
STATEWIDE EMERGENCY COMMUNICATIONS BOARD

February 25, 2016

12:30 P.M.

Chair: Mark Dunaski

MnDOT Arden Hills Training Center
1900 West County Road I Shoreview, MN 55126

Call in Number: 1-888-742-5095

Call in code: 2786437892#

MEETING AGENDA

Call to Order

Approval of Today's Agenda

Approval of Previous Meeting's Minutes

Announcements

Officer Elections

Reports of Standing Committees:

Operations and Technical Committee (Glaccum)

- | | |
|--|--------------------|
| 1. MN Task Force One Talkgroup Request | <i>Action Item</i> |
| 2. Hennepin EMS Participation Plan Amendment | <i>Action Item</i> |
| 3. Standard 2.10.0 Telephone Interconnect | <i>Action Item</i> |
| 4. Standard 2.12.0 Scanning | <i>Action Item</i> |
| 5. Standard 2.14.0 Private Call | <i>Action Item</i> |
| 6. Standard 1.3.0 Database Management | <i>Action Item</i> |

Interoperability Committee (Thomson)

Legislative & Government Affairs Committee (Workman)

- Letters to Legislators Regarding Sales Tax Exemption

Steering Committee (Hartog)

IPAWS Committee (Seal)

NG911 (Pankonie)

Interoperable Data Committee (Risvold)

- FirstNet RFP Summary Presentation
- FirstNet Update (Tim Pierce)

Finance Committee (Gerlicher)

- Request for authorization of 2015 SHSP funds

Action Item

Reports - Other

- ARMER Project Status Report (MnDOT OSRC)
- ECN Update (Mines, DPS ECN)
 - Status of SECB Initiatives
 - GIS Project
 - Text-to-911
 - 7.19 Upgrade
 - FirstNet

Old Business

New Business

Adjourn

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

MEETING MINUTES

January 28, 2016

Attendance

Members:

MEMBER/ALTERNATE

Mark Dunaski (Chair)/Jackie Mines
Mukhtar Thakur/Tim Lee/Jim Mohn
Thomas Baden/Ed Valencia
Rodmen Smith/Dan Kuntz
Rochelle Schrofer/Tim Boyer
Vince Pellegrin/Thomas Humphrey
Bill Droste/ Vacant
Eric Anderson/Pat Novacek
Liz Workman/vacant
Jim McMahon/vacant
Chris Caulk/Darlene Pankonie
Dan Hartog/Scott Turner
/Jeff Marquart
Mike Gamache/Andrew Johnson
Mike Risvold/vacant
Cari Gerlicher/Dave Thomson
Ulrie Seal/Vacant
T. John Cunningham
Joe Glaccum (Vice Chair)/vacant
Brad Hanson/Paul McIntyre
Jeff Jelinski/vacant

REPRESENTING

DPS
MnDOT
MNIT
DNR
MN State Patrol
METC
League of MN Cities, Metro
League of MN Cities, Greater MN
Assoc. of MN Counties, Metro
Assoc. of MN Counties, Greater MN
MSA, Metro
MSA, Greater MN

MESB
MN Chiefs of Police Assoc., Metro
MN Chiefs of Police Assoc., Greater MN
MN Fire Chiefs Assoc., Metro
MN Fire Chiefs Assoc., Greater MN
MN Ambulance Assoc., Metro
MN Ambulance Assoc., Greater MN
Central MN ESB

Also in attendance:

Cathy Anderson DPS-ECN
Carol-Linnea Salmon, DPS-ECN
James Stromberg, DPS-ECN
Rick Juth, DPS-ECN
Tim Pierce, FirstNet
Andrew Munya, Northland Business Services

CALL TO ORDER

Commissioner Dunaski calls the meeting to order at 12:32 p.m.

APPROVAL OF AGENDA

Chair calls for a motion to approve the agenda.

Jim McMahon requests to add a discussion about overcrowding of channels in the metro region.

Cari Gerlicher requests to move the Finance Committee report to the top of the committee reports section of the agenda.

