we would add this as a system level attribute. It would be script that everyone would get, and everyone would run, and it would be a system level attribute. Then when running reports, trauma alerts would come up as a selectable reporting option.

Kevin Mehaffy: Is the state asking for this information? Is there a request where this came from?

Tucker Brown: It was a request out of District One I believe.

Luis Hernandez: Yes, it was our request. It is not something the state has requested to our knowledge. It is just something that would diversify our data and deepen the ability of the data we get.

Christine Shafik: It is not a state request, I have confirmed that. It is a District need. We are trying to find out if any other Districts are interested in it or if there are any additional attributes you are looking for.

Tucker Brown: This can be added as an 8.0 District custom attribute that they can add to use for reporting. If you are going to add custom attributes to your system, please send those to Central Office because it will be tracked, and it could potentially be added as a system level attribute for everyone. There is a warning that pops up saying to coordinate it with Central Office, but it does not prevent you from doing it.

Do we want this at a state or District level? The other question is it worth adding as an injury type or is an attribute specific enough?

Kevin Mehaffy: My concern is if you add this and the state is tracking fatalities and this is a new category, it could delete those numbers or something. We would want our offices approval before you did something like that.

Tucker Brown: If you put it as an attribute you still want to set your injury type as fatality or non-fatality. This wouldn’t be in place of it, it would just be an attribute to track.

John Hope: Since this is not a Central Office requirement, District Five is not planning on using this. Configuring this at a District level would be better.

Tucker Brown: That is fine.

Jason Evans: District Two is good with District level.

Jacques Dupuy: District Four agrees.

Mike Crawson: District Seven agrees.

Karla Smith: Turnpike agrees.

Tucker Brown: It sounds like a District level attribute would work in this case. Keep in mind as you add attributes to the system to bring them to the group to see if they would benefit the state as system level changes, if not, they can be easily closed out as District level attributes.

**Item 5: SG-3570: Capture Additional BSM1 and BSM2 Data from Connected Vehicles**

Mark Dunthorn: Thanks Tucker. Let me just add a point to the previous discussion, if a district does want to add an attribute, we just want to make sure that if it is in more than one place it is consistent. This is the last topic here. This has been around for a while. We did an upgrade to support the latest version of J2735 about two years ago. Functionally we still do something similar, we send Traveler Information Message (TIM) messages to the Roadside Units (RSUs) and we receive Basic Safety Messages (BSM) and Probe Vehicle Data (PVD) messages from the RSUs. The functionality hasn’t changed but we know there is potentially for other data and other applications. Besides location, speed and direction, BSMs can also include other data that might be useful in safety applications like brake status. Roadside Alerts could also be one. We see potential for this messaging and while we are talking about these please keep in mind there are other things going on like edge processing and central storage. We are looking at ways to collect CAV data. This is different, we aren’t looking for a specific change to SunGuide this is more of a research question. Should Central Office/SunGuide team start collecting BSMs? Maybe a ConOps would be the right way to go for that. Do any of the Districts have project (current and/or planned) that produce BSMs or other relevant messages that can be shared with CO?

We do have a few projects where we could get BSMs, but the Districts would have better source. Is this something you are interested with us moving forward with?

Jeremy Dilmore: The second question would be easiest to answer, our stuff is under construction right now. What we are working on with the vendors right now is to support the MIBS and SMB version three which is an enhancement that is coming to SunGuide. The ability to go ahead and have the BSMs pointed in a particular direction and we are also working on scripting the local RSUs and how to support that. We are hoping we will be able to provide data by April and to be able to start sharing those messages. The BSMs will be straight forward for us to provide. When it comes to trying to get the probe vehicle packet, that data is still a big question from vendors. We are not seeing much being shared on that front. In terms of the role of SunGuide, what we are planning on as a district is a split-up repository and we are aware of the statewide efforts but we intent to warehouse the BSM in a platform that is better suited to long term storage of data instead of a Squeal database. We were going to push that into a new back end elastic stack more than likely. What we would be interested in is looking at the developments and are they a Concept of Operations about how operational decisions will be made in SunGuide? From our standpoint we don’t need SunGuide to a reporting system or repository for data set, we are thinking of it as a manic control system that can be augmented by an external decision support system. But we want the capability to push events like a response plan generator in order to communicate with the public. Does that help?

Mark Dunthorn: I think what I was saying that I didn’t realize you were so close of having that data. I agree that SunGuide should remain in control for the decisions that are being made. What we are looking for is are any other districts interested in taking this forward? We know the data is coming, we need to start thinking about how SunGuide will use the data.

Jason Evans: We are on the same schedule as District Five, we are hoping to have that data available in April.

Jason Summerfield: I was going to say, District Two is interested because I think what of District Five was talking about extends into District Two, so we are on the same page as them. We have a test project happening on the side that could possibly provide data from other sources. We are also interested because people keep asking us what we are doing with our RSU data and the answer is nothing yet. District Five did you mention you were planning on dumping it into an elastic stack?

Jeremy Dilmore: That would be our first play is to stick it into elastic in order to warehouse it. Then move it to the ITS data hub but we would already have a JSON feed out of the elastic stack which would switch over into their storage as well to get the data back to the JPO and their data store.

Jason Summerfield: You are basically pulling all messages into the elastic stack and not doing any filtering at the edge yet?

Jeremy Dilmore: That is correct. Our intention is not to filter at the edge and do all storage, when we built our TMC with the concept to being able to grow laterally. This upcoming year we are going to buy additional data nodes and move off of a play environment and go back to commodity boxes. I can send you information if you are interested.

Jason Summerfield: That makes sense, it goes along with what I was thinking in an abstract sense of there is no reason to flood SunGuide with all this raw data whether it is done by edge processing units or a central repository or even edge processors that filter things and send them to a central repository and then something pulls information from there that provides messaging to SunGuide.

Jeremy Dilmore: We are in the same boat and we were looking at metadata from cameras and setting up something with the local agency about putting back as a surrogate TSM and BSM data and we were looking to scale that up and ran into similar issues that grabbing that information on 7-10 Hz was ridiculous. We didn’t think that was what SunGuide was built for, so we want to use an external system to provide some sort of information but want to maintain SunGuide role. That is a future problem because right now there are not enough OBUs to saturate SunGuide with data.

Mark Dunthorn: This is all great. We had interest from a couple of districts. Is there anyone else who is thinking about this? Alright, hearing none, back to you Christine.

Christine Shafik: Thank you for your input on the issues. We still have time if a District would like to discuss any other topics.

Margaret Treiber: I was wondering the status of the scripts to speed up the data conversion for 8.0?

Tucker Brown: We broke it into a four-phase process, phase one will convert what you have now and get the system back up and running. The test that we ran at the TERL, it took a little over two hours for a database that normally took twenty hours to convert. The next part of that is the conversion of all of the data that wasn’t being done which is the older data and that will still take a significant amount of time. I think it still took 17 hours to do that at the TERL. Phases two, three, and four can be run after you get back online so it will fix the data while you are continuing operations. We have finished out phases one and two and the TERL and District Five are testing those out for us. We are close on the third and fourth phase, we should have them out in the next couple of weeks so you can have a quicker down time for the initial conversion.

Christine Shafik: Thank you. Are there any other questions or comments? Hearing none, have a great rest of your day.