9-1-1 Technical Operations Committee

Meeting Notice

**Thursday
November 16, 2017
10:00 AM**

**MESB Office
2099 University Ave W
St. Paul, MN 55104**

Mark Your Calendars

Metropolitan Emergency Services Board

9-1-1 Technical Operations Committee
Tentative Agenda
November 16, 2017

1. **Call to Order**

2. **Approval of Minutes / Agenda**

3. **Action Item**
    A. Election of Officers
        1. Chair
        2. Vice-Chair
    B. Text-to-911 Call Processing Standard

4. **Unfinished Business**
    A. Next Generation 9-1-1
        1. Text-to-9-1-1 implementation
            a) Greater MN
            b) Metro Area
        2. Firewall implementation
    B. PSAP Operations Round Table Work Group update
    C. Emergency Communications Professionals Training Curriculum Development Project
    D. CAD-to-CAD Interoperability Feasibility Study

5. **Pending Business**
    A. (none)

6. **Reports**
    A. Wireless Issues
    B. GIS Issues
    C. Data Issues (see attached)

7. **Adjourn**

Metropolitan Emergency Services Board
9-1-1 Technical Operations Committee
Draft Meeting Minutes
October 19, 2017

Committee Members

X	Nancie Pass, Ramsey (Chair)		Kathy Hughes, Hennepin
	Bob Dowd, Isanti (Vice-Chair)		Lisa Lovering, Isanti
X	Val Sprynczynatyk, Anoka	X	Heather Hunt, Minneapolis
X	Jim Scanlon, Bloomington PD		Jonathan Rasch, Ramsey
	Tim Walsh, Carver	X	Angie Iverson, Scott
	Jon Eckel, Chisago		Darlene Pankonie, Washington
X	Cheryl Pritzlaff, Dakota		Doug Anschutz, Washington
	Troy Ruby, Dakota		

Alternates

	Kyle Blum, Anoka		Bob Shogren, Isanti
	Deb Paige, Carver		Christine McPherson, Minneapolis
X	Susan Bowler, Carver		Denise O'Leary, Ramsey
	Vicki Nelson, Dakota		Jill Martens, Scott
	Jeff Schlumpberger, Hennepin		

Others Attending

Pete Eggimann, MESB	Lisa Vik, Eden Prairie
Vic Barnett, MESB	Tony Martin, Edina
Marcia Broman, MESB	Chris Kummer, Airport
Martha Ziese, MESB	Lauren Petersen, Airport
Kay Simons, MESB	Brian Fladebo, Elements
Diane Lind	Gloria Vadnays, AHEMS
Jeff Lessard, U of M	Frank Jarmon, Solacom
Brenda Coyle, U of M	Tom Klaban, Winbourne
Scott Wosje, Northland	Julie Heimkes, Winbourne

1. Call to Order

Nancie Pass called the meeting to order at 10:05.

2. Approval of Minutes / Agenda

Nancie asked for a motion to approve the agenda for the October 19, 2017 TOC.

Motion(Hunt/Sprynczynatyk) to approve the October 19,2017 TOC agenda as it was distributed, with the understanding the presentations would be heard before the rest of the agenda. Approved.

Nancie asked for a motion to approve the draft September 21, 2017 minutes if there were no corrections or additions.

Motion (Hunt/Iverson) to approve the September 21, 2017 minutes as distributed. Approved.

Firewall Implementation Project Presentation (Agenda Item 4.a.ii.1)

Brian Fladebo, Client Service Manager – Element, introduced himself and Element to the committee members. He briefly outlined the company's prior experience managing network security for other customers, and how he thought that experience was relevant to the ESInet firewall installation, monitoring, and management project. Brian said that they plan to have the firewalls installed at approximately half of the PSAPs in MN by the end of 1Q18.

CAD-to-CAD Interoperability Feasibility Study (Agenda Item 4.d.i)

Tom Klaban and Julie Heimkes, Winbourne Consulting, LLC, introduced themselves to the committee members. Tom summarized his prior experience designing CAD systems and some of the CAD-to-CAD interoperability projects that he has worked on with Winbourne. Julie explained her PSAP background here in MN, and some of her work with other vendors before going to work for Winbourne. She has been involved in two CAD-to-CAD interoperability projects while at Winbourne.

