

METROPOLITAN EMERGENCY SERVICES BOARD 9-1-1 TECHNICAL OPERATIONS COMMITTEE AGENDA

September 16, 2021 10:00 a.m. (Masks are Required) MESB Office 2099 University Ave W St. Paul, MN

- 1. Call to Order
- 2. Approval of Agenda
- 3. Approval of Minutes August 19, 2021 Meeting
- 4. Action Items
 - A. (None)

5. Discussion Items

- A. Grant Funding Priority List Update
- B. Mental Health Call Processing Standard
- C. PSAP Impacts of METCOM Encryption
- D. 911 Authority PSAP Survey

6. Reports

- A. PSAP Operations Round Table Work Group
- B. SECB NG9-1-1 Committee Report
- C. 9-1-1 Network Report (Attached)
- D. 9-1-1 Data Report (Attached)
- E. MN Sheriff's Assoc. PSAP Subcommittee Report
- 7. Announcements
- 8. Adjourn

9-1-1 Technical Operations Committee August 19, 2021 Draft Meeting Minutes

Members Present

Allina EMS	Victoria Vadnais	MAC/Airport	Lauren Petersen
Anoka County	Val Sprynczynatyk	Metro Transit PD	Absent
Bloomington PD	Absent	Minneapolis	Joni Hodne
Carver County	Susan Bowler	North Memorial	Absent
Chisago County	Absent	Ramsey County	Nancie Pass
Dakota County	Cheryl Pritzlaff	Ridgeview EMS	John Scheuch
Eden Prairie PD	Lisa Vik	Scott County	Scott Haas
Edina PD	Janelle Harris	Sherburne County	Laura Anderson
Hennepin County	Tony Martin	St. Louis Park PD	Greg Weigel
Hennepin EMS	Wade Johnson	University of Minnesota PD	Absent
Isanti County	Bob Shogren	Washington County	Absent

Guests: Marvin Bachmeier, Hennepin EMS; Laura Barton, 911 Authority-**Phone**; Greg Ehrsam, Motorola; John Elder, Isanti County; Scott Haas, Scott County; Jake Jacobson, Lumen; Ron Jansen, Dakota County; Frank Jarman, Motorola; Dan Klawitter, Hennepin EMS; Motorola; Brady McCamley, 911 Authority-**Phone**; Joel McCamley, 911 Authority-**Phone**; Phil McCarraghen, Motorola; Mike Mihelich, RCECC; Scott Petersen, MECC; Scott Wosje, Northland Business Systems

MESB Staff: Marcia Broman-Phone, Pete Eggimann, Jill Rohret

1. Call to Order/Introductions

Susan Bowler (9-1-1 TOC Chair) called the meeting to order at 10:03 AM. John Elder was introduced as the primary representative for Isanti County. Wade Johnson is retiring and Dan Klawitter will be the Hennepin EMS Primary representative to the 9-1-1 TOC.

2. Approval of Agenda

Motion made by Tony Martin to approve the agenda for August 21, 2021. Cheryl Pritzlaff seconded. Motion carried.

3. Approval of Minutes

Susan Bowler's title as recorded in the draft minutes was corrected from Vice-Chair to Chair.

Motion made by Val Sprynczynatyk to approve the corrected minutes from July 15 and July 22, 2021. Wade Johnson seconded. Motion carried.

4. Action Items

A. 2022 Grant Fund Priority List

Pete Eggimann said each year the committee develops and prioritizes a list of projects to be used to apply for grant funding through ECN and the SECB. This year the grant period has been moved up to allow for more time to use the grant funds. Both the 9-1-1 TOC and the Radio TOC need to work now to finalize a list of funding priorities that can be presented to the MESB board at the September meeting. The grants are structured so that both the 9-1-1 TOC and the Radio TOC projects apply for

the same grant funds and are included in the same competitive structure.

Eggimann asked if there were any 2020 priorities that were left unfinished or needed a phase 2. There is a work group for the work load sharing and regional situational awareness CAD-to-CAD interoperability regional hub project. There will be a consultant working with the work group, but the funding stream is still in question. Eggimann said the grant-funded resiliency training from the 2020 priority list is complete but thought there may be an opportunity to leverage that training to develop on-going telecommunicator resiliency resources.

