**Meeting Notes**

**Change Management Board**

July 20, 2021 – 1:00 p.m. – 4:00 p.m.

**Version 0.1**

 

Prepared for:

Florida Department of Transportation

Traffic Engineering and Operations Office

Transportation Systems Management and Operations Program

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**List of Acronyms and Abbreviations**

C2C Center-to-Center

CFX Central Florida Expressway Authority

CMB Change Management Board

CO Central Office

ConOps Concept of Operations

D(number) FDOT District (number)

DMS Dynamic Message Sign

DTOE District Traffic Operations Engineer

EM Event Management

EOC Emergency Operations Center

FDOT Florida Department of Transportation

FHP Florida Highway Patrol

FLATIS Florida Advanced Traveler Information System

FTE Florida’s Turnpike Enterprise

ITS Intelligent Transportation Systems

ITSFM Intelligent Transportation System Facilities Management

IV&V Independent Verification and Validation

MDX Miami-Dade Expressway Authority

MIMS Maintenance Inventory Management System

MVDS Microwave Vehicle Detection System

R-ICMS Regional Integrated Corridor Management System

RWIS Roadway Weather Information System

SSUG SunGuide® Software Users Group

SwRI Southwest Research Institute®

TERL Traffic Engineering Research Laboratory

TIM Traffic Incident Management

TSM&O Transportation Systems Management and Operations

**Florida Department of Transportation**

**CHANGE MANAGEMENT BOARD MEETING NOTES**

**Thursday, July 20, 2021**

**1:00 p.m. – 4:00 p.m.**

**Microsoft Teams Meeting**

**Attendees:**

|  |  |  |
| --- | --- | --- |
| Robbie Brown, D1  Justin Merritt, D1  Luis Hernandez, D1  Ray Mikol, D1  Pete Vega, D2  Jason Evans, D2  Jason Summerfield, D2  Alex Varela, D2  Deedee Crews, D2  Amy DiRusso, D3  William Reynolds, D3  Kevin Mahaffey, D3  Richard Hemming, D3  Robert Briscoe, D3  Jason Small, D3  Alexandra Lopez, D4  Neena Soans, D4  Tushar Patel, D5 | Eddie Grant, D5  Jay Williams, D5  John Hope, D5/CFX  Shannon Watterson, D5  Giovinazzo Aurelio, D5  Mark Laird, D6  Alejandro Motta, D6  Danielle Morales, D6  Alex Mirones, D6  Mike Crawson, D7  Romona Burke, D7  Matt Mileto, D7  Eric Gordin, FTE  Kelly Kinney, FTE  Karla Smith, FTE  Jermaine Da Silva, FTE  Cherie Phillips, FTE  Michael Kerpen, FTE | Tony Abid, FTE  Brent Poole, CFX  Wang Lee, MDX  Christine Shafik, CO  Alex Brum, CO  Mark Dunthorn, CO  Carla Holmes, CO  Jennifer Langford, CO  Juan Abreut, CO  Karthik Devarakonda, CO  Derek Vollmer, CO  Shawn Kinney, CO  Jennifer Fortunas, CO  Tucker Brown, SwRI  AJ Skillern, SwRI |

**Purpose:** The purpose of this meeting is to review and vote on statewide issues and requirements, and review JIRA issues.

**Welcome:**  Christine Shafik opened the meeting and introduced the new Change Management Board Chairman Amy DiRusso from District Three. Christine thanked Jay Williams for his role as the previous chairman.

**Call for Quorum and Review of Agenda:** A quorum was established for this CMB meeting. Amy DiRusso reviewed the meeting agenda.The agenda should have links to all of the voting items.

**Voting Membership:** We are going to review the voting membership, if you have any changes for your District, please email the changes to Amy DiRusso.

Christine Shafik: The secondary voting member for Central Office is Derek Vollmer.

Alexandra Lopez: You can remove Hossam and have me as the primary and I will email you the secondary.

Romona Burke: In District Seven, Dan Buidens should be removed. I should be the second voting member and Megan Arasteh should be the primary.

DeeDee Crews: Dee Dee Johnson should be Dee Dee Crews for District Two.

**Review Previous Meeting Action Items**

* Add camera control status to allow filtering of static cameras
  + Carla Holmes: We have created a JIRA ticket for this and it will be discussed at an upcoming SSUG. That item can be closed.
* Discuss blocking cameras from view in DIVAS with ITS Working Group
  + Carla Holmes: That item has been discussed at the ITS Working Group meeting and it can be closed.

**SunGuide Software Update**

Christine Shafik: It is time to celebrate because you have done an amazing job cooperating with us to deploy 8.0. It was released back in December of 2020. As of today, we have all but two Districts on 8.0. One district is deploying it today and the last is deploying it by the end of August. We will drop 7.2 when we release 8.1. We have released 4 hotfixes, hotfixes 1 and 2 were bug fixes and hotfixes 3 and 4 were enhancements. We tried to accommodate as many enhancements as possible. This process was successful and smooth. Most Districts on 8.0 are on the latest hotfix. We are planning to release Hotfix 5 in August which will include 15 issues. It will most likely include the Carmana Wrong Way Driving Device as an enhancement in it. We should have the build by the end of this week and it will be tested at TERL making sure there are no bugs prior to releasing it to the Districts. You should have hotfix 5 by end of July early August.