Tom explained that as part of the study, he and Julie have been meeting with the metro area PSAPs to gain understanding about how each of the PSAPs is currently utilizing CAD. They have met with several of the PSAPs earlier in the week, and will meet with more after this meeting and Friday morning before they are scheduled to fly home. Julie will return to complete the rest of the PSAP visits during the first week in December. Tom said they are planning to have a draft version of the study and recommendations ready for the TOC to review at the February meeting.

3. Action Items
A. 2018 SHSP Grants
1. Establish project priorities

The committee members did not identify any regional projects that would meet the grant parameters.

A. Text-to-911 Call Processing Standard

Heidi reported that they had a few items left that had not been finalized yet, so there was no committee action needed at this time. Heidi believes the draft standard will be ready by next month's meeting.

4. Unfinished Business

A. Next Generation 9-1-1

1. Text-to-9-1-1 Implementation

Tony Martin reported that an issue was identified during the text message testing this week in getting the ALI information delivered with the message to flow over to the agency CAD systems. After some investigation Tony was able to get the information to display correctly in his CAD. Minneapolis was also able to get their CAD to work properly with the text messages after getting a Tritech technician involved. Hennepin Co. is still having issues, but believes they are making progress. More testing is scheduled.

Another issue involving cell sectors that are routed to MN State Patrol for wireless calls are causing the text message test callers to receive the bounce back message indicating that text messaging is not available. West is investigating the cause for this.

2. Firewall implementation

(See presentation information above)

B. PSAP Operations Roundtable Work Group

Heidi reported to the committee that the CTO group made up of trainers from all the participating PSAPs, has met twice. She said the feedback has been very positive.

C. Emergency Communications Professionals Training Curriculum Development Project

Diane Lind told the committee that she had met with the Roundtable group and had begun organizing how they would work together on the curriculum. She was excited to get going and thought it was coming together.

5. Pending Business

A. EMD Guidelines – Metro Standard

The committee decided that any work on the EMD guidelines should be put on hold until the Roundtable work group has a call handling standard ready for the TOC's review. The thought was that at least some of the material in the guidelines language from the secondary PSAPs would be covered in the call handling standard.

6.   Reports
   A.   Wireless Issues – No Report
   B.   Data – Written Report Provided

Nancie Pass told members that she would not be accepting position of Chair for the 9-1-1 TOC next year. Typically, there is no December meeting so there will need to be a new Chair elected at the November TOC meeting.

PSAP Managers shared their Center's news.

Adjourn

METRO REGION
9-1-1 Standards, Protocols, Procedures

Document Section:	**3 – Operations**	9-1-1 TOC Approval – Signature:
Sub-Section:	**METRO 3.6.0**	Date:
Procedure Title:	**Text-to-9-1-1 Call Processing**	
Date Established:		
Replaces Document Dated:		MESB Approval - Signature:
Date Revised:		

1. **Purpose or Objective:**

   To establish an operational standard for processing short message service (SMS) text-to-9-1-1 calls in the metro region. The purpose of text-to-9-1-1 is to provide a means of communication between the caller and the public safety answering point (PSAP) when it is not feasible for callers to make a traditional voice call. Callers who find themselves in a situation where they are only able to text, or individuals who are hard of hearing or unable to speak may opt to utilize text-to-9-1-1. Voice communications is still the preferred medium to reach 9-1-1 and will be promoted as such throughout the region.

2. **Background:**

   Capabilities:

   PSAPs that have a 9-1-1 answering application capable of handling text-to-9-1-1 calls and are directly connected to the statewide Emergency Services IP Network (ESInetwill be allowed to take text-to-9-1-1 calls after submission of a 9-1-1 Plan Change letter through the Metropolitan Emergency Services Board (MESB) to the Minnesota Department of Public Safety's Division of Emergency Communication Networks (ECN).

   Constraints:

   Text-to-9-1-1 does have limitations compared to traditional voice calls with caller location accuracy. Text-to-9-1-1 provides the geo coordinates of the center of the cell site centroid to the PSAP.

   Once a text session is ended by the call taker a text session cannot be restored or initiated unless the caller messages 9-1-1 again in a new session.