Bill Droste moves to approve the agenda as amended.

McMahon seconds the motion.

Motion carries to approve the agenda as amended.

APPROVAL OF PREVIOUS MEETING MINUTES

Chair Dunaski calls for a motion to approve the previous meeting minutes.

Mike Risvold makes a motion to approve the December meeting minutes.

Gerlicher seconds the motion.

Motion carries to approve the minutes, with Workman abstaining.

ANNOUNCEMENTS

No announcements.

OFFICER ELECTIONS

Chair Dunaski asks if there are nominations for Vice Chair and Secretary of the Board. There are no nominations. Chair asks Joe Glaccum and Jim McMahon if they are willing to continue in their positions as Vice Chair and Secretary, respectfully. They agree to do so.

Motion carries to approve the continuation of Joe Glaccum as Vice Chair and Jim McMahon as Secretary for 2016.

REPORTS OF STANDING COMMITTEES

FINANCE COMMITTEE (GERLICHER)

No report.

OPERATIONS AND TECHNICAL COMMITTEE REPORT (GLACCUM)

On behalf of the OTC, Chair Glaccum introduces the Carleton County Participation Plan amendment. The amended plan adds two channels at the Moose Lake and Mahtowa sites, for a total of seven channels at each site. The purpose is to address busies.

On behalf of the OTC, Chair Glaccum makes a motion to approve the Carleton County Participation Plan amendment.

Bill Droste seconds.

Motion carries.

On behalf of the OTC, Chair Glaccum introduces the Dakota County Participation Plan amendment. The request is to add a Motorola AIS unit to accommodate for logging. This is required due to the upcoming obsolescence of the Gold Elite consoles.

On behalf of the OTC, Chair Glaccum makes a motion to approve the Dakota County Participation Plan amendment.

Liz Workman seconds the motion.

Motion carries.

On behalf of the OTC, Chair Glaccum introduces the Douglas County request for a request site. Douglas County is requesting to allow the Douglas County FIRE talkgroup be 'requesting' on the West Union tower site. DG FIRE is not a high volume talkgroup so the loading will be negligible.

On behalf of the OTC, Chair Glaccum makes a motion to approve the Douglas County request for a requested site.

Mike Risvold seconds the motion.

Motion carries.

On behalf of the OTC, Chair Glaccum introduces proposed changes to Standards 1.2.0, 2.40, 2.6.0, 2.16.0, 3.24.0, 1.11.1.

Standard 1.2.0, Network Management. The primary change was under number 3, Operational Context, where the workgroup added that any infrastructure hardware or software upgrades or changes that may impact the system will need prior MnDOT and regional approval. The requests will then be vetted through the System Managers Group (SMG) before being submitted to the OTC for approval. Other changes were clean up.

Standard 2.4.0, Console Naming. The recommendation is to sunset this standard because it will no longer be applicable with the change to the new consoles.

Standard 2.6.0, Fleetmap Standards. The changes were clean-up.

Standard 2.16.0, Emergency Button. Addition of a sentence that says, "Pressing the Emergency Button does not provide a central radio monitoring point with emergency location information." Additional language was changed to clarify the point that pressing the emergency button does not provide location information.

Standard 3.24.0, Public Safety Answering Point (PSAP) Interoperability. The changes were to update the names of the regional boards and remove redundant information.

Standard 1.11.1 Training System Administrators. A workgroup was brought together with representation from all the regions. Chair Glaccum feels that a good consensus was reached. The levels of system administrators were added back in and the appropriate training included for each.

There was discussion about whether mentorship should be included for level three system administrators. The workgroup did not recommend mentorship because it was felt that information could be lost as it was passed down. Under level two, “formal manufacturer training or OTC approved vendor training” was added.

On behalf of the OTC, Chair Glaccum makes a motion to approve Standards 1.2.0, 2.40, 2.6.0, 2.16.0, 3.24.0, 1.11.1

McMahon seconds the motion.

Motion carries.