ECN is currently using grant money that was previously allocated but not spent and turned back by the regions to now be used for cyber security assessments. There have been several cyber security webinars and work is underway to have a cyber security audit at each PSAP. One of the audit items will look at using the ESInet to support multiple public safety applications in addition to 9-1-1 and what can be done to reduce any associated cyber security risks and ensure all the mission-critical applications remain available to the PSAPs.

Nancie Pass said it might make more sense to hold off on repeating the T-CPR training until 2023 when everyone will have to re-certify.

Pass said she would suggest the CAD-to-CAD study, COML and IDT Train-the-Trainer local courses to increase consistency in that area, and the back-up PSAP equipment cache would be her choices for the grant project priority list.

Susan Bowler asked if mental health training to meet the new mental health call referral requirement inserted into the 9-1-1 law this session should be included in the list. Pass said they might want to reach out to NAMI as there is no existing training that she is aware of. Tony Martin said the Barbara Schneider Foundation did some training for the CIT course.

Jill Rohret said the MESB would reach out to the Barbra Schneider Foundation.

Motion made by Tony Martin to approve the 2022 Grant Priority list in this order: CAD-to-CAD Regional Hub and Feasibility Study, Mental Health Training, COML and IDT Train the Trainer with local trainers, PSAP Back-up Equipment Cache, Resiliency training reimbursement that would permit using additional vendors. Janelle Harris seconded.

Eggimann said the grant request should be constructed to permit PSAPs to contract directly with vendors for resiliency training and then get reimbursed. If the committee does what we did last year with the use of an RFP for the resiliency training, we will be limited to a single vendor again.

Tony Martin offered a friendly amendment to include grant reimbursement for cost of training specifically for PSAPS, and to change COML/IDT training to the #2 position in the list of priorities.

Joni Hodne said she would suggest COML and IDT Train the Trainer be priority #2, Mental Health/CIT training be #3, the backup equipment cache #4, and Resiliency training #5.

Motion made by Tony Martin to amend the list of Grant Priorities as: CAD-to-CAD, IDT Training, Mental Health Training, Back-up Equipment Cache, Resiliency Training. Joni Hodne seconded. Motion carried.

5. Discussion Items

A. Mental Health Call Processing Standard

Tony Martin said the NG9 -1-1 Committee has formed a mental health call processing work group with representatives from each of the regions. Martin, Val Sprynczynatyk and Nancie Pass are the Metro representatives. The focus of the first meeting was language changes that would coincide with the state's 403 re-write. There needs to be an understanding of the legislature's intent. There was discussion about other things that might be included for the metro region and to include NAMI more to educate them on how 9-1-1 actually works.

Martin said the Sheriff and Police Associations are working on a Law Enforcement Best Practices Guide. It is not yet known if the 988 system would also be functioning as a secondary PSAP/crisis line.

B. PSAP Impacts of METCOM Encryption

Mike Mihelich said during the civil unrest some of the PSAPs were overloaded with phone calls. Some of the wireless carriers were re-routing some calls to other PSAPs. METCOM was the best way to communicate. Encrypted METCOM was used for the Operation Safety Net.

Mihelich said the question now is should METCOM be moved to an encrypted channel full time or should it be used only as a contingency.

Bowler asked if all metro PSAPs today would have the ability to listen to METCOM when it is encrypted?

Mihelich said a lot of the secondary PSAPs do not have encryption in their consoles right now. There would need to be a change to the standard to allow that. That is why a date would need to be set, say in a year to give them time to purchase and have them installed. The Radio TOC is recommending going to encryption. Mihelich agreed that the standard would need to be changed.

Scott Haas asked if the intent was for the secondary PSAPs to have access to law enforcement restricted encryption keys, or Metro TAC.

Mihelich said maybe the way to go is to allow the secondary PSAPs METAC 11 and 12 in the interim.

Haas said he supported always encrypting METCOM, but it was never supposed to be on a portable. He wondered how giving secondary PSAPS access on their portables would work if they don't currently have encryption on their consoles.

Mihelich said it would be a two-step process establishing that the encryption is wanted and then set a date for that to happen. In the interim, they could grab a portable in the event they would need to talk to another PSAP.

