Meeting Notes

Change Management Board

April 18, 2011 – 1:30 pm to 4:30 pm

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Prepared for:
Florida Department of Transportation
Traffic Engineering and Operations Office
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List of Acronyms

C2C ..... Center-to-Center
CAD ..... Computer-Aided Dispatch
CMB..... Change Management Board
CO ..... Central Office
ConOps..... Concept of Operations
DMS.....Dynamic Message Sign
FDOT.....Florida Department of Transportation
FHP ..... Florida Highway Patrol
FTE.....Florida Turnpike Enterprise
ITS FM.....Intelligent Transportation Systems Fiber Management
LPR.....License Plate Reader
MDX.....Miami-Dade Expressway Authority
MIMS .....Maintenance Inventory Management System
OOCEA..... Orlando-Orange County Expressway Authority
RTMS ..... Remote Traffic Monitoring Station
SSUG ..... SunGuide Software Users Group
SwRI .....Southwest Research Institute
TERL ..... Traffic Engineering Research Lab
TRC ..... Technical Review Committee
TxDOT .....Texas Department of Transportation
USDOT ..... United States Department of Transportation
VLC.....Video LAN Client
WAN ..... Wide Area Network

Florida Department of Transportation
CHANGE MANAGEMENT BOARD MEETING NOTES
Monday, April 18, 2011
1:30 P.M. to 4:30 P.M
Rhyne Building, Room 330 Tallahassee, Florida

Attendees:

Gene Glotzbach, CO	Arun Krishnamurthy, CO	Randy Pierce, CO
Trey Tillander, CO	Carlos Bonilla, D1	Donna Danson, D2
Pete Vega, D2	Mark Nallick, D3	Chad Williams, D3
Dong Chen, D4	Nathan Ruckert, D5	Mike Smith, D5
Javier Rodriguez, D6	Terry Hensley, D7	Vaughn Cooper, D7
Eric Gordin, FTE	L.A. Griffin, OOCEA	Mark Laird, AECOM
Dee McTague, AECOM	Joe Snyder, AECOM	David Chang, Atkins
Charles Lattimer, Atkins	John Hope, Atkins	Marie Howell, Atkins
Steve Novosad, Atkins	Clay Packard, Atkins	Ramon Borges, EAC Consult
James Barbosa, IBI Group	Neena Soans, IBI Group	Alex Mirones, Jacobs
James Bitting, Lucent	Ryan Crist, SmartRoute	Penny Kamish, SmartRoute
Jason Summerfield, SmartRoute	Tucker Brown, SwRI	Robert Heller, SwRI
Roger Strain, SwRI	Frank Deasy, Telvent	

Purpose: The purpose of this meeting was to review and vote on statewide issues and requirements, and review footprints issues.

Welcome and Call for Quorum: Change Management Board (CMB) Chairman Eric Gordin opened the meeting at 1:30 P.M. A quorum was established. He briefly introduced the objectives of the meeting.

Previous Meeting Recap and Action Item Review

- Frank Deasy to coordinate District connections to Florida Highway Patrol (FHP) Computer-Aided Dispatch (CAD). Contact Neena Soans and Craig Vahle on behalf of District 4; Mark Laird on behalf of District 6; and Clay Packard on behalf of Traffic Engineering Research Lab (TERL). – **District 4 is receiving CAD data; District 6 continues email discussions.**
- Technical Review Committee (TRC) will be established to further define full color dynamic message sign (DMS), including research of other states with full color DMS and reporting back to CMB with final recommendation (TRC - Reps from Miami-Dade Expressway Authority (MDX), District 7, District 5, Orlando-Orange County Expressway Authority (OOCEA), and Central Office (CO)) – **Completed.**
- CO and OOCEA to contact Wavetronix in regards to proposed OOCEA enhancements for HD125 device. – **Completed.**
- Eric Gordin to schedule CMB meeting prior to the April meeting, to vote on:
  Vehicle classification within proposed OOCEA enhancements
  Software Video Decoder Viewer – **Discuss in current meeting.**
- Southwest Research Institute (SwRI) to provide H.264 White Paper; due week of January 31st. – **Completed.**
- CMB to make H.264 decision regarding ONVIF and/or PSIA. – **Discuss in current meeting.**