Release 8.1 we are on schedule so far. It will include new enhancements per your requests. We are expecting to have the release in October timeframe. It is a moving target but we are doing our best to stay on track. We thought about a new practice this year and we want to invite districts to come to Central Office for IV&V testing. It is an idea and we want your opinion about it. They can catch issues they spot on a daily basis and can help with the ad hoc testing. We want two-three volunteers from each District. Once we finish the Factory Acceptance Test we can confirm the dates of the IV&V. Any questions or comments?

John Hope: The main comment that CFX has is to get the schedule as soon as possible. We understand that you won’t know until after FAT but the sooner we know the better so the travel can be approved.

Christine Shafik: I understand and agree with you 100 percent, we will do our best.

Eric Gordin: IV&V would require the volunteers to physically go to Tallahassee, right? We have a test environment at FTE, and this would be prior to Districts loading it into our test environment.

Christine Shafik: We load this at TERL not at the District.

Eric Gordin: Given enough time like John Hope said, I am sure we might be able to have volunteer help out occasionally, but I will have to ask and get back to you.

Alex Varela: District Two could send someone as well.

Amy DiRusso: Christine do you want to go by District or keep it open forum?

Christine Shafik: I would keep it open because I know some of them are still talking about it internally. If you are interested, please send me an email. I totally understand it can’t be confirmed until we have a schedule. Are there any questions or comments?

Mark Laird: The only comment I have is that this is a good thing and we used to do it and it worked out well.

Christine Shafik: I heard that, and I am all for ideas that will make the process better and more efficient. Anything else? Questions, comments, concerns?

Kevin Mehaffy: I am assuming you will want Districts that already have 8.0?

Christine Shafik: No one by October will still be on 7.2 and we will be testing 8.1 so it has nothing to do with 8.0.

Kelly Kinney: If Districts are emailing you that they are interested it might be good for them to also email you the systems they use in SunGuide so you can get a variety? I know Districts range widely as to what systems they use or don’t use.

Christine Shafik: That is a good idea, Kelly. I will have Mark Dunthorn keeping track of that.

**SG-5300 Access to district SunGuide data from the Central Office**

Mark Dunthorn: The first topic here is a quick recap of a few things we have talked about at the last couple of CMBs. As you are all aware, we are running a number of traffic ops dashboards here at the Central Office. Originally these were intended to be used at the SEOC but the intention has grown beyond that now. In order to get data into these dashboards we have built this infrastructure. You have been a big help already. The C2C feed is the primary source right now and we will continue to rely on that for the near future. One of the things we talked about earlier this year are the options for improving the data feed. What we agreed on was to repurpose DAR which current sends data to RITIS. DAR is something we are planning to make happen this year. One of the tasks I have is to look at the DAR performance. The one concern that has been raised is if we are packing up this data every 30 seconds, what happens if you go over that 30 second? It would be a problem and it has happened. We did bring up a test system, 500 simulator detectors. If you look at the chart there on the far left that is CPU utilization when nothing is running and it jumped up to about 20 percent utilization. Then when we turned on DAR it went up a little bit more. It is a measurable impact but SunGuides distribute design should allow that impact to be managed. All the Districts are running clustered servers and you will just have to find the right distribution. Of course, SwRI can help with any distribution questions and support. This is just a rough schedule, and it is slightly updated from the last time. We are still looking to reach out to the Districts in the August/September timeframe to start implementing it on your side. As we discussed last time we will put together a well put together document on how to do that and we will distribute that when we are ready. If you need any help with the configuration just open up a JIRA issue. We are looking to start cutting over the pipeline in October and I suspect we will still use the C2C infrastructure afterwards. DAR does not give us some of the data, for example the AVL data and camera data. We will still need to use C2C but DAR will be there to support the traffic data. Any questions or comments?

Jennifer Fortunas: Is it possible to consider our side of the house in Central Office as one of the people who get data either through the DAR instance or C2C?

Mark Dunthorn: Absolutely, we have this self-service data share at the bottom, which is kind of fuzzy now, but it would be a way to retrieve batches of data sort of what RITIS does today. The other option is some sort of API. I know there are ways we could make that data available to you. I’m glad you brought that up, that is what we need to start thinking about now. We need to continue the conversation. The biggest question is how we are going to give you access to that data and that is a discussion we will have to have with Christine and Derek because that is simply a network issue. We can make it available over the internet or we could look at other options.

Jennifer Fortunas: That is fabulous. Let’s keep having the conversation.

Mark Dunthorn: That’s just it. There are no technical hurdles to make this happen. Are there any other questions or comments about that topic?

