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

January 21, 2021 10:00 a.m.

WebEx Meeting Link

**1. Call to Order**

**2. Approval of Agenda**

**3. Approval of Minutes –** December 17, 2020 Meeting

**4. Action Items**

A. Emergency Communications Strategic Planning – Regional Volunteers
B. ALI Format Update – Z-axis Location Data

**5. Discussion Items**

A. Pandemic Response
   1. Metro PSAP Consolidation Planning
   2. PSAP Consolidation Plan System Evaluation Team
B. Coordination with State Patrol
C. Telecommunicator Resiliency Program RFP
D. System Outage Notifications
   1. Outage Notification Process – Review Current Draft
E. Mental Health Call Processing Standard
   1. Resource Links:
      a) Standards Review & Comment | APCO International (apcointl.org)
      b) https://www.nena.org/page/WellnessCommittee
F. Telecommunicator Reclassification and Licensing Legislation
G. Regional Workload Sharing / Situational Awareness Planning WG
H. T-Mobile Location Based Routing

**6. Reports**

A. PSAP Operations Round Table Work Group (Attached)
B. SECB NG9-1-1 Committee Report
C. 9-1-1 Network Report (Attached)
D. 9-1-1 Data Report (Attached)

**7. Announcements**

**8. Adjourn**

# Metropolitan Emergency Services Board

## 9-1-1 Technical Operations Committee
## December 17, 2020
## Draft Meeting Minutes
## Meeting Held via WebEx

**Members Present**

Laura Anderson, Sherburne County
Carrie Bauer, Scott County
Bob Dowd, Isanti County
Janelle Harris, Edina PD
Wade Johnson, Hennepin EMS
Jeff Lessard, U of Minnesota PD
Chad Loeffler, Metro Transit PD
Tony Martin, Hennepin County
Melissa Carpenter, North Memorial
Darlene Pankonie, Washington County
Nancie Pass, Ramsey County
Heidi Hieserich, MSP Airport
Cheryl Pritzlaff, Dakota County
Kathy Hughes, Minneapolis
Marv Solberg, St. Louis Park PD
Val Sprynczynatyk, Anoka County
Jake Thompson, Chisago County
Victoria Vadnais, Allina EMS
Lisa Vik, Eden Prairie PD
Susan Bowler, Carver County

**Guests:** Bill Anderson, Metro Transit; Matthew Hoffer, Lumen; Mike Melby, North Memorial; Kari Morrissey, Anoka County; Mike Mihelich, RCECC; Lauren Petersen, Airport; Jon Rasch, RCECC; Marvin Bachmeier, Code 4 Group; Vic Barnett, RCECC; Tim Boyer, MN State Patrol; Dan Palmer, RCECC; Scott Petersen, MECC; Dan Ploesser, Motorola Solutions; Carli Stark, AMC; Sheri Stevens, MN State Patrol; Sandi Stroud, ECN; Dana Wahlberg, ECN; Scott Wosje, Northland Business Systems

**MESB Staff*:*** Marcia Broman, Pete Eggimann, Jill Rohret, Martha Ziese

### 1. Call to Order

Heidi Hieserich (9-1-1 TOC Chair) called the meeting to order at 10:00 AM.

### 2. Approval of Agenda

*M/S/C Motion made by Cheryl Pritzlaff to approve the agenda for December 17, 2020. Kathy Hughes seconded. Motion carried.*

**Roll Call for Approval of Agenda**

| Agency | Member | Yes | No |
|---|---|---|---|
| Allina | Vadnais | X | |
| Anoka | Sprynczynatyk | X | |
| Bloomington PD | Scanlon | | |
| Carver | Bowler | X | |
| Chisago | Thompson | X | |
| Dakota | Pritzlaff | X | |
| Eden Prairie | Vik | | |
| Edina PD | Harris | X | |
| Hennepin | Martin | X | |
| Hennepin EMS | Johnson | X | |
| Isanti | Dowd | X | |

| | | | |
|---|---|---|---|
| MAC/Airport | Hieserich | X | |
| Metro Transit | Loeffler | X | |
| Minneapolis | Hughes | X | |
| North Memorial | Carpenter | X | |
| Ramsey | Pass | X | |
| Ridgeview EMS | Giese | | |
| Scott | Bauer | X | |
| Sherburne | Anderson | X | |
| St Louis Park | Solberg | X | |
| U of M | Lessard | X | |
| Washington | Pankonie | | |

**Yea:18 Nay: 0 Motion passed**

**3. Approval of Minutes**

*M/S/C Motion made by Val* Sprynczynatyk *to approve the minutes from November 19, 2020. Tony Martin seconded. Motion carried.*

**Roll Call for Approval of Minutes**

| **Agency** | **Member** | **Yes** | **No** |
|---|---|---|---|
| Allina | Vadnais | X | |
| Anoka | Sprynczynatyk | X | |
| Bloomington | Scanlon | | |
| Carver | Bowler | X | |
| Chisago | Thompson | X | |
| Dakota | Pritzlaff | X | |
| Eden Prairie | Vik | | |
| Edina PD | Harris | X | |
| Isanti | Dowd | | |
| Hennepin | Martin | X | |
| Hennepin EMS | Johnson | X | |
| MAC/Airport | Hieserich | X | |
| Metro Transit | Loeffler | X | |
| Minneapolis | Hughes | X | |
| North Memorial | Carpenter | X | |
| Ramsey | Pass | X | |
| Ridgeview | Giese | | |
| Scott | Bauer | X | |
| Sherburne | Anderson | X | |
| St Louis Park | Solberg | X | |
| U of M | Lessard | X | |
| Washington | Pankonie | | |

**Yea: 17 Nay: 0 Motion passes**

**4. Action Items**

**A. Regional Workload Sharing and Situational Awareness Application Implementation Recommendation**

Hieserich reminded the committee that at the November 9-1-1 TOC meeting members interested in participating on this workgroup were asked to contact the Chair or Vice-Chair. Five members have

expressed an interest in participating: Bill Anderson, Scott Haas, Heidi Hieserich, Jon Rasch, and Val Sprynczynatyk. Hieserich asked for a recommendation to allow Hieserich and Sprynczynatyk to make additional appointments to this workgroup as needed.

Hieserich said the focus for this workgroup will be to develop a plan for implementation, governance, and cost sharing or funding for a regional shared workload and situational awareness solution. The workgroup will provide recommendations to the 9-1-1 TOC so there will be plenty of opportunities for members who are not on the workgroup to provide input before plan approval.

The committee discussed various workgroup membership alternatives and reached agreement that members could volunteer provided that the number of members did not become so large that they would constitute a quorum of the committee.

Nancie Pass summarized there is consensus to ratify these volunteers to create the workgroup: Sprynczynatyk, Haas, Martin, Lessard, Anderson, Rasch, and Hieserich; as well as recognizing the Chair and Vice-Chair would have the authority to make additions to this workgroup if needed. If new members are added by the Chair and the Vice-Chair those names will be announced at the next 9-1-1 TOC meeting so the committee could approve the additional workgroup members.

