1. Call to Order (Council Member Johnson)

2. Approval of Agenda (CM. Johnson)

3. Oath of Office (if needed) (CM. Johnson)

4. Consent Agenda (CM. Johnson)
   A. Approval: January 10, 2018 Meeting Minutes
   B. Approval: Appointment of New Alternate to SECB Interoperability Committee

5. Issues and Action Requests
   A. Radio TOC (Tretter)
      1. Approval of University of Minnesota MCC7100 Console Connection
      2. Approval of Hennepin County Participation Plan Amendment for VHF Simulcast Paging
   B. 9-1-1 TOC (Eggimann)
      1. Acceptance of CAD-to-CAD Interoperability Report
   C. Acceptance of FY2017 SHSP Grant (Tretter)
   D. Approval of Amendment to Lease with Hennepin County for ARMER sites (Tretter)
   E. Approval of Amendment to CenturyLink 9-1-1 Contract (Eggimann)
   F. Approval of Agreement with Metro CISM Team (Robinson)
   G. Approval of Executive Director Travel Requests (Rohret)

6. Reports
   A. Legislative Report (Vesel/Bergeron)
   B. Statewide Emergency Communications Board (SECB) Reports:
      1. Finance (Comm. Huffman/Rohret) - cancelled
      2. Legislative (Comm. Egan/Rohret) – cancelled
      3. Steering (Rohret/Tretter)
      4. OTC & Other SECB Committees (Tretter/Eggimann)
      5. Board (CM. Johnson/Rohret) – cancelled

7. Old Business
   A. Sherburne County Intent to Join MESB (Rohret)

8. New Business
   A. Presentation on Life Cycles of Approved Subscriber Radios Allowed on ARMER (Tretter)

9. Adjourn
A. **Minutes** – The minutes of the January 10, 2018 meeting of the Board are attached for review and approval.

B. **Appointment of New Alternate to SECB Interoperability Committee** – A new alternate to the SECB’s Interoperability Committee is needed, as the previous appointment took a new position and is no longer able to serve as alternate. The Radio TOC and the Executive Committee recommend appointing Nate Timm of Washington County Sheriff’s Office.

C. **Informational Only** – Draft minutes of the February 14, 2018 MESB Executive Committee meeting.
Commissioners Present:

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<thead>
<tr>
<th>ANOKA</th>
<th>Julie Braastad</th>
<th>HENNEPIN</th>
<th>Debbie Goettel -Absent</th>
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<td>Rhonda Sivarajah</td>
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<td>Gayle Degler</td>
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<td>Jim Ische</td>
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<td>CHISAGO</td>
<td>George McMahon</td>
<td>RAMSEY</td>
<td>Blake Huffman</td>
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<td>Janice Rettman -Absent</td>
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<td>City of Minneapolis</td>
<td>Andrew Johnson</td>
<td>SCOTT</td>
<td>Barb Weckman Brekke</td>
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<td>Tom Wolf</td>
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<td>DAKOTA</td>
<td>Tom Egan</td>
<td>WASHINGTON</td>
<td>Karla Bigham</td>
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<td>Mary Liz Holberg</td>
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<td>Fran Miron - Absent</td>
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Staff Present: Jill Rohret; Marcia Broman; Pete Eggimann; Kelli Jackson; Ron Robinson; Troy Tretter; and Martha Ziese.

Others Present: Jay Arneson, MESB Board Counsel; Margaret Vesel, Larkin Hoffman; Casey Krolczyk, Hennepin County; and Duke Powell.

1. Call to Order
Meeting was called to order at 10:00 a.m. by 2017 MESB Chair, Commissioner McMahon.

2. Approval of Agenda
Motion made by Commissioner Bigham, seconded by Commissioner Ische to accept the January 10, 2018 agenda. Motion carried.

3. Oath of Office
Commissioner McMahon administered the Oath of Office to the 2018 Chair, Andrew Johnson. Council Member Johnson administered the Oath of Office to the 2018 members present.

4. Thank you to 2017 Chair

5. Election of 2018 Officers of the Board and 2018 Executive Committee Designation
Motion made by Commissioner Ische, seconded by Commissioner Wolf to approve the 2018 Officers of the Board and 2018 Executive Committee designation. Motion carried.

6. Letter of Representation-Policy 17
Rohret said that each member of the MESB will be asked to sign this letter at the end of each year.

Rohret introduced Marcia Broman as the new 9-1-1 Data Coordinator for the Metropolitan Emergency Services Board.

7. Approval of Consent Agenda
Motion made by Commissioner Wolf, seconded by Commissioner McMahon to approve the Consent Agenda. Motion carried.
8. Issues and Action Requests

A. Radio TOC

1. Approval of Amendments to Metro Standard 3.35.0 – National Weather Service Radio Operations

Troy Tretter said the Executive Committee recommended the Board approve the amendments to Metro Standard 3.35.0 – National Weather Service ARMER Radio Operations. In July of 2017, the SECB’s National Weather Service standard was changed at the request of the National Weather Service and greater Minnesota radio regions. The new standard will take effect January 31, 2018.

As with other ARMER standards, regions can implement standards that can be more restrictive but not less restrictive. The Radio TOC determined the amended state standard did not meet the needs of the metro.

*Motion made by Commissioner Ische, seconded by Commissioner Egan to approve amendments to Metro Standard 3.35.0. Motion carried.*

2. Approval of City of Edina Request for Secondary PSAP Connection to ARMER

Tretter stated the Executive Committee recommended the Board approve the City of Edina’s request to add a fiber optic secondary connection to ARMER from the Edina PSAP. Currently, Edina has a microwave connection to the main switching office and occasionally experiences a microwave fade. Edina requests a second connection for a redundant route to connect the PSAP to the ARMER network.

Both MnDOT and Hennepin County Sheriff’s Communications have reviewed the plan and see no issues.

*Motion made by Commissioner McMahon, seconded by Commissioner Bigham to approve City of Edina request for Secondary PSAP Connection to ARMER. Motion carried.*

B. 9-1-1 TOC

1. Approval of Metro 9-1-1 Standard 3.6.0 – SMS Text-to-9-1-1 Call Processing

Pete Eggimann stated the Executive Committee recommended the Board approve Metro 9-1-1 Standard 3.6.0 – SMS Text-to-9-1-1 Call Processing. A workgroup under the 9-1-1 TOC developed a standard which was approved by the 9-1-1 TOC in November of 2017. The state shortly thereafter started to develop a standard built on some of the metro PSAP Roundtable’s work. The metro standard aligns with the state version.

*Motion made by Commissioner McMahon, seconded by Commissioner Degler to approve Metro 9-1-1 Standard 3.6.0 – Text to 9-1-1 Call Processing. Motion carried.*

C. Approval of Amendments to MESB Bylaws

Rohret said that there are two proposed changes to the bylaws, both of which can be found on page 3 and deal with the duties of two officer positions. One change is related to Treasurer. The amendment says the Treasurer may meet with the Executive Director monthly, rather than shall. This language change reflects current practice.

The second area of change is in relation to the Secretary and is also intended to reflect current practice. The proposed amendment deletes the first sentence because MESB staff preserves Board records and places notices. The Executive Committee recommended approval of both amendments.

Council Member Johnson said that an alternative to striking out the first sentence in the Secretary section would be to delete “with approval of the Board” from the last sentence in the Secretary section. He noted that if the Board agrees to this change, the bylaws would have to go through the Executive Committee and Board approval process again to provide required notice of the bylaws change.
Council Member Johnson asked for a motion to strike “with approval of the Board.”

Motion made by Commissioner Egan, seconded by Commissioner McMahon to approve the noticed change in the Treasurer section and the revised change to the Secretary section of the MESB Bylaws. Motion carried.

D. Approval of Amendments to MESB Policy 008 – Mileage Reimbursement

Rohret said that there are two changes to the mileage reimbursement policy. It is proposed to add an additional sentence: “All reimbursement checks shall be cashed within 90 days of the date of issuance.” This minor change is to provide more efficiency for both MESB and Washington County Financial Services staff.

The second minor change adds “the” to the following sentence: “The mileage rate applicable for Board and staff shall be the approved federal government rate as reported by the IRS.”

Commissioner Holberg asked why the policy included “For Board staff which travel irregularly, mileage expenses shall be submitted no less than twice a year, by June 30 and December 31.”

Rohret said that there are some staff members that attend only one or two meetings a year. It is more cost effective to issue checks of small amounts at lesser intervals. The staff members which regularly attend off-site meetings and who also receive a cell phone stipend turn in reimbursement requests monthly.

Motion made by Commissioner McMahon, seconded by Commissioner Anderson to approve amendments to MESB Policy 008 – Mileage Reimbursement. Motion carried.

E. Approval of Contract with Pamela Oslin

Rohret said that Pamela Oslin has been under contract with the MESB for several years working on the NG9-1-1 data synchronization project. The project should be wrapping up in 2018. The contract includes a not to exceed amount of $25,000, which is an increase from the 2017 agreement. The increase is due to transitioning counties from a legacy/tabular master street address guide (MSAG) to a GIS or geo-based version. Ms. Oslin has expertise with this software.

Motion made by Commissioner McMahon seconded by Commissioner Egan to approve the 2018 contract with Pamela Oslin. Motion carried.

F. 2018 Appointments to the SECB/Committees

Rohret said that each January the MESB makes its annual appointments to the SECB and its committees. Statute states that the MESB representative is the Chair or designee. It is proposed the Board approve the appointments as listed in the meeting packet. Rohret noted that a primary representative is needed for the Steering Committee and alternate representatives are needed for the Finance and Steering Committees. The 9-1-1 TOC will make recommendations at its January meeting for the SECB NG911 Committee.

Motion made by Commissioner Johnson, seconded by Commissioner Bigham to approve the above 2018 appointments to the SECB Committees, appoint Rohret as primary representative to the Steering Committee and to approve the 9-1-1 TOC recommendations for the SECB NG9-1-1 Committee. Motion carried.
9. Reports
A. Legislative Report
Margaret Vesel said that until the Legislature goes to session February 20, there is not much activity. There will be a special election February 12, 2018. A court case will determine whether Senator Fischbach is able to serve in both the roles of Lt. Governor and Senator. The budget forecast will be announced a week after session starts.

B. SECB Reports
1. Finance – Rohret said at the December meeting the committee approved a change to the financial standard of the SECB to include 9-1-1. Grant applications were reviewed and the State and Local Implementation Grant Program (SLIGP) application for FirstNet activities was discussed.

2. OTC – Tretter said at the meeting yesterday there was a lengthy discussion regarding central Minnesota’s use of statewide talkgroups during the Super Bowl.

3. Legislative – Cancelled.

4. Steering – Cancelled.

5. Board – Tretter said the SECB met on January 4. There was a request from Sanford Health in the Fargo Moorhead area to join as an ARMER participant. It was approved but will be greatly scrutinized.

The Director of the Emergency Communications Network Jackie Mines has resigned. The new Director has not yet been named.

Old Business – None.

New Business
A. Sherburne County Intent to Join MESB
Rohret said that MESB has received a request from Sherburne County to join the MESB, which was discussed by the Executive Committee in December. When the Statewide Radio Board was formed, radio regions across the state were formed; all regions formed voluntarily except the metro region, which was written in statute. At that time, Sherburne County decided to go join the Central Region. Their interest to change regions now is to provide better and more consistent services in 9-1-1 and because they interoperate more regularly with the metro region.

Since the Executive Committee met in December, the request process has proceeded. It is now known that there will not be any technical changes on the ARMER side and the EMSRB will simply require a letter for Sherburne County to change regions. There will be many changes related to 9-1-1. Sherburne will need to connect to the St. Paul selective router, as the MESB requires its PSAPs to connect to both the Minneapolis and St. Paul selective routers. The MESB covered the cost for the additional connection when Isanti and Chisago Counties joined the Metro Region for 9-1-1. She noted that a MESB resolution approving Sherburne’s request to join would need to include whether the Board will cover that cost. Rohret noted that the MESB’s operational budget will not increase due to the additional county, though staff workload’s may temporarily increase. The assessments for current JPA members would decrease by a small percent.

Commissioner Holberg asked if the resolution could include the period of time Sherburne County would need to remain with the Metropolitan Emergency Services Board or reimburse the MESB for the connection fee.
METROPOLITAN EMERGENCY SERVICES BOARD

Commissioner Ische said that if we did not ask for such a commitment from Isanti and Chisago Counties we cannot ask for one from Sherburne County.

Commissioner Egan said much of the Executive Committee discussion was regarding the split of the City of St. Cloud. The committee also discussed was the how many voting members Sherburne County would have on the Board.

Rohret noted that the recommendation from the Executive Committee is that Sherburne County should have two voting members because their population is very close to that of Carver County’s.

Commissioner Degler said if the Executive Committee had discussed how big the MESB would want to be.

Rohret said that it was not discussed at the Executive Committee, but it would be a valuable discussion to have.

Council Member Johnson asked if there could be an estimate of the assessment decrease. Rohret responded that recollection is that it varies due to population, but at most 1-2%.

Commissioner McMahon asked if Rohret was spending a lot of time meeting with them. He suggested she get a date as to when they will have a resolution presented for our planning. Rohret replied that some staff members have attended a meeting in Sherburne County, and she has had several conversations with Sherburne County Sheriff Joel Brott and Sherburne County staff. Additionally, MESB 9-1-1 staff will hold a meeting with Sherburne County to determine how much work will need to be done on the 9-1-1 and data side.

Rohret stated that the MESB requires specific language to be included in a resolution passed by Sherburne County, which will then become the basis for a MESB resolution approving the request to join. The MESB resolution must be passed unanimously and no later than May 2018, as the request does have implications on 2019 assessments which are preliminarily set at the MESB’s July meeting.

B. Super Bowl update – Ron Robinson provided an update of Metro Region EMS activities in support of Super Bowl LII.

Meeting adjourned at 11:05 a.m.
RECOMMENDATION
The Executive Committee recommends approval of Nate Timm of Washington County Sheriff’s Office as the alternate representative to the SECB Interoperability Committee.

BACKGROUND
The Metropolitan Emergency Services Board, per Minnesota Statute Chapter 403, has a seat on the Statewide Emergency Communications Board, and has maintained seats on all SECB committees since the SECB’s inception. The MESB makes its annual appointments to the SECB and its committees each January.

The SECB governs the ARMER system, Next Generation 9-1-1 (NG9-1-1), and interoperable data (FirstNet).

ISSUES & CONCERNS
After the January 2018 MESB meeting, staff learned that the former alternate to the SECB Interoperability Committee had taken a new position and would no longer be available to serve as the alternate to the SECB Interoperability Committee.

After a discussion at the Radio TOC, the committee recommends Nate Timm for the position. Mr. Timm is the ARMER System Manager for Washington County and previously was the ARMER System Manager for Goodhue County. He has been actively involved with the SECB for many years and currently also serves as the MESB alternate to the SECB’s Operations and Technical Committee.

FINANCIAL IMPACT
None to the MESB.
METROPOLITAN EMERGENCY SERVICES BOARD
EXECUTIVE COMMITTEE MEETING MINUTES
FEBRUARY 14, 2018

Commissioners Present:

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<td>Jeff Johnson</td>
<td>MINNEAPOLIS</td>
<td>Andrew Johnson</td>
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Staff Present: Jill Rohret; Pete Eggimann; Kelli Jackson; Troy Tretter; and Martha Ziese.
Others Present: Jay Arneson, MESB Board Counsel; and Zane Gelin.

1. Call to Order
Meeting was called to order at 10:00 a.m. by Council Member Andrew Johnson.

2. Approval of February 14, 2018 Agenda.
Council Member Johnson asked that the Oath of Office for Commissioners Goettel and Miron be added to the February 14, 2018 agenda.

Motion made by Commissioner Egan, seconded by Commissioner Wolf to approve the February 14, 2018 agenda as amended. Motion carried.

3. Oath of Office administered to Commissioners Goettel and Miron.

Motion made by Commissioner Anderson, seconded by Commissioner Wolf to approve the December 13, 2017 Executive Committee minutes. Motion carried.

5. Issues and Action Requests
A. Radio TOC Action Items
1. Approval of New Alternate to SECB Interoperability Committee
Troy Tretter said the Radio Technical Operations Committee recommended the Executive Committee recommend approval of Nate Timm of Washington County Sheriff’s Office as the MESB alternate to the SECB Interoperability Committee.

Motion made by Commissioner Miron, seconded by Commissioner Ische to approve Nate Timm as the MESB’s alternate to the SECB Interoperability Committee. Motion carried.

B. Acceptance of FY2017 SHSP Grant
Tretter said the SECB allocated grant funds to the MESB under the 2017 State Homeland Security Program (SHSP) grant. Staff recommends the Executive Committee recommend the acceptance of the 2017 SHSP grant to the MESB in the amount of $26,000.00. $25,000.00 will be used for Motorola training for metro region radio technicians and $1,000.00 will be designated for Metro Communications Response Task Force (CRTF) training.