**Supported Microsoft Products**

Mark Dunthorn: As you all know we always include in the version description document each installation package and we do have a discussion of which version of the platforms are supported. By that I mean Windows server, Microsoft SQL Server, probably the Workstations.net. We have always documented those but what we wanted to start doing is getting it out to you as early as possible. This has already be run by the SSUG. We are planning to support these versions of Windows Server: 2016, 2019; SQL Server 2016, 2017, 2019; Windows 10. We are asking the Districts to make sure your IT plans line up with this if possible. This is also how we will be testing at the TERL. What is driving this announcement is that we did a problem with the 8.0 database script, it would not execute correctly in SQL server 2012. We had not tested 2012 since it is end of life on the Microsoft side. We just want to make sure no one is running older versions of the software that we aren’t testing with it. Of course, is there something we need to be aware of for these versions. Please let us know and we will see what we can do. This on the screen is what we are planning on testing the IV&V with. It will make everything go a lot smoother if everyone is running with someone shown here. Any questions or concerns?

John Hope: I have asked about receiving this list with every release. Is that going to be hard?

Mark Dunthorn: I totally agree, we will get it to you as early as we can. Since this is the first time we have done it this way, I am not sure the best way to work it into the process. Carla is taking an action item, we will make sure we have a way to communicate this to you early in the process. Maybe the best thing is to get the VDD out there earlier than we have in the past. I think that is the most straight forward way. We will have to work with SwRI to see if that is something that can be escalated. We will figure out a way to make it happen, I agree it will be valuable.

Christine Shafik: I also want to note that we might not have changes every release, but we can keep you updated with the latest we have.

Mark Dunthorn: That is a good point. I hope we won’t be changing this after the release after 8. We’re up to 2019 in Windows and SQL which should carry us for a couple of years. Any other questions?

**SG5585 – CV Connected Vehicle App SunGuide Support Request (I-4 FRAME)**

Mark Dunthorn: This is an effort that originated in Central Office. There is an I-4FRAME project that is in the works, and they have reached out to us for a few minor changes in SunGuide. There is a set of CV applications, back of queue warnings for example, the full list is attached to the JIRA issue. These applications will be used to support this project they are looking for CV support in SunGuide for the applications. They are looking at these as different phases. The initial phase will rely on existing SunGuide functionality. The current situation is that TIM messages are supported. The changes requested would allow the user to select a category for the TIM message that would be saved in the database along with the message. It will be available for reporting purposes. The other bullet is simply to develop a message library for TIMs. A nested folder structure similar to the DMS message library. Category would be selectable as part of the saved message. We want to be able to report on when operators use messages for the purpose of doing before and after studies. We need to know why the operators are activating back of queue warning.

**Enhancement 1: SG-5782/5660 RISC Module Enhancements**

Tucker Brown: The first enhancement is to the RISC module. There were two issues submitted for this, one had a single issue and the other had a list of issues. We combined them together. The vote on this is for all of these together but we can discuss each one if you want. These are mostly small enhancements to the system to make it more usable. The first one is to generate and send an email to a predetermined group for a RISC activation (configurable). To start the process there would be a preconfigured group in the config file of who to send the email to. The second enhancement is to add the contact information into the RISC chronology when you specify a contact or have that contact’s information. This is something that is stored into the database, but is not in the RISC chronology right now. The third is to also add comments that are made by the user into the RISC chronology (which are also currently saved to the database).

The next enhancement effects two different issues. At the top of a RISC, there’s a button that says “All Lanes Cleared” to be done with and close out the RISC. In operations, this isn’t actually the case. The actual lanes may be cleared, but the clearing of vehicles may have been pushed to the shoulder and RISC may not be complete yet. You still need to get time stamps for their arrival close out the RISC. The enhancement is to change “All Lanes Cleared” to “RISC Complete.” As far as the actual time stamp for clearing blockage that will begin the event itself. The operator will still work the event and when the lanes are cleared they will capture a time stamp as part of the event. It was discussed that we may want an “All Lanes Cleared” on the RISC, but the problem with that is you’d be tracking clearance time in two different places (one in the event and one in the RISC) and those two time stamps may not match up. The decision was to keep the “All Lanes Cleared” with the event and the button indicate the end of the RISC. The intent is to signify the end of the RISC which may extend past any lane blockage. The second issue that this will resolve is about arriving equipment after the lanes are cleared. This enhancement also addressed the second issue about arriving equipment after the lanes are cleared. By indicating the RISC is complete, no more equipment should be arriving.

Derek Vollmer: I wanted to make sure there was a mechanism for the Districts to see the timeline and know if and when the incentive needs to be paid to the RISC contractors.

Shawn Kinney: Yes; Derek that’s correct. The incentive payments were based on the time it took for them to clear the travel lanes to the NTP. So, if there’s a way to have that in there as a searchable database the program managers could look back through and make sure the contractors are getting paid. Because if you don’t close out the RISC event until everything is off the shoulder, you’re going to run a risk of blowing through the 90 minute threshold.

