

SunGuide Software

User’s Group

Meeting Minutes

**Date: July 30, 2020**

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

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| Agenda: |  |
| Topic | **Led By:** |
| Item 1: 3203 – Microcom sensors for weather feeds  Item 2: 3331 – Video on desktop CPU usage threshold is unreliable and does not reset once triggered  Item 3: 5170 – Ability to filter Roadway in WAZE Alert (White/Blacklist per District)  Item 4: 5321, 5337, 5338 – DMS issues in 7.2 with fonts | Mark Dunthorn  Tucker Brown  Tucker Brown  Tucker Brown |

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| Attendees: |  |
| Robbie Brown, D1  Justin Merritt, D1  Ray Mikol, D1  Margret Treiber, D1  Luis Hernandez, D1  Jason Evans, D2  Tanesha Sibley, D2  Jason Summerfield, D2  Amy DiRusso, D3  Kevin Mehaffy, D3  Aven Morgan, D3  William Reynolds, D3  Jacque Dupuy, D4-595  Dee McTague, D4  John Hope, D5  Ramona Burke, D6  Mark Laird, D6 | Mark Crawson, D7  Jared Roso, D7  Kelly Kinney, FTE  Cherie Phillips, FTE  Brent Poole, CFX  AJ Skillern, SwRI  Tucker Brown, SwRI  Simon Cook, IBI  Christine Shafik, CO  Alex Brum, CO  Mark Dunthorn, CO  Greg Dudley, CO  Brenda Murphy, CO  Karthik Devarakonda, CO  Hitesh Chawla, CO |

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| Discussion: |  |

Christine Shafik: Good afternoon everyone. Thank you for joining the SSUG meeting today. I hope that you and your families are safe during this tough time. Special thoughts for the folks over in the Miami area, I think it’s getting so bad over there. Hope everyone is safe. As usual this meeting is being recorded for the purpose of taking notes. We have a couple interesting topics to discuss today and will be looking forward to your input as usual. We have someone from every District except for MDX and CFX. Hopefully they will be joining us soon. With that said, I think we are good to go with our first topic. I will turn it over to Mark to discuss our first topic.

Alright I guess we're ready to start. We have a couple interesting topics to discuss today and will be looking forward to your input as usual. With that said I will turn it over to Mark to discuss our first issue.

**Item 1: 3203 – Microcom sensors for weather feeds**

Mark Dunthorn: Thanks Christine. Alright, next slide please. The ITS WAN group has deployed over the last several years a set of weather sensors. They are in D2, D3 and D6 as you can see on this map. The little blue dots represent the locations of all of these. There are 97 WAN stations are collecting on speed and direction at these locations. The data can be viewed via our web page but one thing they recently developed is a simple API that lets us collect this data. So that leads to the next slide please. The proposed enhancement, and this goes back quite a way, these have been around for a while but what we are proposing here is to incorporate these into SunGuide. They would appear as our RWIS weather stations that only report wind speed. We do have the option of pulling water from the very small number of stations, I'm sorry water level from 4 different locations but it's primarily wind speed that we'd be looking at here. As our RWIS devices you would be able to configure alarms for them. So, the first question we want to put to the SSUG is, given the limited availability of the data is there any interest from the districts in deploying this or enhancement to support this. Given that you know there's certainly an option there for Districts who are not 2, 3 and 6. You could of course deploy your own Microcom or work with the ITS WAN guide to get some more deployed out there but is there any interest from the districts in deploying this solution in SunGuide?

Mark Laird: I can tell you Mark, I wasn’t able to get an answer to that before the meeting. I don’t know.

Mark Dunthorn: Okay, I appreciate you asking Mark.

Jason Summerfield: Would these weather stations have the same warnings just like they are with RWIS or would it just be giving information?

Mark Dunthorn: It would give you the same weather alerts, well not like what we're doing with NOVA but you would get the ITS alerts. Tucker AJ, is that correct it's the same mechanism, right?

Tucker Brown: Yeah, the intent was that they're just generic data from an RWIS and they can be set up with thresholds just like any other RWIS.

Jason Summerfield: My concern is, if you had a big storm coming through that you would just blow up with a lot of alarms, redundant alarms but I don't know, that’s the problem.