*Motion made by Nancie Pass to approve the current volunteers to this workgroup and that the Chair and Vice-Chair be given authority to form this workgroup and add members as needed, to be ratified by the 9-1-1TOC. Jake Thompson seconded. Motion carried.*

**44.A. Roll Call for Approval of Regional Workload Sharing and Situational Awareness Application Implementation Workgroup Formed**

| Agency | Member | Yes | No |
|---|---|---|---|
| Allina | Vadnais | X | |
| Anoka | Sprynczynatyk | X | |
| Bloomington PD | Scanlon | | |
| Carver | Bowler | X | |
| Chisago | Thompson | X | |
| Dakota | Pritzlaff | X | |
| Eden Prairie | Vik | | |
| Edina PD | Harris | X | |
| Hennepin | Martin | X | |
| Hennepin EMS | Johnson | X | |
| Isanti | Dowd | X | |
| MAC/Airport | Hieserich | X | |
| Metro Transit | Loeffler | X | |
| Minneapolis | Hughes | X | |
| North Memorial | Carpenter | X | |
| Ramsey | Pass | X | |
| Ridgeview | Giese | | |
| Scott | Bauer | X | |
| Sherburne | Anderson | X | |
| St Louis Park | Solberg | X | |
| U of M | Lessard | X | |
| Washington | Pankonie | | |

**Yea: 18 Nay: 0 Motion passed**

**5. Discussion Items**
**A. Pandemic Response**
Eggimann reported that the RapidDeploy configuration work continues and the table-top and evaluation exercises are now scheduled for the first week of February.

Jake Thompson said when the pandemic PSAP consolidation planning began, there were other workgroups established. Were any other workgroups still involved?

Hieserich said that it should be a January agenda item to see the status of the other workgroups.

Carrie Bauer said the CAD-GIS workgroup has been on hold.

Jon Rasch said the admin lines routing work was identified as a RapidDeploy capability, but that the CAD configuration needed to be completed first.

Thompson said there was radio planning and talk of allowing permissions. Perhaps now is the time to get it documented.

Tony Martin said after talking to Curt Meyer, on the law enforcement side, RapidDeploy could be used anytime now if needed. Martin thought the fire side still has work to be done to fully take advantage of RapidDeploy's capabilities, but the complexity needed to really leverage those capabilities may be beyond the scope of the project.

Hieserich said a written report would be good to see what the status is of the other workgroups. Thompson agreed the MESB would benefit to see written report on the status.

**B. Coordination with State Patrol**
Martin shared a draft coordination recommendation document with the work group. A copy of the document was sent to the committee members following the meeting.

**C. Telecommunicator Reclassification and Licensing Legislation – no update**

**D. System Outage Notifications**
Martin shared a draft notification procedure document with the work group. A copy of the document was sent to the committee members following the meeting.

**E. Mental Health Call Processing Standard - no update**

**6. Reports**
**A. PSAP Operations Round Table Work Group – No Update**

**B. SECB NG9-1-1 Committee Report**
Pankonie said the committee met yesterday and included discussions on the Telephone CPR compliance standard which was approved by the SECB at their December 3 meeting. The committee will continue to work on identification of T-CPR training resources that the PSAPs could utilize to complete the standard compliance requirements. PSAPs were encouraged not to enter into any T-

CPR contracts yet, and that they should wait until the T-CPR grant process was in place. The grant money should be sufficient to cover the costs of the training for the PSAPs. No word back yet on the legal review requested of the Attorney General's office regarding the compliance standard and the statutory requirements to ensure they are in alignment.

The committee also spent time discussing the 9-1-1 system governance and how PSAPs could participate in the regional representation and planning processes. It was noted that the metro area has included the secondary PSAP representatives on their 9-1-1 TOC while other regions have not (e.g., Mayo does not have a representative in the SE Region). The question also came up about whether PSAPs that serve in multiple regions should have representatives on all the regional boards or only on the region where the PSAP is physically located. (e.g., North Memorial serving multiple regions but only has representation in the metro region)

The committee discussed the 9-1-1 Plan change process and the need to involve ECN, and the MESB in the metro area, sooner in the planning process. Any time a PSAP wants to make a change that impacts how they are connected to or utilize the 9-1-1 system a 9-1-1 Plan change request is required. The process needs to look more like what has been done with the ARMER system so that the proper resources can be identified and changes at one PSAP do not adversely impact the 9-1-1 system or other PSAPs. The committee will continue to look at the process once ECN has their technical assistance contract in place.

**C. 9-1-1 Network Report**
In addition to the written report in the meeting packet, Eggimann wanted to update the committee on the 911 Plan change request from Ramsey County. In accordance with ECN's request, the MESB prepared a 911 Plan change request letter summarizing what Ramsey wants to do and submitted the letter for ECN's review. Work is continuing to identify the ESInet connection options that will meet Ramsey's needs that are available at the St. Paul location.

Pankonie reported that she expected to go online with their new Solacom answering application in April. Carrie Bauer said she believed Scott Co.'s implementation on the Motorola SaaS system will now happen sometime in the summer.

Barnett asked about the reference in the report about the Egress RFP and wondered if this was anticipated to be a separate contract or would it be provided by the NG Core Services vendor. Eggimann explained that the NG9-1-1 system was expected to be made up of three major components that would likely be handled in separate contracts, unlike today's single 9-1-1 services contract with Lumen. The NG Core Services would involve the 9-1-1 call routing and location information delivery functions like what the current 9-1-1 selective routers and the ALI database provide today. The Egress contract would cover the ESInet connectivity between the Core Services and the PSAPs. Eggimann also noted that under NENA's ESInet design that network would be used for multiple mission critical public safety applications and would not be exclusive to just 9-1-1, and would also include the connectivity inside the PSAPs, at least in terms of being able to monitor the network status and application data delivery.

**D. 9-1-1 Data Report**
Marcia Broman summarized the written report that was included in the meeting packet and updated the committee on the upcoming deadline for the wireless carriers to begin providing caller location information that includes vertical location. Hieserich said that the Airport is very interested in being

able to utilize a three-dimensional caller location, such as being able to know what level a caller was on in the parking ramps.

**7. Announcements**
The committee members discussed how their respective jurisdictions were going to handle the COVID vaccinations with the telecommunicators. There seemed to be consensus that the telecommunicators would be included in the 1B distribution and would not all be done on the same day to allow for any allergic reactions to not compromise many telecommunicators at the same time.

**Adjourn at 11:46**

# METROPOLITAN EMERGENCY SERVICES BOARD

**Meeting Date:** January 21, 2021
**Agenda Item:** 4.A Emergency Communications Strategic Planning – Regional Volunteers
**Presenter:** Eggimann

## RECOMMENDATION

Request that the 9-1-1 Technical Operations Committee (TOC) identify volunteers to participate in regional level strategic planning with regard to emergency communications.

## BACKGROUND

ECN has sponsored two strategic planning efforts in the past that have lead to the creation of two three-year strategic plans for emergency communications in Minnesota. The SECB has used the plans as a resource in making decisions and establishing priorities. The past events have been held at a conference center in Chanhassen and involved volunteer participants from across the state. This year ECN is facilitating regional planning sessions to gather input before a statewide strategic plan is developed.

The metro region planning sessions are scheduled for:

| | |
|---|---|
| Monday, February 22 | 1300-1500 |
| Monday, March 8 | 1300-1500 |
| Monday, March 15 | 1300-1500 |

(see attached information sheet for more detail)

## ISSUES & CONCERNS

(none identified)

## FINANCIAL IMPACT

(none identified)

MOTION BY:
SECONDED BY:
MOTION:

PASS/FAIL

# Metro Region Emergency Communications
# Strategic Planning Meetings

**Monday, February 22**
**Monday, March 8**
**Monday, March 15**
**1300-1500**

You are invited to participate in a series of three regional planning meetings. The meetings are being offered in preparation for the statewide Emergency Communications Network Board strategic planning scheduled to occur this coming Spring. The regional meetings will provide an opportunity to assess where your region and the state are with regard to emergency communications, where you would like to be, and your best thoughts on what should be done to get there.

