SunGuide Software

User’s Group

Meeting Minutes



**Date: September 10, 2020**

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

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| Agenda: |  |
| Topic | **Led By:** |
| Item 1: 3562: TSS Probe Fusion Functionality Questions  Item 2: 3925: Add assigned Beat to Road Ranger information in Event Reports  Item 3: 3488: DMS priority in Response Plan changes all DMS sign messages | Tucker Brown  Tucker Brown  Tucker Brown |

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| Attendees: |  |
| Robbie Brown, D1  Justin Merritt, D1  Ray Mikol, D1  Luis Hernandez, D1  Margret Treiber, D1  Jason Evans, D2  Tanesha Sibley, D2  Aven Morgan, D3  Kevin Mehaffy, D3  Robert Briscoe, D3  David Roark, D3  Jacques Dupuy, D4  Dee McTague, D4  Shannon Watterson, D5  Jay Williams, D5  Kyle Higgins, D5  Eddie Grant, D5  Jovanny Varela, D5  John Hope, D5  Sheryl Bradley, D5 | Mark Laird, D6  Alex Mirones, D6  Dan Buidens, D7  Jared Roso, D7  Mike Crawson, D7  Jermaine Da Silva, FTE  Michael Kerpen, FTE  Umesh Subramanayam, FTE  Cherie Phillips, FTE  Brent Poole, CFX  Tucker Brown, SwRI  AJ Skillern, SwRI  Simon Cooke, IBI  Christine Shafik, CO  Mark Dunthorn, CO  Gregory Dudley, CO  Alex Brum, CO  Hitesh Chawla, CO  Brenda Murphy, CO  Karthik Devarakonda, CO |

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| Discussion: |  |

Christine Shafik: Good afternoon everyone. Thank you for joining us today in the SSUG meeting. We always hope that you and your family are safe. Today we have a couple of interesting issues that we need to discuss and have your input on. We are going to start with the roll call first. Just to let you know, as usual, this meeting will be recorded for the sake of taking notes.

Alright so just a quick housekeeping reminder here please make sure your phone is muted or not speaking. I see a couple phones up. We want to make sure that we have a consistent conversation here uninterrupted.

I’m going to go to my slide. This is a friendly reminder you know we've been trying hard to make sure all the backlog is cleared on the JIRA system. We work pretty hard in the central office with the help of the districts and you guys did a great job helping us in this to keep the JIRI issues up-to-date, and to make sure we are meeting your expectation make sure we are meeting your needs. So, with this in mind, if you can help us every time with your request for enhancement or even a report above, please make sure to open a JIRA ticket for it. We want it to be trackable, we want you to be able to check it and see where it is and what the status of it and we want to make sure that we're not missing any of your enhancement properly documented. So, this is the way we're going with this. Do me a favor and do Central Office a favor and open JIRA up for every time you have an idea or enhancement or a book to report on. I appreciate everyone who are doing it already. I know you have been doing this but please do this for the Central Office.

**Friendly reminder: Please open a JIRA ticket for all enhancement requests**

Christine Shafik: That was it for me I'll turn it over to Tucker to start the first issue to discuss today.

**Item 1: 3562 – TSS Probe Fusion Functionality Questions**

Tucker Brown: Alright here we go; so this is actually an issue that we've talked about before at a previous SSUG. We tabled it to go back and look to see if this issue is occurring. Next slide. So the scenario that was brought up is let's say a person goes by a detector and that detector has that one and then a downstream detector and will call that a link AB. So you drive past A and then you go stop for something and then you somehow loop back on it and you drive past A again so now you have two tag reads on detector A and then you go drive past detector B. What the system will attempt to do is match the first detector time from A with the detector time for B. So, let's say you stop for 20 30 minutes at a store and then you actually made this loop and did it again. What you'd be counting there is the first time you passed it which was before you were at the store and then when you went back through it it would be getting a very long read. So there's not currently a minimum speed parameter to filter out something like that so you get an extremely low speed.There it is filtering in place to look at that and essentially take super long reads then discard that based on the change from the previous cycle so that you don't get this huge dip really quickly. So there is some way to look at that at least not have that affect the overall timing but there is nothing to actually filter out the tag and say I really don't want that. The thing that we were actually asked to see was, was this situation actually occurring at the district level and to do that we pulled a D5 database and started looking for the situation in terms of how the tags were there and how they were logged in the database. Next slide. What was actually happening here it appears that this is actually happening and we found quite a few cases where it was and you see that duplicate tag read on A and then a read to B and then you actually get a long read between the two. There is a what we call A tag horizon parameter as well so if you drive past detector A in your tag rise and set for an hour. If you were to drive past detector a after that hour, that tag would essentially be gone the first one will be gone and as you get that second tag only. So there is a way to limit the maximum amount of time the tags hang around on a single detector but in situations where maybe people make quick stops or something like that and these loops actually can get set up. This is occurring in the district systems as of today. Next slide. So, there are a couple options here. The first suggestion was to have a minimum speed setting. That would not be particularly hard to implement and we do I believe have a maximum speed setting already. It would just be a matter of setting that; the problem with the minimum speed setting is there are situations in which a minimum speed is actually that; that is the legitimate speed but it could be stopped traffic it could be extremely slow traffic. Finding the right level for what that minimum should be might be difficult and in some situation might not give you the results that you would want. What are the other ones that potentially we could do is change the algorithm to essentially look at the latest tag read or helpful because we got something this morning I'm going back and we've done that very well so that essentially the change in the algorithm would be to when you get those two reads at A using the second read from A always instead of using the first read and then you would get that A to B match and essentially what would end up happening is that first read would eventually hit that tag horizon and go away. That is a possibility to change as well those are two that we could do we're open to other solutions if anybody else has something that they would prefer to see in place but the thing that we're bringing this back for one we did find that it actually is occurring in two we probably need to do something about it and so we're trying to figure out what the right thing is here to do so if anybody wants to comment on that I'll open it up to everyone else.