Motion made by Commissioner Ische, seconded by Commissioner Wolf to accept the FY2017 SHSP grant. Motion carried.
C. Approval of Amendment to CenturyLink 9-1-1 Contract
Pete Eggimann said CenturyLink failed to charge the State for a monthly recurring charge; the error was discovered, and CenturyLink has agreed to not seek reimbursement for past service that went unbilled. This amendment states that the State will pay the monthly recurring charge beginning in February 2018. He said staff recommends the Executive Committee recommend approval of a contract amendment to the current 9-1-1 Service Provider contract (T-730) which will provide diversity to the Cook County PSAP and implement monthly connectivity charges for Legacy Selective Router Gateways (LSRG).

Motion made by Commissioner McMahon, seconded by Commissioner Miron to approve the amendment to the CenturyLink 9-1-1 contract. Motion carried.

D. Amendments to MESB Bylaws
Jill Rohret said the amendments were discussed at the December Executive and January Board meetings; a change was suggested at the January meeting but did not meet the required notice for bylaws amendments. 15-days’ notice is required to change the bylaws. The amendment before the Executive Committee include the change made at the January Board meeting.

Motion made by Commissioner Ische, seconded by Commissioner Wolf to approve the amendments to the MESB Bylaws. Motion carried.

E. Approval of Executive Director Travel Requests
Rohret said per MESB Policy 007, the Board must approve Executive Director travel. She is seeking permission to attend the 2018 NENA annual conference and the 2018 APCO/MTUG national conferences. Commissioner McMahon asked if Rohret felt there would be value in a board member attending the NENA and or APCO conferences in addition to Rohret. Rohret said it would be entirely appropriate and that some of the sessions would be of value. Rohret said the former Radio Board often did take a board member to the APCO conference. Much of the conference is very technical but there would be value attending if there was an interest.

Commissioner McMahon said he thought someone from the board should attend. County officials are going to be asked why Motorola is telling users that a five-year old radio needs to be replaced when they are working just fine. It would be helpful if we would know how NG 9-1-1, FirstNet and end-of-life radios affect our counties. Chisago bought radios for the new system and after the fact found out they were two years closer to being obsolete.

Rohret said that radio system managers do life cycle planning; each manager plans for regular replacement of radios, generally between 7-10 years. Motorola announces product cancellations to give a year or so for final orders, plus an additional five years of support. Chisago County's situation was a timing issue where the radios it purchased were scheduled for cancellation. Radio system managers should be aware of the timelines for radio replacement and product cancellation. For mobile data, all departments which use mobile data will have a choice whether or not to use FirstNet or another wireless carrier. The State will have a contract off of which agencies may purchase or agencies have the option to negotiate a better deal individually.

Commissioner Goettel asked if there was any competition, is Motorola the only vendor? Rohret said that Motorola is the only vendor for the radio system infrastructure, but not the only end-user equipment. There is a list of approved vendors on our website and the SECB’s website. There is a choice and a range of costs, though Motorola equipment is generally preferred.

Chair Johnson said to contact him if any members were interested in attending these conferences. He said what is coming from this discussion is a need to explore if there are any other opportunities to avoid planned obsolescence of equipment.
Commissioner Anderson said he would like to know why the life cycle is five years. Perhaps Motorola could be invited to a board meeting to explain. Commissioner Goettel said it would be helpful to learn what the competitor’s life cycles were.

Chair Johnson said if there was enough interest on this subject it should remain as an agenda item. Members agreed it should be an agenda item.

Motion made by Commissioner Miron, seconded by Commissioner Wolf to approve the Executive Director travel requests. Motion carried.

6. Old Business
A. Sherburne County Intent to Join MESB
Rohret said that Sherburne County would be passing a resolution that includes all the information the MESB requires later this month or early March. The Board would have to vote unanimously to approve Sherburne County joining the MESB. This request for approval will be on the April Executive and May Board meeting agendas, so that it may be taken into consideration for the planning of the 2019 budget.

The quote from CenturyLink to connect Sherburne County to the St. Paul selective router was in line with what the MESB paid for Chisago and Isanti County’s connections. It is being discussed with the State if it is actually necessary.

Pete Eggimann and Marcia Broman will start meeting with Sherburne County later this month to begin the 9-1-1 transition process, particularly for data.

7. New Business
A. Discussion: University of Minnesota MCC7100 Console Request for Super Bowl
Rohret said that in late January a request came from the University of Minnesota to add a mobile console to be used during the Super Bowl and beyond. These types of requests require Board approval. Due to the timing, Board action could not be taken prior to the Super Bowl. After discussions with the Chair and Board Counsel, staff followed the process which is outlined in Metro Standard 1.5.3, which allows the Executive Director to grant temporary approval for emergency requests. The University must return to the Radio TOC in February for review of its permanent connection, and then receive Board approval in March.

Chair Johnson said he appreciated that the matter was handled professionally by the Executive Director and MESB Counsel. Jay Arneson said that stated in the standard specific variance the process was followed.

B. Recommendations for Attendees to the SECB Strategic Planning Workshop
Rohret said that a representative is needed to attend the March 8-9, 2018 workshop to start the Statewide Emergency Communications Board’s strategic planning for the next three years, 2019-2021. Rohret, Eggimann and Broman will be attending because the MESB is a party to the 9-1-1 contract. Each region was asked to send up to five people, which represent various aspects of government and public safety. The recommendations are Dave Deal, Washington County; Scott Haas, Scott County; Commissioner George McMahon; and Nancie Pass, Ramsey County. One other representative may be invited. There are two interested people to fill the final spot; one of which is concerned he wouldn’t be able to adequately represent the region as a whole, and the other which has represented the region on SECB committees in the past.

Commissioner Goettel said she thought the Executive Director should choose, but it made sense to appoint the person who can best represent the region.
Motion made by Commissioner Goettel, seconded by Commissioner Wolf to recommend approval of the above recommended representatives. Motion carried.

Meeting adjourned at 10:45 a.m.
RECOMMENDATION
The Radio Technical Operations Committee recommends to the board approval of the University of Minnesota’s request to an addition of a Motorola MCC7100 dispatch console.

BACKGROUND
ARMER standards require additions of equipment or applications which touch or interface with the ARMER system be approved by the region communications boards and the Statewide Emergency Communications Board (SECB).

ISSUES & CONCERNS
The University of Minnesota is requesting the addition of a MCC7100 mobile console, which would connect to ARMER via a wireless internet connection provisioned by the University or via a Verizon LTE hotspot connection. The mobile console will be used in the University’s police command van.

The design was reviewed and approved by MnDOT. No issues were raised by the Radio TOC.

FINANCIAL IMPACT
None to the MESB.
January 17th, 2018

Troy Tretter  
Metropolitan Emergency Services Board  
2099 University Avenue W.  
St. Paul, MN 55104  

Troy,  
The purpose of this letter is request approval to change the University of Minnesota’s participation plan for the ARMER radio system. The University’s current participation plan consists of five (5) MCC7500 consoles deployed in the Public Safety Emergency Communications Center, and one (1) MCC7100 console deployed to the Command Post within TCF Bank Stadium. The University is seeking to add an additional MCC7100 console to the plan.  

The new console will be provided, installed, and programmed by Motorola Solutions. This will include the installation of a new proxy server and firewall, both of which have been specified by Motorola in accordance with all relevant MNDOT policies and procedures. The new equipment will reside in a secured University server room with all other University-owned ARMER backroom equipment.  

The new console will be wireless, but will primarily be deployed to the University Police Department’s Mobile Command Van. This vehicle is equipped with its own private wireless network. The console will connect to ARMER via this network through a dedicated Virtual Private Network (VPN) connection. The VPN has been specifically developed to the specifications provided by Motorola to ensure security.  

Thank you for your consideration.  

Sincerely,  

Jeff Lessard, Director  
U of M Public Safety  
Emergency Communications  
2221 University Avenue SE  
Minneapolis, MN 55414
When connected to a VPN, all communications from the MCC7100 Console to the RNI occur via a secure encrypted IPIP tunnel to prevent eavesdropping or sniffing of radio traffic. The MCC7100 laptop will not be allowed access to the Internet when connected (no split-tunneling).
Hi Dave,

The drawing looks like the models that have already been deployed for Ottertail & Minneapolis. I do not have issues with the design.

Regards,
John

---

Hi John,

I'm trying to help Jeff move the process along for the U's MCC7100 ORNI console.

At the TOC meeting last week, Jeff was informed that before he can be allowed to proceed to bring up his MCC7100 Console outside the RNI for the Superbowl event, he needed approval from the ARMER system administrator for the network design. I've attached a high-level document that shows the typical RNI network deployed for all of the other MCC7100s currently deployed in ARMER that also shows a block-view of the U of M VPN network. Again, nothing abnormal here. They will be using Cisco AnyConnect to set up the VPN through either the campus WiFi network or via a Verizon Aircard via a hotspot.

Jeff doesn't have a network on the U of M side identified yet, but that will hopefully come the week of the 29th. Whatever that network is, it won't make any difference to the overall design.

If you approve, can you "reply-all" stating such?

Any questions, like always, holler back at me.

Dave Theis
Sr. System Technologist
Motorola Solutions
(M) 320-980-2420
(E) dave.theis@motorolasolutions.com
RECOMMENDATION
The Radio Technical Operations Committee recommends the Board approve Hennepin County's request to install a site to the Zone 2 Main Switching Office (MSO) to support Hennepin County's VHF paging simulcast.

BACKGROUND
Hennepin County uses VHF paging for fire departments within the county. Paging systems require tower sites and microwave use, as is done in the ARMER system.

ARMER standards require approval by regional radio boards and the Statewide Emergency Communications Board for equipment or applications which touch or interface with the ARMER system.

In November 2017, the MESB approved a Hennepin County request to install a new five site VHF paging system at the following sites: Braemar Park, Golden Valley, Medina, Minnetrista, and Rogers.

ISSUES & CONCERNS
After further design research with Motorola, Hennepin County determined adding a five-site VHF paging system to the ARMER zone controller would provide the best functionality. The five-site VHF system is akin to adding an ARMER simulcast subsystem; it is a transmit-only paging system that will transmit simultaneously from each tower site in the simulcast system. This type of addition to ARMER is called a conventional sub-site (C-subsite); a C-subsite provides redundant links to the sites, Unified Event Manager (UEM) control of the sites, as well as monitoring the status of the sites. This addition will occur within the Zone 2 master site.

The State System Administrator has reviewed and approved the design proposal.

The Radio TOC notes that other counties in the metro region might make similar requests for their VHF paging systems.

FINANCIAL IMPACT
None to the MESB. Hennepin County will pay for any changes related to this project under the Motorola System Upgrade Agreement (SUA) and agree to keep the VHF simulcast system software current with the ARMER system release.
February 22, 2018

Metropolitan Emergency Services Board
2099 University Ave West
Saint Paul MN 55104

Mr. Scott Haas,

Hennepin County is working on the addition of a Motorola conventional sub-site to the ARMER Zone 2 MSO. This request is submitted to the Technical Operational Committee for review and approval.

The County is working to install a new five site VHF simulcast paging system to accommodate the traffic of new and existing fire department users in Hennepin County. To implement this system Motorola proposed a conventional sub-site system to be added to the Zone 2 MSO. This Motorola architecture allows for important redundant transport links to sites, and monitor/control capabilities with UEM. Motorola proposed this conventional sub-site to operate on its own set of core routers. There will also need to be a additional CCGW in this architecture. However with the recent City of Minnetonka dispatch migration to the County, the total number of CCGWs adds up to be a total of one less.

This conventional sub-site design has been reviewed and discussed with MnDOT with no objections.

For any additional cost of upgrades relating to SUA+2 or future software subscription cost, the County will be responsible for the costs of the additional pieces of equipment on this conventional sub-site system.

Respectfully submitted,

**King Wai Fung**

King Fung
Senior Professional Engineer
Hennepin County Sheriff’s Office
1245 Shenandoah Lane N
Plymouth MN 55447
612-596-1923
RECOMMENDATION
The 9-1-1 TOC recommends the Board accept the CAD-to-CAD Interoperability Feasibility Report and Recommendations as submitted.

BACKGROUND
In the fall of 2016, the 9-1-1 Technical Operations Committee identified a CAD-to-CAD feasibility study as a priority as part of the SECB grant application process. The SECB approved the requested grant in the amount of $30,000. The Board accepted the SECB grant funds and awarded a contract for a consultant for this project, Winbourne Consulting, LLC., after issuing an RFP.

Winbourne representatives met with the MESB staff, conducted interviews with the metro PSAP managers, documented the CAD systems in use by the PSAPs, documented the number of response units the PSAPs support, and assessed the PSAP and responder support for a CAD-to-CAD interoperability project.

ISSUES & CONCERNS
It is anticipated that the report may become the first step in a multi-step implementation plan including the development of a business plan, identification of potential funding sources, and preparation of an RFP for the procurement and implementation of a regional CAD-to-CAD interoperability system.

The 9-1-1 TOC reviewed the draft report as presented. The 9-1-1 TOC recommendations are: 1) the CAD-to-CAD solution should be implemented at a regional level and be capable of supporting all metro PSAPs; and 2) the PSAP share of any costs must be affordable to them. The 9-1-1 TOC also recommended that the project be included in the SECB 2019-2021 Strategic Plan, currently under development, in an effort to possibly be eligible for state funding.

MESB staff support the 9-1-1 TOC’s recommendation but have identified additional issues the Board will have to consider in the future if the project moves forward. First, the implementation of a regional CAD-to-CAD solution will require IP connectivity between PSAPs and the solution’s hubs, possibly via the cloud and virtual private networks, or via a wide area network which capable of supporting 9-1-1 as well as shared/hosted applications. Second, should such a solution be implemented under the MESB and what level of participation should staff take in the implementation and on-going management of the solution. Lastly, from what funding sources
should such a project be funded, directly from the PSAPs, from response agencies, from the Board, and/or from the state?

**FINANCIAL IMPACT**
None at this time. The MESB could apply for additional grant funds in the future to fund the development of the multi-step implementation plan.
Metropolitan Emergency Services Board

CAD-to-CAD Interoperability Feasibility Report and Recommendations

February 21, 2018
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1.0 Executive Summary

Winbourne is pleased to provide this feasibility report on Computer Aided Dispatch (CAD) interoperability and recommendations to Metropolitan Emergency Services Board (MESB). Our team worked closely with all Twin Cities metropolitan region PSAPs, CAD-to-CAD vendors and CAD vendors to gather the information that is used in our findings. Our recommendations are based on the information gathered, industry knowledge, and our experience with similar projects.

1.1 Overview of Project Scope

Winbourne Consulting LLC was engaged by the MESB to provide expert consulting services to perform a CAD-to-CAD interoperability and feasibility study and to provide a report and recommendations.

As part of the engagement, we provided MESB a CAD-to-CAD white paper that was distributed to all metro region PSAPs prior to a kick-off meeting. During the kick-off meeting, our team went through highlights of the CAD-to-CAD white paper including situational awareness, resource sharing, incident transfer capability, NG9-1-1 compatibility and interoperability.

We interviewed the metro region PSAPs to answer questions regarding CAD-to-CAD interoperability, gather information regarding each PSAP’s technology and CAD software, and determine each PSAP’s willingness to participate in a regional interoperability initiative utilizing a Commercial off the Shelf (COTS) CAD-to-CAD solution.

Our team contacted the three major CAD-to-CAD software vendors in order to determine their ability to provide a solution that would meet MESB’s needs for a regional CAD-to-CAD interoperability solution.

We worked closely with MESB to ensure that all of the PSAPs in the metro region had their needs and desires for a regional CAD-to-CAD interoperability solution represented in the report.

This report documents our findings and recommendations. Each recommendation also includes a projected timetable for implementation and a preliminary, budgetary-level cost estimate.

1.2 Our Methodology

Our methodology for conducting the analysis was based on several factors:

- Clarifying study objectives with MESB
• Conducting data gathering and verification
• Obtaining best practice examples from other regional CAD-to-CAD installations
• Determining relevant findings associated with the project objectives and developing related recommendations
• Obtaining feedback from stakeholders such as MESB and metro region PSAPs
• Maintaining regular communications with MESB and other stakeholders throughout the project
• Documenting our findings and recommendations in project briefings and in this final report

1.3 Summary of Findings and Recommendations

The Statement of Work (SOW) posed three primary study requirements, the findings and recommendations for which are summarized below:

Inventory/Interest

Our analysis shows that most of the PSAPs have CAD systems capable of supporting a COTS CAD-to-CAD solution with Automatic Vehicle Location (AVL) closest resource dispatch capability.

Based on our contact and interview process with the metro region PSAPs, we determined that there is a high level of interest for a COTS CAD-to-CAD regional interoperability solution. We also found that many of the PSAPs expressed a desire to expand the data sharing capability of a CAD-to-CAD solution to neighboring counties outside of the metro region, primarily because these counties already have mutual aid agreements with many of the metro region PSAPs.