Here's what to expect for the meetings:

- **Meeting one** will include:
  - Assessing progress on the current strategic plan
  - Assessing the accomplishments, setbacks, strengths, weaknesses, opportunities and threats (regional and statewide)
  - Identifying the desired state – where you'd like to be – at the regional and statewide levels

- **Meeting two** will include:
  - Developing possible statewide goals and objectives
  - Developing possible regional goals and objectives

- **Meeting three** will include:
  - Wrapping up discussion of what you will recommend for statewide goals and objectives
  - Fleshing out the regional goals and objectives
  - Discussing roles, responsibilities, timeline and a possible format for follow up regional planning, (optional)

When all regional meetings are completed, the key themes and recommended goals and objectives will be incorporated as part of the statewide planning process.

We're hoping that participants will include those closest to the work and that they represent a variety of viewpoints. Hopefully participants will talk with their colleagues and bring their perspectives to the table as well. Ideally this planning process provides a good opportunity for dynamic communication that will support the entire emergency communications effort into the future, and assure that the resulting strategic plan is based on the needs, goals and priorities expressed by the regional planning participants.

Please consider joining in this great opportunity to look at and shape the work that matters so much to you and to the citizens of this state.

# METROPOLITAN EMERGENCY SERVICES BOARD

**Meeting Date:** January 21, 2021
**Agenda Item:** 4.B ALI Format Change – Z-Axis
**Presenter:** Browman

**RECOMMENDATION**
Request that the 9-1-1 Technical Operations Committee (TOC) recommend that the ALI format be changed to enable the display of three-dimensional location coordinates.

**BACKGROUND**
As part of an ongoing effort to improve the caller location accuracy for 9-1-1 calls the FCC has rejected efforts to delay the April 2021 deadline for wireless carriers to provide elevation coordinate (z-axis) information in addition to the latitude and longitude coordinates they have already been providing. The current ALI format has no place designated for displaying z-axis information and will require an updated configuration.

For ECCs to effectively utilize the z-axis location data may require updated GIS information and mapping capabilities.

(see attached news article)

**ISSUES & CONCERNS**
(none identified)

**FINANCIAL IMPACT**
(none identified)

MOTION BY:
SECONDED BY:
MOTION:

PASS/FAIL

https://www.rcrwireless.com/20210112/policy/fcc-rejects-calls-to-delay-indoor-location-accuracy-improvements

# FCC rejects calls to delay indoor location accuracy improvements

By Kelly Hill on January 12, 2021 Network Infrastructure, Policy

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- Click to share on LinkedIn (Opens in new window)
- Click to share on Twitter (Opens in new window)
-

Carriers won't get more time to meet vertical location, or z-axis, accuracy requirements for cellular devices that are set to take effect in April.

The Federal Communications has rejected a request from CTIA to delay the implementation of new requirements on improved accuracy for reporting the indoor location of wireless callers, including three-meter accuracy of a device's vertical position within multi-story buildings.

CTIA had asked the FCC last September to delay the April 2021 deadline by which wireless network providers have to start providing more precise indoor location of callers in certain markets. CTIA cited the COVID-19 pandemic as one reason that the FCC should give operators more time, arguing that the pandemic "has stalled any ability to validate whether z-axis location

solutions can meet the Commission's vertical location accuracy requirements" and also saying that the FCC's timeline was "premised on vendor promises that 'have not panned out.'"

Meanwhile the Association of Public Safety Communications Officials, or APCO, supported the existing timelines for deployment but took issue with the "dispatchable location" part of the FCC's requirements, and had repeated a request that the FCC tie its required benchmark to a percentage of 911 calls rather than address-reference points in a location database. That request was also denied.

The FCC essentially said that the carriers have known for six year that they would have to meet these deadlines, the two requests re-argued points that it had already considered and dismissed, and that the April 2021 and 2023 z-axis deadlines and its previously set benchmarks, would stand.

The FCC had adopted rules in 2015 that commercial wireless carriers would have to provide vertical location, or z-axis, information in the top 25 Cellular Market Areas by April 3, 2021, and in the top 50 CMAs by April 3, 2023. However, the FCC didn't adopt the exact metric for the information — that the information must be accurate to within three meters of the device's position — until November 2019. In November 2019, the FCC noted, it found that two vendors, NextNav and Polaris, had "consistently shown in testing that their solutions, which rely on barometric pressure sensors in handsets,
could meet or surpass this standard" and that "devices capable of measuring and reporting vertical location without a hardware upgrade (z-axis capable devices) were widely available."

In a July 2020 action, the commission expanded the options for carriers to meet the deadlines: Instead of deploying z-axis technology to cover 80% of the population, they meet the deadlines by deploying z-axis technology to cover 80% of the buildings that exceeded three stories within the cellular market. The national carriers had asked instead that the FCC only require them to meet the three-meter accuracy standard for 50% of calls rather than 80%, and to move the 2023 deadline to 2025. The FCC did not change its deadline then, and repeated again this week that it will not.

*Editor's note: This story has been corrected to more accurately reflect the nature of APCO's request of the FCC. The organization did not ask for the indoor location metric to be delayed, APCO asked the FCC to use a different benchmark for dispatchable location.*

**WORKING DRAFT: Incident Coordination with State Patrol**

**Purpose:** To define a process for the exchange of information between Metro PSAPs and the Minnesota State Patrol Communications.

**Scope:** This standard defines the recommended protocol to follow for processing incidents on the highways, interstates, and exchanges relevant to incident response with State Patrol under routine daily conditions and for non-routine escalated conditions (such as winter storms, civil unrests, disturbances).

**Background:** During high volume incidents (such as storms or civil unrests), routine protocol is no longer sustainable, and an alternative protocol is needed.

**Constraints:**

- Personnel,
- Communication via phone, radio, No current bi-directional CAD-to-CAD with other PSAPs
- Geographic coverage areas of State Patrol's two PSAPs
- Wireless 911 call routing

**Recommended Protocol**

A) Call Taking Questions/Protocol: The following call taking formula should be used if pertinent or obtainable for incidents on the state highways, interstates, and ramps.

1. What: spin out, crash without Injury (hit and run), injury crash (hit and run), disabled vehicle, pedestrian on freeway, driving complaint, debris, medical, etc.
2. Location of incident
    a. Highway or interstate name/number
    b. Direction of travel
    c. Cross street or mile marker;
    d. Proximity to cross street (i.e. east of, south of, over or at, etc.)
    e. Median, shoulder, ditch, exit ramp, entrance ramp, under pass, over pass
3. Vehicle Description
    f. Number of vehicles involved
    g. Type (passenger car, pick up, SUV, semi)
    h. Additional type info (4 door, 2 door, topper, trailer)
    i. Color
    j. License
    k. Direction of travel
4. Injuries
    a. Number of injuries
    b. Severity
    c. Entrapment
5. Driver/suspect/occupants
    a. Name
    b. Description
    c. Other information obtained
    d. Weapons involved/officer safety considerations

6. Hazard Information
    a. Blocking traffic
        i. Is the vehicle drivable? Are tows needed?
    b. General debris
    c. Hazardous materials
    d. Power lines
7. Caller Info
    l. Caller first and last name
    m. Caller phone number
    n. Involved, witness, or passerby
    o. Location of caller now
8. General Reminders
    a. When we have multiple callers, each caller may have different or updated information
    b. Might be needed for Court
    c. Multiple incidents at one location
    d. Can you move so you are no longer blocking?
    e. Can you move off the highway?
    f. Exchange of information?

B) Routine Daily Protocol: State will take any call where it is related to an incident on state highways and interstates.