Tucker Brown: There are two ways in which we can capture that data. One is already being done and one requires modifications. The first is we pull that information directly out of the event when the operator changes the blockage to indicate that the lanes are no longer blocked. The second is to add a specific button that says “All Lanes Cleared” along with the “RISC Complete” button. If we do that, the potential downside is that the “All Lanes Cleared” in the events does not match the one in the RISC. As far as capturing that time stamp, the one within the events is accessible for reports but if the end goal is to run a report then that information does exist and can be pulled.

Deedee Crews: Sometimes the “All Lanes Cleared” is not exactly the same time as when the RISC member has their equipment out at the roadway. Sometimes they have to be off to the shoulder and the roadway is not yet cleared.

Tucker Brown: Is the payment tied to the physical clearance of the lane or something else?

Deedee Crews: Its tied to the physical clearance of everything that needs to be cleared out of the lane.

Tucker Brown: Is that timestamp potentially different than what the operator would mark as lanes being open? Is the one in the event potentially different than the one in the RISC that they would be paid on?

Deedee Crews: Yes.

Kelly Kinney: I think calling it “lane clearance” is a misnomer. I think “RISC clearance” is an appropriate term, but it may not equate to lane clearance if, for instance, they need to resurface the road from the crash and the lanes are still going to be blocked. But the RISC clearance is what they’re really getting paid on. I think RISC complete is a little vague. Is that being interpreted as the RISC vendor departing the scene or the RISC clearance time?

Tucker Brown: “RISC Complete” means done entirely, not intending to add anymore time stamps, and there will not be anything else done with the RISC.

Kelly Kinney: We have to measure how long it takes to clear the travel lanes and at the Turn Pike, specifically, we have to measure how long it takes for them to clear the shoulder. So I would think the term “RISC Complete” would (for us) equate to the RISC vendor departing from the scene.

Deedee Crews: I agree with her on that. We have a time when they’re departing and a time when their lane is clear.

Tucker Brown: So, you need two different times here. One is a timestamp that's different than the one in the event where you'd like to mark that all lanes are clear, at least from a RISC standpoint, and another one that indicates that the contractor is done and they left.

Deedee Crews: I agree with that.

Tucker Brown: Is there any problem that those time stamps for the event and the time stamp for the RISC don’t match up for all lanes being cleared?

Shawn Kinney: From the payment standpoint you want to be able to measure that accurately, consistently the same way every time. Since the entire event is being tracked and the activation of that RISC vendor is a piece of the total event, I think it would be best if there’s a way to track that time.

Kelly Kinney: I think it’s just a question of terminology. I think the Districts need to come to a consensus on what they want each time to be called, so that the operators can be trained to understand the terminology.

Tucker Brown: We went through several suggestions before arriving at “RISC Complete.” I don't think there was a strong consensus on what that should say, though. If we're going to leave a button for basically RISC lane clearance time and the one that means that everyone is departed, we can come to a consensus on that. The actual text that is there is open to change.

Kelly Kinney: I liked what you called it there when you said “RISC lane clearance.” It's descriptive of maybe not necessarily when the lanes have cleared and that the road is open, but the RISC has cleared their portion.

Jay Williams: I was going to suggest the same thing Kelly suggested.

Tucker Brown: What would the terminology be for the end of a RISC, when it's done, nobody else is going to be getting any more information, and it’s closed out.

Kelly Kinney: “RISC Vendor Departed.”

Romona Burke: I think “RISC Departed” would work.

Deedee Crews: I agree.

Tucker Brown: So, we have one button right now. We’re going to change that into two buttons: “RISC Lanes Cleared” and “RISC Departed.” That will still fix the second bulleted issue. Even after putting the lane clearance time in, you'll still be able to arrive additional equipment. Then, at the very end you would click “RISC Departed,” meaning they're leaving the scene and we would capture that timestamp as well.

Christine Shafik: I’m confirming that everyone agrees to vote on what Tucker just stated.

Alex Varela: Can we clarify what a “yes” and “no” would mean.

Tucker Brown: There are four independent enhancements. A “yes” would mean “I agree with all of these.” The enhancements include adding an email to a predetermined group, adding additional information to the RISC chronology, and what I just described with the two buttons “RISC Lanes Cleared” and “RISC Departed.” Adding a second button is probably not going to do a lot to the cost. We are looking at the LOE being $9 -12k.

Jay Williams: For clarification, would the “RISC Lanes Cleared” continue to be part of the main event and not impact the items related to lane blockage?

Tucker Brown: “RISC Lanes Cleared” will capture a specific timestamp, as part of the RISC only, and it will not impact anything in the primary events that's related to blockage.

Amy DiRusso: Any more questions or clarifications? If not, we can move to voting.

Vote: This item passes.

**Enhancement 2: SG-4968 Wrong Way Detection Pop-Up Alerts**

Tucker Brown: The next enhancement has to do with the wrong way driving alarm. Right now when you have a wrong way driving alarm, it combines driving location information into a single field including the direction wrong way and the latitude/longitude. The request was to add more information to this and make it more filterable. In this case we have the road way and direction there, but the location description will also be added. There will also be three fields next to each other for filtering. The name of the device is already in the alert itself. The additional information will be removing the latitude/longitude and adding the location description. The columns are something you can rearrange as user preference. This will make more options and more columns available to filter on and show/hide easier.

