Change Management Board Meeting

February 22, 2012

Video Conference: CO- Burns Video Bridge 3

Audio: 850 - 414 - 5667

Welcome and Call for Quorum

Javier Rodriguez, CMB Chairman

Agenda

Time	Item	Lead
1:30 – 1:35	Welcome and Call for Quorum	Javier Rodriguez
1:35 – 1:40	Previous Meeting Recap and Action Item Review	Javier Rodriguez
1:40 – 1:50	ITS WAN Update	Randy Pierce or Frank Deasy
1:50 – 2:00	SSUG Update	John Hope
2:00 – 2:15	ONVIF Support	Robert Heller or Tucker Brown
2:15 – 2:35	Bulk Update AVL RR	Robert Heller or Tucker Brown
2:35 – 2:50	Remote Command Application (RCA)	Robert Heller or Tucker Brown
2:50 – 3:00	Break	

Agenda

Time	Item	Lead
3:00 – 3:15	Sensys: Interstate Detection System	Trey Tillander
3:15 – 3:30	Arterial Dynamic Trailblazer Projects	Trey Tillander
3:30 – 3:45	Top Priority SunGuide Item by District	Arun Krishnamurthy
3:45 – 3:55	Action Item Review	Javier Rodriguez

CMB agenda, slides, and attachments posted here: http://www.dot.state.fl.us/trafficoperations/ITS/Projects_Deploy/CMB.shtm

Previous Meetings Recap and Action Items Review

Javier Rodriguez

November 2011 Action Items

- **SwRI to provide information and cost estimate for ONVIF.**

- **SwRI to present TxDOT RCA application at next CMB meeting.**

- **Users to provide feedback to SQL Storage Guidelines.**

- **SwRI to add entire download of current report templates on SunGuide Web site.**

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ITS WAN Update

Randy Pierce or

Frank Deasy

ITS WAN Update-The Future

- **FTE RTMCs, Pompano and Turkey Lake**
  - **ITS WAN equipment installed at Pompano RTMC**
  - **Next Step: FTE switch configuration and connection to ITS WAN switch**
- **Connecting D7 & D1**
  - **ITS WAN equipment ready for on-site commissioning**
  - **Fiber splicing needed from D6 to FTE fiber**
  - **TransCore preparing to test and characterize fibers**
- **Connecting D6 RTMC to TERL**
  - **1 Gbps connection in place**
  - **Supporting testing and video to the State EOC**
- **Connecting D3 RTMCs, Pensacola and Tallahassee**
  - **GBIC's received, connections being scheduled**

ITS WAN Update-The Future

- **FHP CAD**
  - **Connected directly to ITS WAN equipment at D5 RTMC**
  - **Available to Districts connected to ITS WAN**
- **MultiCast Re-Addressing**
  - **Districts should re-address now to enable Statewide MultiCasting**
  - **VAS can then receive MultiCasting video without the need for further re-addressing**
- **Working with VAS**
  - **Replacing dedicated circuits with ITS WAN where fiber connections are available**
  - **Resolving connectivity issues at D5 and D4**

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SSUG Update

John Hope &

Jason Summerfield

Footprint 1744: Event type flag

- **SSUG suggestions for response plans event type flags are in the following table**

Event Type	Current SunGuide DMS event type flag	SSUG suggestions for DMS, email and FL-ATIS event type tag in auto messages
ABANDONED VEHICLE	ABANDONED VEHICLE	*DISABLED VEHICLE*
CRASH	INCIDENT	*CRASH*
BRIDGE WORK	CONSTRUCTION	*CONSTRUCTION*
CONGESTION	CONGESTION	*CONGESTION*
DEBRIS	INCIDENT	*DEBRIS*
DISABLED VEHICLE	DISABLED VEHICLE	*DISABLED VEHICLE*
EMERGENCY VEHICLES	INCIDENT	*EMERGENCY VEHICLES*
OFF RAMP BACKUP	INCIDENT	*CONGESTION*
PEDESTRIAN	INCIDENT	*PEDESTRIAN*
POLICE ACTIVITY	INCIDENT	*EMERGENCY VEHICLES*

Footprint 1744: Event type flag

Event Type	Current SunGuide DMS event type flag	SSUG suggestions for DMS, email and FL-ATIS event type tag in auto messages
PSA	SPECIAL EVENT	*SPECIAL EVENT*
ROAD WORK - EMERGENCY	CONSTRUCTION	*CONSTRUCTION*
ROAD WORK - SCHEDULED	CONSTRUCTION	*CONSTRUCTION*
SPECIAL EVENT	SPECIAL EVENT	*SPECIAL EVENT*
VEHICLE ALERT	(Some template)	*Needs to be specific: silver, leo, amber*
VEHICLE FIRE	INCIDENT	*VEHICLE FIRE*
VISIBILITY	INCIDENT	*LOW VISIBILITY*
WEATHER	INCIDENT	*WEATHER ALERT*
EVACUATION	OTHER	*EVACUATION*
FLOODING	INCIDENT	*FLOODING*
OTHER	OTHER	*OTHER*
INTERAGENCY COORDINATION	OTHER	*INTERAGENCY COORDINATION*