Mark Dunthorn: That's a valid concern I mean if that actually was raised not too long ago. Tucker isn't there an existing JIRA issue to suppress multiple.

Tucker Brown: Yeah, there's an existing issue. We talk about it at the SSUG, I don't think it's made it to the CMB yet but essentially when one station goes off there would be a configurable radius and if another station went off in that radius it wouldn't give you a new alert and then within that radius and they should build on top of each other but like you said if a storm was traveling through the first wave of that storm in the first side of that storm the detectors would give you a couple alerts and then as it passed over your area the radius they would say hey I already know about this and discontinue, you wouldn't get multiples but that is not in place yet.

Mark Dunthorn: At the same time, they could always just configure a small number of weather sensors, right? Configure alerts for only some weather sensors?

Tucker Brown: Yeah, if it was common for something to roll in quickly, especially something like rain coming from one side of your outer ring of your detectors, if you basically just put it by the threshold of those from those and then I guess you might get another set but yeah if you did not want them everywhere you might be able to limit those numbers for now.

Mark Dunthorn: Yes, they are pretty dense in District 3. So, I can definitely see rolling that ops out slowly.

Justin Merritt: Hi, this is Justin from District 1. We currently only use, well we switched from lift system on a few and I will you know for our WIZ? system and it's really difficult to get the data from those systems so I believe we would be interested in putting those along our district as long as the maintenance cost isn't as pricey as the RWIS was because that's kind of what's holding us up deploying more stations. The initial cost is expensive plus you know a com card goes out you're looking at $6,000 just to replace one little board so it gets kind of pricy that way and then the ability to not poll the data off. As far as integrating it into SunGuide, I would think that would be a plus not for the alerts but more for polling recording because we do get requests here in there but it's mainly from colleges to do studies during storms that come by and so on. That's our feedback.

Mark Dunthorn: OK appreciate it. That's interesting, actually. So, you guys would be open to possibly deploying some of these, not for the alerting, but more just for the data?

Justin Merritt: Yeah, correct we have talked about it and it was kind of an idea that I had to just add these type of wind sensors along the corridor because you know we only pretty much have I-75 to deal with. But it covers the alley and a good portion of I-75 so it is helpful to have that data. Like I said it's just difficult with the current stations to get that out. We have to pull it out of the database and it's hard to check for accuracy as well.

Mark Dunthorn: Gotcha.

Jason Summerfield: This is Jason from District 2. I could definitely see a benefit with having these tied into SunGuide. Right now, whenever we have storms and hurricanes come through, we have that FDOT District page up with wind speeds for our area of monitoring closely. That was configurable, we set up alerts based off the wind speeds for those detectors. We absolutely see a benefit in that.

Amy DiRusso: Hi this Amy from District 3 from district three. We definitely would like to see some synching with generation SunGuide. But yeah, we have the most in the state I believe. Our emergency checks in our area are very on top of that wanting the information and so Atkins is actually helping us configure a platform that they can look at on their own but also you know there has been talk about us getting with SunGuide. I appreciate the question.

Mark Dunthorn: Great thanks Amy we were looking for that feedback. Alright, well sounds like we do have some interest here. What about the water level? We have very limited amount of data, but it is there. Is anybody interested in also adding water levels or should we just stick with wind speed.

Amy DiRusso: We’ve got several different types out there. One a couple with lower levels and I would encourage access to any features that are deployed we'd like to see that with SunGuide. And I do believe that our (garbled) and some other I think there's other temperature readings there's several other measurable devices on some of the stations that we have out there right now.

Jason Summerfield: This is Jason again in District 2. We also have a few water level sensors and of course tying any of that into SunGuide that would be a plus. To get alerts off those as opposed to just basically staring at a web page is what we're doing now.

Mark Dunthorn: Tucker, does the current IVS driver also alert off water level is or is there only wind speed.

Tucker Brown: Water level down there it's one of the water sensors that tell you that. Basically, all those fields are available that are alert on it’s just when we bring that data into the system may just need to populate the wind speed it is available water level and then yeah you just put an alert on those feeds.

Mark Dunthorn: Okay, great. Alright so last question. The data is already stored in Microcom, at least in the sense that you've got an inventory with a lat long breached device. This one is a little bit more out there but is there interest in having SunGuide poll that data in to automatically say populate your devices. That would significantly I think, I don’t want to speak for Tucker, but I think that would increase the complexity of this but I did want to get that out there and just see what is the thoughts of the SSUG on how do we synchronize with these external systems that maintain their own independent inventory.