Estimate: $2k

Tucker Brown: Any questions or comments?

Luis Hernandez: In the configuration, is the latitude and longitude field going away?

Tucker Brown: Right now it just has a location field and that’s a combination of the wrong way direction and the latitude/longitude. The request was that the latitude and longitude was not useful to the operator, so to remove that and add a location description.

Luis Hernandez: It is not going away from the configuration side?

Tucker Brown: Just on the actual alarm.

Luis Hernandez: That’s all. Thank you.

Amy DiRusso: Any other questions? We will proceed to the voting page.

Vote: The item passes.

**Enhancement 3: SG-5865 Improve EM DMS (suggestions if message does not fit)**

Tucker Brown: Right now, when you trigger a response plan suggestion, the message gets generated by the system and it’s too long, the first thing it tried to do is make abbreviations to fit it on the lines. There are times when the abbreviations don’t work, and the message is still too long to fit. The current way that’s handled is the message for that sign is blank and it’s sent along with the response plan to operators. Their required to do something with that before activating the plan, either remove the sign or add a message to it. The problem is that when they’re adding a message, the suggestion indicates that the sign shouldn’t be there. They are left looking at other signs to figure out what the message should look like and trying to condense it so that it fits on the sign. The request is to add some way of telling you that the message is too long and here’s the original message that is trying to be fit on the sign. That way you can take that message and shorten it. It gives them a better basis of what the message is supposed to look like. It’s not going to be on the sign, instead it will be additional information that they can put on the response plan item and then be viewed on the response plan.

Estimate: $10k

Tucker Brown: Any questions or comments?

Unclear who is speaking (time 1:13:32): With adding “the message is too long,” is there a way that we can show the operator how many characters they are over? That way if they need to abbreviate, they can tell how much they need to abbreviate.

Tucker Brown: Potentially; and we had discussed that with the sub, too. It depends on the characters that are chosen whether or not that would actually fit or not. So, it’s not definite that we can tell them that. It would involve figuring out the configuration of the DMS. I was thinking about, potentially, adding that as a new enhancement on all signs.

John Hope: Tucker, you mentioned that this message would be represented in a response plan. Would this also be represented if you were putting messages on a sign just to the other dialogue when you add a message to the queue?

Tucker Brown: The message they would be seeing here would be the suggestion from EM that says this is what I attempted to put on there. If they’re generically adding a message, there wouldn’t really be anything to suggest or were you talking about the character size?

John Hope: Well, if they’re attempting to manually add messages to the sign.

Tucker Brown: Oh, are you asking whether it would be just on the response plan dialogue or if it would also be accessible when they’re editing the message that is on that sign?

John Hope: Correct, the second one.

Tucker Brown: I was thinking along the lines of being able to see that and essentially being able to do a copy and paste into the edit message dialogue.

John Hope: What if it still doesn’t fit in that other window when you’re editing the message?

Tucker Brown: I’m trying to think of a way to design that to where it would show up to them. That might be possible. That might be something that we put in the design review of how that would look. The idea here is that they have an easy way of taking the suggested message either on that response plan item within that response plan window or the edit window.

Amy DiRusso: Are we all OK with what was proposes or do we need to discuss further?

John Hope: What I was bringing up, I think can be hashed out and Tucker’s suggestions will be fine.

Amy DiRusso: Are we OK to vote, as is?

John Hope: Sounds good to me.

Amy DiRusso: I would recommend moving forward with voting.

Vote: This item passes.

**Enhancement 4: SG-5282 Change “Terminate Schedule” in SAS to also remove DMS from device queue**

Tucker Brown: Right now, if you have a scheduled item that’s active and you terminate the schedule from the top level it basically stops doing anything to that schedule. It leaves DMS in a state where they are still unassigned. Now, because the schedule is done there's no ending action performed on them. Essentially what this would do is when you have a schedule that you disabled It will look at the action items within it and then make sure that in addition to canceling the schedule, each of the individually scheduled items actually get their pending action. In this case, signs getting removed or if it's something like travel times getting turned off then we’ll turn them back. Things like that. This would not just apply to DMS, but anything with an ending action within SAS.

Estimate: $3k

Questions?

Amy DiRusso: No questions? Let’s go to the voting slide.

Vote: This item passes.

**Enhancement 5: SG-5706 Add timestamp in SunGuide incident when Executive Notification Emails are sent**

Tucker Brown: The current state of the system is when you generate an Executive Notification, there’s something wrong with the chronology. When a physical email is sent out to people, there is nothing there. This enhancement adds a chronology when the Executive Notification is actually emailed out to people. That’ll just show as part of the generic chronology, but it’ll show the timing difference between when it was generated and when it was actually sent.

Estimate: $2k

Questions?

Amy DiRusso: I recommend going to vote.

Vote: This item passes.