John Hope: Hey Tucker this is John from District 5. We see value in both of these enhancements but the first bullet you mentioned that you know there may be an issue if the speeds are actually that slow. I think what we're trying to capture is like anomaly of situations where only one or two you know a very small number of matches are are extremely slow. Can you modify the first bullets to only exclude very slow speeds if there's only like a small number of 'em?

Tucker Brown: Right now there is a parameter essentially that looks at the maximum amount of change between two pole cycles and like let's say you're running at 40 to 50 miles an hour on your freeway or something along those lines and you end up with this read that says traffic is going 2 miles an hour or whatever some very low reading. Essentially, that is already basically, I believe that's excluded from how that calculation is done. You would really not be affected by that already.

John Hope: Okay, so how does the first bullet help?

Tucker Brown: In the actual algorithm now it looks at that and it keeps it around and what it would do is as you get more and more of these reads and they look like they're actually closer to what the actual speed reading is they may be included. The first bullet then actually says this is below the minimum speed I'm throwing it away and could never possibly use it.

John Hope: Okay, so it only seems like because of the; that other parameter that you mentioned about the change might work better than the first bullet based on what you just described. I may be off base. Is there some testing that we could do to like implement something but just test it out see how that affects things or if we get into bad situations?

Tucker Brown: I believe we have a way to simulate tags into the system and so if we come up with a specific scenario to test I believe we can do that, yes.

John Hope: At this point it we're just guessing. It would be more concrete if this could be flushed out through to testing.

Tucker Brown: Let me ask this question then; is the ideal case that this low speed is removed or that it potentially hangs around and is used if it's valid meaning it is actually a slow speed.

John Hope: Yeah, I think we want to keep the valid speed to validate that it's actually legitimate first. So, maybe like buffer at somehow. I understand that it's hard to evaluate if something is true in real time but if you wait a minute or so and see if other matches are coming then you could actually use it.

Mark Laird: What's the downside risk of using #2? It just seems like I've been trying to think of cases to be a problem it seems like that one should be the obvious solution.

Tucker Brown: So that would work to eliminate this kind of situation for sure. That was kind of the other thing that I was looking for here is if anyone could think of a reason why that might not work.

John Hope: It would seem to be helpful in what you described about a vehicle passing detector A multiple times or at least being detected multiple times. The second bullet would definitely count for that but then there's another scenario in which they have a vehicle passing detector A and then they stop someplace between detector A and B and then they get back on the road and then pass detector B. If that's the case then the second bullet wouldn't do anything to that but the first bullet would.

Mark Laird: That's a legitimate case of for whatever reason they delayed their arrival. It’s only one sample so it's not going to be a big deal.

John Hope: Exactly, that's what I was trying to get at. If we're looking at just a small number of matches that this occurs then that makes sense. If there's a majority of matches that this occurs then it might actually be legitimate travel time.

Mark Laird: That’s kind of a bad probe pairing so that as you said it’s common to stop in between the two. I guess I can see that being a problem.

John Hope: I was going to say, in District 5 most of the probe detection is actually deployed on arterial roads and it’s the arterial road in which the snerios we were talking about or actually a lot more likely because there is shopping plazas or whatever in between the detectors.

Tucker Brown: Okay, so in that case, would you like us to run some scenarios of what the software does now in terms of being able to filter out that minimum speed in the case where they just stop between A and B and then go to B and then look at what a minimum setting might do to it?

John Hope: Sure, that would be great. In either case, the second bullet seems like it would be helpful, but it may not account for every scenario. But it definitely will be helpful.