1. Initial call
    a. Received by State PSAP (State being the primary agency):
        i. If the call is within State's jurisdiction and no additional resources are needed, State handles the call;
        ii. If local law, fire or EMS response is necessary, State will hail the local law enforcement PSAP via METCOM (local law PSAP is responsible for fire and EMS response); (Does state patrol have a map layer of all Law/Fire/EMS ESZ's?)
        iii. State may, at their discretion, inform the local PSAP of incidents (driving complaints, delayed response, etc.).
        iv. It is important to clarify and communicate with the local PSAP if they will not be responding to the incident or if the incident exits onto local city or county roads.
    b. Received by local PSAP:
        i. Follow your PSAP and/or agency policy and procedures.
            1.
        ii. Warm transferred to State whenever possible.
2. Subsequent calls accepted by the local PSAP will be transferred to state if the caller is involved, witnessed the incident, or has pertinent information.
3. Subsequent calls that are not transferred should be documented at the local PSAP (name, phone number, and info reported).
4. Incident coordination between the local PSAP and State should be conducted on METCOM.
5. Tows: State is responsible for ordering tow service unless directed otherwise.

C) Non-routine Conditions (i.e. winter storms, large scale vehicle accidents, State resources are overwhelmed, etc.)

1. Call taking adaptations: subsequent call taking is primarily focused on the following:
    a. Location (Use caution when screening subsequent calls for multiple incidents)
    b. Caller involved, witness, passerby (does caller have new information to share?)
    c. Vehicle description
    d. Injuries
    e. Blocking
2. Initial call
    a. Received by State PSAP: If local law, fire or EMS response is necessary, State will hail the local law enforcement PSAP via METCOM (local law PSAP is responsible for fire and EMS response)
        i. Driving complaint, informing the local PSAP
        ii. Delayed response, looking for assistance from local PSAP
    b. Received by local PSAP: Process call as normal (in local CAD) and notify State on METCOM or identified talkgroup of required **CORE** information.
        i. Incident type
        ii. Location
        iii.
3. Subsequent calls accepted by the local PSAP will be transferred to state if the caller is involved, witnessed the incident, or has pertinent information.
4. Subsequent calls that are not transferred should be documented at the local PSAP (name, phone number, and info reported).
5. Incident coordination between the local PSAP and State should be conducted on METCOM.
    a. During periods of high call volume related to non-routine conditions, State can elect to move radio communications to a METAC in lieu of using METCOM.
6. Tows: State is responsible for ordering tow service unless directed otherwise.

# MN Metropolitan Emergency Services Board
# 911 DISRUPTION/OUTAGE COMMUNICATION PLAN

**Draft Last Revised: 12/10/2020**

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## 1. Overview

The goal of MESB 9-1-1 Communication Plan is to inform all necessary participants, both internal and external, of the area's communications-related actions during a crisis, 9-1-1 disruption or outage. Because it is impossible to identify all variables, this plan is a living document. Flexibility is necessary when reacting to a crisis, and therefore this plan was written as guidance and not as a strict process.

The CP has six main components:

- Audience identification
- Roles and responsibilities
- Scope of disruption, severity, geographic
- Message Creation
    - Message characteristics
    - Types of messaging: external and internal
    - Monitoring
    - Sample messages
- Message distribution
    - External distribution
    - Internal distribution
- Analysis
    - Measuring success
    - Applying lessons learned
- Attachments

## 2. Purpose

The purpose of the CCP is to provide a framework for releasing consistent, accurate, and appropriate messaging during a crisis to affected audiences.

## 3. Goals

- Identify internal and external audiences affected by a crisis
- Identify staff roles and responsibilities during a crisis
- Identify official messaging that addresses the needs of affected audiences without releasing confidential information
- Identify and use distribution tools for sharing messaging as quickly as possible
- Update audiences regularly with new developments
- Address misinformation in a timely manner to avoid the spread of rumors
- Measure effectiveness of messaging and distribution tools after the crisis is over
- Identify and apply lessons learned to the CCP for future use

## 4. Audience Identification

**Internal**

- MESB Public Safety Answering Points (PSAPs)
  - Allina Emergency Medical Services PSAP
  - Anoka County PSAP
  - Bloomington PSAP
  - Carver County PSAP
  - Chisago County PSAP
  - Dakota County PSAP
  - Eden Prairie PSAP
  - Edina PSAP
  - Hennepin County PSAP
  - Hennepin Emergency Medical Services PSAP
  - Isanti County PSAP
  - M Health Fairview Emergency Medical Services PSAP
  - Metro Transit PSAP
  - Minneapolis PSAP
  - Minnesota State Patrol PSAP
  - North Memorial Emergency Medical Services PSAP
  - Ramsey County PSAP
  - Ridgeview Emergency Medical Services PSAP
  - Scott County PSAP
  - Sherburne County PSAP
  - St Louis Park PSAP
  - University of MN PSAP
  - Washington County PSAP
- MESB Public Safety Answering Points (PSAPs) Staff (Director, Managers, Supervisors, Technical Staff, Other Identified Staff)
- MESB staff members (Executive Director, Director of 911 Services, EMS Coordinator, Radio Services Coordinator)
- Partnered Police, Fire & City Departments of Partner PSAPs, Public Information Officers (PIO's)

**External**

- Residents/Visitors of Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, and Washington Counties
- Media members
- Partners (local, state, and federal officials) outside of the MESB 9-1-1 region
- Neighboring 9-1-1 entities

Not all MESB 9-1-1 audiences will be affected in every scenario. In addition, it is possible that an audience may exist that is not currently identified in this plan. The plan will be amended as audiences are identified.

## 5. Initial PSAP Response to Disruption

Discovery can be an automated email notification, information that a 9-1-1 call(s) did not go through, misrouted 9-1-1's or any other method.

- Upon discovery of a potential service disruption/outage, PSAP staff will test landline and cellular 9-1-1 lines to ensure they route properly and are received in the PSAP.
    - *****It is recommended that PSAPs test with multiple carriers when possible.**

- If test calls result in 9-1-1 misroute or call failure, PSAP staff will check with a surrounding PSAP to see if they are experiencing any disruptions or outages. (The PSAP contacted will confirm whether they have received any indication of a known issue and test their lines.)

    - If there are no service issues discovered with the surrounding PSAP, the initiating PSAP will continue with internal notification procedures and work with 911 support to identify and resolve the issue.

- If both PSAPs are experiencing a service disruption/outage, one of the PSAPs involved will check for regional issues via METCOM. Advise Metro PSAPs on METCOM of the 9-1-1 service disruption/outage and ask that they check and report status on METAC8 (or next available). If not already identified, have one PSAP be the primary contact.

- If any of the PSAPs experiencing a disruption/outage have not been informed of the outage by the 9-1-1 services provider; the PSAP with an existing service ticket entered should update 9-1-1 support with other agencies involved when possible.

- The Lumen (CenturyLink) regional/statewide conference bridge will be opened for current/up to date information.
    - All PSAPs in the region will be invited to the conference bridge. Intended audience:
        - Primary 9-1-1 PSAP Contacts
        - On-duty PSAP staff/supervisors
        - PSAP Technical Staff
        - ECN and MESB staff will be added to the conference bridge

- Internal PSAP Notification

## 6. Message Creation

MESB PSAP messaging must meet the following standards:

- Accurate
  - Accurate as possible based on available information
- Timely
  - Updated regularly to reflect new information
  - It is suggested that PSAP's provide an update at least every hour, unless new, pertinent information is available before the time of the next update.
- Clear
  - Easy to understand, avoiding the use of jargon or industry acronyms.