Preliminary Recommendations

Utilizing the data collected through our PSAP interview process, our knowledge of the industry and other similar regional data interoperability projects, we recommend that MESB procure a bi-directional COTS CAD-to-CAD solution that will interconnect all metro region PSAPs. We also recommend that the COTS CAD-to-CAD solution be robust enough to allow neighboring counties and PSAPs to join. We further recommend the use of a request for proposal (RFP) process with detailed CAD-to-CAD operational and technical requirements to procure the COTS CAD-to-CAD solution.
Our recommendation is that MESB procure and maintain the CAD-to-CAD solution for all metro region PSAPs, and that MESB draft the agreement language for the participating metro region PSAPs to sign, as part of the CAD-to-CAD implementation and go-live process. The following, Figure 1, illustrates the proposed CAD-to-CAD solution with connectivity between all metro region PSAPs.

**PSAP Interviews & Recommendations**

Our team conducted a thorough analysis of the metro region PSAPs, including CAD and AVL capabilities and willingness to participate in a regional CAD-to-CAD interoperability initiative. Through our extensive interview process, we can report that all of the metro region PSAPs are in favor of a CAD-to-CAD interoperability solution. Furthermore, all of the metro region PSAPs
interviewed expressed full support for MESB to procure and manage the regional CAD-to-CAD interoperability solution.

Winbourne is basing our recommendation on the analysis and interview process with the metro region PSAPs, contact with the CAD-to-CAD vendors, and contact with the CAD vendors that are currently providing solutions to the metro region PSAPs, industry knowledge and other experiences with similar projects. Our recommendation is based on all of these factors, and we are pleased to recommend that MESB strongly consider the procurement and implementation of a regional COTS CAD-to-CAD interoperability solution.

1.4 Summary of Cost Estimates

We prepared cost estimates for a regional CAD-to-CAD solution including the CAD-to-CAD product and interface costs to each metro region PSAP’s CAD system. We used multiple data sources for these cost estimates to include CAD-to-CAD vendors, CAD vendors, open source data (Internet), and our personal experience with the costs for these types of systems.

The detail capital and recurring costs are presented in the CAD-to-CAD cost estimate section 2g.1 of this report.

We broke down the cost estimates into three primary categories of CAD-to-CAD procurement, CAD-to-CAD solution/product, and each PSAPs CAD Interface to the CAD-to-CAD solution. We then looked at low and high estimates for each category to come up with a total budgetary cost estimate for the entire project, ranging from $2,100,000 on the low end to $5,690,000 on the high end, with a median of $3,895,000.

The ongoing cost for the CAD-to-CAD solution ranges from $200,000/year on the low end to $600,000/year on the high end, with a median of $400,000/year. The ongoing cost for each PSAPs CAD interface to the CAD-to-CAD solution ranges from $12,000/year on the low end to $18,000/year on the high end, with a median of $15,000/year.

To add the Minnesota State Patrol to the CAD-to-CAD interoperability project we estimate a cost range from $120,000 on the low end to $160,000 on the high end, with a median cost of $140,000.

The five year total cost for the entire CAD-to-CAD project ranges from $4,040,000 on the low end to $9,800,000 on the high end, with a median of $6,920,000.
1.5 Summary of Implementation Timeline

Our team broke down the implementation timeline into two primary sections of CAD-to-CAD procurement, and CAD-to-CAD implementation which includes interfacing each PSAP to the CAD-to-CAD solution. The timeline was developed based on discussions with the CAD-to-CAD vendors, the CAD vendors, open source data (Internet), industry knowledge and our personal experience with implementing these types of systems. The detail CAD-to-CAD estimated implementation timeline can be found in section 2g.2 of this report.

To summarize, we believe that the CAD-to-CAD procurement process will take about 6 to 7 months to complete. The CAD-to-CAD implementation, CAD interfaces to each PSAP and PSAP certification process will take 12 to 18 months to complete. This means that the entire project from start to finish will take between 18 and 24 months to complete.

2.0 Project Study Requirements

The Project Scope as stated in the MESB’s RFP has the following requirements:

a. Inventory by PSAP of the CAD product currently in use, including options, and software release levels.

b. Inventory by PSAP on Automatic Vehicle Location (AVL) capabilities for tracking responder vehicles and status, including vendor, options, and software release levels.

c. Identify PSAPs who are interested in entering into a cooperative agreement to share CAD and responder data in real time.

d. Data interoperability options – minimum of two options
   • Examples from interoperability projects currently operating in other parts of the country.
   • Cost estimates for each option.

e. Recommendation for implementation of a regional CAD-to-CAD data interoperability project.
   • Implementation timeline and identifiable milestones for the completed regional CAD data interoperability project.
   • Identification of the next step
     o Cost estimates for the next step

f. Identify any legal issues that sharing CAD data may create for the metro region PSAPs.
• Recommendations on how to deal with legal issues.

g. Identify your expectations for the MESB and the metro PSAPs in the preparation and completion of the RFP report and recommendations.

2.01 Data Interoperability Overview

Data interoperability is emerging as a key public safety requirement. It is taking on the imperative that voice interoperability did after the attacks on September 11, 2001. The challenge of public safety data interoperability between CAD systems is being addressed by a growing number of communities and technology vendors across the country. Data interoperability is developing as a requirement for multi-jurisdictional regions that share multiple borders. During the past 5-10 years, the number of regions across the country that are using a form of CAD interoperability or CAD-to-CAD interface has continued to grow.

2.02 CAD-to-CAD Overview

A key challenge for many PSAPs is the lack of timely access to personnel and resource information in neighboring jurisdictions, particularly when units in the neighboring jurisdiction are the closest available to the incident. When an incident occurs near the border between jurisdictional boundaries, dispatchers lose time by having to make phone calls to locate and dispatch the closest resources.

CAD-to-CAD interoperability can speed the incident response by using pre-determined dispatch agreements to send the closest available unit automatically. Using this solution, dispatchers can view all resources available to them, including those located in neighboring jurisdictions. The PSAP CAD systems can use this information to automatically dispatch resources based on closest distance to the incident and required type of unit.

The major benefits of CAD interoperability include:

• Reduction in response time
• Increased personnel efficiency
• Increased vehicle efficiency
• Situational awareness
The reduction in response time can potentially equate to lives saved, while the increase in personnel and vehicle efficiency can prove valuable to agencies with constrained funding.

The table in Figure 2 represents examples of CAD-to-CAD regional initiatives in large jurisdictions and regions in the U.S. Each of these jurisdictions has reported on incidents aided by the CAD-to-CAD solution they use.

While CAD-to-CAD integration is most valuable to fire and EMS, it also provides situational awareness and resources for law enforcement. Utilizing a CAD-to-CAD solution throughout the metro region can reduce response time and create a cooperative environment for law enforcement, fire and EMS by providing a view of resources near jurisdictional borders, as well as incidents on the adjoining borders that could impact each jurisdiction.

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia: Fairfax County, Arlington County and the City of Alexandria</td>
<td>Over 1.6 million residents</td>
</tr>
<tr>
<td>California: Silicon Valley Regional Interoperability Project (SVRIP): 19 PSAPs in Santa Clara County</td>
<td>Over 1.8 million residents</td>
</tr>
<tr>
<td>California: San Diego Regional Interoperability Project: 14 public safety agencies and PSAPs</td>
<td>Over 1.4 million residents</td>
</tr>
<tr>
<td>Oregon: Lake Oswego City, the City of Portland, and the counties of Multnomah, Clackamas, Clark, Columbia, and Washington</td>
<td>Over 2.3 million residents</td>
</tr>
<tr>
<td>Arizona: Cities of Phoenix and Mesa</td>
<td>Over 2 million residents</td>
</tr>
<tr>
<td>Massachusetts: Boston, Cambridge, Brookline, Chelsea, Everett, Somerville, Quincy, Winthrop, Revere, Northeastern University, Harvard University</td>
<td>Over 4 million residents</td>
</tr>
<tr>
<td>California: Los Angeles Fire Department, Verdugo Fire Communications Center (dispatches for 12 fire departments), Los Angeles City Fire Department, Long Beach Fire Department</td>
<td>Over 11 million residents</td>
</tr>
<tr>
<td>Tennessee: Nashville Regional Information System includes 24 PSAPs</td>
<td>Over 1.7 million residents</td>
</tr>
</tbody>
</table>

(Figure 2)

In an integrated environment, all jurisdictions actively cooperate to provide the fastest and most comprehensive response to all types of incidents. Not only does this solution
enhance the fire and EMS mutual aid capability, it also provides law enforcement with a visual of all police and sheriff units in the vicinity of a major incident. In situations such as a high-speed car chase through multiple jurisdictions, the CAD-to-CAD solution prevents the use of too many units trying to follow the suspect; instead, each agency has situational awareness of all units near the suspect vehicle and they can respond more effectively.

Having a CAD-to-CAD solution typically improves technological cooperation and coordination between all public safety agencies. For example, in anticipation of changes in 9-1-1 communications related to Next Generation 9-1-1 (NG9-1-1), metro region PSAPs utilizing a CAD-to-CAD solution would benefit from all of the NG9-1-1 data utilization functionality and integration, including electronic fire and burglar alarms, panic buttons, car-telematics, shot-spotter, smartphone apps, texting, photos, video, and social media that will be implemented over the next few years.

Using a CAD-to-CAD solution, the metro region PSAPs can receive dispatch information related to everything going on in the neighboring communities, counties and metro region, enhancing situational awareness. Each PSAP maintains complete control over its data and the resources it shares with others, and each plays a role in determining which data and resources it wants to receive.

Specific benefits that can be obtained through this integrated approach include the following:

- Provide a regional public safety solution for sharing incident information, delivering each entity with incident information in a timely manner.
- Opportunity to evolve to closest available dispatch for ambulance and fire calls for service.
- Add to the capabilities provided by the ARMER system by adding additional capability for regional response.
- Enhance the regional disaster response by making regional incident data available during a major incident.
- The ability to setup geographic areas around a municipality or a county is called “Geo-Fencing.” This capability allows PSAPs to monitor incident/call activity in a predetermined Geo-Fence area and provide valuable information to public safety officials and the public.
### 2a PSAP CAD System Inventory

Our team worked with MESB to gather the CAD system information including vendor name, CAD version and number of positions.

The table in Figure 3 depicts the CAD system inventory information collected:

<table>
<thead>
<tr>
<th>County</th>
<th>Agency</th>
<th>Positions</th>
<th>CAD Vendor</th>
<th>CAD Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anoka</td>
<td>Anoka County Central Communications</td>
<td>15</td>
<td>TriTech</td>
<td>Inform 5.7</td>
</tr>
<tr>
<td>Carver</td>
<td>Carver County Sheriff Office Communications</td>
<td>9</td>
<td>CIS (Computer Info Systems)</td>
<td>13.05.01 Build 096</td>
</tr>
<tr>
<td>Carver</td>
<td>Ridgeview Medical</td>
<td>4</td>
<td>Zoll</td>
<td>RescueNet Dispatch 4.6.1.774 SP1</td>
</tr>
<tr>
<td>Chisago</td>
<td>Chisago County Emergency Communications Center</td>
<td>10</td>
<td>ProPhoenix</td>
<td>2016 R2, 10/24/17</td>
</tr>
<tr>
<td>Dakota</td>
<td>Dakota County Communications</td>
<td>25</td>
<td>TriTech</td>
<td>Inform 5.7</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Bloomington PD</td>
<td>12</td>
<td>TriTech</td>
<td>Inform 5.7</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Eden Prairie PD</td>
<td>4</td>
<td>Tyler Technologies</td>
<td>New World 10.2</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Edina PD</td>
<td>5</td>
<td>Superion (OSSI)</td>
<td>17.1</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Hennepin County Sheriff Communications</td>
<td>45</td>
<td>TriTech</td>
<td>Tiburon IQCAD 3.7 TriTech Inform 5.7 or 5.8 Q2 2018</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Hennepin EMS Communications</td>
<td>6</td>
<td>TriTech</td>
<td>Inform 5.6 now Q1 2018 Inform 5.7</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Minneapolis Emergency Communications Center</td>
<td>41</td>
<td>TriTech</td>
<td>Inform 5.6 now Q1 2018 Inform 5.7</td>
</tr>
<tr>
<td>Hennepin</td>
<td>MSP Airport</td>
<td>10</td>
<td>TriTech</td>
<td>Inform 5.8.2</td>
</tr>
<tr>
<td>Hennepin</td>
<td>North Memorial Ambulance</td>
<td>8</td>
<td>Hexagon/Intergraph</td>
<td>Version 9.4 go-live Feb 2018</td>
</tr>
<tr>
<td>Hennepin</td>
<td>St. Louis Park PD</td>
<td>3</td>
<td>TriTech</td>
<td>Zuercher 13.0</td>
</tr>
<tr>
<td>Hennepin</td>
<td>University of Minnesota</td>
<td>5</td>
<td>TriTech</td>
<td>Inform 5.6 now Q1 2018 Inform 5.7 (share with MECC)</td>
</tr>
<tr>
<td>Isanti</td>
<td>Isanti County Sheriff</td>
<td>3</td>
<td>TriTech</td>
<td>LETG (Zuercher) 1.17.12.10</td>
</tr>
<tr>
<td>Ramsey</td>
<td>Allina Health EMS</td>
<td>17</td>
<td>TriTech</td>
<td>Inform 5.7</td>
</tr>
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<td>Ramsey</td>
<td>Ramsey County Emergency Communications Center</td>
<td>65</td>
<td>TriTech</td>
<td>Inform 5.8.2</td>
</tr>
<tr>
<td>Scott</td>
<td>Scott County Communications</td>
<td>8</td>
<td>TriTech</td>
<td>LETG (Zuercher) 2.1.5.8</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington County Communications</td>
<td>18</td>
<td>TriTech</td>
<td>Inform 5.7 (2018 go-live)</td>
</tr>
</tbody>
</table>

(Figure 3)
2b PSAP AVL Capability

The table in Figure 4 depicts the Mobile AVL inventory information collected: Note: AVL enabled means that the Mobile System supports AVL, but not all units may have AVL.

<table>
<thead>
<tr>
<th>County</th>
<th>Agency</th>
<th>Units per Shift</th>
<th>Total Units in CAD</th>
<th>Mobile System</th>
<th>AVL Enabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anoka</td>
<td>Anoka County Central Communications</td>
<td>100</td>
<td>2,500</td>
<td>TriTech</td>
<td>YES</td>
</tr>
<tr>
<td>Carver</td>
<td>Carver County Sheriff Office Communications</td>
<td>30</td>
<td>800</td>
<td>CIS (Computer Info Systems)</td>
<td>NO</td>
</tr>
<tr>
<td>Carver</td>
<td>Ridgeview Medical</td>
<td>10</td>
<td>19</td>
<td>Zoll</td>
<td>YES</td>
</tr>
<tr>
<td>Chisago</td>
<td>Chisago County Emergency Communications Center</td>
<td>46</td>
<td>133</td>
<td>ProPhoenix</td>
<td>YES</td>
</tr>
<tr>
<td>Dakota</td>
<td>Dakota County Communications</td>
<td>255</td>
<td>2,027</td>
<td>TriTech</td>
<td>YES</td>
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<tr>
<td>Hennepin</td>
<td>Bloomington PD</td>
<td>100</td>
<td>275</td>
<td>TriTech</td>
<td>YES</td>
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<td>Eden Prairie PD</td>
<td>10</td>
<td>264</td>
<td>Tyler Technologies</td>
<td>YES</td>
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<td>Hennepin</td>
<td>Edina PD</td>
<td>20</td>
<td>202</td>
<td>Superion (OSSI)</td>
<td>YES</td>
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<td>Hennepin</td>
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<td>3,141</td>
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<td>47</td>
<td>TriTech</td>
<td>YES</td>
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<td>Hennepin</td>
<td>Minneapolis Emergency Communications Center</td>
<td>300</td>
<td>5,000</td>
<td>TriTech</td>
<td>YES</td>
</tr>
<tr>
<td>Hennepin</td>
<td>MSP Airport</td>
<td>40</td>
<td>687</td>
<td>Tritech</td>
<td>YES</td>
</tr>
<tr>
<td>Hennepin</td>
<td>North Memorial Ambulance</td>
<td>50</td>
<td>126</td>
<td>Hexagon/Intergraph</td>
<td>YES</td>
</tr>
<tr>
<td>Hennepin</td>
<td>St. Louis Park PD</td>
<td>12</td>
<td>163</td>
<td>TriTech</td>
<td>YES</td>
</tr>
<tr>
<td>Hennepin</td>
<td>University of Minnesota</td>
<td>10</td>
<td>200</td>
<td>TriTech</td>
<td>YES</td>
</tr>
<tr>
<td>Isanti</td>
<td>Isanti County Sheriff</td>
<td>24</td>
<td>135</td>
<td>TriTech</td>
<td>YES</td>
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<td>Ramsey</td>
<td>Allina Health EMS</td>
<td>50</td>
<td>105</td>
<td>TriTech</td>
<td>YES</td>
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<tr>
<td>Ramsey</td>
<td>Ramsey County Emergency Communications Center</td>
<td>250</td>
<td>2,743</td>
<td>TriTech</td>
<td>YES</td>
</tr>
<tr>
<td>Scott</td>
<td>Scott County Communications</td>
<td>65</td>
<td>621</td>
<td>TriTech</td>
<td>YES</td>
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<tr>
<td>Washington</td>
<td>Washington County Communications</td>
<td>150</td>
<td>300</td>
<td>TriTech</td>
<td>YES</td>
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</tbody>
</table>

(Figure 4)
2c PSAP Level of Interest

All metro region PSAPs were provided a “CAD-to-CAD White Paper” in preparation for the CAD-to-CAD interoperability feasibility kickoff meeting held on October 15th, 2017. The purpose of the white paper was to provide each PSAP with an understanding of the benefits of a CAD-to-CAD integrated solution and what such a solution could bring to the region. During the kickoff meeting Winbourne presented an overview of the investigative and recommendation processes used to develop the CAD-to-CAD interoperability feasibility report and recommendations, and a high-level CAD-to-CAD presentation on capabilities and integration options.