- Eric Gordin to provide CMB Change Management Process document to new members. – **Completed.**
- Maintenance Inventory Management System (MIMS) – gain understanding of potential future support costs on a statewide level, and circulate MIMS software requirements statewide. – **Discuss in current meeting.**
- CMB to review Database document, provide feedback, concurrence of approach – **Completed.**
- Clay Packard to provide Concept of Operations (ConOps) for Software Decoder – **Completed.**

Agenda Items

FMT Update

Frank Deasy stated that Telvent is finalizing the scope of work with Byers at this time. He continued to state that there is currently not a schedule for District 6 or District 7. Terry Hensley stated that District 7 has a short deadline on using funds related to this project. CO will discuss this issue with District 7 offline.

ITS WAN Update

F. Deasy stated that Florida Turnpike Enterprise (FTE) Pompano is live but still needs configuration; the information has been sent out but Telvent has not received any feedback to date. District 7 is moving forward, testing at the lab has been finalized and equipment has been installed in the field and will have a schedule in the next two weeks. District 1 has been slower in getting connection. District 2 procured some equipment for District 3 and will be begin soon. David Chang stated that Clay Packard is available to assist with any SunGuide issues but all Wide Area Network (WAN) issues need to go through Telvent and software issues need to go through Arun Krishnamurthy.

Proposed Vendor Driver Development

Wavetronix HD

Arun Krishnamurthy stated that currently SunGuide has the 105 protocol but not the HD protocol and this results in the loss of functionality when using the Wavetronix HD. If enhancements are done it will allow users to take full advantage of the HD device but a driver will need to be developed. It will allow the user to read and archive 10 lanes of traffic and the 105 protocol only allows up to 8 lanes. There will be no modifications to the SunGuide map with relation to classification data. Wavetronix will develop the driver which will be similar to the current driver; the new driver will be expected to communicate to the device, receive data and pass data from the field to the TSS subsystem itself. Atkins (under contract with Wavetronix) will perform the driver development and SwRI (under FDOT's contract) will perform the TSS subsystem modifications at a total cost of $21,500.

Mark Laird asked if there were going to be any database changes made to support these capabilities and are there other detectors that will be providing data in the future that we should prepare for in advance. Robert Heller stated that there is an EIS high density device and CO might want to look into this further. A. Krishnamurthy stated that this enhancement can be made

and if at a later time we can make sure the G4 is going to be compatible with SunGuide but CO feels that these changes are fairly generic.

It was stated that some Districts have deployed G4 and SunGuide supports the Remote Traffic Monitoring Station (RTMS) version and not the G4 therefore some functionality is lost. If any District is planning to deploy the G4, CO recommended that the district contractually require the vendor to develop the driver. Jason Summerfield stated that the addition of classification information is new to SunGuide and asked if there were any thoughts of adding that to other devices since they also have that capability. CO stated that it could be discussed at a later time.

Vote:

Will District Use:

District 1: Yes
District 2: Yes
District 3: Yes
District 4: Yes
District 5: Yes
District 6: Yes
District 7: Yes
FTE: Yes
CO: Yes (testing)

Do the Districts approve SunGuide modification:

District 1: Yes
District 2: Yes
District 3: Yes
District 4: Yes
District 5: Yes
District 6: Yes
District 7: Yes
FTE: Yes
CO: Yes