Recommended order for message delivery platforms:

- Press Release
- Social Media (Twitter, Facebook, etc.)
- IPAWS
- Reverse 911/Notification – Use for landlines or prebuilt targeted groups (care facilities, apartments, assisted living, etc.). IPAWS notification will be sent to cellular telephones.

### Message Templates

**Press Release (Initial)**
9-1-1 Disruption in (your area)

9-1-1 service may be temporarily disrupted in (your area)
If you are in (your area) and are unable to reach police, fire or medical responders, please call:
(XXX) XXX-XXXX (Your 24/7 10-digit Number)

We are working with our 9-1-1 providers to get the service restored quickly. Once 9-1-1 service is restored, the press release will be updated.

If you have an emergency outside of (your area) , your call will be transferred to the appropriate Emergency Center.

(Optional)
For further information about what to do if there is a disruption, you can visit (website)

**Press Release (Restoral)**
9-1-1 service has been restored in (your area).

**Twitter (Initial)**
9-1-1 service has been temporarily disrupted in (your area). If you have an emergency, please call (XXX) XXX-XXXX (Your 24/7 10-digit Number).

**Twitter (Restoral)**
9-1-1 service has been restored in (your area).

**IPAWS/WEA Message (Initial)**
It is recommended that PSAPs wait 30 minutes before an IPAWS message is sent, unless there is confirmed information that:

- The disruption duration is not known, or restoral is not timely
- Unable to route calls to alternate PSAP
- Consider the time of day when sending IPAWS (recommended not overnight, unless needed)

**IPAWS Categories**

- Message Status: Actual
- Source/Sender: (Your Agency)
- Scope: Public
- Message Category: Safety
- Event Name: Civil Emergency Message
- WEA Handling: Imminent Threat
- Urgency: Immediate
- Severity: Extreme/Severe
- Certainty: Observed
- Insert Sample 90, and 360 Character Messages
    - Waiting for sample 90- & 360-character messages



## 7. Restoral Information

- Once word is received that 9-1-1 service is operational, PSAP staff will test landline and cellular 9-1-1 lines to ensure they route properly and are received in the PSAP.
- PSAP staff will check with a neighboring PSAP to see if they are back up and operational.
- If both PSAPs are operational, one of the PSAPs involved will advise Metro PSAPs on METCOM that they appear to be back up and operational.
- If any of the PSAPs are still experiencing a disruption/outage; the PSAPs with an existing service ticket entered should update 9-1-1 support with impacted agencies that they are still experiencing the outage.
- Those agencies that are back operational should then send a follow up/update on social media sites and/or WEA indicating that 9-1-1 is now operational.

ACKNOWLEDGEMENTS
The Metropolitan Emergency Services Board (MESB) 9-1-1 PSAP Technical Operations Committee developed this document.

911 PSAP TOC Approval Date:

MESB recognizes the following industry experts and their employers for their contributions to the development of this document.

| Members | Employer |
|---|---|
| Tony Martin, Emergency Communications Director | Hennepin County Sheriff's Office |
| Heidi Hieserich, Emergency Communications Manager | Metropolitan Airports Commission |
| Jon Rasch, Emergency Communications Manager | Ramsey County Emergency Communications |
| Cheryl Pritzlaff, Operations Director | Dakota County Communications |
| Val Sprynczynatyk, Director | Anoka County Emergency Communications |
| Pete Eggimann, Director of 9-1-1 Services | Metropolitan Emergency Services Board |

# Location Based Routing Overview

TMobile January 2021

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# Location Based Routing:

## What is it?

- Routing 9-1-1 calls based on call location. Within today's advances in technology, finding a caller based on their actual location is within reach. Not only in providing enhanced phase II of their location, but detecting and routing based on that device location.
- Allows for getting the 9-1-1 call to the appropriate agency with the initial call, based on jurisdictional boundary mapping.

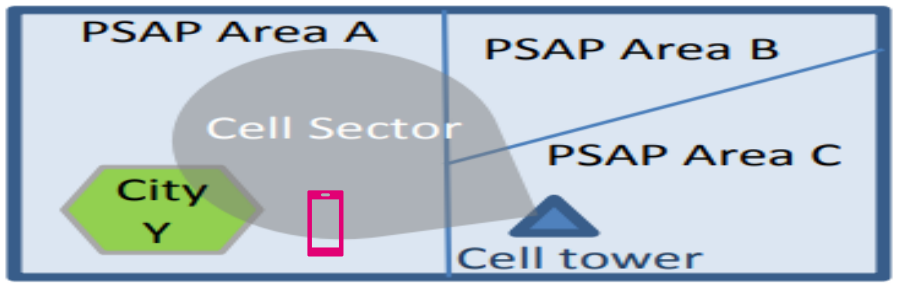
## How is that different from the historical norm?

- Today, 9-1-1 calls are routed based on the serving cell site/sector of the call within a carriers network.
- PSAP are provided Call Routing Spreadsheets/maps of carrier cells, and the PSAP decides from which sectors they will received calls.
- While cell sector based routing has proven to be a fast and reliable solution for the routing of emergency calls, the method does have limitations:
  - Subject to sub-optimal routing conditions when the caller is outside the footprint used in predetermining the routing PSAP of the serving sector, or when serving sectors cover multiple PSAP jurisdictions.
  - Sub-optimal increases the likelihood of call transfers between neighboring PSAP jurisdictions that can delay first responders
  - Time consuming for Public Safety Agency to produce call routing by sector.
- Cell sector based routing sometimes leads to 911 call transfers between jurisdictions.
- Public Safety and industry consensus is that call transfers should be reduced
- Today, T-Mobile is the only wireless carrier positioned to route 911 calls based on caller location, rather that cell sector, as one method of reducing call transfers.
- T-Mobile is ready to Pilot LBR within our 9-1-1 production network and quantify the reduction of potential call transfers.

# Cell Sector Based Routing
## Background

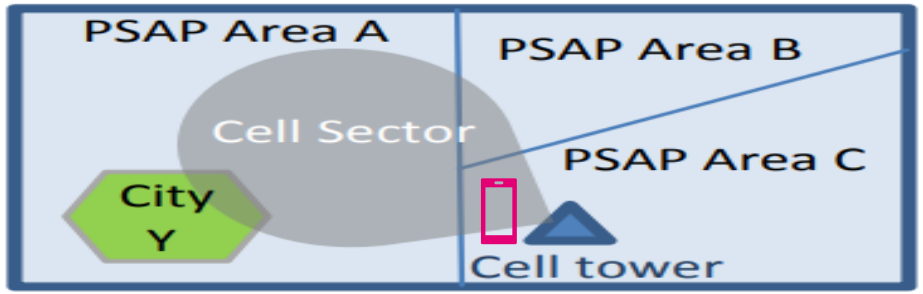
- 911 cell sector-based routing is determined by PSAPs in coordination with wireless carriers after comparing jurisdictional boundaries with map of cell sector's estimated coverage area
- Proven to be a fast and reliable solution for the routing of emergency calls, the method does have limitations
- Sub-Optimal Routing Conditions
  - When the caller is outside the footprint used in predetermining the routing PSAP of the serving sector
  - When serving sectors cover multiple PSAP jurisdictions

Requires no PSAP Call Transfer




**Cell Sector Routes to PSAP A**
**Caller in PSAP A Area**
**Cell Sector Routing Sends Call to PSAP A**

Requires PSAP Call Transfer
Potential LBR Candidate




**Cell Sector Routes to PSAP A**
**Caller in PSAP B Area**
**Cell Sector Routing Sends Call to PSAP A**

# T-Mobile LBR

- T-Mobile has developed and refined LBR capability on our internal 9-1-1 platform.
  - It has been lab tested, trialed, and Piloted with great success and is production ready.
  - The feature is activated at the PSAP level.
  - Activation requires coordination with public safety agency or authority
  - The solution leverages high quality, low latency device-based hybrid location (DBH) location from commercially available devices already within the hands of our consumers.
    - Apple iOS 13 is supported on iPhone 6 and above
    - Android OS version 4.0 /Ice Cream Sandwich and above
  - The platform remains able to use serving sector-based routing for fall back when optimal LBR not available.