Chair Glaccum introduces Troy Tretter from the MESB who shares an ARMER success story.

Tretter reports that on December 23 there was a protest that started at the Mall of America and unexpectedly moved toward the airport via the light rail. An incident communications plan (ICS205) was prepared in advance by Bloomington police department COML Butch Gillum, which was distributed to the metro PSAPs in advance of the event by the MESB. Tretter says that his report is not intended to take focus away from the officers on the ground. However, Tretter gathered information from some of the communications representatives involved and wanted to share it with the board. While monitoring the radio traffic during the event and in subsequent discussions, it was clear that this event could have been a communications disaster if it were not for the ARMER system.

Tretter shares notes from information gathered by the Metropolitan Airports Commission and the Airport Police Department. The response to both the MOA and the airport was truly a multi-agency event, including municipal police departments, sheriff department personnel, state patrol, as well as federal law enforcement. There were two main 911 PSAPs that worked through the incident, with others in the region dispatching mutual aid.

The hand-off dispatch responsibility from the Bloomington 911 PSAP to the Airport 911 PSAP went as well as could be expected and was enhanced by prior communications planning by COML Butch Gillum and accomplished with shared ARMER talkgroup resources. Without the shared resources through ARMER, it would certainly have been more difficult and the initial incident stabilization would have been prolonged.

Effective radio communication resulted in part due to the shared ARMER technology, standards and training that have evolved over the last 15 years and due to the experience and expertise of the dispatch and field personnel involved.

Local, regional and statewide ARMER talkgroup resources were used, allowing mutual aid to communicate effectively, no matter the jurisdiction they were from. The escalation from local to regional to state talkgroup resources worked as designed, including patching where necessary, showing how both dispatch and field personnel use of ARMER has matured with experience throughout the years.

When communication fails it is criticized. When it is successful, it often times gets overlooked or unrewarded. This was one of those situations where things really came together not just because of the technology, like ARMER, but having shared regional interop talkgroups, ICS205s done in

advance and distributed around the region, and, of course, trained operators in the PSAPs and on the ground.

Tretter thanks the board for the opportunity to share the story.

Chair Glaccum adds that having the technology is one thing but knowing how to run it and the preplanning and effort put into training COMLs and COMTs is a testimony to how we use technology effectively.

INTEROPERABILITY COMMITTEE

On behalf of the Interoperability Committee, Chair Thomson introduces the revised Standard 3.40.0, CASM Standard. The changes include language cleanup and changing the responsibility of administration of Communications Asset Survey and Mapping Tool (CASM) to the SWIC and regional CASM administrators. It strips out all of the Tactical Interoperable Communications Plan (TICP) information, which will be addressed later.

***Droste makes a motion to approve Standard 3.40.0 as presented.
Risvold seconds the motion.***

Discussion:

Glaccum notes that the format is different from other SECB standards. For readability and consistency, he suggests that the standard be revised to adhere to SECB standard on standards.

***Risvold accepts a friendly amendment to edit the format to adhere to the standard on standards.
Motion carries.***

On behalf of the Interoperability Committee, Chair Thomson introduces the SOAR report for Stevens County. The request has been considered at both the OTC and IOP. It will allow the SOA3 channel to also be a repeated. Stevens County requests to use it in Atwater and Hancock. It will be a short range repeater used in building and in an area of ARMER deficient coverage. MnDot had no objections to this. The IOC recommends approval contingent upon it going through change management. The repeater will be used by the county on an interim basis until then.

***McMahon makes a motion to approve the use of a SOA3 Repeater for Stevens County at two fixed locations.
Gerlicher seconds the motion.***

Chair Hartog clarifies that Atwater is not in Stevens County. Rick Juth adds that the original request included Atwater in Kandiyohi County but the request presented today is for the Chokio in Stevens County.

McMahon accepts a friendly amendment to change the motion to approve the use of the SOA3 repeater for Chokio.

Discussion:

Risvold asks if it is just bring used for indoor coverage.