   Text messaging to 9-1-1 is a best effort service that utilizes the public SMS text network. As with any SMS texts, there is no guarantee on the speed of delivery, or if the SMS message will be delivered at all. SMS messages may also appear out of order. Accordingly, it may

take longer for a call taker to process an SMS text to 9-1-1 request than a traditional 9-1-1 voice request, which in turn may lengthen the public safety response time.

Due to limitations with SMS messaging, messages are limited to approximately 160 characters.

When the caller's phone is in roaming mode, the text will not be delivered to the PSAP. The caller will receive a bounce back message advising them to dial 9-1-1.

If a text call is not answered in the PSAP within 30 seconds the TCC will drop the call and send a message to the caller advising them to call 9-1-1. This may vary depending upon local PSAP equipment and settings.

3. **Definitions:**

Cell site centroid – Center point of a single cell sector. There are typically 3 sectors around a tower.
Emergency medical dispatch (EMD) - systematic program of handling medical calls in which call takers use established protocols to classify the nature of the call, dispatch responders and provide pre-arrival instructions.
ESInet – A managed Internet Protocol (IP) network that is used for emergency services communications, and which can be shared by all public safety agencies. Used for carrying voice plus large amounts of varying types of data using IP protocols and standards.
PAI – Pre-arrival instructions (PAI) are instructions the call taker provides to the caller before responders arrive on scene.
SMS – Short message service (SMS) is commonly referred to as "text message". This type of messaging service is a component of most mobile telephone systems.
TTY – A text telephone (TTY) is a device that allows the deaf, hard of hearing and speech impaired to communicate via telephone.
TCC – The text control center (TCC) routes the wireless call to the correct PSAP for handling

4. **Recommended Protocol:**

A) General

1. Due to limitations with SMS messaging, the location information provided by a text message is unreliable and the call taker should not rely on the location information for dispatching text-to-9-1-1. The carriers use a different methodology for text calls than they do wireless calls. XY coordinates will be provided with the text that represent the centroid of the cell sector. The call taker can rebid the location information if necessary. Location information may or may not improve with a rebid. To rebid, the call taker must enter the command #L into the text box and send it.
    1.1. Local PSAP equipment settings may be configurable to automatically rebid.

2. Text messages are expected to be processed using the same standards for processing emergency and non-emergency voice calls for service.

3. Call takers should avoid the use of "texting" lingo, shortcuts, emoji characters and/or acronyms. All correspondence from the call taker should be in plain language.

4. If the call taker is unable to explain to the caller that they need to call 9-1-1 due to language or communication barriers, the call taker will initiate a voice call to the originating number and attempt to make contact in order to provide Language Line interpretation services. Language Line is not currently capable of translating text.

5. The use of preset messages are available and configurable according to agency protocol. The use of preset messages are recommended.

6. A caller should not be called back in cases where their safety, or the safety of another, is in question unless directed otherwise.

B) Text-to-9-1-1 Call Processing

1. The call taker will answer 9-1-1 text messages as they do with all other 9-1-1 calls, (i.e. 9-1-1 where is your emergency?). If the PSAP is accepting texts for other jurisdictions, a generic opening message should be used to avoid confusion versus one that identifies the agency.

2. The call taker will confirm that the caller can be reached at the same number the text is originating from and verify the address/location of the incident. The caller's location information provided to the PSAP by the carrier may not be accurate, and/or a mistyped or auto corrected street name by the caller may provide the call taker with a wrong address, so every address/location (including city and state) must be verified.

3. The call taker will ask the caller if they are able to call in by voice (if it is safe to do so), unless it is made clear at the onset of the call.

4. If the request is of a medical nature and the caller confirms they cannot make a voice call, every effort will be made to process the request in the same way that a voice or TTY call would be processed, recognizing that typing questions and instructions is much slower than providing pre-arrival instructions on a voice call.

5. Before ending the call, the call taker will inform the caller what action will be taken. The call taker should consider keeping the session open until responders have made contact with the caller/victim. This will allow for additional texting and the ability to obtain additional information if necessary.

6. Once a call is deemed ready for dispatch, the call is to be processed and dispatched according to the procedure for the specific incident. If pertinent the responders may be advised that the call is being received by text message.