Ron Jansen said one thing to consider is that some have gotten waivers and if back-ups were used there would be an overarching effect and a financial burden.

Martin asked if the secondary PSAPs had been provided any costs yet. He recommended a date be picked for requiring encrypted METCOM instead of giving them a portable and METACs 11 and 12 as a workaround.

Mihelich agreed a date should be selected.

Bowler asked if there were any agencies that have no intention of going encrypted.

Rohret asked what a realistic timeline might be. Vadnais said one-year seemed reasonable.

Haas asked if another path could be considered like, if a new console can't be purchased, a mobile could be connected in order to expediate this process.

John Rasch asked if perhaps an encrypted cache mobile could be issued immediately. Vadnais said that would not work for Allina, but if it is decided to go right now, Allina will respond. Martin agreed that portables would not be the way to go. He said there would still be an operational difference because you would have to wait for the permission.

Vadnais asked if it was known which secondaries had encryption. It is assumed Metro Transit does.

Jansen said the encryption out in the field is DES, which is good but older than AES which is FIPS compliant and more robust. It needs to be determined which encryption method should be used.

Bowler said it may not be possible for everyone to move using AES at this time.

Martin said there is work being done on the Radio TOC to make a recommendation to the state for encryption.

Haas said its obvious we need to do a survey on this. Pass volunteered Haas. Rohret said the MESB will take that on.

Pass said we would need to know how long it would take an agency to get on AES. Shogren asked if some consoles could accommodate AES and DES.

Mihelich said there are there are certain types of radios that allow only one type of encryption. The higher tier radios can do both.

Jansen said some APEX radios that were not sold to us with the option of handling both. Model and purchase date information will need to be gathered as part of a console study.

Eggimann recommended we request that the Radio TOC conduct a survey of existing PSAP encryption capabilities including the available type of encryption they can support, as well as letting them know that the 9-1-1 TOC is supportive of encrypting METCOM.

C. 911 Authority PSAP Survey Presentation

Eggimann introduced the committee to the representatives from 9-1-1 Authority, a consulting firm hired by the MESB to assist in the on-going work with ECN in the preparation of an RFP for NG9-1-1 core services and the egress network. In addition, 9-1-1 Authority has been tasked with assisting in the development of an NG9-1-1 transition strategy specific to the metro area that can be used going forward in coordination with the SECB and ECN. As part of that strategic planning effort, 9-1-1 Authority is developing a survey for the metro PSAPs to help identify a baseline of NG9-1-1 capabilities currently available in the metro area. Eggimann acknowledged that PSAP managers are busy but asked for their cooperation in completing the survey.

6. Reports

A. PSAP Operations Round Table Work Group – No Report

B. NG 9-1-1 Committee Report

Janelle Harris said the pension work group has met once, but not all of the work group members have been appointed yet. The classification work group appointments were due, but not all of those appointments are complete yet either. The committee is also going forward with a work group focused on the mental health referral requirement compliance training development and 988 implementation.

C. 9-1-1 Network report

Eggimann said there is nothing to add to the report in the packet.

D. Data report

Marcia Broman said all the PSAPs in the metro area including the state patrol are enabled with the T-Mobile location-based routing. Over 70% of the T-Mobile wireless calls are now being routed based on location, which is significantly reducing the number of T-Mobile calls being transferred between PSAPs.

E. MN Sheriff's Association PSAP Subcommittee report

Susan Bowler said that the group met and drafted some priorities to give to the Sheriff's Association. The intent is to give some guidance for the PSAP Pension Fund and PSAP Re-classification legislative initiatives.

7. Announcements

Jill Rohret said Mike Mihelich will start August 30 as the new MESB 9-1-1 Manager.

Val Sprynczynatyk said there will be a joint metro PSAP job fair October 6, 2021, at the Ramsey County Library in Roseville. She encouraged all of the metro PSAPs to participate if they are interested in working together to attract quality telecommunicator candidates.