Chair Thomson says it will be used in buildings and also an outdoor area. The county believes an outdoor BDA would provide the indoor coverage needed.

Risvold asks if it is a short term solution or permanent.

Thomson replies that it is a permanent solution. After this goes through change management, there will likely be more requests on this frequency.

Risvold express a concern about any implications on the statewide system.

Chair Dunaski asks Glaccum to address this.

Glaccum agrees with the information Chair Thomson has reported. He reports that it is a very regionalized solution. It doesn't use the trunk resources. When it is being used, the user is toggling the radio to another spot. In any populated area, this would not be a solution we would approve. When we get into areas with multiple buildings and limited resources, it's tough to justify a BDA for every building and an outside BDA. The scene of action channels are well-defined in the system. The change management process allows for the communication to go out so everyone is aware that that is how that scene of action will be used.

Chair Thomson adds that there was a search for another frequency pair that would not use the SOA3 but another statewide frequency pair could not be found.

Motion carries.

LEGISLATIVE & GOVERNMENT AFFAIRS COMMITTEE (WORKMAN)

Chair Workman reports that the committee met in January and is requesting to send letters to the Chairs of the Public Safety and Finance Committees urging that they move the sales tax exemption for joint powers and special taxing districts back to July 1, 2016.

On behalf of the Legislative Committee, Chair Workman makes a motion that the Legislative Committee send letters on behalf of the SECB supporting a July 1, 2016 date for sales tax exemption for joint powers and special taxing districts.

Gamache seconds the motion.

Chair Dunaski clarifies that the implication is that the board is also allowing the Legislative Committee to ask legislators to proactively draft legislation. There are no objections to this.

Motion carries.

STEERING COMMITTEE (HARTOG)

No report.

IPAWS COMMITTEE (SEAL)

January 2016

No report.

NG911 COMMITTEE (PANKONIE)

Dana Wahlberg reports for Chair Pankonie on highlights of the committee's initiatives.

The E911 annual audit is prepared and ready to go out. A spreadsheet has been updated and will be sent with a supplemental word document which explains what items have been supported for fund use eligibility and examples of some that have not been approved.

The wireless emergency routing management application (WERM), which is a web-based solution for PSAPs to use to perform their wireless call provisioning, is close to being rolled out. This is being worked on in partnership with MNIT and Intrado, the 911 database provider. This is week four of the 18 week rollout. Wahlberg expresses that she feels fortunate to have Cathy Anderson engaged in the project. Anderson will assist with the training and the one-on-one in getting this rolled out to all of the 104 PSAPs. MSEB is also partnering on this initiative. There will be administrative training, then regional point-of-contact training, and each PSAP has one designated representative who will be trained. Wahlberg and Anderson will do on-site personal training in each of the regions. The application should significantly improve speed and accuracy of wireless call-routing provisioning throughout the state.

All of the wireless carriers have been asked to provide a spreadsheet of all of the towers sites and sector that they have provisioned. We have received that to date from three of the four major carriers and that information is being shared with TeleVate for part of the FirstNet evaluation.

The RFP for NextGen services is closer to being awarded. There was a call for Best and Final Pricing Offer made at the end of December. Initial reviews have been done with Mission Critical Partners. The recommendation will be made to the Department of Administration soon. Once the award is made official and the contract is negotiated the deployment of Text-to-911 in Minnesota will be the focus.

Guidelines and recommendations have been developed for how to approach an end-to-end SIP management as our PSAPs are migrating to an end-to-end SIP environment. There are some fiber security concerns that need to be addressed before we start to introduce things such as photos, videos, or any data-based media. In the next couple of months, those guidelines will be presented here as an action item for board consideration.

The GIS Standards and Best Practices Group has been inactive. There was a draft standard that they had been working on about a year ago and made the determination to table that pending the distribution of the NENA standard for 911 call taking. Recently that tabled standard got distributed for feedback, which has created some concern across the state because it was perceived as being a final standard, which it is not. That standard is still being vetted by the GIS subcommittee. When it has been fully vetted and the subcommittee feels it is ready, it will go through the proper process for approval. The GIS subcommittee appointed three of its members to the national NENA standards workgroup because the desire is to parallel what the national recommendations are for call handling and call transfer.

