Meeting Notes

Change Management Board

January 26, 2011 – 1:30 pm to 4:30 pm

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

APL ..... Approved Products List
AVL ..... Automated Vehicle Location
C2C ..... Center-to-Center
CAD ..... Computer-Aided Dispatch
CDW ..... Central Data Warehouse
CMB ..... Change Management Board
CO ..... Central Office
DMS ..... Dynamic Message Sign
EM ..... Event Manager
FDOT ..... Florida Department of Transportation
FHP ..... Florida Highway Patrol
FIU ..... Florida International University
FTE ..... Florida Turnpike Enterprise
FL-ATIS ..... Florida Advanced Traveler Information System
MDX ..... Miami-Dade Expressway Authority
MOT ..... Maintenance of Traffic
MUTCD ..... Manual on Uniform Traffic Control Devices
PBS&J ..... Post Buckley Schuh & Jernigan
RFP ..... Request for Proposal
RPG ..... Response Plan Generation
SSUG ..... SunGuide Software Users Group
SwRI ..... Southwest Research Institute
TERL ..... Traffic Engineering Research Lab
TPO ..... Transportation Planning Organization
TSM&O ..... Transportation Systems Management and Operations
TxDOT ..... Texas Department of Transportation
WAN ..... Wide Area Network
WGM ..... Working Group Meeting

Florida Department of Transportation
CHANGE MANAGEMENT BOARD MEETING NOTES
Wednesday, January 26, 2011
1:30 P.M. to 4:30 P.M
Rhyne Building, Room 330 Tallahassee, Florida

Attendees:

Arun Krishnamurthy, CO	Gene Glotzbach, CO	Trey Tillander, CO
Elizabeth Birriel, CO	Randy Pierce, CO	Lokesh Hebbani, FHWA
Chris Birosak, D1	Carlos Bonilla, D1	Donna Danson, D2
Pete Vega, D2	Chad Williams, D3	Dong Chen, D4
Melissa Ackert, D4	Michael Smith, D5	Javier Rodriguez, D6
Chester Chandler, D7	Vaughn Cooper, D7	Terry Hensley, D7
John Easterling, FTE	Eric Gordin, FTE	Mark Laird, AECOM
Kelly Kinney, FTE	Alex Mirones, FTE	L.A. Griffin, OOCEA
Dee McTague, AECOM	Charlie Robbins, AECOM	Cathie Mckenzie, Gannett Fleming
David Howell, HNTB	Craig Carnes, Metric	David Chang, PBS&J
Erik Gaarder, PBS&J	John Hope, PBS&J	Marie Howell, PBS&J
Clay Packard, PBS&J	Steve Novosad, PBS&J	Charles Lattimer, PBS&J
Ryan Crist, SmartRoute	Jason Summerfield, SmartRoute	John Brisco, SwRI
Robert Heller, SwRI	Tucker Brown, SwRI	Bill Wolff, SwRI
Frank Deasy, Telvent		

Purpose: The purpose of this meeting was to review and vote for 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

- Central Office (CO) to add fourth criteria to CMB voting member criteria: “Public Agency within the State of Florida” and distribute. **Complete**
- Arun Krishnamurthy to forward unapproved words on DMS cost estimate to CMB.
- SwRI to describe FL-ATIS dashboard existing Web server / interface; SwRI to work with CO to fine-tune for next CMB meeting. **On Hold**
- A. Krishnamurthy to send list of Footprint issues that have been approved to CMB. **Complete**
- SwRI to develop H.264 White paper. **In Progress**

Agenda Items

New CMB Member

L.A. Griffin, Manager of Expressway Operations for the Orlando-Orange County Expressway Authority (OOCEA), was introduced.

ITS Telecommunications Update

Lesson guide training materials will be provided for each District. Discussed which Districts can receive the Florida Highway Patrol (FHP) Computer-Aided Dispatch (CAD) data. There are some multi-cast video issues in some Districts. Configuration elements need to be modified at the Florida Turnpike Enterprise (FTE) site. FTE (J. Easterling and T. Nowzamani) met with them to discuss the connection. District 4 stated that they are not online yet and are not receiving FHP CAD data yet. District 6 is also not receiving FHP CAD data. In addition, some coordination is necessary with the TERL. See action items list.