Tucker Brown: So, I would not suggest autoconfigure mostly from the standpoint of it's very difficult. It's not that hard to go ping and say what's new but if something changes or that website is not working, I mean there's challenges to auto configuration for sure. I would more suggest something along the lines of what we do with truck parking where we make it a (corrigible ??) interface and then be able to react to that query in some way if you want to add devices or pick something that you want to change and then manually make that change. That seems to work out of whole lot better with the implementation.

Mark Dunthorn: Yes, that's what I was thinking; I do like that approach as well. What does the SUGG think? Some people have some experience with that feature in truck parking. Was that useful? Is that something we should look at in these situations where we've got this information that's already out there. It certainly saves you having to enter lat. long. Yes, that's what I was thinking; I do like that approach as well. What does the SUGG think? Some people have some experience with that feature in truck parking. Was that useful? Is that something we should look at in these situations where we've got this information that's already out there. It certainly saves you having to enter lat. long. Well I guess we are okay without that. I think it’s fine it is an enormous amount of work to configure these things and it does keep things simpler. Alright, any other questions about this or comments or thoughts? Alright then, over to you Tucker.

**Item 2 - SG-3331 – Video on desktop CPU usage threshold is unreliable and does not reset once triggered.**

Tucker Brown: Alright next thing on the list is the video desktop CPU usage threshold. Next slide. So, right now as you're using video desktop and you start putting more videos into it eventually get to a point where this warning will pop up on you. The warning itself was just initially created to kind of warn people that the data usage is getting high. But as it’s come into practice and usage it is not as useful as it could be. Currently a sampling and then averaging that over one minute that way when you open a new video stream and it's like that a little bit to go load that stream you don't get that immediate surprise and alerts hopefully. The other thing about that though it is constantly keeping a sampling rate so if you close out a video on desktop and then immediately open it back up your sampling was still over the last minute not necessarily cleared once you actually do that. So that’s bringing you into a situation where it still looks like the alert like never went away because I closed that but I'm opening up new windows so that was a little bit confusing to the operator. So, this wasn’t particularly to clear. Next slide. The idea here would be to change it into something less intrusive but also talk a little bit about what that threshold might actually look like. So instead of actually popping up window that the say hey your threshold is getting high we were thinking about embedding that directly into the video desktop dialogue here at the top bar or something like that pops up to say you're getting high memory usage. In addition to doing that, changing what that threshold actually looks like. If people are okay with what the threshold looks like, we don't have to but right now it's based on an 80% CPU threshold averaged over one minute. If we want to do any longer averaging period or a different threshold. Those can be done honestly what we could do here too is make a user setting and the user gets to make their own threshold. If someone doesn't want to deal with at all they can set the thing at 100% over 10 minutes and you never figure it out, you’d crash your computer probably before you saw that alert. So there might be a way essentially turn it off for the users if you don't actually care about it or you can make up what your own would be or we can come up with numbers that say hey it's at 80% of work 3 minutes or 80% over 5 minutes or 90% over a minute or whatever that wants to be. Looking for some suggestions on that also looking to see what people actually experienced with this video. We don’t know if those alerts are even helpful for you at all or some feedback on that. But getting some thoughts on how to make this a more useful feature to you as opposed to just something that pops up on you. I'll open that up for discussion.

Jason Evans: I do like the idea of having this embedded in dialogue. I think the big issue now is having to click OK every time that box pops up it gets a little annoying, but I do think having that alert is helpful. I think it slows the operator down when they see that, they say hey I might be opening too many windows here and close a few out before continuing on. So, if that could be embedded to where you can still see it but not have to click okay every time that box pops up, that would be helpful.

Tucker Brown: Yes, I think that’s a good change too.

Mark Laird: Suggested a configurable threshold and I think that probably would be beneficial also. Usually if you got CPUs at 80% over an entire minute that computer is indistinguishable from a brick.

Tucker Brown: So potentially you may want that lowered not raised?

Mark Laird: Yes.

Tucker Brown: Okay, thank you.