# T-Mobile LBR Implementation Details

- What Does T-Mobile look for: location qualification checks
  - Must arrive within a configurable time before the call or with call setup
  - Have a valid question timestamp
  - Be within a configurable distance threshold to serving cell
  - Have a acceptable location estimate uncertainly range (estimated error)
  - Be computed by a location source configured for LBR (DBH)
  - Originate from a device that is DBH capable and has not been blacklisted for LBR
- Call fallback to predetermined cell sector-based routing
  - When any of the LBR location qualification checks fail
  - When a qualified LBR location falls outside of an assigned PSAP shape activated for LBR
  - When a device is not DBH capable.

# T-Mobile LBR Implementation Details

- Updated Shapefiles received from PSAP
- Review/Audit currently cell sector-based routing; update if requested.
- **PSAP Profile Manager updated** to allow for ESRK Routing Table update to allow LBR.
- Request PSAP to monitor transfers
- Provide any Shapefile changes to T-Mobile quarterly or if major impact as quickly to the relative change as possible to ensure continued optimal routing.
- T-Mobile to monitor internally

# T-Mobile First to Roll Out Cutting-Edge 911 Capabilities

December 17, 2020

*Source:* https://www.t-mobile.com/news/network/tmobile-next-generation-911-location-based-routing#download

**What's the news:** T-Mobile is the first U.S. wireless operator to launch Location-Based Routing and Next Generation 911 capabilities.

**Why it matters:** The new services help transition 911 to a faster, more efficient & resilient system, helping reduce the time it takes for emergency responders to locate and reach those in trouble.

**Who it's for:** T-Mobile customers across the country.

**BELLEVUE, Wash. — December 17, 2020 —** In an emergency, every second counts. That's why T-Mobile (NASDAQ: TMUS) is launching new 911 capabilities – Location-Based Routing and Next Generation 911 connectivity over IP – two critical advancements that can speed up emergency response times by helping pinpoint the location of callers, reducing the need for call transfers, and enabling a more efficient and effective 911 communication system.

"As the Un-carrier we innovate and push the wireless industry forward with technology firsts like this for the sake of consumers everywhere. Nowhere is that more important than driving improvements in public safety," said Neville Ray, President of Technology at T-Mobile. "Our advanced LTE and nationwide 5G network positions us better than any other operator to quickly and more accurately deliver emergency calls to Next Generation 911 systems. And that, simply stated, will make people safer."

**Location-Based Routing**

Location-Based Routing (LBR) significantly cuts the need for 911 call transfers by leveraging low latency device-based location technology. That allows the network to connect more 911 callers directly to the appropriate 911 call center, saving precious time. In fact, T-Mobile says some areas with LBR enabled have experienced up to 40 percent fewer call transfers. LBR is currently enabled in parts of Texas and Washington State, and T-Mobile is working with 911 authorities to expand the capability nationwide.

**Next Generation 911**

Next Generation 911 (NG911) brings emergency communications into the future, transitioning 911 to a state-of-the-art all-IP-based system. That means a more seamless flow of information from your phone to 911 telecommunicators and first responders all while improving the system's ability to manage call overload, natural disaster response, and interoperability between jurisdictions. NG911 also paves the way for future forms of communications. Alert systems like crash detection will become more effective, sending notifications and actionable data directly to 911 dispatchers instead of third parties. T-Mobile has established some level of NG911 connectivity in all or part of Delaware, Massachusetts, Michigan, New Hampshire, North Carolina, Pennsylvania, South Carolina,

Virginia, and Washington state, with plans to expand both NG911 connectivity and capability nationwide as public safety networks are ready.

The new capabilities are the latest in a series of moves from the Un-carrier aimed at improving public safety. Just last month, T-Mobile became the first major wireless provider to make the 988 emergency lifeline available to customers. T-Mobile customers in need of free mental health support can now get it immediately by dialing 988 on the T-Mobile network to be connected directly to the National Suicide Prevention Lifeline, a network of approximately 180 local- and state-funded crisis centers.

T-Mobile is America's 5G leader, delivering 5G speeds in more places with the first and largest nationwide 5G network, and laying the groundwork for improved, more robust emergency communications across the country. T-Mobile's Extended Range 5G already covers more than 270 million people across more than 1.4 million square miles. With Sprint now part of T-Mobile, the Un-carrier is extending its 5G lead, quickly lighting up Ultra Capacity 5G with technology that can deliver average download speeds of 300 Mbps and peak speeds up to 1 Gbps.

For more information on T-Mobile's network, visit t-mobile.com/coverage. And as always, follow T-Mobile's Official Twitter Newsroom @TMobileNews to stay up to date with the latest company news.

# # #

**5G** coverage not available in some areas. Ultra Capacity 5G includes dedicated mid- and/or high-band 5G signals. T-Mobile's Ultra Capacity 5G covers hundreds of cities and millions of people, with more added all the time; see t-mobile.com/5Glayers. Capable device required for 5G; coverage not available in some areas. Some uses may require certain plan or feature; see T-Mobile.com.

**About T-Mobile**

T-Mobile U.S. Inc. (NASDAQ: TMUS) is America's supercharged Un-carrier, delivering an advanced 4G LTE and transformative nationwide 5G network that will offer reliable connectivity for all. T-Mobile's customers benefit from its unmatched combination of value and quality, unwavering obsession with offering them the best possible service experience and undisputable drive for disruption that creates competition and innovation in wireless and beyond. Based in Bellevue, Wash., T-Mobile provides services through its subsidiaries and operates its flagship brands, T-Mobile, Metro by T-Mobile and Sprint. For more information please visit: https://www.t-mobile.com.

