INTERSECTION TRAFFIC CONTROL COMMITTEE MEETING

MnDOT CTSCS Selection Process

Meeting Minutes

December 7th, 2016

ATTENDEES

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
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<tbody>
<tr>
<td>Matt Allwood</td>
<td>Traffic Control Corp.</td>
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<tr>
<td>Nik Costello</td>
<td>Washington County</td>
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<td>Allen Eisinger</td>
<td>Traffic Control Corp.</td>
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<td>Mike Fairbanks</td>
<td>MnDOT</td>
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<td>Ben Hao</td>
<td>Hennepin County</td>
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<td>Luke James</td>
<td>SRF</td>
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<td>Sean Jenkins</td>
<td>City of Bloomington</td>
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<td>Jerry Kotzenmacher</td>
<td>MnDOT</td>
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<td>Tyler Krage</td>
<td>Alliant Engineering</td>
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<td>Jon Krieg</td>
<td>Hennepin County</td>
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<td>Phil Kulis</td>
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<td>Ken Levin</td>
<td>Hennepin County</td>
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<td>Scott Poska</td>
<td>SRF</td>
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<td>Allison Pickup</td>
<td>Scott County</td>
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<td>Jan Rybar</td>
<td>Dakota County</td>
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<td>Kevin Shwartz</td>
<td>MnDOT</td>
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<td>Mark Wagner</td>
<td>SEH</td>
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MEETING LOCATION: Hennepin County Public Works, Medina

1. **MnDOT CTSCS Selection**

   Mike Fairbanks presented on MnDOT’s updated Central Traffic Signal Control Software (CTSCS) and selection process. Below is a short summary of the presentation (presentation attached).

   - MnDOT’s Current CTSCS had several reasons for update:
     - Certain systems were not being supported by vendor
     - Aging system wouldn’t allow new signals
     - Poor reliability
     - Non-compatible with controller database updates and current Synchro versions
-MnDOT earmarked $630,000 from HSIP to fund project
-MnDOT consulted Alliant Engineering and Athey Creek for Systems Engineering and vendor selection (Dakota County, Hennepin County, and City of Bloomington were also involved as they might also utilize system)

-RFP Scoring Criteria for CTSCS vendors:
  -Acceptance of Terms
  -References
  -Project Understanding
  -Security
  -System Cost
  -Accessibility

-System evaluation team consisted of 8 members, including representatives from the ADA and MNIT offices

-Three Vendors were evaluated:
  -Transcore ITS – TranSuite
  -Traffic Control Corp. – Centracs
  -Intelight, Inc. – MaxView

-Evaluation Team selected MaxView for the following reasons:
  -Allows for multiple users
  -Event logging capabilities
  -Split monitoring capabilities
  -Instant graphs and report extraction
  -Outlook style TOD scheduler
  -Real-time phase and call status
  -Web-Based application

-MaxView does have a few bugs and issues
  -Doesn’t use Chrome
  -Slight FYA and split monitor issues
  -Changes are made by software updates

-Lessons Learned:
  -Start selection process early
  -Ran into “unknown” RFP/MMB rules
  -Difficult to change MMB contract once set
  -Know all facets of contract

Discussion points-
-CTSCS has been online and functioning since September
-Can buy up to 100 licenses at a time for use
-Alarms, monitors, and logs can be sorted by agency
-Consultants are provided access for signal timing projects
-Uses google maps traffic applications as background map
-UDOT going through source code to determine performance measure capabilities with alarms
-Only ASC/3’s on system, but ASC/2’s are compatible
II. Round Robin

Jerry- For RRFB interim use, contact Janelle Anderson about installation

Jon- Bike detection extension times?
    - Northfield uses 10 sec extensions for bike calls, based off field measurements

Scott- Pedestrian crosswalk markings at porkchops?
    - Seems to be agency by agency standards

Jon/Ken- Gave a tour of Hennepin RTMC and Centracs/Maxveiw demos

NEXT MEETING:

Date: Wednesday, January 4th (8:00-10:00am)

Location: MnDOT Water’s Edge – Conference Room A
1300 County Road B2 West
Roseville, MN 55113

Topic: 2017 Brainstorming Topics

Minutes Submitted By: Tyler Krage
Central System

1. CTSCS would encapsulate the lan (Ethernet) communication network
2. Aries will still be used
3. Metro District planning to expand the central system and migrate signals off of Aries.
Initial Need – Replacement of Current Software

• i2 system by Siemens was not being supported by Vendor.
• System was aging and new signals couldn’t be added to it.
• Upgrades to Signal Controllers databases made them unreadable by the software.
• Reliability was beginning to fail (constant reboots and cleaning up of database files occurred daily).
• Uploads and downloads didn’t work with the current versions of Synchro
In January 2015 MnDOT earmarked HSIP funding for the Central System

• When the project begin MnDOT had earmarked $630,000 from HSIP to pay for the Central System.

• During this time it was determined that since MnDOT was using HSIP funding we needed to fulfill the criteria set out in 23 CFR 940

• A meeting was held with MMB in March of 2015 and it was determined that an RFP could not be finished by the sunset date for the HSIP funding.

• Even though we couldn’t use the HSIP funding we continued with the system engineering for ITS deployment.
What is 23 CFR 940?