Sensys

A. Krishnamurthy stated that Sensys has a travel time system that involves deploying five pucks in each lane both upstream and downstream with an access point on the side of the road. They communicate the information to the access point and have a way to identify each vehicle. This is similar to the License Plate Reader (LPR) and Bluetooth technologies which uses upstream and downstream probes to calculate travel times. He then went on to discuss the components of the Sensys product. Sensys travel time system has been deployed in several states and Washington State is currently doing a study to compare the various types of technologies to determine which is more accurate. Orange County is planning to deploy this product and has required Sensys to show SunGuide compatibility. Also, Sensys wishes to use SunGuide compatibility for demonstration at World Congress. Sensys currently has two types of technology which are stop bar detection that is already integrated into SunGuide and a travel time solution. If the CMB decides to use this technology it would be through C2C; the processed

travel time data will be sent through Center-to-Center (C2C) to SunGuide. Vaughn Cooper asked if Sensys provided any information if the same make and model vehicle passed through the same intersection would it provide accurate information. A. Krishnamurthy responded that he did not have many specifics on their product but they do have a 25-30% penetration rate. If a vehicle goes downstream in one lane and then changes lanes going upstream it does not record that vehicle. Javier Rodriquez asked if it was possible to deploy these on freeways to obtain speeds. CO stated that they did not have the information but could setup a meeting with District 6 and Sensys. Tucker Brown stated that Orange County is requiring it to be compatible with SunGuide; where does that leave the contract if the CMB says no. CO stated that Orange County currently does not use SunGuide but they are looking at the possibility.

J. Summerfield stated that if this is being handled as an external travel time data source then there is not much on the SunGuide side to modify just some coordination with Sensys to provide the data feed. If this is part of the Orange County requirement it would fall back on Sensys. If this is approved by the CMB. Sensys would be responsible for integration with SunGuide. Trey Tillander reminded the CMB that there are currently 5 stop bar detection system that have temporary permits and Sensys is not one of those and has not requested one at this time. A. Krishnamurthy stated that assuming the CMB is ok with this technology Sensys would then develop the C2C solutions but the Department would have to maintain. D. Chang asked if the Department would have ownership and it was stated that CO would have to follow-up with Sensys regarding ownership. He continued to state that this will be similar to the Inrix data. M. Laird asked if a District wanted to use this for other types of information more work would have to be done and CO confirmed.

Camera Video viewable through SunGuide Map

C. Packard stated that information for this topic was provided at the last meeting and then gave an update. He continued to state that the SunGuide Software Users Group (SSUG) would like to have access to cameras and video directly from the map, there would be no external hardware / software to purchase and no additional configuration. He then detailed the options of limiting how many windows can be open and possible video touring as an option. He then detailed the cost for this enhancement and stated that there is not a cost estimate for the video touring at this time. Carlos Bonilla asked how would this work with C2C; District 1 currently has C2C with Lee County and there are some major issues with the video and C2C. R. Heller stated that the C2C issue in District 1 is the protocol and switches / routers. The Video LAN Client (VLC) product is published under the GNU General Public License Version 2 and Florida Department of Transportation (FDOT) needs to look into this further because it could possibly pose some license restrictions and does require an additional installation on the workstations that will launch the viewer. District 1 stated that they were curious if this would still work when District 1 got their network issue solved. Roger Strain stated that there would have to be some modifications to C2C for this to work. District 1 only needs to see the video after hours; R. Strain responded that this might be something that would have to be addressed internally with Lee County disconnecting when they left. M. Laird asked how the cameras would be configured for this or would it be pre-configured. R. Strain stated that if you have a snap server configured it could get the information from there but the devices would need to be evaluated.