7. Prior to ending the session, a message should be sent to the caller indicating that the session will be closed. A SMS Messaging session cannot be restored/initiated by the PSAP unless the caller messages 9-1-1 again in a new session**.** It is recommended that PSAPs have an alternative option for initiating outbound text in situations where additional information may be needed and the text session was terminated, such as a PSAP cellular telephone.

    8.1. If the call taker initiates an outbound text from a PSAP cellular phone, a general "do not reply" disclaimer should be used. (I.e. CAUTION- DO NOT REPLY TO THIS NUMBER - Please call 9-1-1 if assistance is needed. This telephone is not monitored or used to reach 9-1-1.)

9. The caller will receive a "Dialog has been closed by 9-1-1" message when the call taker releases the call.

10. If the PSAP does not answer the call within 30 seconds the TCC will terminate the call and send the caller a message advising them to place a voice call and that 9-1-1 text service is unavailable at this time.

    10.1. Local PSAPs equipment may be configured differently and override/change this automatic disconnect message.

C) No response from caller

1. If there is no response from the caller, the call taker will attempt to contact the caller by sending a text message back. If there is still no response, the call taker will leave the text session open and allow it to expire.

    1.1. *Indicated emergency:* If the initial message indicated an emergency situation with an unknown location, the call taker will use other methods in an attempt to locate the caller. This includes, but is not limited to, rebidding the location and contacting the carrier for pinging of the phone or subscriber information. It may also include placing a voice call to the caller to obtain critical information; however, if the initial message indicated an emergency where a callback could compromise the safety of the caller, the call taker will exhaust other methods in an attempt to locate the caller first.

2. If there is still no response, the call taker will follow specific agency policy for hang-up, abandoned or silent calls.

3. After 30 minutes of no activity in the session, the TCC will close the 9-1-1 text session and send the caller a message advising that the 9-1-1 dialog has been closed.

    3.1. Local settings in the PSAPs equipment may be configured differently.

D) Tracing anonymous text

1. It is not currently possible to receive an anonymous text. Any traceable information provided should be handled as it would for voice calls. If there is no information, no action can be taken.

E) Transfers and misdirected text

1. If the PSAP receives a text or request for service in another jurisdiction, the PSAP will transfer the text using the #T command directly through the TCC to the designated text capable PSAP for the jurisdiction.
    1.1. When transferring a text call, the transferring agency will advise the caller what agency they are being transferred to and relay pertinent details to the receiving PSAP in order to ensure a successful transfer.
        1.1.1. Text Control Center (TCC) transfers using the #T command deliver a preemptive message that identifies the transferring agency and the previous text dialog to the receiving PSAP. The receiving PSAP will also receive the caller's location and telephone number information.
        1.1.2. The PSAP should use the private chat (#P) feature PSAP to PSAP to communicate sensitive information without the caller's knowledge. This feature is only available for transfers completed through the TCC.

2. If the PSAP is not able to transfer the text, the call taker will take pertinent information and relay to the appropriate PSAP. Once the initial response information has been exchanged, the agencies involved may choose to designate a talkgroup for continued incident communication or use telephone to relay incident updates.

3. If PSAP equipment is configured to send a call closure message to the caller after transferring to another agency, it is recommended that the PSAP three way conference be maintained to avoid confusing the caller that their 9-1-1 session has been terminated. As an alternative to the three way conference, the PSAP may also choose to advise the caller that they will receive a false disconnect message.

F) Text Transcripts

1. If the PSAP is unequipped to get their own transcripts for text calls, the call taker or supervisor should create a request to the West TCC to get that information.

5. Management:

The 9-1-1 Technical Operations Committee of the MESB is responsible for oversight of the standard. PSAP management will train their personnel in accordance with this standard and ensure staff maintain a proficiency with text call processing. PSAP management will ensure personnel comply with the procedures detailed in this standard.

6. References[1]:

"Interim Texting Policy Standard Operating Procedure". National Emergency Number Association International, Alexandria, VA, 2014.
Retrieved from http://www.nena.org/?text_training_docs

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[1] *Disclaimer: Portions of this document contain text taken verbatim from references listed.*

"Text to 9-1-1 100-015". Red River Regional Dispatch Center Standard Operating Procedures Manual, Red River Regional Dispatch Center, Fargo, ND, 2015.