**Enhancement 6: SG-5668 WWD Detection on Mainlines using MVDS**

Tucker Brown: There is history on this one. This is something we’ve worked with District 4 on in the past. Essentially what is going on here is that you have the standard MVDS, probably Wavetronix or something similar. Especially Wavetronix has the ability to have directional bins set up. There would be X number of cars in each direction. We can pull that information and it comes back as part of the standard speed versus volume ? (1:24:11). We find that one of the directional bins has a car going in a direction that we don’t expect. It will set a flag on it saying it found a wrong way driving vehicle. D4 wrote applications to look at this and confer that this was something viable for detecting wrong way drivers. From there, they wrote ConOps for what that might look like if we go into a full production. So, the basis for that was the testing underneath and the ConOps. If you’re interested, the ConOps is attached to this issue.

T his is a different concept of what a wrong way driving device looks like. There’s going to be an association between one or more MVDS links. It’s at the link level. We aren’t looking at it from the technical level because we potentially have a detector that looks at both sides of the roadway. So, we are looking at the link and the bin for that particular link that should have vehicles traveling in the wrong direction. We would also be able to hook up multiple links in the road to make that detection. So, it would trigger f you have one and the tag got run in the wrong direction. If there are three links in a row, all of them would potentially need to be tested to determine if that’s a wrong way event. So, there are different ways to set that up as a wrong way detection device. The number of consecutive links and a time constraint can be set. For the time constraints on the consecutive links, if a link is triggered and 5 minutes goes by and I don’t see anything from that one or any of its neighbors, it’s essentially going to reset itself. As far as the handling functionality for the detections themselves, this is going to route through the standard wrong way driving functionality. From an operations level, you’re not really going to see a difference between the detections of these versus ramp wrong way detectors. They are still going to show up in the same window. The difference is that these are not going to have images. You can set up cameras to be able to associate with this type of “detector” and bring up those cameras automatically as part of the wrong way driver alert. If you already have cameras in that area, they will be able to track a vehicle. You can still link these to events that are already open. You can also associate it with existing ramp detection.

As far as the actual map itself when you get a detection and it comes up as an alert, it’s the links that are going to flash. Alerts can be suppressed if they are consecutive detections. This also works with out-of-service and failed detectors. An addition functionality is to disable wrong way detection in general for a particular device. This would probably be for all wrong way driving devices and not just ones associated with MVDS. If you have devices that are down, you can disable anything that comes to them. Times that you may be expecting vehicles to be driving in the wrong direction you can ignore these detections.

Estimate: $50k

John Hope: How is the system going to know that links are consecutive?

Tucker Brown: We have an idea of that mapping right now for GSS alerts. They do a similar concept where they will not alert for consecutive links. It goes back to a concept that those links are maps. The start of the end of one is the start of the next and it goes by how they’re mapped. Part of this will require that the links have been mapped on the operator map.

John Hope: So, as long as they are mapped on the operator map, there’s no additional configuration?

Peter Vega: I just wanted to confirm that this is device diagnostic, right? You’re just setting it up through the data?

Tucker Brown: As long as there is a mechanism from the device that can tell us there is a vehicle traveling in the wrong direction. In the case of Wavetronix, that’s the directional bins. I want to say other devices have similar concepts. We will have to make custom changes to each protocol to pick up what tells us what that wrong way driving device is. Once we have it to that point, everything beyond that is device diagnostic.

Karla Smith: I want to get the District’s inputs on the consecutive links not triggering alerts if they were triggered. I think it would be helpful in knowing how far the vehicle is traveling and where it is in the wrong way driving event. I think they should trigger or flash so that know they’re traveling in the wrong way.

Tucker Brown: The links will continue to flash, but a new alert would not be triggered.

Luis Hernandez: Can you speak briefly to the pulling cycle link. I know some of the Districts might fluctuate between a 30 second- and 1-minute pull cycle. I think there might have been conversation as to whether the detection could be made so the pull cycle could be shortened.

Tucker Brown: We have to do this on a pull in most cases. We can’t get anything from this push in other words. There was a discussion on lowering the pull cycle, but most people didn’t want to do that because it made for potentially defective reporting. There was also a discussion on pulling the other detectors at a faster cycle if you have a detection on the first detector and it has consecutive detectors that are set up, seeing if you can pick that up on an additional detector for confirmation, and adjusting that pull cycle for just that period. If there is a mechanism of pulling the wrong way driver (in the case of Wavetronix) directional bin independently of the actual pull cycle and it not effect the data, then that would be another mechanism we can use to shorten that pull cycle and just start pulling that data alone. It would also be a way to not affect the actual reporting. That was part of the concept of how to get the alert. Correct me if I’m wrong, but I don’t think there was anyone who wanted to modify their pull cycle beyond the 30 seconds.

Eric Gordin: Has anyone tested it and are there any special configurations we need to do at the district level?

Tucker Brown: As far as testing goes, D4 did the testing. We put in a bill to allow that specific flag to be seen and read them off, seeing how reliable those can be determined. I don’t think I saw those results specifically. Can anyone from D4 comment on that?

Alexandra Lopez: Yes; we did testing with Derek. They were tested and the results were good. Maybe Derek can speak to it.