Mark Laird: It almost seems like what we are looking for is what’s the typical travel time and throw out outliers. So, calculate the standard deviation and go out two standard deviations; anything outside of that gets tossed.

Tucker Brown: I don’t think it’s as dynamic as calculating the standard deviation on the fly; it’s more based on what we believe from cycle to cycle, what’s a reasonable change of speed. Okay, we will essentially table this just so that we can come back at the first one. But everyone agrees on the second that we like that one and can push that one forward.

John Hope: No objections here.

Christine Shafik: Is everybody okay with this approach? Just want to make sure that everybody is okay with this approach.

Mark Laird: That’s considered a partial solution, but that part looks good.

Aven Morgan: District 3 is good.

Mike Crawson: District 7 is good

Dee McTague: District 4 is good.

Mark Laird: District 6 is good.

Ray Mikol: District 1 agrees.

Christine Shafik: Alright. Seems like we have a plan here, Tucker. We can move on.

**Item 2: 3925 – Add assigned Beat to Road Ranger information in Event Reports**

Tucker Brown: Alright, the next one should be fairly short. It’s just adding more information to the event reports. So, currently on event reports, you see the vehicle but the beat that the vehicle was currently assigned to is not in that report. That was one thing that would like to be added and the other thing is when you are actually running the reports, you can choose a responding agency, but you can’t use a specific beat or a specific vehicle. So, having reports that are capable of filtering on those and being able to generate reports based on that. I think I got ahead of myself but essentially adding Beat information to the event reports (event chronology) and then being able to filter on the actual vehicle or the beat information as part of the EM filters. Any questions or comments on that? Okay, moving forward.

Christine Shafik: Any support, any objection?

Jason Evans: District 2 supports this.

Mike Crawson: District 7 supports this.

Cherie Phillips: FTE supports this.

John Hope: District 5 probably wouldn’t use this, but we are not against this.

Christine Shafik: Thank you. Somebody else was talking while John was talking as well.

Aven Morgan: District 3 is in favor of it.

Christine Shafik: Thank you. Any other input? Alright, we are good. We can move on, Tucker.

**Item 3: 3488 – DMS priority in Response Plan changes all DMS sign messages**

Tucker Brown: Okay, this is when we talked about the last one, just kind of finalizing the actual intended behavior here. So, we previously discussed when we were looking at a DMS and you go to edit it, potentially you want to just edit the priority and then it came up with that we also potentially might just want to change the message without affecting all the priorities of the signs. So, the proposed enhancement here is just kind of finalize where we ended up and what we want to push forward here is if you select a number of signs to edit and you click “Modify”, it’s going to pop up the standard message dialog and it will sync all of the messages, all of the priorities and everything else. If you select a number of DMS and then you right click and there would be an option to say “Set priority” and then you would be able to only set the priority of the signs and it would basically give you an option for a number; you type that in and it would make that priority without changing the message that’s actually on any of those signs. The other option here would again be a right click and then you would say essentially “set message” and what it would do is allow you to type in a message and other aspects of the sign like priority would not be affected at all. So, you would still be able to multi-select, you would still get the default behavior of when you are adding a sign, all of them essentially sync up but you would be given two new options via a right click menu that would give you the ability to only set the priority or only set the message. Questions or comments on that?

Daniel Buidens: District 7 likes the enhancement.

John Hope: District 5 likes this.

Dee McTague: District 4 agrees.

Jason Evans: District 2 is on board.

Mike Crawson: District 7 is on board.

Aven Morgan: District 3 likes this.

Alex Mirones: District 6 does not object.

Robbie Brown: District 1 is fine.

Christine Shafik: Very good. A lot of good feedback. I think we have a plan; Tucker and I believe that was the last topic, right?

Gregory Dudley: Yes.

Christine Shafik: Perfect. We are ahead of the time so we can open the floor for five more minutes if you have any comments/concerns or anything to share with the team here and we can close at 3.

John Hope: District 5 had a situation that came up with the Road Rangers that they wanted to ask the other Districts about because it would definitely affect the status of the Road Rangers. It’s essentially that they are asking if a “Dispatched” status could be added to Road Rangers so than after a Road Ranger is dispatched, instead of going straight from “Patrolling” to “On-Site”, it would have a “Dispatched” state. That way, after a Road Ranger is dispatched, nobody else would dispatch that Road Ranger. You would know that they are already committed to a different event. Are there any comments on that?

Mike Crawson: Yeah, if they were still dispatched, could they still arrive on a different call?