1. **GIS Standards:**
   a. On October 25, 2017, the Minnesota Geospatial Advisory Council's Standards Committee (GAC) approved a **Minnesota Address Point Standard** that is expected to be advanced to the full Geospatial Advisory Council for approval at their next meeting November 30, 2017 in Saint Cloud. The standard meets the needs of NG9-1-1.

   b. A **Minnesota Road Centerline Standard** has been drafted for multi-use (including NG9-1-1). It was built from the metro area MRCC standard. The package presenting this statewide standard to the GAC is being finalized and will include letters of support from DPS-ECN and the MESB. Similar to the process used for the statewide address point standard, the GAC will review the centerline proposal and will likely agree to put the standard out for a minimum of a 60-day statewide public stakeholder review. Once the public review is complete, all comments will be documented and reviewed by the standards committee, likely in mid-February.

   c. The GAC standards (mentioned above) will cover schemas for key NG9-1-1 datasets, i.e. address points and road centerline. **SECB standards** are currently being drafted to define geospatial data management roles and responsibilities for the spatial interface provider (Mn-Geo), data providers (counties), 9-1-1 service providers, and DPS-ECN.

2. **Regional GIS Data Aggregation:**
   a. **Centerline:** The MRCC Core Team approved updates to the regional centerline schema on 10/11/17. The goal date for transition by the metro counties to this version 1.7 schema is the week of 12/12/17. At that time, Met Council/MetroGIS will perform schema validation, aggregation, and publishing of a new MRCC to the MN Geospatial Commons. Met Council/MetroGIS anticipates they will be able to work with Chisago and Isanti Counties after the first of the year to accept their centerlines into the MRCC.

   b. **Address Points:** MESB staff met with Jon Hoekenga from the Met Council and MnGeo staff to discuss aggregation and validation of address points given the likelihood of a GAC approval of the statewide standard by the end of the month. Because of the similarity between centerline and address point process, Jon H. anticipates being able to work with the metro counties for aggregation and validation of a regional address point dataset (in the state standard schema) during Q1 2018.

3. **Regional PSAP/ESZ Boundaries:** At the request of DPS-ECN, MESB prepared a set of metro area polygon boundaries for the State Patrol East/West Metro that define their PSAP area for Text-to-9-1-1 to the physical roadway of the Interstate and U.S. Highways, plus Highway 62, in the 9-county metro area. These are intended to replace a set of State Patrol polygons at West Safety Services that covered broader areas than were appropriate. These updated boundaries were provided to DPS-ECN, MnGeo, and West Safety Services.

4. **SECB Grant work:** Isanti and Washington Counties continue to make progress in the creation of their address point datasets under the SECB grants they received.

5. **GIS-based MSAG:** Planning continues with CenturyLink/West regarding the creation and transition to GIS-based MSAGs for counties that have achieved a very high match rate between 9-1-1 ALI/MSAG, centerline, and address points.

6. **Minnetonka PSAP Closure:** Planning with CenturyLink/West has begun for the PSAP cutover and transition due the planned closure of the Minnetonka PSAP on 12/12/17.

7. **9-1-1 Data Coordinator:** Vic Barnett has transitioned back to his role with Ramsey County. He plans to stay involved with the GIS standards process and committees, as well as returning to his work with the Ramsey County GIS data to support the transition to NG9-1-1.

8. **Data Synchronization**: Attached is a high-level summary of the data synchronization activity by PSAP.

Summary of 9-1-1/GIS Data Preparation for NG9-1-1 (as of November 7, 2017)