In terms of the ITSFM (ITS Fiber Management; formerly known as FMT or Fiber Management Tool) basic reports have been developed, including drop-down lists. Performance issues were mentioned. District 7 would like to include scope of effort in upcoming contracts like High Speed Rail (HSR). There will be encoder training for Districts; they can train the HSR contractor to perform encoding as well. Field data has been collected in District 2, District 5, District 7 and FTE. Then, they will begin user training. The survey efforts are being completed.

IntelliDrive Enhancement

This enhancement will support ITS World Congress (ITSWC) data efforts and demonstrations for the ITSWC meeting in Orlando later this year. The enhancements within SunGuide will support DSRC (dedicated short-range communications) radio deployment, including a small architecture. Messages will include those for safety, probe vehicles, and messages from the Transportation Management Center (TMC) to devices in the vehicles. The messages will be similar to those provided on the dynamic message sign (DMS), but specific for the driver. Society of Automotive Engineers (SAE) J2735 is robust and flexible. Data is available on operator maps. Data will be logged and archived and available for report generation. There will be 11 Roadside Equipment (RSE) units on I-4 for the ITSWC demonstration. Other devices will be located on International Drive (I-Drive) and Universal Boulevard. Question: will SunGuide manage the message within the region? Response: before the start time, SunGuide will decide which DSRC's to send the information. The RSE located on SR-528 (Beachline) will be located where there are existing Automatic Vehicle Identification (AVI) devices (from the previous iFlorida deployment). There will be a meeting on February 8th and 9th to better define the DSRC and RSE locations for ITSWC. CO will be utilizing funds to pay for the enhancement. Question: is the IntelliDrive enhancement being built to allow for future deployments to take place? Response: this is a new test bed but the system will be established so that a large number of RSE's can be incorporated in the future. Question: will there be enough vehicles to test the enhancements? Response: FDOT vehicles, demonstration vehicles and public transit vehicles will be utilized. Additional funding for test beds is being sought by Federal Highway Administration (FHWA) and this demonstration project puts Florida in a great position to seek funding in the future. The enhancement can be deployed at the appropriate time in each District and doesn't have to be installed immediately (it will be a module within SunGuide).

Color DMS

National Transportation Communications for ITS Protocol (NTCIP) 1203 v. 1.03 (1997) was mentioned. Potential colors were discussed (amber, red and blue for route shields, etc.). Slide 33 shows a good example of graphics that one of the Districts recommended. A Rhode Island study was conducted – this may serve as a good reference. There will be a Message Editor (user interface) to manage the graphics – another tool can be used "off-line" to create the images used within the Message Editor. For the DMS driver, there were no functionality

differences between version 2 and version 3. A response plan generation (RPG) update will be needed. Need to discuss multiple phases on the DMS. At least 12 color DMS are being provided in the HSR project. Therefore, Phase 1 and Phase 2 (slide 36) need to be completely quickly. The HSR has a 500 day contract time. A portion of the enhancements for the new driver can proceed, but no date has been set for Phase 2 (defining other graphic use for event/weather/construction/lane closures, etc.). Rhode Island's recommendation was to place graphics on the left-hand side. Question: is there a limit to the size of graphics that can be used? Response: yes, this was the recommendation with graphics on the left-hand side of the sign. Need to consider travel time issues as well. Color DMS with low resolution have been used at the Traffic Engineering Research Lab (TERL). Question: does a graphic have to be used on the color DMS? Response: depends on the template used. The driver update can move forward. It was decided to establish a Technical Review Committee (TRC) to define Phase 2 of the color DMS enhancement. Question: how many sates are using color DMS? Response: ask Daktronics, and research the Pooled Fund Study Group.

OOCEA Proposed Enhancements

OOCEA has been using tube-counters for spot speed and classification on their system. OOCEA would like to use Wavetronix 125 HD to collect this information as part of the Traffic Management System (TMS) project. It was determined that the Wavetronix software (for archiving) was not robust enough to meet their needs. Driver for the 125 HD was discussed. The Wavetronix 105 only supports up to 8 lanes; the driver is backward compatible. CMB discussed impact of having two similar devices on the Approved Products List (APL). What occurs if a contractor does not provide Wavetronix on a particular project? Need to consider potential impacts of more than one device on the APL and how to proceed with enhancements. It may be possible for the manufacturer to offer funding the enhancements or they can be paid for directly by a District. CMB voted on the first bullet item involving additional Traffic Sensor Subsystem (TSS) alerting.

OOCEA Enhancement (TSS Alerting) – Vote

District 1: Yes
District 2: Yes
District 3: Yes
District 4: Yes
District 5: Yes
District 6: Yes
District 7: No
FTE: Yes
MDX: Absent from meeting
CO: Yes

Voting passed.