INTEROPERABLE DATA COMMITTEE (RISVOLD)

Chair Risvold reports that the committee did not meet this month and there is no report.

He introduces Tim Pierce from FirstNet for an update.

Tim Pierce reports that the FirstNet RFP has been released. Regardless of the decision whether it is a FirstNet radio access network or a Minnesota radio access network, this is a tremendous step forward in bringing this radio capability to responders. We are getting close to having this network deployed and operational. The RFP closes on April 29th and evaluation will begin then.

FirstNet will be forming a Consultation Task Team with representatives from the states. The idea is for the groundwork effort being done within the states to inform the network deployment policy. The first Task Team will be on the topic of Quality of Service, Priority and Preemption (QPP). Pierce will have more information in February.

REPORTS – OTHER

ARMER PROJECT STATUS REPORT (MNDOT OEC)

Mukhtar Thakur reports on the status of the ARMER project, as presented in the meeting materials. 97% of the backbone is on the air. Land acquisition delays will continue to impact the completion of some of the sites. At least four sites have right of way issues that will delay plans. The Island Lake site went on the air last month. The 7.15 upgrade is scheduled to begin in May, with a lockdown in April. The Motorola 2016-2020 contract has been completed. The installation of card key readers for equipment shelters is being worked on. 95% of the sites are completed. Microwave improvements continue.

ECN UPDATE

Jackie Mines reports that ECN and MnDot will be meeting with Motorola on the 7.19 upgrade and shortly after will meet with the agencies doing the upgrade.

Mines introduces Melinda Miller, who is the new FirstNet Program Manager at ECN. Miller comes from MNIT.

Mines introduces Adam Item, the Project Manager for the NG911 GIS project. Item gives a presentation on the project, as presented in the meeting materials. One goal of the project is to collect the locally maintained GIS data and in particular streets, addresses, and emergency service boundaries. The project will collect this data from local agencies and aggregate the data for statewide use. The data will be used so when anyone makes a 911 call it will hit off of that mapping information and determine where the call should be routed. Item reviews the GIS project goals for and 2015 accomplishments, as presented in the meeting materials.

Mines notes that the MESB and others involved with metro GIS have been working on this for quite some time and have provided insight into how to do this on a statewide level.

Mines reports that Televate is looking at the FirstNet RFP and will prepare a summary which will be presented to the board next month.

OLD BUSINESS

None.

NEW BUSINESS

ATTENDANCE

Carol Salmon calls attention to the attendance report for 2015, as included in the meeting materials. The information is provided to show where there might be vacancies or where there might be underrepresentation.

DISCUSSION OF BUSIES

McMahon reports that at his regional leadership meeting, the subject of capacity and busy signals was brought up. He asks if there is a standard and what is done when overcrowding arises.

Discussion about if and how to regulate the addition of non-public safety users on the system to avoid overcrowding. Discussion on how to deal with roaming, particularly in the metro region.

The Operations and Technical Committee will address this topic at its next meeting.

Meeting Adjourns at 2:03 p.m.



Joe Glaccum,
Chair – State Operations and Technical Committee
State OTC Members

Subject: Minnesota Task Force One Talkgroup Request

Background:

Minnesota Task Force 1 (MN-TF1) is an urban search and rescue (USAR) team based in the Twin Cities area of Minnesota. MN-TF1 is a State of Minnesota resource developed to assist with emergencies involving natural and manmade disasters that require highly skilled search and rescue personnel in a collapse or specialized rescue environment. Although MN-TF1 is a State resource, the team works for and in support of local response agencies.