**Media Contacts**
T-Mobile US, Inc. Media Relations
MediaRelations@t-mobile.com

**Investor Relations Contact**
T-Mobile US, Inc.
investor.relations@t-mobile.com
https://investor.t-mobile.com

# Meeting Minutes:  PSAP Roundtable

**Date & Time:** Tuesday, January 5, 2021; 1000-1200

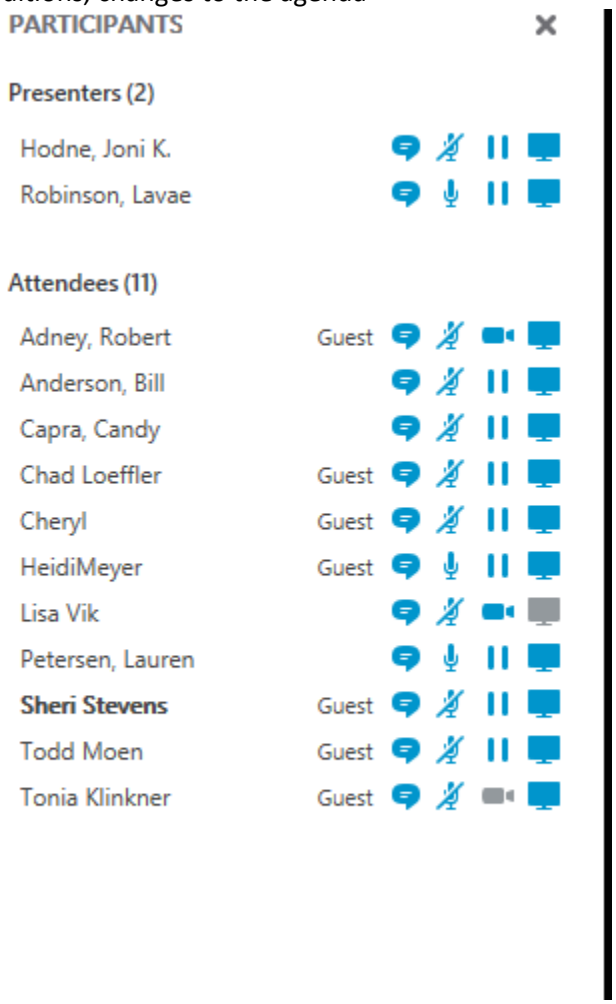
**Location:** WebEx

**Host contact:** LaVae Robinson 612-290-3443 or lavae.robinson@minneapolismn.gov

**Agenda Items:**

## Screen print of participants

1. Introductions
   Additions, changes to the agenda



No changes to agenda

2. Training (new employee and continuing ed.)
    a. Current in-service opportunities --

Ramsey in person on hold some virtual in house sent out to staff.

Anoka signed up Virtual Academy and getting people used to signing off on memos and such.
Discontinued PLS to use Virtual

Dakota started Virtual Academy few glitches to begin with
Someone said they signed up for 5 years and received a great deal from Virtual Academy
Classes are hour or two and test out at the end. Continued education min. of 12 classes to choose from at a time.

Airport also using Virtual Academy
The vendor seems to be very responsive to any tech related issues.

    b. Metro curriculum change/maintenance process
    No response for any changes to the curriculum or process for change.

    c. CTO training/roundtable discussion update

Heidi @ Anoka- 2 CTOs and 2 other agencies participated. Pandemic challenges were discussed. Summary will be sent out to this group. CTO Liaison gave a presentation on different learning styles. Next date not yet set – will try to schedule quarterly last one was Dec 2nd maybe by March it could meet held in person. If no one wants to host Anoka Co. willing to host again.

    d. General training questions, updates, etc.

Anoka continuing 2 weeks intense classroom 3rd week bring in different supervisor or CTO to speak or practice - everyone under same roof now, training room has 5 functional consoles. All consoles are live but used in training mode made huge difference.

Ramsey – TC in academy – masks required. Once at the console no masks. Split CTO at one console and new hire at another. Otherwise not a ton change.

    e. Leadership Mentoring – Question posed seeking info from any PSAP with a formal mentoring program?

Cheryl/Dakota has mentoring training for new hires for the first year out of training. Mentors are NOT CTO's – is a resource to connect to someone for support. 3 dispatchers and one supervisor going through peer counseling program. Found program through Lakeville PD.

Is there an outline for the mentors? Cheryl, yes there is. (see attached documentation Cheryl provided).

How do you do match up mentor and mentee? All voluntary & list is provided, mentee can seek out whomever they are comfortable or on a shift that works best for them. New hires then reach out mentors.

Tonia /HCSO– is meeting every 3 weeks off site for a "Trainee Roundtable/support group". Originally was on employee's own time but now they can shift adjust every third Wednesday to attend on duty time. Tonia attends the meeting. It is an Open forum and if venting is needed that is ok but also, they must state if they want something formally done vs. just venting. No OT just shift adjusting and is accomplished as the trainees do not count in staffing numbers. It is believed retention has been impacted. Since starting this roundtable only 1 person left in 2020.

Is there a written format for this group? This is something we could work on as a group. Originally started with 3-4 people who met at the Hy-Vee and Tonia joined them and it has since evolved.

3. Standards -LaVae was not aware of anything new in standards. Asked if anyone had anything related? No

4. Events and exercises (plans, meetings, 205's, impact on operations)
   Exercise for COOP planning at Mpls – virtually.
   Waiting to hear on the trial dates which will have an impact in Mpls and likely some surrounding areas.

5. PSAP technical updates and info (CAD, radio, phone and other systems)
   Dakota is getting a video wall which will hold 12-14 monitors. Various cameras that will be monitoring/displaying local and State cameras.

   Anoka expanded center - refurbished training room to include new consoles.

   a. Location Accuracy services

6. QA/QI – general updates, questions, etc. no
   State patrol started a QA program and eventually would like to add radio QA's, admin lines, 911. Sarah with State Patrol stated that they have already seen dramatic improvement from their baseline and now staff knows what is expected.

   Dakota has hired a new QA supervisor that started this week and will do calls and radio. 6 calls a month per dispatcher – 53 staff. All supervisors have been doing EMD QA's.

7. PSAP operational updates and information (management, staffing, schedules, major changes) – around the table updates from each agency - **adding in any COVID mitigation information into the topic to see where we have moved from earlier in the year.

   Ramsey wears masks anywhere in building, temp screening on entry, sup sits behind glass and monitors, requiring console cleaning. Staffing: 9 training on phones, 6-7 started academy last Monday, 1 fire dispatcher in training. Might be at 58 out of 60. Consoles are 6 ft apart –

   Metro Transit- had plexi glass installed, masks required in building except at console, using temp stand and pic taken

spaced 10 ft apart. Are also preparing for trials.

> Mpls/Joni asked Transit what is done with the temperature data taken:
> Ramsey doesn't track or store the data. If temp is too high, they wait a few minutes and rescan. If normal on second scan employee allowed in.

Mpls – Looking at plex glass between stations, masks required all times, employees are required to take their temp prior to reporting to work. One concern recently became known when employees leave the center to walk out to parking ramp have been taking masks off. Starting 7 new dispatchers on Monday. Looking for 4 more end of March. Current supervisor list and will be interviewing for in next week or two – solicited interested RoundTable members for addition to the interview panel. Several expressed interest and Joni will contact those.

Airport –. Masks, no temp screenings, expected to take own temps, staffing is down 3, have approval to hire 2 in process of posting.

Dakota - 3 started Monday which puts them at full staff. Masks are required when not at consoles, temp device in hallway, keyboards and mice were issued to all staff when COVID first started so lessened any cross contamination from those sources.

Anoka -similar processes to everyone else, temp scanning etc. all given keyboards, purchased additional chairs dispatcher takes chair to break rooms and then sup disinfects at end of shift. Mask required when away from console. Training masked when close. 5 trainees on floor and 2 been on 3 months? Radio tech position posted.

- ASAP to PSAP in implementation stage.
- Started project for implementing APCO guide cards - hope to have done end of Jan?

Eden Prairie fully staffed – COVID protocols - no temps, installed plexi-glass, masks required away from console, upgraded CAD3 weeks ago Rapid SOS on cad map.

Carver Co – Emps use handheld temp check on own, wear masks away from consoles, plastic screen around consoles, portable barriers, cleaning etc. 1 employee in training and one in backgrounds. 2 supervisors being backgrounded, middle of renovation with new consoles, carpet etc.

State patrol – 7 posted, masks required at consoles, temp check optional in lobby, etc.

State requests PSAP's check status board for Flight Status which is updated by the pilots – also request all agencies to check the status board first to see if flight is available or time frame when available.