Derek Vollmer: We did testing. We set up two devices at the TERL. We drove by them the wrong way and right way, but all that data went to District 4 for analysis. I believe at the time they looked at the data and confirmed that the data was good.

Alexandra Lopez: I remember the results were 100% accurate from that if I’m not mistaken.

Neena Soans: Tests were done in the District 4 parking lot. There was coordination with Wavetronix. We had technicians from Wavetronix help set up some of the devices in the parking lot. Then, we did a second round of testing at the TERL with Derek. Both testing yielded really good results.

Jay Williams: Going off of Eric’s point, can we clarify if anything would be needed at the field or device level to accommodate this? I’m assuming once the enhancement gets integrated, you wouldn’t want it to still not be functional bases on the device configuration issues. So, I don’t know if you guys have documentation that you can provide so we can ensure the field equipment we have would be compatible once we implement this enhancement.

Neena Soans: The one thing we did identify is that there was no global way to set the flag at the detector level. You could reach each detector by software, but each detector had to be set independently to be able to read that direction outside.

Eric Gordin: Were the units HD units? On our system we have a lot of old drives. I appreciate the discussion and it sounds interesting. Thank you.

Peter Vega: Have we put this out on the interstate, as well, to check the results?

Neena Soans: Yes; it is. It’s currently being used by SunGuide. Once we get the results from detectors on the highway, because that data is not currently saved on SunGuide, we’re reading it from data and exposing the results to another application. It has been running for a number of months on most detectors on highways in District 4.

Jason Evans: How many false alarms have you been getting, and have you had an issue with those?

Neena Soans: There were a couple of false positive and different attributing issues in one case. We had a detector that was reading reversible lanes on 595. One case we were in a construction zone. To date I don’t believe we’ve had a false positive outside those mitigating conditions; just because we are relying on the configuration that has to trigger a minimum of 2/3 detectors before it’s considered a wrong way event.

Luis Hernandez: What was the average alarm time on those?

Neena Soans: I would have to check for you to be more accurate, but the pull cycle for District 4’s detectors is 20 seconds. So, we’re waiting on the pull for at least 3 detectors to give you an idea of time. We can make a report and give you further details.

Luis Hernandez: That good. I just kind of wanted an off the top of the head answer.

Peter Vega: Neena, is the spread of the detector 1/3 of the mile or ½ of the mile?

Neena Soans: ½ a mile in most areas and less than that in express lanes.

Amy DiRusso: Any more questions or comments? I would recommend on voting.

Vote: This item passes.

**Enhancement 7: SG-4806 Response Plan “511 ATIS” preview section does not match what is posted to FLATIS**

Tucker Brown: This item is generated within SunGuide based on the SAE code. That’s based on an interpretation of that, what’s in the event, and doesn’t necessarily match up with anything outside of SunGuide. If you look at the 511 item in the response plan, what you see is the location long name. This is based on what’s in the configuration.

If you look at the one that’s put in the event, it’s usually referencing the reference point, as opposed to the location. If you look at what’s on the FLATIS site, it’s also using the reference point. Based on that, the request was to change the 511 item to have them all consistently generated. We don’t transmit the text to 511 or use it for displaying the events. It will no longer match up with the SAE description is within the event, again that is just a textual description and not used as part of the process. This is just a text change. It is changing how we display to the operator. It’s making sure that all reference point match up with what’s shown to the public and what’s shown to the operator. The actual change is to the preview window of the response plan.

Estimate: $2k

Questions?

Amy DiRusso: I’m hearing none. I recommend voting.

Vote: This item pass.

**Enhancement 8: SG-5533 Operator Map OneClick Installation Security Issue**

Tucker Brown: Right now, when you install the Operator Map it does the installation for you and puts it in a user folder. It generates a text path. Every time you do a map update you get a different text path directly to the map. The problem here is, because of firewall rules at Districts, every time they update the map, they have to update the fire wall rule because now it’s in a different file location. The enhancement we discuss is, instead of use Microsoft’s quick links technology that allows you to hit that web point and it installs that to the user directory, to actual make this a regular application installer. If you do it as a regular application installer, you’ll be able to choose the installation path and make it consistent across all your workstations and the path itself would always remain the same. From a firewall standpoint, you’ll be able to do it once and not have to do it again. From an updating standpoint, we can still have it check to see if it’s the current version and provide a mechanism of running the new installer if it finds that it’s not the current version. It would still provide the same self-updating behavior, just with a new technology.

This is completely rearchitecting how we deliver the map, how that installer was built, and then integrating it into build servers. It’s not a trivial task to do. This would also make general maintenance easier, as well.

Estimate: $50k

Amy DiRusso: Any questions or comments? I would recommend voting.

Vote: This item passes.