John Hope: So, this is John Hope. District 5’s experience with this hasn’t really been that helpful largely because we found that the operators focus isn't the health of their workstation it's the managing of traffic events so that they generally don't care that their workstations are maxing out. Rather their workstation administrators are far more interested in this so to have like alerting of this nature appear to the operators seems kind of useless. It would be a lot more useful for administrators on a different workstation to be able to monitor the usage or the CPU usage of all the operator’s workstations kind of remotely. If that make sense.

Cherie Phillips: This is Cherie from Florida Turnpike. Acting off acting off of that idea perhaps maybe that could be logged somewhere and then a report could be run so that the administrative team can poll that report and kind of see which computer or which users might be having those issues and then they can take the appropriate action whether it's installing more CPU’s on the device or you know working with SwRI.

Mark Laird: I believe the original reason for doing this was because of the concern over opening 6 or 8 or 12 video desktop windows. That's why this is the way it was because it was there to tell the operators to close a couple of FDOT windows because it was hanging a bit, it was pegging the CPU. Right Tucker?

Tucker Brown: Yes, and Mark like what you were talking about earlier, if you get to 80-90% CPU usage your map will eventually become unresponsive. Their entire workstation will honestly become unresponsive at some point.

Mark Laird: Telling the operator’s the number of windows they can have open. Kind of adapting that probably isn't the trigger in most cases now.

Kevin Mehaffy: At District 3, we are having a similar issue where you open up so many and then the operator just cannot function and has to shut down and restart.

John Hope: Yeah, but you know, in District 5, in practice what happens is that the operators will just keep on using it until it becomes inoperable or they don’t know what’s wrong. They would report the issue to the administrators and the administrators have to figure out what’s going on. And they are not on their workstations unless the administrators intervene, you know, essentially take over their workstations. What I am suggesting is to have some sort of remote capability to monitor the CPU usage because otherwise, the folks who are responsible for seeing what’s the problem and diagnosing it and getting it back to the operators has some sort of useful tool. What you are doing here is, I mean I understand the concept of alerting the operators so that they can take action, but you are transferring the responsibility of the maintenance of the workstation from the administrator to the operator. The operator’s job is not to maintain the workstation; it’s to maintain the roads.

Mark Laird: This isn’t a maintenance issue. This is an overloading by a choice made by an operator that they can choose to fix. And probably the problem is that the threshold is set so high that by the time they hit it, they don’t even get the alert; the machine is already a brick. Also, they are dropping it down, so they got the alert early enough and stop opening DOT windows, if they are trained to do that. It could help them.

John Hope: The issue that you are raising, about monitoring that, that’s a good other benefit.

Mark Laird: Something else could be done.

John Hope: I guess I just don’t trust our operators.

Tucker Brown: Alright, any more comments on that one?

**Item 3: 5170 – Ability to filter Roadway in WAZE Alert (White/Blacklist per District)**

Tucker Brown: This one has to do with filtering within the WAZE feed. So, the WAZE process actually runs at TERL and that process goes and pings the WAZE feed, just all the alerts and then using the filtering process like roadways, counties, etc. And then there are filtering set up in that process that allows Districts to go and pick the roadways that they actually want to see but what it doesn’t do is allow them to pick the roads that they don’t want to see. So, if you are monitoring an area and it includes a of roadways, but you definitely do not want to a certain set of roadways, it doesn’t allow you to do that. It’s basically a whitelist. The request here is to implement an optional feature for blacklist. So, the idea here is you actually choose between which one you want, a whitelist or a blacklist, but you can’t have both. You have a specific area and if you chose a whitelist, you have a list of roadway A, B, and C; if you chose blacklist, you would say I want everything except A, B, and C. It will give you everything else along that line. So, just another option to do filtering at that level. It may just be a different way to get roadway incidents into different entities that are monitoring different parts of the roadways and how they are actually doing that monitoring. So, I guess one question here is we currently have a whitelist functionality. The idea here is to implement a blacklist. I think this was a District 4 (in relation to Broward county) issue. Would anybody else use this particular kind of feature where they would need a blacklist?

Kevin Mehaffy: Would we be able to do something similar with the event types or thresholds while we are talking about or what we are receiving in WAZE?

Tucker Brown: Well, I would have to look at that specifically. Mark, do you recall if the event type might be a blacklist?