When requesting flight – please call State Patrol – there is a lot of information that the pilots need and METCOM isn't the best resource to use. (Metro agencies should not use Metcom due to the information below that is requested by the pilots)

- Please be prepared to answer the follow questions:
- Ground contact name and phone # and call sign
- Location

- Reason
- Perimeter set up
- Person/s outstanding
- Weapons
- Common channel
- Drones used
- Any other pertinent info

8. Meeting calendar 2021

   January 5th, 2021 Remote
   April 6th, 2021 TBD
   July 6th, 2021 TBD
   October 5th, 2021 TBD

**Metropolitan Emergency Services Board**
**9-1-1 Technical Operations Committee**
**Network Report**
**January 21, 2021**

**Agenda Number 6.C.**

**1. Text-to-9-1-1:**
Washington and Scott Co. are the only remaining primary PSAPs in the metro area that have not yet implemented text capabilities on their answering applications. Both PSAPs are planning to implement text messaging concurrent with their next 9-1-1 answering application upgrade later this year. Washington Co. is currently planning to move to their new Solacom system in April. Scott Co. believes they will go online with the Motorola SaaS system this summer.

**2. Firewall Implementation:**
The team working on the ESInet firewall implementation project is now focusing on turning up some of the greater MN PSAPs. It is not known at this time when the team will come back to the metro area. The MESB will pass on additional firewall implementation dates as they become available.

**3. Other PSAP Activity:**
A 9-1-1 Plan change request letter has been submitted to ECN as work continues on the Ramsey Co. 9-1-1 VESTA answering application geo-diversity project involving moving one of the VESTA servers to their Arden Hills back-up PSAP site and adding more diversity and redundancy to the ESInet connections to the VESTA system. The project also addresses ESInet reliability concerns during wet weather and ground conditions with current copper facilities connecting to the St. Paul site. The project will also provide better COOP options for not only Ramsey Co., but also the neighboring metro PSAPs that do not have an identified back-up location.

**4. NG9-1-1 ESInet:**
A three-way contract between ECN, the MESB, and Inteliquent covering the 9-1-1 system ingress from the telecommunications service providers to the NG9-1-1 core services has been finalized. Implementation meetings have begun and will continue on a weekly basis as the project progresses. Inteliquent has targeted April for completion of their network point of interconnect (POI) locations throughout the state and the interconnection between Inteliquent and the Intrado IP selective routers that are currently handling 9-1-1 call routing in the state. Once the Inteliquent network is complete, the originating service providers (OSP) can begin to connecting to the Inteliquent POIs. An OSP will only need to connect to the Inteliquent network at one POI to serve the entire state as compared to the current requirement to connect to the selective routers in every area of the state where the OSP provides service.

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.

The existing 9-1-1 services contract with CenturyLink has been extended until November 2021. This is the third extension of that contract and the last one permitted under the State's purchasing guidelines. The NG9-1-1 core services and ESInet egress connectivity RFP work mentioned above are intended to replace the current 9-1-1 services contract. It is anticipated

that there will be a transition period as services are moved from the existing 9-1-1 service system to the new NG9-1-1 core services.

The MESB is focusing 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**
**January 21, 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. **Regional NG9-1-1 Data QA/QC and GIS-derived MSAG activity:**
   a. **NG9-1-1 QA/QC support** continues to focus on those PSAPs/Counties whose data is most ready to transition from a legacy to GIS-derived MSAG. The Isanti County GIS-derived MSAG transition was completed in early January.
   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
      ii. **In preparation stage at MESB**: Carver County
   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 augmentations.

3. **ECN NG9-1-1 Federal Grant work:**
   a. ***Metro Regional GIS-derived MSAG Processes:*** MESB staff has begun work with GeoComm on regional GIS-derived MSAG creation and maintenance processes authorized under the NG9-1-1 federal grant. MESB has submitted an initial cut of all the necessary datasets to GeoComm. Along with defining the project approach/tasks, the two organizations are initially focusing on data and system configuration items.
   b. ***Sherburne County:*** Sherburne County is also working with GeoComm to perform their NG9-1-1 GIS data development work under their grant project. Their project kickoff is planned for the beginning of February. MESB will play a supporting role on this project.

4. **Statewide GIS Data Standards:** The Met Council, MESB, and the metro GIS partners have collaborated on a plan to transition the metro regional road centerline and address point datasets to the newly **updated Minnesota Geospatial Advisory Council (GAC) schemas.** MESB has supplied the necessary guidance to Met Council for programmatic population of the new legacy street name elements at a regional level based on the fully-parsed, fully-spelled out street names that already exist in the county authoritative datasets. The counties and Met Council plan a similar process to populate the new road cartographic class attribute at a regional level.

5. **Regional GIS data support for Pandemic Response Planning/RapidDeploy Pilot:** Final dates for the tabletop exercises and production go-live for the RapidDeploy pilot of a cloud-based regional CAD system are pending while RapidDeploy addresses bug fixes and latency issues previously identified. Tabletop exercises are currently targeted to begin at the end of February. On 12/11/20, GeoComm updated the hosted map, feature, and geocoding services used with the RapidDeploy CAD based on updated regional GIS datasets supplied by MESB.

6. **Wireless callback number in ALI:** Lumen (Jake Jacobson) continues to coordinate the transition of remaining PSAPs to have **wireless callback numbers moved to the traditional phone number fields** in the ALI format (as is done with wireline and VoIP). The change will avoid a conflict between the callback number and supplemental location information received as part of a wireless dispatchable locations. Only a few PSAPs remain to be completed. Lumen is actively scheduling DCC with their CPE vendor. As recommended by Lumen, Washington and Scott

Counties will make this change with their upcoming CPE cutovers. Lastly, Lumen plans to confirm there are no issues with metro area secondary PSAPs.

7. **Vertical location on wireless 9-1-1 calls:** Based on an FCC ruling, wireless carriers are required to provide **z-axis information from capable devices** starting in April 2021 for the metro area. To delivery z-axis information, the existing 9-1-1 system requires a **new ALI format** and interested PSAPs would need to cutover to that new format. PSAPs would also need a method (in their CAD/mapping system or by other means) to transform the z- coordinates (received in height above ellipsoidal-WGS84) into a practical elevation or floor reference.

8. **Wireless Location Based Routing:** In December 2020, T-Mobile announced it has started to offer **location-based routing capabilities** as a means for PSAPs to reduce the number of transferred 9-1-1 calls. With T-Mobile's location-based routing, at the time of the 9-1-1 call, T-Mobile utilizes the device-based hybrid location of the caller, in conjunction PSAP boundary shape files, to determine the appropriate PSAP for routing. Cell sector routing is used as a fallback to the location-based routing (LBR) method should LBR not be possible. MESB is engaging with T-Mobile to gather info on the LBR transition for MESB 9-1-1 TOC consideration.

9. **Misrouted 9-1-1 calls:** Over the past few months, Lumen has been made aware of **intermittent misrouted 9-1-1 calls** where **Lumen's legacy selective routers default routed calls** that should have been selectively routed. The ALI information on these calls was present and accurate, yet Lumen's legacy selective router treated the calls as requiring default routing due to no database information. So far, Lumen's investigation has tied these misroutes to timeouts on the database queries of the legacy selective router. Lumen continues determination and resolution of the root cause of the timeouts. PSAPs are reminded to **report any misrouted 9-1-1 calls on 911NET** so they can be referred to Lumen for investigation.

**ONGOING ACTIVITIES**

10. **Statewide NG9-1-1 GIS Project:** The SECB NG911 GIS workgroup, under the leadership of Geoff Maas, meets regularly to discuss the statewide NG911 GIS effort.

11. **Wireless Cell Sector/Routing Data:** MESB continues to process 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.

12. **Regional GIS Data Aggregation:**
    a. **Road Centerline and Address Points:** The MetroGIS/Met Council continues to process 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.
    b. **Boundary Polygons:** MESB continues to maintain 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.

13. **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.

14. **Quarterly MSAGs:** The Q1 2021 quarterly MSAGs have been distributed by MESB to PSAPs and their GIS contacts.