ONVIF Support

Robert Heller or

Tucker Brown

Open Network Video Interface Forum

- **ONVIF defines**
  - **Network Video Transmitters (NVT) e.g. cameras)**
  - **Network Video Displays (NVD) e.g. video wall**
  - **Network Video Analytics (NVA) e.g. image analysis**
  - **Network Video Clients (NVC) e.g. SunGuide**

- **ONVIF products (taken from ONVIF.org)**
  - **NVT (cameras with encoders)**
  - **NVC (security control systems with attached screens)**
  - **NVR (Network Video Recorders)**
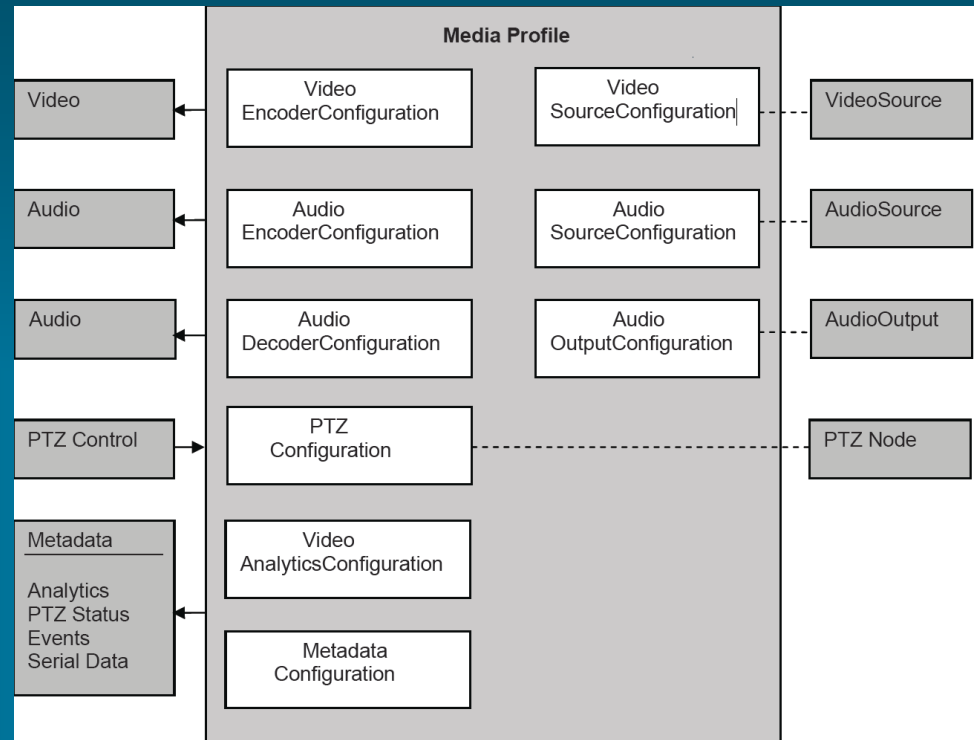
  - **No displays (no decoders, etc.)**

NVT ("Camera" Attributes)

- **PTZ configuration**
  - **Relative position**
  - **Absolute position**
  - **Continuous motion**

- **Available codecs**
  - **Motion JPEG**
  - **MPEG-4**
  - **H.264**

ONVIF™ Media Service Specification Ver 2.1 June, 2011

- **Live streaming**
  - **RTP / UDP unicast, multicast**
  - **RTP / RTSP / TCP**
  - **RTP / RTSP / HTTP / TCP**

MPEG-4, H.264 Decoding

- **NVT generate**
  - **Standards based encoded video**
  - **Standards based protocols**

- **Display using**
  - **Video walls [supported by Activu, Barco, Jupiter]**
  - **Decoders [Cornet, Cortec, impath, Teleste*, Vbrick]**

Teleste MPX-D driver exists in SunGuide (no H.264 support)

Bulk Update AVL RR

Robert Heller or

Tucker Brown

The Problem

- **When there are constant updates from the AVLRR system, the GUI will refresh and make the AVLRR screen unusable**

- **Each position update causes a refresh in the GUI and drop downs are difficult to access**

- **There are multiple ways we can address the problem**

Option 1: LIFO

- **Last In, First Out**
  - **Client side change to send the most up-to-date position first followed by older ones**
  - **Subsystem would archive updates but not send the GUI**

  - **Pros**
    - **Very little SunGuide work**

  - **Cons**
    - **Relies on client side software**
    - **Problem could reoccur with new vendors**
    - **Recovery time not reduced**
- **40 Hours**

Option 2: Batch Detection

- **Subsystem would delay sending updates to the map to see if there was another update coming very soon (1 second?)**
  - **Subsystem would still archive all updates**

  - **Pros**
    - **Doesn't rely on client software**
    - **Small SunGuide effort**

  - **Cons**
    - **If updates were spaced correctly (every 2 seconds) problem would not be solved**
    - **Recovery time not reduced**
- **24 Hours**