8. Adjournment



METROPOLITAN EMERGENCY SERVICES BOARD

Meeting Date: Agenda Item:

Presenter:

September 8, 2021 4A. Approval of 2022 Regional Funding Priorities Eggimann/Fredrick

RECOMMENDATION

The 9-1-1 TOC recommends including the following items as regional funding priorities for grants available in 2022 (in priority order):

- 1. Workload Sharing and Regional Situational Awareness System Implementation
- 2. COM-L Train-the-Trainer Training
- 3. Mental Health Call Handling Statutory Compliance Training, Resource Identification, Policy/Procedure Development
- 4. PSAP Abandonment Emergency Communications Equipment Cache
- 5. Telecommunicator Resiliency Training / Program Development Cost Reimbursement

The Radio TOC recommends including the following items as regional funding priorities for grants available in 2021 (in priority order):

- Vendor-provided technical training
- Communications Response Task Force (CRTF) training/exercise
- Assistance to attend the 2021 Public Safety Communications Conference
- Creation of an updated ARMER training video
- Purchase of laptop radio consoles to be used throughout the region
- Funding local Bi-directional amplifier (BDA) requests
- Additional MCC7500e laptops to join current five agency consortium
- Upgrading MCC7500s
- AES Encryption
- T1 to ethernet backhaul infrastructure costs

BACKGROUND

Emergency Communication Networks (ECN) Division and the Statewide Emergency Communications Board (SECB) require regions to annually approve regional funding priorities. These priorities are to include projects/items/concepts for which regions can apply for grant funds through the SECB process. In the past, grants were only open to radio projects.

ISSUES & CONCERNS

9-1-1 projects are now eligible for grant funding. Due to this, both the 9-1-1 TOC and the Radio

MOTION BY: SECONDED BY: MOTION:

PASS/FAIL



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TOC develop their lists of regional funding priorities. Grants are structured so that both 9-1-1 and radio projects apply for the same grant funds and are included in the same competitive structure.

State grant objectives and SECB funding hierarchy will determine which projects MESB staff will include in the grant applications. Generally, staff applies for the highest priority project from both areas.

FINANCIAL IMPACT

None to the MESB other than staff time to apply for and process grants. Equipment will likely require a 50% match from the awarded agency.

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Metropolitan Emergency Services Board 9-1-1 Technical Operations Committee Network Report September 16, 2021

Agenda Number 6.C.

Text-to-9-1-1:

Washington Co. is the only remaining primary PSAP in the metro area that has not yet implemented text capabilities on their answering applications. Washington plans to implement text messaging concurrent with their 9-1-1 answering application upgrade. Installation work has been temporarily paused while the vendor and the 911 service provider work through some network failover issues.

NG9-1-1 ESInet:

The NG9-1-1 ingress system implementation is underway. Inteliquent has identified the point of interconnect (POI) locations across the state with two legacy telephone POIs in each LATA. This will make it easier for the legacy telephone companies to connect to the 9-1-1 system and reduce network costs. Inteliquent will also have two SIP POIs for telecommunications service providers who have IP-based systems capable of delivering 9-1-1 calls to the system as SIP calls. Contract negotiations and design work with Lumen are taking place to get the Inteliquent network connected to the Lumen peering points for the current 9-1-1 system on an interim basis, until the NG Core Services vendor is selected.

Additional work remains for the MESB and ECN on the RFP(s) for NG9-1-1 core services and 9-1-1 system egress connectivity between the core services and the PSAP. ECN has contracted with Federal Engineering for professional and technical services to assist in the RFP process. The MESB has contracted with 911 Authority for professional and technical services to also assist in the core services and egress RFP process.

The MESB continues to focus on giving our PSAPs better continuity-of-operations (COOP) options as well as enabling workload sharing for the PSAPs that are interested in working together. We want to ensure that our ESInet infrastructure can support shared/hosted and cloud-based applications and not limit the use of the ESInet to just handling 9-1-1 traffic. We are working now with ECN to consider ESInet options that would rehome our PSAP ESInet connections to redundant, diverse datacenters that can become the hubs for delivery of shared/hosted and cloud-based applications to all the metro PSAPs such as CAD, CAD-to-CAD interoperability, logging, as well as 9-1-1 answering applications.

In April 2018, NENA published a new NG9-1-1 ESInet Design document that outlines new modifications to the existing ESInets in use today. The new design focuses on increasing reliability and resiliency by incorporating multiple network service providers using different network protocols (e.g. MPLS, Ethernet, cable broadband Internet, wireless carrier broadband Internet). The MESB will continue to work with ECN to develop an implementation strategy to bring the metro area ESInet configuration into compliance with the NENA design recommendations.