• 23 – Title #
• CFR – Code of Federal Regulations
• 940 – Part #
• Requires that Federal Funding for ITS projects go through a System Engineering evaluation.

• MnDOT decided to hire consultants to do the Concept of Operations (Con-ops) for the System Engineering requirements (Alliant and Athey Creek) helped develop the system engineering documentation.

• The Consultant helped write the RFP – using a similar RFP solicitation from the UDOT Central System.

• The Consultant did a vendor request for information summary of some potential industry software companies.
RFP and System Engineering Consultants and MnDOT Team for CTSCS

• MnDOT
  - MnDOT ITS PM
    - Rashmi Brewer, OTST
  - MnDOT Technical Lead
    - Steve Misgen, Metro District Traffic
  - MnDOT Metro Traffic Operations
    - Tim Bangsund
    - Mike Fairbanks
    - Kevin Schwartz

• Alliant Engineering, Inc.
  - Bob Green
  - Nick VanGunst

• Athey Creek Consultants
  - Ginny Crowson
  - Dean Deeter
RFP and MMB Acquisition

• RFP required references which showed proven software capable of handling 2500 licenses.

• RFP required Vendors fill out the system requirements (total of 357 technical elements)

• RFP required Vendors to meet ADA requirements (VPAT – Voluntary Product Accessibility Template - as part of Section 508 of the Rehabilitation Act)

• RFP required Vendors to meet MNIT security system protocols

• RFP required Project Understanding

• Each Vendor was also invited to demonstrate their product (Held the week of Feb. 22nd)
RFP and Local Interest

• At the same time MnDOT was writing the RFP – Dakota County and other Local Governmental Agencies were working on obtaining an ATMS

• Instead of purchasing multiple software's between agencies, it was determined that the Locals be given a chance to buy off of the RFP being submitted by MnDOT

• Contract was written so the LGA’s could buy off the contract using the Cooperative Purchasing Venture (CPV)
Scoring Criteria for RFP of the CTSCS

• Acceptance of Terms and Conditions 50 Points
• References (Attachment A) Pass/Fail
• System Requirements (Attachment B – Section B-1) 400 Points
• Project Understanding/Background & Experience (Items 7.B & 7.C of the Special Terms, Conditions, and Specs) 50 Points
• MN.IT Security requirements 50 Points
• Accessibility (VPATS – Attachments D & E) 50 Points
• Cost Component 400 Points
• Total 1000 Points
Evaluation Team

• Team Consisted of 6 members
• 5 of the members were scoring and one was the Project Manager
• Sub-members were included from the ADA office to review the VPAT
• Sub-member was included from the MNIT office to review the IT requirements
3 Vendors were Evaluated for the CTSCS

- Transcore ITS - TranSuite
- Traffic Control Corp. - Centracs
- Intelight, Inc – Maxview

- Evaluation Team consisted of:
  - Kristi Sebastain - Dakota County
  - Curt Krohn - MnDOT
  - Steve Misgen - MnDOT
  - Nicole Flint (Stromgren) - MnDOT
  - Kevin Schwartz MnDOT
  - Dallas Laurents - MNIT
  - ADA Office - MnDOT
  - Mike Fairbanks – Project Manager
CTSCS Team Selected Intelight MaxView System

• MaxView scored best in the Technical requirements
• MaxView scored best in the VPAT criteria
• Centracs scored best in the MNIT requirements
• Maxview scored best in the Cost Component
• Maxview scored best in the Project Understanding/Background & Experience
CTSCS Selection – Intelight MaxView System

• MaxView provides all servers and controllers in one tree structure
• MaxView allows multiple users at one time
CTSCS Selection – Intelight MaxView System

• MaxView provides event logging
CTSCS Selection – Intelight MaxView System

- MaxView has Split Monitoring by TOD
CTSCS Selection – Intelight MaxView System

• MaxView has instant graphs and reports
CTSCS Selection – Intelight MaxView System

- Outlook Style Time of Day scheduler
CTSCS Selection – Intelight MaxView System

- Phase and Call Status
MnDOT Regional use of MaxView

• Currently we monitor traffic during the morning rush hour using a combination of MaxView and Aries
• RTMC Console also allows us to monitor intersections using surveillance cameras which have the capability of PTZ (Pan, Tilt, Zoom)
• TAMS (Transportation Asset Management System) is being used to create work requests while monitoring the system
• All priority one issues (Signal in Flash or Cross Street Ped Constant Call) are called into ESS right away
MaxView at our RTMC Console
Signal Operation Engineers use of Maxview

• Use the same monitoring techniques as the Regional use example including MaxView and Surveillance Video (just don’t have PTZ capability with the desktop video monitor)

• Monitor citizen requests and respond after investigation

• Able to see what alarms are happening and respond appropriately
MaxView and Video in my Office
Lessons Learned

• Start the Con-ops and System Engineering Early
• There are a lot of “unknown” rules when it comes to RFP’s and MMB
• Making changes to the MMB Contract is difficult
• Make sure you know what the contract states (still working out LGA/CPV with MMB so Dakota County can purchase the Central Sys)
• Work with Vendor early to earmark needs (we are still waiting for an update to the software to provide some needed requests) – correct bugs
• Consultants are great allies