The following are the investigative processes used in the study:

- Determine the level of interest among city, county, and municipal PSAPs.
- Inventory by PSAP of current CAD, mobile and mapping product versions and vendors.
- Evaluate AVL utilization and usefulness.
- Evaluate existing cooperative agreements and data sharing initiatives.
- Identify legal issues and determine an organizational structure that would support a successful regional CAD-to-CAD solution.

The Winbourne team and MESB staff arranged and conducted onsite interviews with PSAP staff in the cities of Bloomington, Edina, St. Louis Park and the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, and Scott during the week of October 16th, 2017 and with Allina Health EMS, the city of Minneapolis, the State 911 Program Manager, and Washington County during the week of December 11th, 2017. Our team also conducted phone interviews with Chisago County, Eden Prairie, Minneapolis, North Memorial, and State Patrol during that time.

The interview process was designed to assess each PSAPs understanding of the benefits of a CAD-to-CAD solution for the metro region and assess the level of interest each PSAP had in participating in a regional CAD-to-CAD initiative.

During the interview process, our team also assessed the current level of cooperation and integration between PSAPs. For example, Hennepin, Edina, Bloomington, Ramsey and Minneapolis utilize a read-only CAD-to-CAD solution from FATPOT and Bloomington, Allina Health EMS and the MSP Airport utilize the TriTech bi-directional CAD-to-CAD solution. Our research showed that all of the metro region agencies have some type of mutual aid agreements with neighboring agencies, with the majority geared toward fire or EMS, and a smaller percentage geared toward law enforcement.
The agencies that have law enforcement mutual aid agreements deal primarily with SWAT, K9 and State Patrol resources, while fire and EMS have broader mutual aid agreements that involve most fire and EMS resources. Only a very small percentage of fire and EMS agencies have automatic mutual aid agreements.

Our study shows that only a handful of the agencies utilize closest unit calculations to dispatch fire and EMS first responders, and none utilize closest unit calculations to dispatch law enforcement first responders.

During the interview process our team asked the question as to how a CAD-to-CAD initiative would benefit each PSAP. Following is a sampling of the information collected:

- Each PSAP interviewed felt that they would benefit from a regional CAD-to-CAD initiative.
- Many of the PSAPs have bordering counties that are not currently part of the MESB metro region; because these PSAPs do mutual aid with these surrounding counties/agencies on a daily basis, they felt that the CAD-to-CAD initiative should be expanded to include these additional counties.
- Washington County expressed interest in the program because they currently have a lot of mutual aid calls with surrounding agencies, and currently the only way to request units from those agencies is using the radio or telephone, which is very time consuming. All of the agencies they dispatch would be very supportive of a CAD-to-CAD initiative because they would realize huge response time savings.
- MSP Airport felt the system would be very useful especially in situations like the recent protests they had. They also send their K9 officers all over the area, which would be easier accomplished with a CAD-to-CAD solution.
- Bloomington expressed similar sentiments about how it would have been very useful to have a CAD-to-CAD solution in place during the protests, because of situational awareness and coordination of resources with everyone.
- Allina EMS felt it would be a safety factor for their paramedics if they had the ability to be able to view the map to see how far out law or fire was to their scene.
- Edina and Richfield PD and FD were ready to do a CAD-to-CAD years ago, but then an issue came up with the LOGIS’s CAD project resulting in the CAD-to-CAD project being put on the back burner.
- Richfield FD stated that all structure fires in Hennepin County except for Minneapolis have auto aid and mutual aid and with a CAD-to-CAD solution this
would be streamlined and tremendously improve the process and response time.

- Edina PD expressed interest in extending the CAD-to-CAD initiative to include sharing RMS data amongst the law enforcement agencies.
- Minneapolis stated that they currently hail over the radio for mutual aid, this adds a lot of time to the call and opens itself up for operator error with addresses. They see CAD-to-CAD as solving this problem.
- Ramsey County recognizes that CAD-to-CAD will cut down on the call taker/dispatcher work load; and with their staff shortage, they see this as a benefit.
- Dakota County has bi-directional CAD-to-CAD with Rice/Steele County via TriTech, and they are experiencing benefits in sharing information and resources by reducing the need for radio or telephone communication between dispatchers and first responders. They believe a regional CAD-to-CAD solution will improve this process across the region and cut down on workload for their dispatchers.
- Scott County has frequent fire and EMS responses outside their own county and they feel that a CAD-to-CAD solution would save them time, cut down the response time, and ultimately save money.
- Carver County has several of their fire departments do mutual aid nearly every day with surrounding agencies, and they feel that a CAD-to-CAD solution would save time and reduce the chance for human error when communicating an incident location verbally; which, if incorrectly understood by the receiving dispatcher, can result in sending a fire or EMS unit to the wrong address.

Our team also compiled the following findings and observations:

- Many of the agencies hail over the radio when requesting mutual aid. They found this to be faster than calling on a non-emergency telephone line, which often goes unanswered if the other agency is busy. Some of the agencies must use both the radio and telephone to request mutual aid. These methods are time consuming and may result in a mistake on the address which could further add to a delay in response. This also puts a great workload on the call takers and/or dispatchers.
- Most agencies don’t have the ability to see a map display that shows their units and surrounding area units. When an agency has requested mutual aid, they do not have the ability to see how far out the mutual aid agency responders are. In the example of an EMS unit on scene awaiting law enforcement response for
safety reasons, this information is critical to the safety of the paramedics on scene.

- All fire agencies within Hennepin County have an automatic mutual aid agreement for working structure fires. When an agency is requesting mutual aid for a working structure fire, the dispatcher does not have to get permission from fire command; the appropriate available units are automatically dispatched.

- Many of the metro region PSAPs interviewed expressed an interest in expanding the CAD-to-CAD solution to include their non-metro surrounding counties. These PSAPs, at minimum, dispatch fire and EMS mutual aid on a regular basis. Some of them also dispatch law enforcement mutual aid on a regular basis. Everyone understands the value of saving time and less chance for mistakes in passing along the information between agencies.

- Agencies throughout the nine-county metro region often respond on mutual aid events, such as protests which shut down major roadways. The only way they have to communicate regionally is via the radio system. This can be problematic, as transmissions can be missed and/or units can walk over each other in an active situation.

- Several law enforcement agency representatives expressed interest in using CAD-to-CAD as a gateway for sharing RMS or more specifically Master Name Index information throughout the nine-county metro region.

- Some of the agencies use encrypted radio talkgroups. If an agency providing mutual aid does not have access to those encrypted radio talkgroups, they can’t communicate with responders from the primary jurisdiction. A CAD-to-CAD solution provides a secondary way that critical information can be shared with responding units.

- The majority of the agencies interviewed recognized the importance of having the MESB as a leader and conduit for this project, and that utilizing a hosted CAD-to-CAD solution could remove some of the potential political problems that could arise if one user agency were to act as the host.

Throughout the interview process our team found full support of the CAD-to-CAD initiative. The metro region agencies are committed to communication, system interoperability, data and resource sharing, but with the understanding that each PSAP/agency has full control over what data and resources are shared.
The PSAPs/agencies interviewed expressed a desire for MESB to draft regional interoperability agreements that not only address mutual aid agreements but also address the CAD-to-CAD initiatives of data and resource sharing.

In conclusion, all metro region PSAPs/agencies are in favor of procuring and implementing a regional CAD-to-CAD solution that not only serves PSAPs in the metro region, but could be expanded to support any surrounding PSAPs that want to join, if the MESB chooses to do so. The MN State Patrol has expressed an interest in participating in a regional CAD-to-CAD solution if one is implemented.

2d Data Interoperability Options

There have been many attempts to provide data interoperability to PSAPs over the years, but most of them have fallen short of expectation, or were not scalable enough to handle regional PSAP environments with multiple CAD vendors.

Winbourne examined the different data interoperability models that are available to PSAPs in the Public Safety market:

- **Consolidation Model** – Multiple PSAPs join together to form one large center and utilize a single CAD system. The Consolidation Model provides a fully integrated solution for the participating agencies, but it does nothing for neighboring agencies.

- **Point-to-Point Interface Model** – Two PSAPs with different CAD vendors contract each CAD vendor to create an interface between the two CAD systems. The Point-to-Point Interface Model can provide a fully integrated solution between the participating PSAPs. It is typically very expensive and difficult to maintain, however, because each time a CAD vendor upgrades its CAD system, there is a high likelihood that the CAD-to-CAD interface breaks. Furthermore, the Point-to-Point Interface Model, like the Consolidation Model, does not address connectivity with neighboring agencies.

- **Message Broker Model** – Two or more PSAPs with different CAD vendors contract with a third-party vendor to create a rudimentary hub that acts as a transfer agent to deliver basic CAD information to each participating CAD system. The Message Broker Model provides a more flexible solution by interconnecting two or more PSAPs CAD systems, but it generally is not robust enough to provide the flexibility and functionality required by most PSAPs.

- **Intelligent Hub Model** - Two or more PSAPs with different CAD vendors, or the same CAD vendor, contract with a third-party vendor to create an intelligent hub that acts as a transfer agent to deliver complex and configurable CAD
information between all participating CAD systems. The Intelligent Hub Model is similar to the Message Broker Model, and in some cases can coexist with the Message Broker Model to deliver the most flexible, user-definable and cost-effective solution.

All four of these models can share data between PSAPs, but only the Intelligent Hub Model and Message Broker Model can support regional PSAPs with different CAD vendors.

Three primary vendors have emerged to provide either an Intelligent Hub Model, a Message Broker Model, or a hybrid Intelligent Hub-Message Broker Model solution. These solutions have been coined CAD-to-CAD products, because they form a data bridge between disparate CAD systems allowing data to be shared.

Within these CAD-to-CAD products there are two different levels of data sharing:

- The first is a one-way, view-only, interface that is used to extract data from each participating PSAPs CAD system and shared it with all of the participating PSAPs. The one-way, view-only, interface is very cost effective and does not require participation by each PSAP’s CAD vendor, but it is very limiting. In a one-way, view-only interface data can be viewed by all participating agencies, but the data cannot be acted upon. For example, one PSAP can share information that there is an auto accident with injury at the intersection of Main/First, but no resources can be shared to assist with the incident.

- The second is a bi-directional interface used not only to extract data from each participating PSAPs CAD system, but more importantly it can share resources and incident information with each PSAPs CAD system. All data, including alerts, incident and narrative information, resources and text messages, can be shared between all participating PSAPs. This functionality means that any PSAP can send incident information to any other PSAP and each PSAP can share resources with other PSAPs. This allows multiple PSAPs to share a single incident and each one can electronically dispatch fire, EMS and police units based on mutual aid or regional resource sharing agreements. The bi-directional interface can also automate mutual aid responses, reduce response time and eliminate typing errors by telecommunicators.

All three of the CAD-to-CAD vendors provide solutions that address one or both of the connectivity options, one-way interface and/or bi-directional interface.
Regional CAD-to-CAD Data Interoperability Recommendations

Our team found widespread support for establishing CAD-to-CAD connectivity between all of the metro region PSAPs during our interview process. Prior to these discussions, steps were taken by some of the PSAPs to share data, and some even implemented a one-way, view-only CAD-to-CAD solution; but a comprehensive regional bi-directional CAD-to-CAD solution has not been attempted.

Our team’s recommendations are based on the metro region PSAP interview process, industry knowledge and availability of COTS CAD-to-CAD product solutions.

We recommend that the MESB procure a bi-directional COTS CAD-to-CAD solution that will interconnect all metro region PSAPs. Should the MESB choose to purchase a COTS CAD-to-CAD solution on behalf of metro region PSAPs, it could consider purchasing a solution robust enough to allow neighboring counties/PSAPs to participate, if the MESB makes that policy decision. Winbourne acknowledges that allowing non-metro agencies to participate raises political and legal issues for the MESB that need to be considered.

We further recommend the use of a Request for Proposal (RFP) process that includes a detailed CAD-to-CAD operational and technical requirements section in order to procure the COTS CAD-to-CAD solution that best meets the needs of the metro region PSAPs.

The detailed CAD-to-CAD requirements need to address the following minimum features and functions:

- The CAD-to-CAD solution needs to be based on the Intelligent Hub Model, the Message Broker Model, or a hybrid Intelligent Hub-Message Broker Model
- The solution needs to support a standard Application Program Interface (API)
- Data sharing needs to be bi-directional in nature and provide each PSAP the capability to decide what information and resources will be shared
- Provide capability to track and view the status of all resources and assets of all agencies, in real-time
- Allow viewing and the ability to add information to any shared incident/call
- Ability to transfer incident/call information between all PSAPs CAD systems
- Send, receive and acknowledge requests for resources
- Approve or deny the request for resources
- Handle unit recommendations within each CAD supported by CAD-to-CAD.
- Send incident information to another PSAP or approved resource
- Send supplemental, hazard, premise or additional relevant information to another PSAP or approved resource
• Send information to another PSAP’s mobile data computer system
• Support mutual aid and automatic aid agreements within CAD-to-CAD
• Support NG9-1-1 data including texting, photos, video, social media, electronic fire/burglar alarms, panic buttons, car-telematics, smartphone apps, etc.

While these are a few of the CAD-to-CAD requirements, we recommend partnering with a consulting firm that has extensive industry knowledge and customer references in providing CAD-to-CAD acquisition services in order to procure a CAD-to-CAD solution that meets all of the needs of the metro region PSAPs.

2f Legal Issues of a CAD-to-CAD Interoperability Solution
MESB requested Winbourne identify any legal issues which were raised in CAD-to-CAD interoperability solutions implemented in other parts of the country, and which may occur if such a solution was implemented in the metro region. Winbourne could not find any cases or legal precedence that involved sharing CAD data via a CAD-to-CAD system.

Because most data that is shared through a CAD-to-CAD solution is not considered sensitive, Winbourne surmises that the only legal issues that may arise are with the permission of each PSAP to share their information and resources with all of the other PSAPs. Typically, there are mutual aid, automatic aid or other data and resource sharing agreements that PSAPs sign in order to mitigate any legal concerns. Since MESB has cooperative agreements with some of the metro region PSAPs for other projects, we recommend taking a similar approach to cover the ability to share CAD-to-CAD related data and resources.

We have found that selecting a CAD-to CAD solution which includes the ability for each agency to control what information and resources it shares with other PSAPs eliminates concerns and helps with participation. This, on a local level, helps each PSAP control what information and resources it will share based on the approval of their legal representatives.

Winbourne Consulting can supply guidelines and best practices to help MESB develop CAD-to-CAD governance language that can augment the current agreements between the metro region PSAPs.
2g  Report and Recommendations

Winbourne conducted a thorough analysis, including extensive interviews with all of the metro region PSAPs, to determine the feasibility of a regional CAD-to-CAD interoperability solution.

Our research shows that all of the metro region PSAPs are in favor of a CAD-to-CAD interoperability solution, with some of the PSAPs having taken steps toward interoperability on their own. All of the metro region PSAPs interviewed expressed full support for a regional CAD-to-CAD interoperability solution, if the MESB coordinated its procurement and was involved in its management. The PSAPs felt that MESB was in the best position to offer a neutral and supportive environment for all of the metro region PSAPs to participate equally in a CAD-to-CAD interoperability solution.

Based on our analysis, interview process, industry knowledge and other similar interoperability projects we highly recommend that MESB procure and implement a regional COTS CAD-to-CAD solution that will interconnect all of the metro region PSAPs.

In conclusion, Winbourne consulting would like to thank MESB for the opportunity to conduct this valuable study and we are pleased to recommend that MESB strongly consider the procurement and implementation of a regional COTS CAD-to-CAD interoperability solution.

2g.1  CAD-to-CAD Cost Estimate

We based our cost estimates by contacting the CAD vendors of CAD systems utilized in the metro region PSAPs and the CAD-to-CAD solution vendors. Project management and implementation cost estimates are based on our experiences with these types of projects. Following are tables depicting the low, high and median cost estimates for each phase of the CAD-to-CAD interoperability solution project.

The table in Figure 5 depicts the cost estimates for each metro region PSAP’s CAD system to interface with the selected CAD-to-CAD solution API.
In addition, the cost for the Minnesota State Patrol to join the metro region CAD-to-CAD solution ranges from $60,000 to $100,000 for the CAD interface to the CAD-to-CAD interoperability solution API, and from $40,000 to $60,000 for the connection to the CAD-to-CAD interoperability solution.