Vote:

District 1: Yes
District 2: Yes
District 3: Yes
District 4: Yes
District 5: Yes
District 6: Yes
District 7: Yes
FTE: Yes
CO: Yes

MIMS

A. Krishnamurthy provided some history of MIMS and stated that at the last CMB meeting there were some additional questions. He then went on to describe the difference between Intelligent Transportation Systems Fiber Management (ITS FM) and MIMS. Randy Pierce stated that ITS FM looks at it from beginning to end and the two can work and support each other. ITS FM does not know what is in the warehouse and what is on the shelf but once the device is deployed there are some overlaps. MIMS does have a barcode scanner and ITS FM could possibly add that as well; ITS FM is considered an asset inventory and MIMS is for maintenance and inventory. If approved CO would enter into a written agreement with IBI but there is always a risk using a proprietary library. District 4 does not breakout the support cost but James Barbosa stated that after a discussion with District 4 it is estimated that the support cost is $30K each year. IBI is willing to provide a demonstration to any District that is interested. R. Pierce stated that MIMS will create a trouble ticket which ITS FM cannot due currently. District 1 asked if this is something that is optional because we currently have a contractor that has their own ticketing system. CO responded that yes as with any module in SunGuide each District can choose whether to use or not. District 1 asked if this is integrated will each District be responsible for the maintenance of MIMS with IBI and CO stated that if it is integrated with SunGuide it will be supported through the CO contract. James Bitting asked if there was a way to make it a standalone product and use C2C for any integration with SunGuide. He continued to state that there is some replicated data and asked if there was a way to combine all functionality. IBI stated that ITS FM is primarily commercial off the shelf software so IBI is not in the position to combine. District 7 stated that they are looking for one piece of software. CO stated that it would be a significant undertaking and see these as having different functionalities and used for different things. V. Cooper asked if the Department could have the vendor for either MIMS or ITS FM expand the options. R. Pierce stated that the Department can ask but they are two separate companies and we cannot make them work together; MIMS is not required to be used but ITS FM is. District 1 and District 5 stated that they would like to see further information on this product.

H.264

R. Heller stated that SwRI was tasked with researching the H.264 protocols regarding digital switching. He then provided some background on SunGuide video support and then discussed in detail the information found. He then gave the outcome recommendation and stated that United States Department of Transportation (USDOT) is going to mandate this standard and have joint standards with other DOTs; a specification update is recommended. J. Summerfield stated that another issue discovered while talking with vendors is they are trying to drop MPEG2

because they do not see it lasting. A. Krishnamurthy stated that this is what CO wanted to achieve with this presentation is to answer any questions on the two options; in the future the CMB will have to choose one.

MS SQL Server and SunGuide

Steve Novosad reviewed the problems with Oracle and the benefits of MS SQL server. M. Laird asked if this would be a standard interface and S. Novosad stated that might not be feasible. M. Laird continued to state that District 6 looked at a five year comparison and it would be a $1.2 million in savings if MS SQL was used. R. Heller stated that Texas Department of Transportation (TxDOT) was supporting Oracle and SQL database but then dropped support for all except SQL and reported very little problems. S. Novosad asked if it would make sense to license the data model from TxDOT and bring it over and SwRI stated that the data model is probably available to SwRI under the current license but not sure how useful it would be in all areas. District 6 stated that data guard requirements and primary keys for devices and tables cannot be altered and SwRI stated that this is an opportunity to fix a lot of problems. District 7 stated that we should look at something that is not tied to any specific product so that if Microsoft changes its course in the future.

Color DMS

Eric Gordin reviewed the slides and outcomes from the TRC meeting and showed examples of signs. He then stated that the TRC is comfortable with one graphic shield per phase of DMS sign. CO stated that they preferred the shield placed on the left side and that Rhode Island completed a study and the outcome was to place the shield on the left side. CO asked if the TRC was going to continue to meet and E. Gordin stated that he will follow-up with A. Krishnamurthy to discuss further.

Closed Events no Shown on Map

J. Summerfield stated that when an event is closed it is not removed from the map and causes a cluster of open and closed events. The solution is to have the event removed from the map but not off of the event list.

District 1: Yes
District 2: Yes
District 3: Yes
District 4: Yes
District 5: Yes
District 6: Yes
District 7: Yes
FTE: Yes
CO: Yes

Action Item Review

1. SwRI to provide cost estimate for video touring.

2. CMB to choose one of two options presented for H.264 during the meeting.