**Enhancement 9: SG-5372 Email Template Enhancement Request**

Tucker Brown: Part of changes in 8.0, the response plan now has a template for creating emails. This used to be tied to a DMS template, but now they are included in their own template. You’re able to better format what you want to send as an email. As part as that, people said they’d like to add special fields to the email that would especially be a part of the DMS. One is to put the operator’s first and last name with an email address. There is a similar thing that we’re doing in executive notification and being able to pull that into the email as part of the response plan. There was an option here of instead of pulling an email for a specific operator, that we would put in a confiq file option to do it as a common name or email address. That way you would get a consistent operations contact. Whoever generates the response plan suggestion or email, that’s the email that will be in there. If someone created the entire response plan then released ownership of the event and someone else took over to send it, it’s still going to have that suggestion once they go in and change it. This is part of the suggested email text.

The other field suggestion is a list of notified and on-scene core responders. To the right in the events, it has the notified and on-scene time. Part of that is having a list of those responders and as the event goes on, if they depart the scene, they will no longer be included in that list. This would show you who’s been notified and who is still on that scene as the emails go out.

Estimate: $5k

Eric Gordin: I guess the operators have the ability to temporarily add an on-scene responder’s email. Is that right?

Tucker Brown: This would be showing who an on-scene responder is and what their times are. That would be included as part of the email that goes out in the response plan. It wouldn’t be the responder’s email.

Amy DiRusso: Are there any more questions? I would recommend we move this item to voting.

Vote: This item passes.

**Enhancement 10: SG-5396 Associate Event with Managed Lanes Action List Execution**

Tucker Brown: Right now, when you run a managed lane action list (this is part of gates closing/opening and list of other things you can do with that), they are part of the MLS system. They have a user that initiated them but there’s no association to the event nor auditing. Essentially, you run though the list and mark what happened/what didn’t happen and that’s basically the end of it. The enhancement is for when you’re running the action list, you would be able to associate that to an event. Then, you would log, in the event, that you ran the action list and what happened. So, one is that events would be associated to that action list run in the database, and you could cross reference them there, but the event would also have the history of the action list including when the action list actually start and what results happened. After all that’s done, there’s the ability to audit the action list and event and add the event number to the action list. If you were to add the event association after the fact and were auditing to tie back into the event, it would have to go in and add the chronology entries from the action list back into the event and would look like you ran it as part of the event. So, one thing that’s different is that we’re auditing action lists which is a new concept entirely. Also, multiple chronology entries would be added, modified, or removed if you audit that action list. Auditing is a big part of this and an entirely new auditing feature is being added.

Estimate: $33k

Speaker unclear (2:02:17): If you add an action list to an event after the fact, SunGuide will then go get the outcome of that action and associate it as well. Correct?

Tucker Brown: Yes; It would be just like if I ran the action list as part of the event. Everything that would have been included normally would be added as part of the audit action. The real tricky part of that is if you remove the association it has to go back into the event log and remove all of those as well.

Amy DiRusso: Any questions or comments? I recommend going to voting.

Vote: This item passes.

**Open Discussion**

Derek Vollmer: I’d like to bring up a topic. I know that some of the Districts use the BlinkLink software for some of their wrong way detection systems. I would like for those districts to let us know what’s lacking in SunGuide. I’m trying to get it to where we can have all of the functionality within SunGuide and not have our feed go out to call for the BlinkLink software as the only source. Don’t give us an answer right now; you can email it to us or put in JIRA tickets for enhancements that may be needed so that we don’t have to sole source these things on our RFPs. That’s it. Thanks.

Peter Vega: Derek, we’re using the BlinkLink software. You just need to know what features we’ll need to have included in SunGuide so that you can address it?

Derek Vollmer: Correct; we’ve been contacted by a couple vendors about contracts that have gone out that are still sole sourcing vendors. I’d like to make some changes to the SunGuide software to try to level the playing field.

Jason Evans: Derek, the only application I can think of is Device Help. I don’t think you can get that through SunGuide.

Derek Vollmer: Okay, so Device Help is one. I know for the Turnpike, they have their FHP partners and figuring out how to get information to their FHP partners might be something of interest, as well.

Eric Gordin: The audible functionality, as well. We have multiple FHP locations that take information from what I recall.

Derek Vollmer: So, they have the BlinkLink software installed at a workstation in their facility that has an audible alert to bring it to their attention when there’s something going on?

Eric Gordin: I believe so.

Derek Vollmer: We might want to have a separate call with you, Eric, to understand the network restrictions that FHP might have.

Eric Gordin: We’re probably unique. We’ve had these systems up since 2014. We can talk anytime.

Amy DiRusso: Are there any other items?

**Action Item Review**

Derek Vollmer asked the Districts for input on what functionality in the wrong way driving system that’s not currently in SunGuide or the specs. Mark Dunthorn asked all the Districts what subsystems are being used within their districts so that the appropriate people can be brought into the IV&V testing. Jennifer Fortunas wanted to have a discussion with the SunGuide team to talk more about the DAR issues and how other offices within Central Office would be able to use the SunGuide data. John Hope asked to receive lists of supported products with each release so the TERL and SunGuide team will discuss how to accomplish that. Tucker Brown mentioned they were going to revisit the issue with EM location/EM response plan/EMS messaging at the Design Review Meeting. Finally, if any districts want to volunteer and help out with the next phase of SunGuide 8.1 release.