The table in Figure 6 depicts the procurement and project management low, high and median cost estimates:

<table>
<thead>
<tr>
<th>Description</th>
<th>Low Cost Estimate</th>
<th>High Cost Estimate</th>
<th>Median Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD-to-CAD Procurement/Implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD-to-CAD detailed requirements</td>
<td>$15,000</td>
<td>$25,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>CAD-to-CAD RFP support, vendor demonstrations, selection and contract negotiation</td>
<td>$15,000</td>
<td>$25,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>CAD-to-CAD implementation and project management</td>
<td>$150,000</td>
<td>$300,000</td>
<td>$225,000</td>
</tr>
<tr>
<td><strong>CAD-to-CAD Procurement/Implementation Totals</strong></td>
<td><strong>$180,000</strong></td>
<td><strong>$350,000</strong></td>
<td><strong>$265,000</strong></td>
</tr>
</tbody>
</table>
The table in Figure 7 depicts the CAD-to-CAD Product and Solution low, high and median cost estimates:

<table>
<thead>
<tr>
<th>Description</th>
<th>Low Cost Estimate</th>
<th>High Cost Estimate</th>
<th>Median Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD-to-CAD Product and Solution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD-to-CAD software</td>
<td>$500,000</td>
<td>$2,100,000</td>
<td>$1,300,000</td>
</tr>
<tr>
<td>19 CAD interfaces to CAD-to-CAD software</td>
<td>$400,000</td>
<td>$600,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>CAD-to-CAD training</td>
<td>$50,000</td>
<td>$260,000</td>
<td>$155,000</td>
</tr>
<tr>
<td>CAD-to-CAD project management</td>
<td>$150,000</td>
<td>$600,000</td>
<td>$375,000</td>
</tr>
<tr>
<td><strong>CAD-to-CAD Solution/Product Totals</strong></td>
<td><strong>$1,100,000</strong></td>
<td><strong>$3,560,000</strong></td>
<td><strong>$2,330,000</strong></td>
</tr>
</tbody>
</table>

(Figure 7)

The table in Figure 8 depicts the total budgetary requirements for the entire project using the low, high and median cost estimates:

<table>
<thead>
<tr>
<th>Description</th>
<th>Low Cost Estimate</th>
<th>High Cost Estimate</th>
<th>Median Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD Interfaces to CAD-to-CAD Solution Totals</td>
<td>$820,000</td>
<td>$1,780,000</td>
<td>$1,300,000</td>
</tr>
<tr>
<td>CAD-to-CAD Procurement/Implementation Totals</td>
<td>$180,000</td>
<td>$350,000</td>
<td>$265,000</td>
</tr>
<tr>
<td><strong>CAD-to-CAD Solution/Product Totals</strong></td>
<td><strong>$1,100,000</strong></td>
<td><strong>$3,560,000</strong></td>
<td><strong>$2,330,000</strong></td>
</tr>
<tr>
<td>Procurement/Implementation and Solution/PRODUCT Totals</td>
<td>$2,100,000</td>
<td>$5,690,000</td>
<td>$3,895,000</td>
</tr>
</tbody>
</table>

(Figure 8)

The table in Figure 9 depicts the ongoing yearly budgetary requirement for MESB to support the CAD-to-CAD solution and for the ongoing yearly cost for each PSAP to support their CAD interface to the CAD-to-CAD solution:

<table>
<thead>
<tr>
<th>Description</th>
<th>Low Cost Estimate</th>
<th>High Cost Estimate</th>
<th>Median Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD-to-CAD Solution Annual Maintenance Totals</td>
<td>$200,000</td>
<td>$600,000</td>
<td>$400,000</td>
</tr>
<tr>
<td>Each PSAP’s CAD interface to the CAD-to-CAD Solution Annual Maintenance Totals</td>
<td>$12,000</td>
<td>$18,000</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

(Figure 9)

The table in Figure 10 depicts the cost per PSAP per year over a five-year period.
This cost was derived by multiplying the number of positions within each PSAP by the cost per position to get total cost estimates per year per PSAP:

<table>
<thead>
<tr>
<th>County</th>
<th>Agency</th>
<th>Positions</th>
<th>Low Cost Estimate per Year</th>
<th>High Cost Estimate per Year</th>
<th>Median Cost Estimate per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anoka</td>
<td>Anoka County Central Communications</td>
<td>15</td>
<td>38,722</td>
<td>93,930</td>
<td>66,326</td>
</tr>
<tr>
<td>Carver</td>
<td>Carver County Sheriff Office Communications</td>
<td>9</td>
<td>23,233</td>
<td>56,358</td>
<td>39,796</td>
</tr>
<tr>
<td>Carver</td>
<td>Ridgeview Medical</td>
<td>4</td>
<td>10,326</td>
<td>25,048</td>
<td>17,687</td>
</tr>
<tr>
<td>Chisago</td>
<td>Chisago County Emergency Communications</td>
<td>10</td>
<td>25,815</td>
<td>62,620</td>
<td>44,217</td>
</tr>
<tr>
<td>Dakota</td>
<td>Dakota County Communications</td>
<td>25</td>
<td>64,537</td>
<td>156,550</td>
<td>110,543</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Bloomington PD</td>
<td>12</td>
<td>30,978</td>
<td>75,144</td>
<td>53,061</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Eden Prairie PD</td>
<td>4</td>
<td>10,326</td>
<td>25,048</td>
<td>17,687</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Edina PD</td>
<td>5</td>
<td>12,907</td>
<td>31,310</td>
<td>22,109</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Hennepin County Sheriff Communications</td>
<td>45</td>
<td>116,166</td>
<td>281,789</td>
<td>198,978</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Hennepin EMS Communications</td>
<td>6</td>
<td>15,489</td>
<td>37,572</td>
<td>26,530</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Minneapolis Emergency Communications</td>
<td>41</td>
<td>105,840</td>
<td>256,741</td>
<td>181,291</td>
</tr>
<tr>
<td>Hennepin</td>
<td>MSP Airport</td>
<td>10</td>
<td>25,815</td>
<td>62,620</td>
<td>44,217</td>
</tr>
<tr>
<td>Hennepin</td>
<td>North Memorial Ambulance</td>
<td>8</td>
<td>20,652</td>
<td>50,096</td>
<td>35,374</td>
</tr>
<tr>
<td>Hennepin</td>
<td>St. Louis Park PD</td>
<td>3</td>
<td>7,744</td>
<td>18,786</td>
<td>13,265</td>
</tr>
<tr>
<td>Hennepin</td>
<td>University of Minnesota</td>
<td>5</td>
<td>12,907</td>
<td>31,310</td>
<td>22,109</td>
</tr>
<tr>
<td>Isanti</td>
<td>Isanti County Sheriff</td>
<td>3</td>
<td>7,744</td>
<td>18,786</td>
<td>13,265</td>
</tr>
<tr>
<td>Ramsey</td>
<td>Allina Health EMS</td>
<td>17</td>
<td>43,885</td>
<td>106,454</td>
<td>75,169</td>
</tr>
<tr>
<td>Ramsey</td>
<td>Ramsey County Emergency Communications</td>
<td>65</td>
<td>167,796</td>
<td>407,029</td>
<td>287,412</td>
</tr>
<tr>
<td>Scott</td>
<td>Scott County Communications</td>
<td>8</td>
<td>20,652</td>
<td>50,096</td>
<td>35,374</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington County Communications</td>
<td>18</td>
<td>46,466</td>
<td>112,716</td>
<td>79,591</td>
</tr>
<tr>
<td><strong>Total Positions</strong></td>
<td></td>
<td>313</td>
<td>808,000</td>
<td>1,960,000</td>
<td>1,384,000</td>
</tr>
</tbody>
</table>

(Figure 10)
The table in Figure 11 depicts the cost per unit per year over a five-year period. This cost was derived by multiplying the number of units per shift by the cost per unit to get total cost estimates per year per PSAP:

<table>
<thead>
<tr>
<th>County</th>
<th>Agency</th>
<th>Units per Shift</th>
<th>Low Cost Estimate per Year</th>
<th>High Cost Estimate per Year</th>
<th>Median Cost Estimate per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anoka</td>
<td>Anoka County Central Communications</td>
<td>100</td>
<td>46,732</td>
<td>113,360</td>
<td>80,046</td>
</tr>
<tr>
<td>Carver</td>
<td>Carver County Sheriff Office Communications</td>
<td>30</td>
<td>14,020</td>
<td>34,008</td>
<td>24,014</td>
</tr>
<tr>
<td>Carver</td>
<td>Ridgeview Medical</td>
<td>10</td>
<td>4,673</td>
<td>11,336</td>
<td>8,005</td>
</tr>
<tr>
<td>Chisago</td>
<td>Chisago County Emergency Communications</td>
<td>46</td>
<td>21,497</td>
<td>52,146</td>
<td>36,821</td>
</tr>
<tr>
<td>Dakota</td>
<td>Dakota County Communications</td>
<td>255</td>
<td>119,167</td>
<td>289,069</td>
<td>204,118</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Bloomington PD</td>
<td>100</td>
<td>46,732</td>
<td>113,360</td>
<td>80,046</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Eden Prairie PD</td>
<td>10</td>
<td>4,673</td>
<td>11,336</td>
<td>8,005</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Edina PD</td>
<td>20</td>
<td>9,346</td>
<td>22,672</td>
<td>16,009</td>
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<tr>
<td>Hennepin</td>
<td>Hennepin County Sheriff Communications</td>
<td>181</td>
<td>84,585</td>
<td>205,182</td>
<td>144,884</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Hennepin EMS Communications</td>
<td>26</td>
<td>12,150</td>
<td>29,474</td>
<td>20,812</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Minneapolis Emergency Communications</td>
<td>300</td>
<td>140,197</td>
<td>340,081</td>
<td>240,139</td>
</tr>
<tr>
<td>Hennepin</td>
<td>MSP Airport</td>
<td>40</td>
<td>18,693</td>
<td>45,344</td>
<td>32,019</td>
</tr>
<tr>
<td>Hennepin</td>
<td>North Memorial Ambulance</td>
<td>50</td>
<td>23,366</td>
<td>56,680</td>
<td>40,023</td>
</tr>
<tr>
<td>Hennepin</td>
<td>St. Louis Park PD</td>
<td>12</td>
<td>5,608</td>
<td>13,603</td>
<td>9,606</td>
</tr>
<tr>
<td>Hennepin</td>
<td>University of Minnesota</td>
<td>10</td>
<td>4,673</td>
<td>11,336</td>
<td>8,005</td>
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<tr>
<td>Isanti</td>
<td>Isanti County Sheriff</td>
<td>24</td>
<td>11,216</td>
<td>27,206</td>
<td>19,211</td>
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<td>Ramsey</td>
<td>Allina Health EMS</td>
<td>50</td>
<td>23,366</td>
<td>56,680</td>
<td>40,023</td>
</tr>
<tr>
<td>Ramsey</td>
<td>Ramsey County Emergency Communications</td>
<td>250</td>
<td>116,831</td>
<td>283,401</td>
<td>200,116</td>
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<td>Scott</td>
<td>Scott County Communications</td>
<td>65</td>
<td>30,376</td>
<td>73,684</td>
<td>52,030</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington County Communications</td>
<td>150</td>
<td>70,098</td>
<td>170,040</td>
<td>120,069</td>
</tr>
</tbody>
</table>

Total Units per Shift | 1,729 | 808,000 | 1,960,000 | 1,384,000

(Figure 11)
The table in Figure 12 depicts the five-year total cost estimates for the initial procurement and implementation of the CAD-to-CAD solution, product and CAD interfaces, and the ongoing maintenance costs for the CAD-to-CAD solution and CAD interfaces:

<table>
<thead>
<tr>
<th>Description</th>
<th>Low Cost Estimate</th>
<th>High Cost Estimate</th>
<th>Median Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD-to-CAD Procurement and Implementation Totals</td>
<td>$180,000</td>
<td>$350,000</td>
<td>$265,000</td>
</tr>
<tr>
<td>CAD-to-CAD Solution and Product Totals</td>
<td>$1,100,000</td>
<td>$3,560,000</td>
<td>$2,330,000</td>
</tr>
<tr>
<td>CAD Interfaces to CAD-to-CAD solution Totals</td>
<td>$820,000</td>
<td>$1,780,000</td>
<td>$1,300,000</td>
</tr>
<tr>
<td>5 Years of CAD-to-CAD Solution Maintenance Totals</td>
<td>$800,000</td>
<td>$2,400,000</td>
<td>$1,600,000</td>
</tr>
<tr>
<td>5 Years of 19 PSAPs CAD interface Maintenance Totals</td>
<td>$1,140,000</td>
<td>$1,710,000</td>
<td>$1,425,000</td>
</tr>
<tr>
<td>5 Year Cost of CAD-to-CAD and CAD interfaces Totals</td>
<td>$4,040,000</td>
<td>$9,800,000</td>
<td>$6,920,000</td>
</tr>
</tbody>
</table>

The CAD-to-CAD solution and CAD interface cost estimates, while having a relatively large variance, reflect the cost estimates received from the three major CAD-to-CAD vendors and the PSAPs’ CAD vendors. The procurement and project management estimates were based on our knowledge of the industry and other similar projects.

**2g.2 CAD-to-CAD Estimated Implementation Timeline**

Since the CAD-to-CAD integration requires procuring and implementing a CAD-to-CAD solution as well as coordinating the CAD interfaces with each metro region PSAPs CAD vendor, we broke down the estimated timeline into two sections; CAD-to-CAD implementation and CAD-to-CAD procurement.

The CAD-to-CAD implementation timeline reflects the management of all of the installation processes including setup, administrative and end-user training, testing along with the administration of the CAD-to-CAD solution from start to go-live, as well as testing and certification of each PSAPs CAD vendor interface to the CAD-to-CAD solution.
The table in Figure 12 depicts the tasks required to implement a CAD-to-CAD solution and certify all PSAPs CAD interfaces to the CAD-to-CAD solution:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAD-to-CAD Implementation</strong></td>
<td></td>
</tr>
<tr>
<td>1. Manage installation of CAD-to-CAD solution (hosted or on-premise)</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2. Contact CAD vendors to start negotiations on the cost to interface each PSAP's CAD to the selected CAD-to-CAD vendor's API</td>
<td>5 6 7 8</td>
</tr>
<tr>
<td>3. Work with each PSAP to insure that their CAD vendor has a work order to create and/or implement the CAD-to-CAD API interface</td>
<td>9 10 11 12</td>
</tr>
<tr>
<td>4. Manage the CAD-to-CAD setup, training, testing and go-live support</td>
<td></td>
</tr>
<tr>
<td>5. Manage the relationship between the CAD-to-CAD vendor and each CAD vendor</td>
<td></td>
</tr>
<tr>
<td>6. Manage the certification and go-live process of each PSAPs CAD interface with the CAD-to-CAD system</td>
<td></td>
</tr>
<tr>
<td>7. Manage the CAD-to-CAD Training at each metro region PSAP</td>
<td></td>
</tr>
<tr>
<td>8. Manage audit of CAD-to-CAD transactions to insure compliance of CAD-to-CAD solution with the RFP</td>
<td></td>
</tr>
<tr>
<td>9. Project Sign-off</td>
<td></td>
</tr>
</tbody>
</table>

(Figure 13)

The CAD-to-CAD procurement timeline reflects the development of a detailed requirements document, working with purchasing to release a RFP, reviewing, evaluating and rating the CAD-to-CAD responses, doing scenario-based demos with the CAD-to-CAD vendors to insure that the best solution is selected, selecting the vendor with the best CAD-to-CAD solution for the metro region, and negotiating the contract.
The table in Figure 13 depicts the tasks required to procure a CAD-to-CAD solution:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD-to-CAD Procurement</td>
<td>1</td>
</tr>
<tr>
<td>1. Develop detailed CAD-to-CAD requirements</td>
<td>2</td>
</tr>
<tr>
<td>2. Work with purchasing to develop and release CAD-to-CAD RFP</td>
<td>3</td>
</tr>
<tr>
<td>3. Review CAD-to-CAD RFP responses and create an evaluation matrix</td>
<td>4</td>
</tr>
<tr>
<td>4. Conduct CAD-to-CAD demonstrations and reference checks</td>
<td>5</td>
</tr>
<tr>
<td>5. Select CAD-to-CAD vendor, decide on a hosted or on-premise solution and negotiate contract</td>
<td>6</td>
</tr>
<tr>
<td>6. Negotiate contract</td>
<td>7</td>
</tr>
<tr>
<td>7. Select and configure CAD interface</td>
<td>8</td>
</tr>
<tr>
<td>8. Test CAD interface for each PSAP</td>
<td>9</td>
</tr>
<tr>
<td>9. Conduct CAD-to-CAD testing and certification</td>
<td>10</td>
</tr>
<tr>
<td>10. Implement CAD in each PSAP</td>
<td>11</td>
</tr>
<tr>
<td>11. Train PSAP staff</td>
<td>12</td>
</tr>
</tbody>
</table>

(Figure 13)

In Summary, the CAD-to-CAD procurement process is estimated to take between 6 to 7 months to complete.