Mark Dunthorn: Yes, I am pretty sure it is a blacklist actually. We spent a lot of time showing that, filtering out pretty much everything. But I think it’s already a blacklist.

Tucker Brown: Yeah, so we can actually get rid of particular event types already but if you are getting at something that you want, that should be just a simple request to do a configuration change on that. Would that work for you or are you looking for, in this case, a whitelist behavior for event types?

Kevin Mehaffy: Just the option to do a lot more with it. About 90% of that data gets ignored by the system and we found it to benefit to turn that on in our WAZE dashboard, just like to see from the SunGuide, give us some more capabilities and more ability to filter it.

Tucker Brown: So, would it help to see the current configuration on what’s actually being blacklisted?

Kevin Mehaffy: Yes.

Tucker Brown: Okay. Can we take an action item to deliver that configuration on what items are whitelisted and blacklisted? I believe that will actually happen at state level. We take out certain event types. We would have to go check again; I am not positive we do that at the District level as well. I know when we ran the initial feed, we let everything come in the system and then figured out all the events that were coming in and we picked out things like speed trap, stuff like that you would want to know about anyway. We are blacklisting those, but we can go back and look at the ones that are blacklisted and the ones that are coming in and do a comparison and send that out. Going back to the blacklist of roadways, does anybody else know that they would need the functionality like that? Okay, if it comes up, just let us know.

**Item 4: 5321, 5337, 5338 – DMS issues in 7.2 with fonts**

Tucker Brown: Alright. The last one has to do with issues that we see in 7.2 with fonts. It covers multiple device types. There are cases that have cropped up with MarkIV sign, Adaptive sign and possibly some ADDCO signs where everything seems to be NTCIP compliant from the outside but when we go to query particular font commands, then either queries don’t get responded to or anything like that, essentially MarkIV and Adaptive. They are not fully NTCIP compliant like we thought they were going to be and as that happens, we basically built the system to require that feature and because of that, they are not able to use those signs in SunGuide right now.

So, to fix this, we are actually going to put in something here fairly quickly that will come out of the hotfix but essentially, it is going to have the ability to tell the DMS that we are going to opt out of the font functionality and by doing that essentially return it to the set of 1-2 style where you still have to pick out a fonts and that font would be used throughout the system to say like, hey this is how many letters fit on it we know it doesn’t have any letters fit on it, that kind of stuff. Then when it’s actually going to send it out to the sign, it’s going to say use the default font of the controller, which should match up with one from SunGuide. And then you should be able to send messages to that sign again. This is intended to be more of a stop check. The intent is to actually get all of your signs on measuring fonts and doing it correctly. Really here, this is a workaround to say if you have a sign that doesn’t support what it needs to be supporting, you don’t lose functionality to it but is intended to let you be able to use it but also work towards the goal of getting something in place that actually does default that event and does support everything on it. But essentially a workaround for signs that don’t necessarily respond correctly to all NTCIP commands needed. Any questions on how that is going to be implemented?

Amy DiRusso: You know this how long it’s going to take?

Tucker Brown: The anticipated turnaround here on our side is about three weeks to get it to TERL. And then they will do testing on that, probably say 2-3 weeks and then the schedule right now is 6 weeks out of the door to the Districts. The reason for a more extensive testing round here is not only are we modifying the DMS sign on it but everywhere it touches: templates or DMS signs or sending messages or creating messages has to interpret this as. I know you’re NTCIP but don’t really do that, go back to the old original functionality, so that’s spiraled out into lot of different processes throughout the system. And each one of those have to be checked and want to make sure that whatever we release the first time works for you.

Amy DiRusso: Alright. Thanks.

John Hope: We have a couple of tickets that is related to this but is not what you described. I don’t know what the schedule of those items are. So, they include, for one, in SunGuide, you can’t actually add a DMS if you can’t communicate with it and that becomes an issue with the deployment of new signs because there’s a lot of times that we would want a sign in the system and just keep it out of service to help with the integration process. I am not sure if that’s anywhere in your schedule. Can you speak on that?

Tucker Brown: The way it was designed, that actually by design. But after we did start talking to people and they started saying cases where exactly what you're talking about we realized there is a need for that. We have not put that on a timeline to actually be included yet. That would be extremely helpful even on our testing systems that we don’t have access to real-time all the time either it becomes more difficult even for us to do that. I know exactly the problem you are describing. It is not yet on the roadmap.