Metropolitan Emergency Services Board 9-1-1 Technical Operations Committee 9-1-1 Data Report September 16, 2021 Meeting

- 1. Importance of GIS for 9-1-1: PSAP managers are strongly encouraged to continue to assist their GIS counterparts in communicating to key decisionmakers and county leadership what a vital role GIS has to their current and future PSAP operations. Geospatial datasets provide foundational data for PSAP CAD/mapping systems and future NG9-1-1 core services, as well as support many other non-public safety uses that are important to cities and counties.
- 2. Wireless Location Based Routing: T-Mobile's location-based routing (LBR) is actively in use at all metro area PSAPs. PSAPs should be aware that not all T-Mobile calls will route via LBR. The metro area pilot showed just over 70% do so. Cell-sector routing is used as the fallback method when the call does not meet the qualifications for LBR. The LBR method uses the device-based location and PSAP boundary polygons, rather than cell site/sector, to make call routing decisions. The overall goal is to achieve more precise routing of wireless 9-1-1 calls, thereby reducing any delays introduced by PSAP-to-PSAP call transfers.
- 3. Wireless Data Audits, IDs, tools: T-Mobile has completed loading the corrections MESB supplied them from the audit conducted on legacy Sprint LTE cell site/sector wireless data. MESB staff is in discussion with T-Mobile about unique cell site/sector IDs and the next steps for migrating the legacy Sprint LTE sectors further into T-Mobile's data systems/tools. In addition, Comtech/Verizon have implemented a new tool for routing sheet processing and MESB is working with them on related issues.
- 4. Wireless Routing Sheet Distribution: Recently, a backup staff member at T-Mobile sent out wireless routing sheets directly to PSAPs in error. T-Mobile has been made aware of the training issue. This serves as a good reminder for PSAPs that if they receive a wireless routing sheet, please do not work it. Respond to the sender that MESB coordinates all wireless routing on behalf of the region and that all routing sheets need to be sent to MESBGIS@mn-mesb.org. MESB staff will process it on behalf of the PSAPs from there.
- 5. Next Regional Data QA/QC run through GeoComm: MESB will be submitting new regional datasets to GeoComm for another NG9-1-1 validation and GIS-derived MSAG run in September. Counties are asked to complete their pending dataset corrections and submit updates to the regional datasets by mid-September. For those counties not on a specific upload schedule, MESB will be in contact to coordinate timing of the regional dataset pull.

6. Statewide GIS Data Standards:

- a. Discussions on a **polygon standard for the exchange of 9-1-1 emergency service boundaries** (PSAP, ESZ/ESN, and response agency) continue at a state level with the desire to submit a draft standard to the GAC standards committee prior to the end of the year.
- b. The NG9-1-1 Committee will be coordinating the circulation of a proposed domain list of **normalized/standardized response agency names** to be used in the GIS data. This is needed for the statewide polygon standard. PSAPs will be asked to review that list and confirm that all agencies they dispatch for are included and there are no significant concerns with the proposed naming that would be used in the GIS data. A similar domain list of PSAP names will also need to be finalized.

7. Vertical location on wireless 9-1-1 calls:

a. The **new ALI format that transmits to the PSAP z-axis information** provided by wireless carriers is available for any PSAP that would like to update their ALI format. Jake Jacobson at Lumen will schedule and coordinate the change. PSAPs will also want to coordinate with their PSAP CPE and CAD/mapping vendors in advance of scheduling the change since it

modifies the ALI data stream format interfacing into those systems. RCECC plans to upgrade to the new ALI format with migration to their geo-diverse system.

- b. MESB receives daily **ALI logs reflecting z-axis information available on wireless calls** even if it is not yet being delivered to PSAPs via the new ALI format. This information can be made available to any PSAP that is interested.
- c. **NENA's 3D Geomatics workgroup** has their draft guidance document on the topic of threedimensional 9-1-1 call location data (x, y, and z-axis) in NENA's All Committee Review stage. Vic Barnett from RCECC is representing the metro region on that workgroup. PSAP managers will be apprised when NENA's document has been approved for public review.
- 8. Statewide NG9-1-1 GIS Project: The SECB Steering Committee is continuing to discuss how to proceed with implementing the NG9-1-1 GIS Workgroup's recommendations for the statewide NG9-1-1 GIS project.