The CAD-to-CAD implementation, CAD interface testing and certification of each PSAP is estimated to take between 12 to 18 months to complete.

Based on these estimates the entire project, from start to finish, is predicted to take between 18 and 24 months to complete.

2g.3 Scenario-Based Findings and Recommendations

The following scenarios and recommendations were developed based on our interview process with the metro region PSAPs; they substantiate our recommendation for a regional CAD-to-CAD solution and how it could positively affect the cooperation, data and resource sharing capability of the region.

The scenarios and recommendations aren’t in any specific order and reflect the sentiments of the PSAPs that brought them up during our interview process.

The following table depicts scenarios and recommendations based on the interview process of the metro region PSAPs:
### MESB PSAP Scenarios and CAD-to-CAD applicability

#### Finding: Current Methods to Obtain Mutual Aid

Many of the agencies hail over the radio when requesting mutual aid. They found this to be faster than calling on a non-emergency telephone line, which often goes unanswered if the other agency is busy. Some agencies do both, hailing via radio and calling via telephone for mutual aid. These methods are time consuming and may result in a mistake on the address, which could further delay a response. This puts a great workload on the call takers and/or dispatchers.

**Recommendation:**

Winbourne Consulting recognizes that all public safety agencies would benefit from using a CAD-to-CAD solution. By being able to send a CAD incident directly to the agency from which they are requesting mutual aid, they can save seconds, if not minutes in getting a response started. They will also be able to ensure that the mutual aid agency has all of the correct and current call information. Use of CAD-to-CAD could dramatically reduce the workload on both call takers and dispatchers.

#### Finding: Mapping

None of the agencies have the ability to see a map display that shows its units and those of its neighboring jurisdictions. When an agency has requested mutual aid, they do not have the ability to see how far away the mutual aid agency responders are. For example, if an EMS unit is on scene and awaiting law enforcement response for safety reasons, this information is critical to the safety of the paramedics on scene.

**Recommendation:**

Winbourne Consulting recognizes that all public safety agencies could benefit from being able to look at a regional map and see all available and activity resources. While this is not something that is used all of the time, in certain situations it can provide a critical first responder safety feature and situational awareness.

#### Finding: Automatic Mutual Aid

All fire agencies within Hennepin County have an automatic mutual aid agreement for working structure fires. When an agency is requesting mutual aid for a working structure fire, the dispatcher does not have to get permission from fire command as the appropriate available units are automatically dispatched.

**Recommendation:**

Winbourne Consulting recommends that each metro region PSAP evaluate their individual mutual aid agreements with other PSAPs and determine which ones could be automatic mutual aid agreements. CAD-to-CAD systems that have been implemented in other parts of the country have successfully expanded mutual aid agreements to automatic mutual aid agreements that incorporate fire, EMS and law enforcement services.

#### Finding: Mutual Aid Response
Agencies throughout the nine-county metro area often respond on mutual aid events. One example is when protesters close down major roadways. The only way to communicate regionally is via the radio system. This can be problematic, and transmissions can be missed and/or units can walk over each other in an active situation.

**Recommendation:**
Winbourne Consulting recommends that metro region PSAPs evaluate how a CAD-to-CAD solution could be utilized in major mutual aid events and develop standard operating procedures accordingly. The CAD-to-CAD map can also be used as a tool for a real-time view of staging and where current units are located. Emphasis can be placed on using CAD-to-CAD comments from dispatch, first responders and scene command to monitor real time information being provided.

**Finding: Records Management**
Several law enforcement agencies expressed interest in using CAD-to-CAD as a gateway for sharing RMS or more specifically Master Name Index information throughout the nine-county metro area.

**Recommendation:**
Winbourne Consulting recognizes that this feature was not part of the original idea of a CAD-to-CAD system but acknowledges the value and officer safety feature this could provide. We recommend asking vendors to offer this function as an optional feature in the predicted CAD-to-CAD RFP.

**Finding: Current CAD System**
Our analysis shows that most of the PSAPs have CAD systems that will support a CAD-to-CAD interface. The majority of the agencies in the metro region are using some version of CAD from TriTech.

**Recommendation:**
Winbourne Consulting recommends working directly with TriTech to try to leverage this for a lower CAD-to-CAD interface price.

**Finding: Encrypted Radio Channels**
Some of the agencies use an encrypted radio channel, but if a responding agency does not have access to the encrypted radio channel a CAD-to-CAD interface could provide a means to share critical information with responding units.

**Recommendation:**
Winbourne Consulting agrees that a CAD-to-CAD solution would add another method of communicating important incident and officer safety information, and it could help agencies that don’t have access to a specific radio channel to communicate. We recommend this topic be addressed when developing the standard operating procedures for this project.

**Finding: Dispatcher Workload**
Many of the agencies interviewed felt that a CAD-to-CAD solution would help decrease the workload of their dispatchers; many PSAPs are short-staffed and this project would help them all around.

Recommendation:
Winbourne agrees that a CAD-to-CAD solution could help with dispatcher workload. We also recommend doing a study one year after implementation to see what type of impact the solution actually has on dispatcher workload.

Finding: MESB as Leader
The majority of agencies interviewed recognized the importance of having a known regional agency, such as the MESB, as a leader and conduit for this project. Doing so in a hosted CAD-to-CAD environment removes some of the potential political problems that could arise if one user agency were to act as the host.

Recommendation:
Winbourne Consulting agrees with the agencies’ viewpoints and, based on previous experiences with other clients, acknowledges that an entity such as the MESB provides a situation that could remove some political push-back. When considering an on-premise CAD-to-CAD solution, Winbourne Consulting recommends choosing neutral sites for both the primary and secondary sites, or utilize a hosted option offered by the CAD-to-CAD vendor.
RECOMMENDATION
The Executive Committee recommends the acceptance of the 2017 State Homeland Security Program (SHSP) Grant to the MESB in the amount of $26,000, which will be allocated among the following areas:

- Exercises $1,000.00
- Training $25,000.00
- $26,000.00

BACKGROUND
On January 4, 2018, the Statewide Emergency Communications Board approved grant allocations to the regions for the FY2017 SHSP grant. The SECB determined that each region will receive $25,000 for training, which includes funds for assistance to attend the Minnesota Public Safety Communications Conference. The remaining funds were allocated on a competitive basis.

ISSUES & CONCERNS
The MESB submitted its application for this grant based on the regional funding priorities approved by the MESB on November 8, 2017.

The MESB would use $25,000 towards Motorola training. The MESB would provide a Motorola training class for metro region radio technicians.

The remaining $1,000 will fund Metro Communications Response Task Force (CRTF) training. The Metro CRTF conducts an annual functional exercise for its role as the regional communications unit (COMU).

Funds must be expended, and financial statement reports submitted to ECN by December 1, 2018.

FINANCIAL IMPACT
None to the MESB other than staff time to manage the grant.
RECOMMENDATION
The Executive Director recommends the Board approve Amendment No. 3 to the Master Lease Agreement with Hennepin County.

BACKGROUND
The Master Lease Agreement with Hennepin County was executed in November 1999, to provide a lease agreement for several ARMER sites owned by the County. The former Metropolitan Radio Board (MRB) entered into the agreement on behalf of MnDOT; the MESB assumed the lease agreement in 2005. The agreement was amended in May 2001 and December 2001.

ISSUES & CONCERNS
The proposed Amendment No. 3 contains several changes. The main impetus for the amendment was to allow the Zone 2 master site to be moved from a Hennepin County Sheriff’s Office facility in Golden Valley to one in Plymouth at Parkers Lake. The work to move Zone 2 will commence in Spring 2018.

Other changes included in the amendment are: clarification that references to the MRB now mean the MESB; clarification that public Safety radio communication system (PSRCS) means Allied Radio Matrix for Emergency Response (ARMER); removing Brooklyn Park as a leased site; the addition of Parkers Lake as a leased site; extending the lease term to December 31, 2029 and changes language regarding lease renewal terms; updating points of contact information; and updating the exhibits related to equipment at the sites and site access procedures.

MESB Counsel drafted the amendment and has been involved in the negotiations process.

FINANCIAL IMPACT
None to the MESB.
AMENDMENT NO. 3 TO
MASTER LEASE AGREEMENT
FOR LEASE OF SPACE FOR THE
PUBLIC SAFETY RADIO COMMUNICATION SYSTEM

THIS AMENDMENT NO. 3 TO MASTER LEASE AGREEMENT (“Amendment No. 3”), is made by and between the County of Hennepin, a political subdivision of the State of Minnesota, Hennepin County Government Center, 300 South Sixth Street, Minneapolis, Minnesota 55487 (“COUNTY”), and the Metropolitan Emergency Services Board, successor to the Metropolitan Radio Board, 2099 University Avenue West, St. Paul, Minnesota 55104 (“BOARD”).

WHEREAS, COUNTY entered into a Master Lease Agreement (“Agreement”) with the Metropolitan Radio Board (“MRB”) dated November 1, 1999, which was amended on May 15, 2001 (“Amendment No. 1”) and on December 11, 2001 (“Amendment No. 2”); and

WHEREAS, the Metropolitan Emergency Services Board is the successor entity to the MRB and has been assigned all of the MRB’s rights and responsibilities under the Agreement; and

WHEREAS, the parties wish to add a site at Parkers Lake and delete a site at Brooklyn Park, extend the Agreement, and make other revisions to the Agreement.

NOW THEREFORE, in consideration of the mutual undertakings hereinafter set forth, the parties agree to amend the Agreement as follows:

1. All references in the Agreement to the BOARD shall mean the Metropolitan Emergency Services Board.

2. All references in the Agreement to PSRCS shall mean the Allied Radio Matrix for Emergency Response (“ARMER”) system.

3. Section 1.1.4 of the Agreement shall be amended to delete the Brooklyn Park Patrol Division site and to add Parkers Lake as a site.

4. Section 2 of the Agreement shall be amended to read:

   The term of this Agreement shall commence on November 1, 1999, and continue through December 31, 2029 (“Term”). After the initial Term, and any subsequent Renewal Term (defined below), unless written notice of intent not to extend the Agreement is provided by either party to the other party hereto ninety (90) days prior to the expiration date of the then current term, this Agreement shall be automatically renewed for an additional five (5) year term, for up to a maximum of three (3) additional five (5) year terms beyond the initial Term (“Renewal Term”).

5. Section 3 of the Agreement shall be deleted.

6. Section 19 of the Agreement shall be amended to replace Roger R. Laurence with John
7. Section 26 of the Agreement shall be amended to replace the contact information in that section with the following:

   COUNTY:      Hennepin County Administrator
   A-2303 Government Center
   Minneapolis, MN 55487

   With a Copy to:
   Hennepin County Sheriff’s Office
   Attention: Radio Communications Manager
   1245 Shenandoah Lane
   Plymouth, MN 55447

   BOARD:        Metropolitan Emergency Services Board
   Attention: Executive Director
   2099 University Avenue
   St. Paul, MN 55104

8. Exhibits A-1 through A-6 attached to the Agreement shall be deleted and replaced with Exhibits A-1 through A-6 attached to this Amendment No. 3.

9. Exhibits B-1 through B-6 attached to the Agreement shall be deleted and replaced with Exhibits B-1 through B-6 attached to this Amendment No. 3.

10. Exhibit C, Roof-Top Permit for Hennepin County Government Center, attached to this Amendment No. 3 shall be added to the Agreement.

This Amendment No. 3 shall be effective March 1, 2018.

Except as previously amended and as hereinabove amended, the terms, conditions and provisions of Contract No. A20079 shall remain in full force and effect.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
COUNTY BOARD APPROVAL

BOARD having signed this Amendment No. 3, and the COUNTY having duly approved this Amendment No. 3 on the ____ day of __________, 2018, and pursuant to such approval, the proper COUNTY officials having signed this Amendment No. 3, the parties hereto agree to be bound by the provisions herein set forth.

Reviewed by the County Attorney’s Office

________________________________
Assistant County Attorney

Date: ____________________________

COUNTY OF HENNEPIN
STATE OF MINNESOTA

By: ________________________________
   Chair of Its County Board

And: ________________________________
   Assistant/Deputy/County Administrator

ATTEST: ____________________________
   Deputy/Clerk of County board

Date: ________________________________

HENNEPIN COUNTY SHERIFF’S OFFICE

________________________________
Michael D. Carlson
Chief Deputy
Hennepin County Sheriff’s Office

Date: ____________________________
METROPOLITAN EMERGENCY SERVICES BOARD

By: ____________________________ Dated: ____________________
    Title: Board Chair

Approved as to Form:

By: ____________________________ Dated: ____________________
    MESB Counsel
RECOMMENDATION
The Executive Committee recommends granting authorization for the Chair to execute a contract amendment to the current 9-1-1 Service Provider contract (T-730) which will provide diversity to the Cook County PSAP and implement monthly connectivity charges for Legacy Selective Router Gateways (LSRG), pending favorable review by Board counsel.

BACKGROUND
The Metropolitan Emergency Services Board is a signatory with the State, on the 9-1-1 Service Provider contract with CenturyLink. Whenever there is an amendment to the contract, all three signatories (MESB, State, CenturyLink) must sign the amendment.

ISSUES & CONCERNS
CenturyLink and the State have been negotiating a monthly recurring charge for which the State is responsible per the original contract. CenturyLink has been providing the service under the contract but had neglected to bill the State for this recurring charge. Section 1, LSRG Connectivity, of the amendment deals with the error and the agreement on how to resolve it. The State agrees to pay a monthly connectivity charge of $12,980 beginning February 1, 2018 and CenturyLink agrees not seek reimbursement for past service that went unbilled.

Section 2, Cook County Diversity Project, details a project to add network diversity between Duluth and Grand Marais along the north shore of Lake Superior. CenturyLink has negotiated a fiber cable swap with the Northeast Service Cooperative (NESC) that will provide physical diversity and redundant network facilities for both companies. The State has agreed to pay $248,000 in installation charges to install physically diverse and redundant 9-1-1 network connectivity to the Cook Co. PSAP.

Board counsel reviewed the changes made to date and had no concerns. CenturyLink is being given one additional opportunity to request changes. The final contract amendment version has not been received to date, but execution will be needed before the May Board meeting.

FINANCIAL IMPACT
There is no financial impact to the MESB with this amendment to the three-way contract. The State pays recurring charges for the 9-1-1 system.
AMENDMENT NO. 01 TO CONTRACT NO. 116669 RELEASE NO. T-730

THIS AMENDMENT is by and between the State of Minnesota, acting through its commissioner of Administration ("State"), and Qwest Communications Company LLC, d/b/a CenturyLink QCC, 200 South 5th Street, Floor 20 Minneapolis, MN 55402 ("Contract Vendor").

WHEREAS, the State has a Contract with the Contract Vendor identified as Contract No. 116669, November 30, 2016 through November 30, 2018 ("Contract"), to provide Telecom: Next Gen 911 Network; and

WHEREAS, Minn. Stat. § 16C.03, subd. 5, affords the commissioner of Administration, or delegate pursuant to Minn. Stat. § 16C.03, subd. 16, the authority to amend contracts; and

WHEREAS, the terms of the Contract allow the State to amend the Contract as specified herein, upon the mutual agreement of the Office of State Procurement and the Contract Vendor in a fully executed amendment to the Contract.

NOW, THEREFORE, it is agreed by the parties to amend the Contract as follows:

1. That Exhibit E, Statement of Work for Cook County Diversity Project, which has been negotiated and approved by both parties is hereby incorporated into the Contract.

2. The following clause is hereby incorporated as the last clause of Exhibit A to the Notification of Award.

Certification of Nondiscrimination (In accordance with Minn. Stat. § 16C.053)
The following term applies to any contract for which the value, including all extensions, is $50,000 or more: Contractor certifies it does not engage in and has no present plans to engage in discrimination against Israel, or against persons or entities doing business in Israel, when making decisions related to the operation of the vendor’s business. For purposes of this section, "discrimination" includes but is not limited to engaging in refusals to deal, terminating business activities, or other actions that are intended to limit commercial relations with Israel, or persons or entities doing business in Israel, when such actions are taken in a manner that in any way discriminates on the basis of nationality or national origin and is not based on a valid business reason.

This Amendment is effective beginning March 19, 2018 or upon the date that the final required signatures are obtained, whichever occurs later, and shall remain in effect through contract expiration, or until the Contract is canceled, whichever occurs first.

Except as herein amended, the provisions of the Contract between the parties hereto are expressly reaffirmed and remain in full force and effect.
IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed intending to be bound thereby.