John Hope: Okay. The other item I was talking about is the fact that on occasion, a SunGuide somehow got out of sync with a DMS sign and the solution is that you have to configure a new sign and you know, click on Auto-Configure and then verify only. Once you go through that step, the configuration conflict goes away. That seems to be a pretty arbitrary thing to do. It seems like that is something that SunGuide should just automatically go through if it hits that configuration conflict where it would just try to verify its configuration rather than just airing out. Because once you get into that state, the DMS is useless until the administrator goes in and clicks a couple of buttons.

Tucker Brown: Yeah, I agree with you. The fact that it’s un-verifying itself sounds more like a bug functionality. Can you shoot me your JIRA ticket number?

John Hope: Yeah, I will do that. And I didn’t mean to derail this. What you are describing in this ticket sounds great and something that would be really helpful.

Mark Laird: Tucker, is there some kind of document describing all the configuration and font configuration behavior of stuff? Because we are still seeing some things where I can’t figure out whether the slot number is supposed to match up with the number that is used for the font and stuff on the sign doesn’t seem to match with the SunGuide tries to send out. I just didn’t know what I should be looking at.

Tucker Brown: I don’t think we have put together a document that specifically goes step by step to the process. I don’t think we have actually ever put that in there. Here’s what the main functionality looks like and then kind of actually walks through it. I think you are right. It would be helpful to put together a document that says “when you are setting up a DMS, here are the first steps. You should do them in this order, push these buttons, look for these things, that kind of stuff. But it also gives it to you more graphically. That kind of talks about that and how to do that. So, that doesn’t exist, but I think that would be a good addition.

Mark Laird: And what we should be looking at like it has an ID, a font number, but then you get the table back from the sign and it has numbers, what correlates with what. That too.

Tucker Brown: Okay. Yeah, that’s good. Any more comments on that one? Alright. With that, I will turn it over back to the CO.

Christine Shafik: Thank you, Tucker. This was another successful SSUG meeting, lots of inputs and we would also like to keep you informed what’s going on at the CO, so we are pretty busy with 8.0 now. We had the CMB meeting this week, a few got in touch with the upper management team. We had a lot of discussions and couple of things are coming back; we need to discuss that further in the SSUG meeting. You might get in touch with them and either input that we need to discuss it again here; we have a bigger picture of what’s needed from the district and which direction we should go. With that said, I will open the floor for a few minutes if you have any questions, concerns or comments?

Cherie Phillips: I have a question. It’s not directed to any one of the things that you were just talking about, but we have an action item to provide a list of custom reporting to the group or to the CO. Who specifically we should be sending this information to?

Christine Shafik: You can send it to me, Cherie.

Cherie Phillips: Okay, thanks.

Mark Laird: Christine, one unrelated comment. OTM 433 is now being distributed. So, the Districts that weren’t able to upgrade to 7.2 previously because of source compatibility now have the software they need to make it possible.

Christine Shafik: Thanks, Mark. Do we need to send out an official email with that or you guys are going to handle it from your side?

Mark Laird: I did send the code and documentation to the people in the Districts that have been using it. So, they have it as of today. Of course, they know that they can upgrade to 7.2 now. At least they are not held back by ourselves. I think that primarily affects D2 and D4.

Christine Shafik: Yes, correct. I know we have some folks here from D2 and D4 today. I hope they got the message. If you have any questions, feel free to reach out to me or Mark and we can go from there if any issues are going on.

Jason Evans: I will get with Summerfield on it.

Mark Laird: Yeah, it went to Jason Summerfield in D2 and Jacque and to Nina in D4.

Jason Evans: Thank you.

John Hope: That went out to me in District 5. I have already downloaded it and we are going to test it out.

Mark Laird: Yeah, it went to others as well. I just don’t think it’s holding anybody back.

Christine Shafik: Thank you, Mark. On this topic, does anybody want to discuss anything else here? Alright. With that said, we will give you 14 mins back to your life. Thank you, everyone.

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| New Action Items: |  |
| Action: | **Responsible Person:** |
| Can we take an action item to deliver that configuration on what items are whitelisted and blacklisted? | Tucker Brown |
| Past action item to provide a list of custom reporting to the group or to the CO? | Send to Christine Shafik, CO |
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