9. ECN 1Spatial Project:

- a. **Webinars:** ECN and 1Spatial will start the launch of their NG9-1-1 GIS data validation tools and aggregation portal in September. ECN has planned an overview webinar for 9/16, with training on the data submission portal on 9/20. Information on the webinars has been shared with metro GIS partners and PSAP managers. The MESB team will be participating in the webinars on behalf of the region and county partners are welcome to attend as well.
- b. Regional Data Submission for NG9-1-1 data validation: On behalf of the region, MESB plans to submit the full 10-county regional datasets (centerline, address points, boundary polygons, MSAG, and ALI) for NG9-1-1 validations. As with existing QA/QC work, MESB will vet validation results/errors and provide county GIS partners targeted recommendations for needed data remediation. It is anticipated that the 1Spatial platform will also allow metro counties that are interested to submit data individually and run specific validations on their own. MESB would be happy to work through this process with any county staff having a strong desire to do so. As the 1Spatial rollout continues to evolve, the MESB team will evaluate how the 1Spatial data validation tools can best complement existing metro regional NG9-1-1 data preparation and QA/QC processes and how they can best fit into future NG9-1-1 workflows for the region.

ONGOING ACTIVITIES

- 10. Regional NG9-1-1 Data QA/QC and GIS-derived MSAG activity:
 - a. **NG9-1-1 QA/QC support:** MESB's error vetting and remediation support to the PSAP/counties continues to focus on areas that have not yet made a significant stride toward GIS-derived MSAG transition, as well as other data inconsistencies found through the GeoComm NG9-1-1 validations.
 - b. Current GIS-derived MSAG status:
 - i. *Complete:* Chisago County, Dakota County, Anoka County, Eden Prairie, St Louis Park, Edina, Bloomington, Ramsey County, Isanti County, Hennepin Sheriff (partial set of communities)
 - ii. *In preparation stage at MESB:* Carver County, Hennepin Sheriff (additional communities)
 - c. **Proactive 9-1-1 call location audits** continue for the 10-county region once a week using ALI retrieval logs and the metro regional road centerline, address point, and MSAG data. This process has been helpful in identifying needed VoIP service provider data remediations, as well as some address point additions.

11. ECN NG9-1-1 Federal Grant work:

a. *Metro Regional GIS-derived MSAG Processes:* MESB staff is using GeoComm's Data Hub to perform supplement NG9-1-1 validations on the regional data. MESB reaches out to county GIS staff and PSAP data contacts as needed for dataset adjustments after reviewing the validation results.

- b. **Sherburne County:** GeoComm continues to edit Sherburne County's data for NG9-1-1 readiness under their grant project.
- 12. Wireless Cell Sector/Routing Data: MESB processes wireless routing updates for all carriers on behalf of the metro PSAPs. Should PSAPs want the routing for a specific cell sector or 9-1-1 call reviewed, just email *mesbgis@mn-mesb.org* and MESB staff will investigate.

13. Regional GIS Data Aggregation:

- a. **Road Centerline and Address Points:** The MetroGIS/Met Council processes regional road centerline and address point dataset updates nightly to the MN Geospatial Commons website. Each metro county's most recent centerline and address point data that has been uploaded to the portal and passed validations is included in the regional datasets. The regional road centerline and address point datasets comply with the current MN Geospatial Advisory Council (GAC) data standards.
- b. **Boundary Polygons:** MESB maintains the regional PSAP, ESZ, MSAG community, law, fire, and EMS boundary polygon layers in coordination with the PSAPs. These datasets are updated as boundaries change or at a minimum of quarterly. Mobile Positioning Center, Text Control Center, and VoIP Positioning Center vendors are directed to the MN Geospatial Commons for downloads of metro's PSAP boundary polygons.
- 14. Regional Data Viewer: The datasets pertinent to regional 9-1-1 interests are available in the dataviewer developed by MetroGIS/Met Council. (https://www.metrogis.org/projects/9-1-1-Data-Viewer.aspx.) PSAP MSAG coordinators are encouraged to use the dataviewer as a resource for geospatial data their county GIS departments consider valid and current for regional 9-1-1 use.