<table>
<thead>
<tr>
<th>1. QWEST COMMUNICATIONS COMPANY LLC DBA CENTURYLINK QCC (&quot;Century Link&quot;)</th>
<th>4. DEPARTMENT OF PUBLIC SAFETY ENCUMBRANCE VERIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Contractor certifies that the appropriate person(s) have executed this Amendment on behalf of the Contractor as required by applicable articles, bylaws, resolutions, or ordinances.</td>
<td>Individual certifies that funds have been encumbered as required by Minn. Stat. §§ 16A.16 and 16C.05.</td>
</tr>
<tr>
<td><strong>By:</strong></td>
<td><strong>Signed:</strong></td>
</tr>
<tr>
<td><strong>Title:</strong></td>
<td><strong>Date:</strong> Order No. <strong>_________</strong></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
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</table>

<table>
<thead>
<tr>
<th>2. ATTORNEY FOR METROPOLITAN EMERGENCY SERVICES BOARD</th>
<th>5. DEPARTMENT OF PUBLIC SAFETY</th>
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</thead>
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<tr>
<td>Attorney: Approved as to form.</td>
<td><strong>By:</strong></td>
</tr>
<tr>
<td><strong>By:</strong></td>
<td><strong>Title:</strong></td>
</tr>
<tr>
<td><strong>Title:</strong></td>
<td><strong>Date:</strong></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>3. METROPOLITAN EMERGENCY SERVICES BOARD</th>
<th>6. MATERIALS MANAGEMENT DIVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>By:</strong></td>
<td>In accordance with Minn. Stat. § 16C.03, Subd. 3.</td>
</tr>
<tr>
<td><strong>Title:</strong></td>
<td><strong>By:</strong></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td><strong>Title:</strong> Acquisition Management Specialist</td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td><strong>Date:</strong></td>
</tr>
</tbody>
</table>

| 7. COMMISSIONER OF ADMINISTRATION | |
| --- | |
| Or delegated representative. | **By:** |
| **By:** | **Date:** |
| **Date:** | |

Amendment No. 01 to Contract No. 116669, Release No. T-730
Exhibit E

Statement of Work for Cook County Diversity Project
CenturyLink
Statement of Work
for
State of Minnesota
Department of Public Safety
Division of Emergency Communication Networks (DECN)
Metropolitan Emergency Services Board (MESB)
Next Generation 911 Routing and Incremental ALI Management Services
Cook County Diversification Project

State of Minnesota 441914, T-730(5)
CenturyLink Content ID No. 300177

Offer Date: 1/25/2018
Expiration Date of Offer: 3/31/2018
CONTACT INFORMATION

**Customer:** State of Minnesota, Department of Public Safety, Division of Emergency Communication Networks
Name – Dana Wahlberg
Address – 445 Minnesota St., St Paul MN
Phone - 651 201 7546
E-mail Address - dana.wahlberg@state.mn.us

**Customer:** Metropolitan Emergency Services Board
Name – Jill Rohret
Address – 2099 University Avenue West, St. Paul, MN 55104
Phone - (651) 643-8394
E-mail Address - jrohret@mn-mesb.org

**CenturyLink Account Exec:**
Name – Daniel Swiderski
Address – 200 S 5th St, Minneapolis MN 55417
Sales ID – BQK7
Phone - 612-270-2684
E-mail Address – daniel.swiderski@centurylink.com

**CenturyLink Project Manager:**
Name - Richard Jacobson
Address – 200 S 5th St., Minneapolis MN 55417
Phone – 651-312-7041
E-mail Address – richard.jacobson@Centurylink.com

**CenturyLink Pro Services Billing:**
Name - Professional Services Billing
Address - 200 S. 5th St. Minneapolis, MN 55402
Phone - 612-663-0416
Fax – 303-391-1792
E-mail - profsvc@centurylink.com

**Customer Billing Accounts Payable:**
Name – State of MN Division of Emergency Communications
Address – 445 Minnesota St, Suite 137 St Paul MN 55101
Phone – 651-201-7550
E-mail Address - david.denton@state.mn.us
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Section 1. LSRG Connectivity

CenturyLink will begin billing for Legacy Selective Router Gateway (LSRG) connectivity charges on February 1st, 2018. LSRG connectivity will be billed at a fixed price of $12,980.00 per month for the duration of the T-730 contract and subsequent extensions.

Section 2. Cook County Diversity Project

1. Overview

This Statement of Work ("SOW") is subject to the agreement between CenturyLink Communications, LLC f/k/a Qwest Communications Company, LLC ("CenturyLink"), the State of Minnesota, Department of Public Safety, Division of Emergency Communication Networks (DECN) and Metropolitan Emergency Services Board (MESB). The term "Customer" will reference the combined entities of DECN and MESB. Capitalized terms not defined herein are defined in the Agreement.

Under this SOW CenturyLink will provide a solution for Cook County Diversification Project ("Project"). For the support required under this SOW, CenturyLink will be working with CHC Consulting ("Subcontractor") for transport engineering consulting. Accordingly, references to "CenturyLink" in this SOW may or may not include Subcontractor as the context may require; provided, however, that Subcontractor is not a party to the Agreement or this SOW and as such any formal dispute or claim regarding this Project will be between Customer and CenturyLink. CenturyLink will be fully responsible for the performance of all work to be performed hereunder, which is dependent upon the accuracy of information provided by Customer, in accordance with the Agreement and this SOW.
2. Description of Work

CenturyLink will perform the services and activities described below. These services, activities, and responsibilities characterize the full set of deliverables for this Project.

JOB DESCRIPTION:

Customer has requested CenturyLink (CTL) to leverage newly developed network in the North Shore area to address 911 diversity vulnerability for Cook County residents.

This vulnerability involves Cook County Central Offices (CO's) reaching the CTL Duluth Legacy Selective Router (via ES Trunks) for processing 911 calls, which has only one path following the North Shore -- a protected but collapsed ring. For years this single path was the only option for ultimately entering the State's diverse ESINet. MN DPS has asked CTL to leverage the newly developed diversity in the ESINet to address this vulnerability on the "legacy side" (Connection of Cook County Central Offices to the Duluth Legacy Selective Router) by developing a protected and open ring.

A CenturyLink engineering team was formed to develop such a solution by reviewing MN.IT's ESINet design and engaging in negotiations with its contractor NESC. After conducting these designs and associated budgetary reviews, a solution emerged in which a "fiber swap" would be arranged between CTL and NESC. This swap would benefit diversity needs of NESC while providing Customer the opportunity of enhancing 911 diversity at the cheapest price point possible. Customer requested CTL to develop a Statement of Work (SOW) that, if approved, will be added as an amendment to the existing MN NG911 contract.

This Statement of Work (SOW) sets forth the responsibilities of CenturyLink to carry out the Cook County ES Trunk diversity.

The diversity enhancement will apply to the following Cook County Central Offices:

- Grand Marais
- Silver Bay
- Tofte
- Hovland if outage occurs south of Grand Marais
- Gunflint if outage occurs south of Grand Marais.
APPROACH

CTL will employ a series of work packages developed by breaking down the design shared with Customer into its constituent components:

<table>
<thead>
<tr>
<th>Price</th>
<th>Project</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$7</td>
<td>N.289666</td>
<td>MNGDMRPL NESC 911 DIVERISTY NORTH SHORE-GRAND MARAIS-FIBER TERMINATION [Splicing/terminating/testing Fiber in Connection Panels Grand Marais]</td>
</tr>
<tr>
<td>$7</td>
<td>N.289651</td>
<td>MNSLBAPL NESC 911 DIVERISTY NORTH SHORE-FINLAND-FIBER TERMINATION [Splicing/terminating/testing Fiber in Connection Panels Finland]</td>
</tr>
<tr>
<td>$14</td>
<td>N.289201</td>
<td>MNSLBAPL NESC 911 DIVERISTY NORTH SHORE-SILVER BAY-FIBER TERMINATION [Splicing/terminating/testing Fiber in Connection Panels Silver Bay]</td>
</tr>
<tr>
<td>$4</td>
<td>N.271619</td>
<td>MNVRGNPL NESC 911 DIVERISTY NORTH SHORE-VRGNMVY [Outside Plant fiber cable to connect to NESC Virginia]</td>
</tr>
<tr>
<td>$8</td>
<td>N.262716</td>
<td>MN - GDMR - PL- NESC 911 DIVERSITY NORTH SHORE – GRAND MARAIS [Outside Plant fiber cable to connect to NESC Grand Marais]</td>
</tr>
<tr>
<td>$8</td>
<td>N.262714</td>
<td>MNSLBAPL NESC 911 DIVERISTY NORTH SHORE-FINLAND [Outside Plant fiber cable to connect to NESC Finland]</td>
</tr>
<tr>
<td>$10</td>
<td>N.262704</td>
<td>MNSLBAPL NESC 911 DIVERSITY NORTH SHORE-SILVER BAY [Outside Plant fiber cable to connect to NESC Silver Bay]</td>
</tr>
<tr>
<td>$8</td>
<td>N.246501</td>
<td>MNDLTHPL NESC 911 DIVERSITY NORTH SHORE-MELROSE - Duluth CO [Outside Plant fiber cable to connect to NESC]</td>
</tr>
<tr>
<td>$7</td>
<td>N.299768</td>
<td>MN-ORM-RMV-Decommission FW4100 at AT&amp;T cell site [Free up Fiber in MUX]</td>
</tr>
<tr>
<td>$7</td>
<td>N.289705</td>
<td>MNORMRPL NESC 911 DIVERSITY NORTH SHORE-ORR [Splicing/terminating/testing Fiber in Connection Panels Orrl]</td>
</tr>
<tr>
<td>$110</td>
<td>N.301210</td>
<td>NESC 4 mile fiber placement – [bad sections had to be replaced along highway in Toftte]</td>
</tr>
<tr>
<td>$58</td>
<td>N.307464</td>
<td>MN – SI.BA – ADD – Silver Bay ADD INFINERA REGEN [Need to regenerate signal]</td>
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$248K

Upon completion of these above items and with approval of Customer, CTL will proceed in providing the application level of 911 traffic with this diverse solution.

3. Project Pricing

The above work will be charged as a Non-Recurring Charge of $248,000.

There will be no Recurring Charges.

To begin this SOW, Customer will pay an initial payment of $50,000. Customer will pay the balance 30 days after Project Completion. Project Completion and enabling of production traffic is estimated to complete by June 30, 2018.

CenturyLink will document Project Completion. Once the State has signed the Project Completion Form (Appendix A), CenturyLink will issue an invoice for the final payment, estimated to be $198,000.

CenturyLink will obtain written permission through a formal change order before exceeding the stated estimate.
CenturyLink prices are quoted exclusive of applicable taxes and fees. The CenturyLink invoices will reflect the amount of any applicable taxes and other fees due. Customer shall not be required to remit to CenturyLink those taxes that are subject to exemption; provided Customer provides CenturyLink a copy of the exemption certificate.

4. Project Communication and Management

Project Communication

Ongoing project status will be provided in the existing weekly MN NG911 Program Management Meetings.

Project Management

The NG911 Program Manager will serve as point of contact for Customer. Project Management methodologies will follow CTL’s standard practices and procedures followed for similar construction efforts.

5. Diagram of the Work

Figure 1 the work site locations involved from the Grand Marais CO to the Legacy Selective Router in Duluth.
6. Authorization

By signing this SOW, Customer authorizes CenturyLink to begin scheduling of work to deliver the professional services per this SOW, and agrees that the terms of the Agreement referenced in Section 1 apply. The effective date of this SOW is the latest signature date shown below. Electronic signatures on this SOW will be accepted only in the form and manner prescribed by CenturyLink.

Acknowledged & Agreed

<table>
<thead>
<tr>
<th>DECN</th>
<th>CenturyLink Communications, LLC</th>
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<tbody>
<tr>
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<td><strong>Print Name</strong></td>
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<td><strong>Title</strong></td>
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Figure 1 – Location of where the work packages will be performed
7. Appendix A

Project Completion Form

Please sign below to confirm your acceptance that CenturyLink has completed the Project in accordance with the SOW for State of Minnesota, Department of Public Safety, Division of Emergency Communication Networks.

Cook County Diversification Project

COMPLETION DATE _______________________

Acknowledged & Agreed

State of Minnesota, Department of Public Safety, Division of Emergency Communication Networks

Signature

Print Name

Title

Date
STATE OF MINNESOTA – WORKFORCE CERTIFICATE INFORMATION
Required by state law for ALL bids or proposals that could exceed $100,000

Complete this form and return it with your bid or proposal. The State of Minnesota is under no obligation to delay proceeding with a contract until a company becomes compliant with the Workforce Certification requirements in Minn. Stat. §363A.36.

BOX A – MINNESOTA COMPANIES that have employed more than 40 full-time employees within this state on any single working day during the previous 12 months, check one option below:

☐ Attached is our current Workforce Certificate issued by the Minnesota Department of Human Rights (MDHR).

☐ Attached is confirmation that MDHR received our application for a Minnesota Workforce Certificate on ___________ (date).

BOX B – NON-MINNESOTA COMPANIES that have employed more than 40 full-time employees on a single working day during the previous 12 months in the state where it has its primary place of business, check one option below:

☐ Attached is our current Workforce Certificate issued by MDHR.

☐ We certify we are in compliance with federal affirmative action requirements. Upon notification of contract award, you must send your federal or municipal certificate to MDHR at compliance.MDHR@state.mn.us. If you are unable to send either certificate, MDHR may contact you to request evidence of federal compliance. The inability to provide sufficient documentation may prohibit contract execution.

BOX C – EXEMPT COMPANIES that have not employed more than 40 full-time employees on a single working day in any state during the previous 12 months, check option below if applicable:

☐ We attest we are exempt. If our company is awarded a contract, we will submit to MDHR within 5 business days after the contract is fully signed, the names of our employees during the previous 12 months, the date of separation, if applicable, and the state in which the persons were employed. Send to compliance.MDHR@state.mn.us.

By signing this statement, you certify that the information provided is accurate and that you are authorized to sign on behalf of your company.

Name of Company: ___________________________ Date ___________________________

Authorized Signature: ___________________________ Telephone number: ___________________________

Printed Name: ___________________________ Title: ___________________________

For assistance with this form, contact:
Minnesota Department of Human Rights, Compliance Services

Email: compliance.mdhr@state.mn.us TTY: 651-296-1283
GENERAL INSURANCE REQUIREMENTS

The Contractor shall maintain insurance to cover claims which may arise from operations under this Contract.

The Contractor shall not commence work under the Contract until they have obtained all the insurance described below and the State of Minnesota has approved such insurance. The Contractor shall maintain such insurance in force and effect throughout the term of the Contract.

All coverages and limits shall remain in force and effect throughout the term of the Contract.

NOTICE TO THE CONTRACTOR:

The failure of the State of Minnesota to obtain a Certificate of Insurance, for the policies required under this Contract or renewals thereof, or failure of the insurance company to notify the State of the cancellation of policies required under this Contract shall not constitute a waiver by the Owner to the Contractor to provide such insurance.

The Owner reserves the right to immediately terminate the Contract if the Contractor is not in compliance with the insurance requirements and the Owner retains all rights to pursue any legal remedies against the Contractor. All insurance policies must be open to inspection by the State, and copies of policies must be submitted to the State's authorized representative upon written request.

NOTICE TO INSURER:

Contractor is on notice that Contractor may not have any rights under the laws of Minnesota to assert the immunity of the State as a defense to any claims made under said insurance.

REQUIREMENTS FOR THE CONTRACTOR:

The Contractor’s policy(ies) shall be primary insurance to any other valid and collectible insurance available to the State of Minnesota with respect to any claim arising out of Contractor’s performance under this Contract.

If Contractor receives a cancellation notice from an insurance carrier affording coverage herein, Contractor agrees to notify the State of Minnesota within five (5) business days with a copy of the cancellation notice, unless Contractor’s policy(ies) contain a provision that coverage afforded under the policy(ies) will not be cancelled without at least thirty (30) days advance written notice to the State of Minnesota.

The Contractor is responsible for payment of Contract related insurance premiums and deductibles.

If the Contractor is self-insured, a Certificate of Self-Insurance must be attached.

Insurance companies must either (1) have an AM Best rating of A- (minus) and a Financial Size Category of VII or better, and be authorized to do business in the State of Minnesota or (2) be domiciled in the State of Minnesota and have a Certificate of Authority/Compliance from the MN Department of Commerce if they are not rated by AM Best.

The Contractor's Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limits to satisfy the full policy limits required by the Contract.

POLICY REQUIREMENTS:

1. Workers' Compensation Insurance:
   Statutory Compensation Coverage. Except as provided below, Contractor must provide Workers' Compensation insurance for all its employees and in case any work is subcontracted, Contractor will require the subcontractor to provide Workers' Compensation insurance in accordance with the statutory requirements of the State of Minnesota, including Coverage B, Employer's Liability. Minimum limits of liability.

Coverage B – Employer’s Liability
$100,000 Bodily Injury by Disease per Employee  
$500,000 Bodily Injury by Disease Aggregate  
$100,000 Bodily Injury by Accident

If Minn. Stat. § 176.041 exempts the Contractor from Workers' Compensation insurance or if the Contractor has no employees in the State of Minnesota, the Contractor must provide a written statement, signed by the authorized signer of the Contract, stating the qualifying exemption that excludes the Contractor from MN Workers' Compensation requirements.

If during the course of the Contract the Contractor becomes eligible for Workers' Compensation, the Contractor must comply with the Workers' Compensation Insurance requirements included herein and provide the State of Minnesota with a certificate of insurance.

Evidence of Subcontractor insurance shall be filed with the Contractor.