PSAP	9-1-1/GIS Data Synchronization						GIS Integration					
	ESZ Validations	Response Area Validations	Street Name Validations	Postalize MSAG	Address Validations	Address ESN Validation	Integration to Regional Centerline	Integration to Regional ESZ Layer	Integration to Regional Address Points	GIS MSAG	Centerline Validations	Integration to Statewide SIF & ECRF/LVF
Airport	complete	na	complete	complete	complete	not started	active	active	active	not started	active	not started
Anoka	complete	complete	complete	complete	complete	active	active	active	not started	active	active	not started
Bloomington	complete	na	complete	complete	complete	not started	active	active	active	not started	active	not started
Carver	complete	complete	complete	complete	complete	not started	active	active	active	not started	not started	not started
Chisago	complete	complete	complete	complete	complete	not started	active	active	not started	active	complete	not started
Dakota	complete	complete	complete	complete	complete	active	active	active	active	active	complete	not started
Eden Prairie	complete	na	complete	complete	complete	not started	active	active	active	not started	active	not started
Edina	complete	complete	complete	complete	active	not started	active	active	active	not started	active	not started
Ft Snelling/Airbase	active	not started	na	complete	na	not started	active	active	not started	not started	not started	not started
Hennepin Sheriff	complete	not started	complete	complete	complete	not started	active	active	active	not started	active	not started
Hopkins (closed)	complete	na	complete	na	complete	na	na	na	na	na	na	na
Isanti	complete	not started	complete	complete	active	not started	active	active	not started	not started	active	not started
Minneapolis	complete	not started	complete	complete	active	not started	active	active	active	not started	active	not started
Minnetonka	complete	complete	complete	complete	complete	not started	active	active	active	not started	active	not started
Ramsey	complete	active	complete	complete	complete	active	active	active	active	not started	complete	not started
Richfield (closed)	complete	na	complete	na	complete	na	na	na	na	na	na	na
Scott	complete	active	complete	complete	active	not started	active	active	active	not started	not started	not started
St Louis Park	complete	na	complete	complete	complete	not started	active	active	active	not started	complete	not started
U of M	complete	na	complete	complete	active	not started	active	active	active	not started	not started	not started
Washington	active	not started	complete	complete	active	not started	active	active	not started	not started	not started	not started
White Bear Lake	complete	na	complete	complete	complete	not started	active	active	active	not started	not started	not started

Minneapolis launches new 911 dispatch system

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POSTED: NOV 03 2017 08:37PM CDT
VIDEO POSTED: NOV 03 2017 09:17PM CDT
UPDATED: NOV 03 2017 09:26PM CDT

MINNEAPOLIS (KMSP) - The City of Minneapolis is deploying a new system aimed at changing the way 911 dispatchers respond to callers.

City officials says callers have noticed more professionalism from dispatchers. The biggest change with the Priority Dispatch System comes down to the questions those dispatchers ask when first responding to an emergency call.

"It's an organized set of questions that guide the call-taker and our callers through the information-gathering process, so that things are not missed," said Heather Hunt, Emergency Communications Director for the City of Minneapolis. "It greatly minimizes the risk of human error."
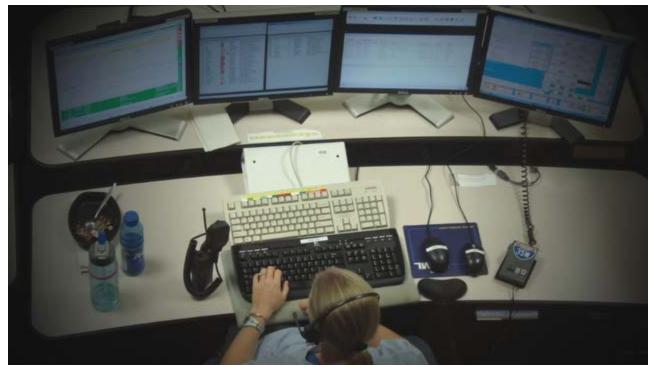
First and foremost is finding out the location, so dispatchers can start sending help even before they get to what's actually happening.

"It's been proven that the location is the most important piece of information in any emergency," said Hunt.

Minneapolis Emergency Communications Director Heather Hunt says the change to the Priority Dispatch System has been in the works since last year when the City Council approved a three-year $500,000 contract with the firm that operates the software.

Officials say the system is aimed at providing the same level of service no matter the nature of the call or who answers it.

"What we hope to see is a reduction in complaints, better outcomes ultimately because we're sending the right people to the right locations with the right information," said Hunt.

The system will hopefully ease stress not only for the callers, but also for the dispatchers.

"It is a stressful job," said Hunt. "You are hearing people at what they are considering to be their worst moments."

Hunt advises callers to remain on the line until it's ok to hang up or help arrives.

The department is also seeking about $300,000 in next year's budget to replace outdated technology, furniture and equipment.