Sheryl Bradley: My intentions were only on the operator side to be able to see, you know, if you have multiple operators working on a corridor so that another operator can see that that person has already been committed to another incident. That doesn’t mean you don’t necessarily pull them off of that event and put them for something else; if you have something else with higher priority coming in but at least if you are looking at disabled in opposite directions or something, you know they are already committed to going elsewhere instead of having to go back into the event list and see what’s open and where what might already have been hit or that they have it in outstanding events already.

Cherie Phillips: I like that idea. I think it’s a good idea.

Tucker Brown: Just to clarify, this is not something that you care about the field knowing. It’s just the users on the user interface side that you care about knowing this.

Sheryl Bradley: Yeah, I mean, I don’t see what’s going to hurt in the field either but mine was more operator-oriented (RTMC operator).

Jason Evans: Tucker, I was going to say you can already see that as when they are dispatched it’s on the management page; they are just not in bold, it’s in regular text to show that they have been dispatched to an event but have not arrived.

Tucker Brown: Yes, what I was going to add to it is potentially instead of making it a state, so right now you select from a list of vehicles that could be dispatched to an event, if there was something along with that vehicle name that basically indicated that they were already dispatched to something, either maybe in that list they were bold, may be they was something like an additional text along with that vehicle name that basically says they are dispatched already. Is that what you are looking for or do you actually want the state to physically change to “This person is dispatched”?

Sheryl Bradley: So, for me and you guys chime in here if you think differently, what I was looking at is on the operator map. So, sometimes we try to dispatch the closest unit, so to be able to hover over the closest unit and say “Oh, yeah, that’s the closest” but they are already dispatched elsewhere as opposed to then maybe pulling them into the next zone or something to do that and not realizing they are already dispatched to something else.

Tucker Brown: So, potentially adding it to the hover text on the icon is what you are talking about?

Sheryl Bradley: Right.

Jason Evans: Well, Tucker, if we are going to do that, making that a new state, can we associate a different color to that as well so you wouldn’t even have to hover? You would just know that just by glancing at the map that their state is different so you would know they were dispatched to something.

Sheryl Bradley/Shannon Watterson: Yeah, even that, just something to differentiate that they are already dispatched. Is there value in knowing what they are dispatched to so you can determine “Oh, that’s congestion disabled, then I need to reroute to this” but essentially maybe when you hover over, you see the event number that they are dispatched to?

Tucker Brown: Yeah, so essentially, changing the color, possibly the icon on the map to match if they are dispatched or not and then also adding to the hover text “Here’s where they are dispatched to”.

Sheryl Bradley: Yeah.

Ray Mikol: I have a question for the other Districts. Do you guys dispatch Road Rangers to multiple events or is it just one event that he is dispatched, or they are dispatched to at a time?

Dee McTague: District 4 does multiple.

Mike Crawson: District 7 is multiple as well.

Jason Evans: District 2 is multiple and that is due to a requirement for how long we have to dispatch a Road Ranger when an event comes in, whether we have a Road Ranger available or not or at least needs to be pending.

David Roark: D3 is singular and Tucker, I want to piggy back this what she was talking about as far as making a different status, I think that would be really beneficial since obviously Districts do it differently because if you could configure that status, to mean what you needed to for your District just like with the other status, whether that means they are available for dispatch or not, then District 3 can use it the way we use it and District 4 or 5 can use it the way they use it and that would actually help us out in some other issues we have with the fact that we don’t dispatch them to multiple incidents.

John Hope: District 5 dispatches to multiple but there is a priority in which they would prefer to dispatch or prefer that Road Rangers go to a certain event.

Alex Mirones: Would this adversely impact any third party AVL software?

Tucker Brown: If we do it as a new state, potentially, although those are already dynamic in terms of states that you can add but that has some potential to actually be something that we care about. If we do it from a standpoint of just visually from the operator map being able to see it, no, that would not affect that.

Alex Mirones: Okay, thank you.

John Hope: Okay, we hadn’t entered an enhancement ticket yet because we wanted to test this first, but it sounds like Tucker had already summarized it pretty well including the information in that pop-up and having a different coloring of the icon. Was there anything else Tucker that you had mentioned?

Tucker Brown: So, coloring the icon, putting more in the hover text about what event they would be dispatched to, we would probably want to make some indication on the drop down list in the actual event when you are actually trying to dispatch somebody to indicate that this person is already dispatched just in case you are trying to do it from there. If we are going through the route of not making a new state, that’s what I would go with.

John Hope: Yeah, that sounds like it satisfies District 5’s needs.

Christine Shafik: Sounds good. Any other topics to be discussed here? Alright, very good. With that said, I will give you some time back to your life. Enjoy your day and try not to have stressful rest of the day. Have a good one and talk to you next SSUG.

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| New Action Items: |  |
| Action: | **Responsible Person:** |
| Item 3488 - Expand this into not just priority but message only and then also present a mockup of what this might look like to be able to comment | Tucker Brown |
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