2. Automobile Liability Insurance:
The Contractor shall maintain insurance to cover liability arising out of the ownership, operation, use or maintenance of all owned, hired and non-owned autos, and in case any work is subcontracted the Contractor will require the subcontractor to maintain Automobile Liability insurance.

A. Minimum Limits of Liability:
   $2,000,000 - Per Occurrence – Bodily Injury and Property Damage Combined Single Limit

B. Coverages:
   X Owned Automobile  
   X Non-owned Automobile  
   X Hired Automobile

Evidence of Subcontractor insurance shall be filed with the Contractor.

3. General Liability Insurance:
The Contractor shall maintain insurance protecting it from claims for damages for bodily injury, including sickness or disease, death, and for care and loss of services as well as from claims for property damage, including loss of use which may arise from operations under the Contract whether the operations are by the Contractor or by a subcontractor or by anyone directly or indirectly employed by the Contractor under the Contract.

A. Minimum Limits of Liability:
   $2,000,000 - Per Occurrence  
   $2,000,000 - Annual Aggregate  
   $2,000,000 - Annual Aggregate applying to Products/Completed Operations

B. Coverages
   X Premises and Operations Bodily Injury and Property Damage  
   X Personal & Advertising Injury  
   X Blanket Contractual  
   X Products and Completed Operations  
   X State of Minnesota named as an Additional Insured

SPECIAL INSURANCE REQUIREMENTS

4. Professional/Technical, Errors and Omissions, including Network Security and Privacy Liability Insurance (or equivalent Network Security and Privacy Liability coverage endorsed on another form of liability coverage or written as a standalone policy):

This policy will provide coverage for all claims the contractor may become legally obligated to pay resulting from any actual or alleged negligent act, error, or omission related to Contractor’s professional services required under the contract.

Amendment No. 01 to Contract No. 116689, Release No. T-730
Contractor is required to carry the following minimum limits:

$2,000,000 — per claim or event
$2,000,000 — annual aggregate

Any deductible will be the sole responsibility of the Contractor.

The retroactive or prior acts date of such coverage shall not be after the effective date of this Contract and Contractor shall maintain such insurance for a period of at least three (3) years, following completion of the work. If such insurance is discontinued, extended reporting period coverage must be obtained by Contractor to fulfill this requirement.
RECOMMENDATION
Staff recommends the Board approve a contract with Metro Critical Incident Stress Management (CISM) Team in the amount of $11,000.00 to provide incident stress management services for the metro region first responder community through June 30, 2019.

BACKGROUND
Emergency medical service personnel – dispatch, ambulance, fire/rescue, law enforcement, and hospital staff are at high risk of developing stress-related illness and injuries from the effects of critical incident stress. They share many common stressors inherent to their work, including higher risk of injury, the need to make immediate decisions without error, unfamiliar or uncontrollable work environments and frequent exposure to the sights, smells and sounds of human trauma and continual responsibility for human life. CISM is a comprehensive, organized approach for the reduction and management of harmful aspects of stress in emergency services. CISM has been identified as a priority program not only for EMS providers within the Metro Region, but also for providers throughout Minnesota and across the United States.

Short and longer-term adverse physical and mental consequences of critical incident stress can be mitigated through access to a CISM team for assistance in managing acute critical incident stress. Access to CISM services in Minnesota is strengthened through development of partnerships between disciplines and regional CISM teams for training, support and/or mutual aid. The Metro CISM Team has an effective, dynamic and appropriate approach to CISM and Post Traumatic Stress Disorder (PTSD) situations that also provide for initial and longer-term support of emergency service personnel.

ISSUES & CONCERNS
This agreement will ensure critical incident stress management services through the Metro CISM Team are available twenty-four hours/day, seven days/week; these services cannot be provided by any other organization in the region. This agreement will ensure that the provision of a contemporary and appropriate approach to CISM will be provided by a well-trained and experienced multi-discipline team.

FINANCIAL IMPACT
Funds for this contract were included in the biennial Emergency Medical Services Regulatory Board (EMSRB) FY 2018-2019 regional grant budget from the EMS Relief Fund.
THIS AGREEMENT, made and entered into on this 1st day of March 2018 by and between the Metropolitan Emergency Services Board, a Minnesota joint powers organization, Suite 201, 2099 West University Avenue, St. Paul, Minnesota 55104, and The Metro CISM Team, a non-profit corporation incorporated in the State of Minnesota, (hereinafter referred to as “CISM”), 7809 Southtown Center, #174, Bloomington, Minnesota 55431.

WITNESSETH

WHEREAS, the METROPOLITAN EMERGENCY SERVICES BOARD has determined that there is a need to support the management of a Critical Incident Stress Management Team that provides peer support services to EMS personnel within the metropolitan region (defined for the purposes of this Agreement as the following counties: Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott and Washington); and

WHEREAS, the METROPOLITAN EMERGENCY SERVICES BOARD has determined that the services of individuals trained and experienced in emergency medical services, peer support and program management are needed to provide these services; and

WHEREAS, CISM has the people with the required experience and skills to provide the services described herein;

NOW, THEREFORE, in consideration of the terms, conditions and covenants set forth herein, the METROPOLITAN EMERGENCY SERVICES BOARD and CISM agree as follows:

Article I General Terms

A. The METROPOLITAN EMERGENCY SERVICES BOARD agrees to retain and hereby does retain CISM to provide the services described herein.

B. CISM agrees to perform the duties as specified herein.

C. CISM may not, whether in whole or part, subcontract, transfer, or otherwise assign the services as specified in this Agreement without prior written consent of the METROPOLITAN EMERGENCY SERVICES BOARD, except as specified herein.

Article II Duties

A. The services to be provided pursuant to this Agreement shall consist of the items listed in this Article.

B. CISM will maintain the Metro CISM Program consisting of a Metro CISM Team and appropriate administrative resources. CISM services shall include, but are not limited to the following tasks:
1). CISM shall provide management, administrative, and general staffing services as are reasonably necessary to maintain effective and efficient CISM program operations and activities. Management, administrative and general staffing services shall include, but are not limited, to the following:

   a). Maintenance of a current CISM Team roster, consisting of individuals trained and available for CISM response services.

   b). Coordination of identification policies for Team members to use during CISM response activities, including maintenance of identification cards, badges and related items.

2). CISM shall ensure that at least one representative of the Team is available twenty-four (24) hours per day, seven (7) days a week, to provide coordination of consultation and support services to metropolitan region EMS personnel who request CISM assistance.

3). CISM shall ensure that an adequate number of appropriately trained Team members are available to provide peer consultation, free of charge, to metropolitan region EMS personnel requesting peer support and CISM program activities. Peer consultation may include, but is not limited to, the following services:

   a). On-scene support services;

   b). Individual sessions to review stress management techniques; and

   c). Critical incident stress interviews or stress evaluation sessions.

4). CISM shall coordinate an annual strategic planning meeting with Team members, peer counselors, interested mental health professionals, ambulance service provider representatives in the metropolitan area, and other interested EMS personnel to set goals and priorities for further development of CISM in the metropolitan area. CISM shall send the Regional EMS Coordinator a summary of the meeting and an attendance list within thirty (30) days of the meeting.

5). CISM shall manage and evaluate CISM data collection and submit an activity report and an invoice for $5,500.00 to the Regional EMS Coordinator for FY 2018 activities due prior to June 15, 2018 and an invoice for $5,500.00 for FY 2019 activities due prior to June 15, 2019.

C. Upon request of the Regional EMS Coordinator, the leadership of CISM shall comply and attend Metropolitan Emergency Services Board, Metro Region EMS Technical Operations Committee (TOC), and related meetings as available.
D. CISM shall provide all support services, including but not limited to clerical and record keeping, accounting and supervision of grant.

Article III  Term of Agreement and Compensation

A. This Agreement shall begin on March 1, 2018 and shall terminate on June 30, 2019. This Agreement may be terminated with or without cause by either party upon ten (10) days written notice. Action to terminate by the Metropolitan Emergency Services Board must be approved by Board action. If such termination occurs prior to the provision of any services by CISM, CISM shall not be entitled to any payment.

B. The METROPOLITAN EMERGENCY SERVICES BOARD shall pay CISM eleven thousand dollars ($11,000.00). Funds shall be disbursed only upon receipt of activity reports and invoices as specified herein:

1) Five thousand five hundred dollars ($5,500.00) shall be paid to CISM upon receipt by the Regional EMS Coordinator of an invoice and the activity report due prior to June 15, 2018 in accordance with Article II, Section B.6.

2) Five thousand five hundred dollars ($5,500.00) shall be paid to CISM upon receipt by the Regional EMS Coordinator of an invoice and the activity report due prior to June 15, 2019 in accordance with Article II, Section B.6.

C. Total payments from the METROPOLITAN EMERGENCY SERVICES BOARD to CISM, under the terms of this Agreement, shall not exceed eleven thousand dollars ($11,000.00).

D. The parties hereto agree that this Agreement is conditioned upon the METROPOLITAN EMERGENCY SERVICES BOARD receiving sufficient funding from the State of Minnesota. If the METROPOLITAN EMERGENCY SERVICES BOARD does not receive funding, this Agreement shall be cancelled immediately upon written notice from the METROPOLITAN EMERGENCY SERVICES BOARD to CISM. If the METROPOLITAN EMERGENCY SERVICES BOARD receives reduced funding, this Agreement may be renegotiated to reflect such reduced funding.

E. The METROPOLITAN EMERGENCY SERVICES BOARD’S failure to insist upon strict performance of any provision or to exercise any right under this Agreement shall not be deemed a relinquishment or waiver of the same, unless consented to in writing. Such consent shall not constitute a general waiver or relinquishment throughout the entire term of the Agreement.
In the event that CISM is unable or unwilling to complete this Agreement as specified and within the times specified, the METROPOLITAN EMERGENCY SERVICES BOARD may immediately terminate this Agreement and take such actions as are necessary to complete the work described herein. Pro rata payment will be made for work satisfactorily completed prior to termination.

Article IV Other Covenants and Stipulations

A. The METROPOLITAN EMERGENCY SERVICES BOARD and CISM agree that nothing in this Agreement is intended or should be construed in any manner as creating or establishing the relationship of a partnership or joint venture between the parties hereto or as constituting CISM or its representatives as the agent, representative, or employee of the METROPOLITAN EMERGENCY SERVICES BOARD for any purpose, and that CISM is acting as an independent contractor and acquires no tenure rights or any rights by way of worker’s compensation, re-employment insurance, medical or hospital care, sick or vacation leave, PERA, severance pay or any other right or benefit offered to METROPOLITAN EMERGENCY SERVICES BOARD employees.

B. CISM agrees to defend, indemnify, and hold harmless the METROPOLITAN EMERGENCY SERVICES BOARD, its elected officials, member counties and member city, officers, agents, and employees, from any and all claims or causes of action arising from or resulting from the performance, or nonperformance, of this Agreement by CISM or its agents or employees or volunteers.

C. CISM agrees to procure and maintain at its expense and without expense to the METROPOLITAN EMERGENCY SERVICES BOARD, until the expiration of this Agreement, insurance of the kinds and amounts described herein with insurance companies that are authorized to conduct such business in the State of Minnesota covering all operations covered by this Agreement.

1. If CISM employs individuals to assist in providing the services required by this Agreement, a policy or policies covering obligations of CISM in accordance with the provisions of the Worker’s Compensation Law. This Agreement shall be void and of no effect unless CISM procures such a policy and maintains it until the expiration of this Agreement.

2. A comprehensive general liability policy or policies including owner’s or contractors’ protective coverage, with combined limits of not less than $1,500,000. CISM shall provide the METROPOLITAN EMERGENCY SERVICES BOARD with a certificate of insurance showing the required insurance is in effect and naming the METROPOLITAN EMERGENCY SERVICES BOARD as an additional insured.

D. CISM agrees to abide by all applicable State and Federal laws and regulations concerning the handling and disclosure of private and confidential information, concerning individuals and data including but not limited to information made not public by such laws or regulations.
E. CISM agrees that the Metropolitan Emergency Services Board, the State Auditor, or any of their duly authorized representatives at any time during normal business hours, and as often as they may reasonably deem necessary, shall have access to and the right to examine, audit, excerpt, and transcribe any books, documents, papers, records, etc. which are pertinent to the accounting practices and procedures of CISM and involve transactions relating to this Agreement. The terms of this Article IV, Section E shall survive the termination of this Agreement for a period of six (6) years.

Article V Notices

Any notice or demand which must be given or made by a party hereto under the terms of this Agreement or any statute or ordinance shall be in writing and shall be sent by registered or certified mail to the other party at the address stated in the opening paragraph of this Agreement.

Article VI Entire Agreement and Amendment

It is understood and agreed that the entire agreement of the parties is contained herein, and that this Agreement supersedes all oral agreements and negotiations between parties relating to the subject matter hereof, as well as any previous agreements presently in effect between the METROPOLITAN EMERGENCY SERVICES BOARD and CISM relating to subject matter hereof. Any alterations, amendments, deletions, or waivers of the provisions of this Agreement shall be valid only when reduced to writing and duly signed by the parties.

The Metro Region CISM Team

By: ____________________________
Corinne Becker, Executive Director
Metro CISM Team

Dated: __________________________

Metropolitan Emergency Services Board

By: ____________________________
Andrew Johnson, Chair
Metropolitan Emergency Services Board

Dated: __________________________

By: ____________________________
Approved as to form and execution
Jay Arneson, Board Counsel
RECOMMENDATION
The Executive Committee recommends approval of travel requests for the Executive Director to attend the annual NENA and APCO/MTUG conferences.

BACKGROUND
Metropolitan Emergency Services Board Policy 007 – Travel requires Board approval of travel requests for the Executive Director.

ISSUES & CONCERNS
The Executive Director is seeking approval for two travel requests.

The first is a request to attend the 2018 National Emergency Number Association (NENA) conference in Nashville, TN, June 17-21, 2018. This is an annual conference for 9-1-1 professionals and will foster increased knowledge of advances in 9-1-1 technology, including NextGeneration 9-1-1 (NG9-1-1).

The travel request is for $2,269.50, which includes all travel and registration costs. All efforts will be made to purchase flights at a reasonable cost. Costs included in the travel request are estimates; at the time of this writing, event hotel rates have not yet been published. This travel request is included in the 2018 budget.

The second travel request is to attend the 2018 Association of Public-Safety Communications Officials (APCO) annual conference and the 2018 Motorola Trunked Users Group (MTUG) National Meeting in Las Vegas, NV, August 5-11, 2018. This is an annual conference for public safety communications professionals, covering topics ranging from NG9-1-1 to FirstNet to interoperability. The MTUG National Meeting is held the two days immediately following the APCO conference and focuses specifically on issues and technology associated with Motorola trunked radio systems.

The travel request is for $2,466.00, which includes all travel and registration costs. All efforts will be made to purchase flights at a reasonable cost. Costs included in the request are estimates; at the time of this writing, event hotel rates have not been published and the exact location of the MTUG meeting is unknown. This travel request is included in the 2018 budget.

FINANCIAL IMPACT
The NENA and APCO/MTUG conference travel costs are included in the 2018 budget.

<table>
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<tr>
<th>MOTION BY:</th>
<th>SECONDED BY:</th>
<th>MOTION APPROVED:</th>
<th>YES</th>
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MOTION:
**METROPOLITAN EMERGENCY SERVICES BOARD**

**REQUEST FOR TRAVEL AUTHORIZATION**

Employee Name: Jill Rohret  
Travel Purpose: National Emergency Number Association 2018 Annual Conference  
Location: Nashville, TN (GSA Per Diem Rate: $59; $44.25 travel day)  
Travel Dates: June 17 – 21, 2018

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Travel Cost Estimate</strong></td>
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<td>Registration</td>
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<td>Air Fare</td>
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<td><strong>Total Estimated Cost</strong></td>
<td>$2,269.50</td>
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</table>

*Estimate made using GSA per diem rate.

**Estimate made using non-conference hotel room rates.

Is travel cost included in current budget? Yes

Notes:

Submitted by: Jill Rohret  
Date: February 1, 2018

Board approval  
Motion by: 
Seconded by: 
Motion carried/Motion denied  
Date:
Employee Name: Jill Rohret
Travel Purpose: APCO 2017 Annual Conference and MTUG National Meeting
Location: Las Vegas, NV (GSA Per Diem: $64; $48 travel day)
Travel Dates: August 4 - 11, 2018

<table>
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<tbody>
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<td>Other</td>
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<tr>
<td><strong>Total Estimated Cost</strong></td>
<td><strong>$2,466.00</strong></td>
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</tbody>
</table>

Is travel cost included in current budget? Yes

Notes: There is no cost to attend the MTUG National Meeting other than hotel charges, which were included in the budgeted cost.

Meal costs are derived by using the GSA meal per diem rate. I expect actual costs to be less as some meals are provided by the MTUG National Meeting.

*Estimate made using non-conference hotel room rates. Actual costs could be less.

Submitted by: Jill Rohret
Date: February 1, 2018

Board approval
Motion by: [Signature]
Seconded by: [Signature]
Motion carried/Motion denied
Date: [Signature]