CMB agreed that follow-up directly with Wavetronix is needed to discuss 125 HD enhancements and a separate meeting is needed to vote on the enhancements involving vehicle classification (see Action Items).

H.264 Driver

If the Florida Department of Transportation (FDOT) moves towards H.264 technology, there are two protocols (ONVIF and PSIA) to consider. Each offer good capabilities. How much do these protocols vary by manufacturer? SwRI is working on an H.264 White Paper that will be provided next week (a draft for review). Currently, SunGuide supports NTCIP 1205. Need to decide between ONVIF, PSIA, or include both. Some vendors support both protocols, some vendors support one protocol and not the other. H.264 has not fully matured yet.

MIMS

A few Districts have shown an interest in using MIMS. A demonstration was performed last year. Question for the CMB – should MIMS be integrated into SunGuide? Need to answer potential ownership questions. Four libraries for MIMS are owned by IBI. Districts can use it at no cost. Question: Can other groups enhance MIMS? Answer: they are dotnet URLs. Question: Does FDOT have IBI's commitment to share their libraries in writing? Answer: Only a verbal commitment to this point. Question: What duplication of functionality exists between MIMS and ITSFM? MIMS is a maintenance trouble-ticket management system with a mobile device in the field. MIMS collects list of spare parts, DMS components, bulbs, etc. Question: is this information that SunGuide does not already have? Answer: Yes. Except for the fiber, it sounded like there could be double-entry (something for everyone to consider). Question arose about ITSFM and MIMS being adequate Configuration Management tools. Answer: not sure if they're complete, but they contain a lot of data between the two tools. Discussed potential cost issues involved and consistency with SunGuide architecture. MIMS allows you to assign a device to a VLAN, and a site. Request was made to receive a copy of the functional requirements for MIMS. MIMS is currently version 3 and District 4 is making updates to the software to make it compatibile with SunGuide 5.0. Question: what are the support costs incurred normally? The exact annual support cost for MIMS was not known. District 4 mentioned that their annual general software support contract is for $250,000. This annual support cost that District 4 pays for support is all encompassing, and the cost for the MIMS portion is only a portion of it. See action item list since further discussion about potential future support costs needs to be determined (applied on a statewide level).

Software Video Decoder Viewer

View video on the desktops in Lee County. Lee County does not have a video wall. Discussed at the SunGuide Software Users Group (SSUG) meeting. Question: software decoding? Answer: Yes. Discussed that the "Video LAN Client (VLC)" is open source, not Commercial Off The Shelf (COTS). VLC would need to be installed on the workstation in order for this to work, due to the libraries involved. VLC is good at opening multiple views. Question: are there performance issues? How do they interact with other software installed? Is the video smooth? Does it cause SunGuide to slow down?

Concept of Operations (ConOps) was developed with Southwest Research Institute (SwRI). Vote on the Software Video Decoder Viewer during the next CMB meeting.

Database Storage Guidelines

District 5's database was chosen for analysis due to the size of their deployment and accompanying database. Question: were sites of the index considered? Answer: no. This is the first task to decide which tables need to be analyzed further. Database logging should be

done, along with database backups. CMB needs to review the database document and provide feedback. CMB eventually needs to decide on how to approach this project. Typically, the retention policy is to keep information for 3 years. SunGuide has a purge script to delete data older than 3 years. Some tables are in the purge script, some tables are not. Some discussion involved how long the data should remain before being purged.

Action Item Review

1. Frank Deasy to coordinate District connections to FHP 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 TERL.
2. TRC will be established to further define full color DMS, including research of other states with full color DMS and reporting back to CMB with final recommendation (TRC - Reps from MDX, District 7, District 5, OOCEA, and Central Office)
3. CO and OOCEA to contact Wavetronix in regards to proposed OOCEA enhancements for HD125 device.
4. Eric Gordin to schedule CMB meeting prior to the April meeting, to vote on:
   Vehicle classification within proposed OOCEA enhancements
   Software Video Decoder Viewer
5. SwRI to provide H.264 White Paper; due week of January 31st.
6. CMB to make H.264 decision regarding ONVIF and/or PVIA.
7. Eric Gordin to provide CMB Change Management Process document to new members.
8. MIMS – gain understanding of potential future support costs on a statewide level, and circulate MIMS software requirements statewide.
9. CMB to review Database document, provide feedback, concurrence of approach.
10. Clay Packard to provide ConOps for Software Decoder.