Option 3: Time Slice

- **AVLRR only reports 1 update per vehicle over a configurable time period (maybe 30 seconds?)**
  - Subsystem would not report another update to the GUI for a particular vehicle until a time period has elapsed.
  - Subsystem would archive all updates but only send the latest to the GUI
  - Pros
    - Doesn't rely on client software
    - Small SunGuide effort
  - Cons
    - Could delay position updates for the amount of time equal to the recovery period unless employing Option one (LIFO) as well
    - Recovery time not reduced
- **32 Hours**

Option 4: Bulk Update Option

- **AVLRR Driver would make a bulk update message that clients could pass older information**

    - **Pros**
        - **Software no longer makes a decision about what updates are old and which are new**
    - **Cons**
        - **Requires client side implementation**
        - **Problem could reoccur with new vendors**

- **80 Hours**

Change Management Board

Remote Command Appliation (RCA)

Robert Heller or

Tucker Brown

C2C Background

- **C2C based on Traffic Management Data Dictionary (TMDD) standard**
  - Intended to allow interaction between different traffic management systems
  - Abstracts many features to lowest common denominator of functionality
- **C2C cannot adapt to systems which are similar**
- **C2C has been extended for SunGuide**
  - Additional event data, queue data, etc. added
  - Added features to system not designed for this level of detail

RCA Background

- **Designed to be link between Lonestar traffic management systems**
- **Functions as portal allowing one district to communicate to another district's CSD (DataBus)**
  - **Direct connection allows remote users full access to subsystems and data in another district**
- **Lonestar UI modified to recognize and interact with remote subsystems**
  - **Dialogs typically present list of local devices followed by list of devices from remote centers**
  - **Subsystems not generally RCA-aware**

RCA Benefits

- **Generally, actions which can be performed locally can be performed remotely**
  - **Same XML request sent to local subsystem can be packaged and sent to remote systems**

- **Inter-system requests cryptographically secured**
  - **Duplicate user accounts / passwords not needed**

- **To perform action:**
  - **User must have permission to perform action locally**
  - **User must have permission to control remote district**
  - **User's district must have permission to perform action on the remote system**

RCA Integration in SunGuide

- **Majority of work in User Interface**
  - **Dialogs reworked to be aware of remote systems**
  - **Interfaces modified to send commands for remote devices via RCA (vs. local subsystems)**
  - **Likely opportunity to migrate affected dialogs to new WPF designs**
- **Some subsystems could be made RCA-aware**
  - **EM response plans**
  - **SAS schedules**
- **Some archived data and reports may need to be updated**
  - **Remote username may not currently be available**

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Break

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Sensys: Interstate Detection System

Trey Tillander

Sensys Detectors on Freeways

Arterial Dynamic

Trailblazer Projects

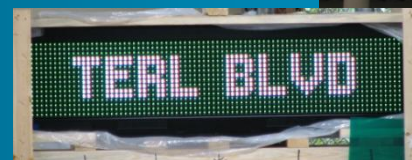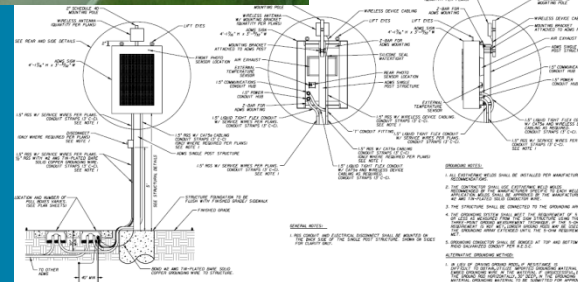**Trey Tillander**

Color DMS and Trailblazers

- **Who has active projects?**
  - **D1 Lee County**
  - **D2**
  - **D4**
  - **D5 Daytona Beach**
  - **D5 Ocala**
  - **FTE Toll Plazas**
  - **City of Orlando**
  - **Others?**

Color DMS and Trailblazers

- **Specification 781 (July 2012)**
  - **Defines Amber, Color, and various housing types**
  - **FHWA approved and pending implementation**
  - **Can use MSP for lettings prior to July 2012**

- **EDS or DMS (or something else)?**
  - **Redundancy**
  - **Environmental requirements**
  - **Other functional considerations**

Top Priority SunGuide

Item by District

Arun Krishnamurthy

District 1 Comment

- **Safety Barrier Alert**
  - **FP# 1828**
  - **Part of Release 5.1.1**
  - **Will be available on June 2012**

District 6 Comments

- **District 6 provided 11 high priority items.**
  - **FP 2074, 2064, 2092, 2014, 1827, 1765/1591**
  - **Some have been resolved, some are being worked on, some are in District 6's court.**

SunGuide Webinar

- **TMC Pooled Fund Study**
- **February 29**
- **1 hour webinar starting at 1 PM ET**

TMCPFS Teleconference login as follows:

Toll Free   888-790-1919
Participant code   58047

WebEx login as follows

Go to https://e-meetings.verizonbusiness.com/global/en/index.php
Click on "Join an Event" under "Events"
Enter the Conference Meeting Number "745692361"
Enter the passcode:"TMC"
Enter your name and agree to the "Privacy Policy" statement, then
      select "Proceed" (new participants will need to download software)

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Action Items Review

Javier Rodriguez