MN-TF1 is made up of highly trained firefighters, police officers and paramedics who perform in a wide variety of disciplines. These disciplines include: Search Specialists, Heavy Rescue Specialists, Haz-Mat Specialists, Medical Specialists, Heavy Riggers, and Structural Engineers. MN-TF1 draws these specialists from several public safety organizations including:

Minneapolis Fire Department
Dakota County Special Operations Team (SOT)
Edina Fire Department
Rochester Fire Department
St. Paul Fire Department

History:

The Minnesota Department of public Safety, Division of Homeland Security and Emergency Management (HSEM) was required to develop a state strategy to identify gaps in the state’s emergency operations plan when responding to an act of terrorism. Through this process, it identified that Minnesota has been challenged for many years on how best to respond to a major building collapse within our state.

The initial response to a collapse structure is the primary responsibility of local government with assistance from state and federal government. In Minnesota, the ability of local and state government to respond to and manage a major multi-level structural collapse is limited. Assistance from a FEMA USAR Team is at least 24 hours away.

MINNEAPOLIS, MN - AUGUST 2007: MN-TF1 members work to remove a victim from a car crushed by a freeway sign when the Interstate 35W bridge over the Mississippi River collapsed on August 1, 2007.

After identifying that local and state government had limited capabilities to respond to a building collapse, the Division of Homeland Security and Emergency Management started to implement a plan in 1999 to fill this gap. Through roundtable discussions with interested local responders, FEMA and USAR team representatives, a work group was established to develop a program that would be compatible with the response of a FEMA USAR Team prior to their arrival.



As a result of those meetings, the Minneapolis Fire Department, Edina Fire Department, Dakota County Special Operations Team, St. Paul Fire Department and the Rochester Fire Department were identified as the primary sponsoring agencies.

The Task Force has a full complement of specialized equipment, which includes rescue trucks and trailers, various metal and concrete saws, pneumatic tools (jack hammers, air bags and air shores), hydraulic tools, search cameras, hazardous materials monitors, etc.

Each member of the team is trained to the level of collapse structure rescue technician. Collapse structure rescue technician training is a rigorous three-week course taught by an accredited institution with FEMA certified instructors. In addition to the collapse structure rescue technician training, each member is required to be trained as a first responder or EMT and to have attended or to be certified in the following classes, which are requirements within National Fire Protection Association (NFPA) Standards 1006 and 1670:

- Minnesota Incident Management System (MIMS)
- Introduction to Technical Rescue
- Confined Space Technician
- Trench Rescue Technician
- Rope Rescue Technician
- FEMA-USAR Crush Victim Management

The success of this program has already been felt throughout the state when members of the MN-TF1 responded to, among other incidents, the Interstate 35W bridge collapse on August 1, 2007

Request:

The MN-TF1 team would like to request a single talkgroup (MN-TF1) for tactical operations and training purposes. The talkgroup would be setup with statewide access profile (Wide Area Site Access Form attached). In following standard 2.8.0; the communications conducted on this talkgroup would be of a Mission Critical nature and be setup with a system priority level of 5.

This talkgroup would require written permission from the MN-TF1 group to be included in any radios or consoles from a non-member agency.

Administration:

If approved, Dakota County Radio Services will be the designated system administrator for this talkgroup and will facilitate permission requests for this talkgroup.

Thank You for your time and consideration on this request,

Ron Jansen

**REQUEST FOR SPECIAL
WIDE AREA SITE ACCESS
FOR AN ARMER TALKGROUP**

Talkgroup/ Announcement Group Name(s): MN-TF1 (PROPOSED)

If Announcement Group List all Contained Talkgroups: _____

Sites Requested:

Statewide (Requires Statewide Radio Board Approval)

Other (Specify Sites or Regions):

Talkgroup Owner Agency (Include Point of Contact Information):

Agency Name: DAKOTA COUNTY FOR MINNESOTA TASK FORCE 1

Contact Name: RON JENSEN

Address: 2860 160th STREET WEST
ROSEMOUNT MN 55068

Phone: (651) 322-2632

Email: ron.jensen@co.dakota.mn.us

Talkgroup or Announcement Group Type (Check all that Apply):

Shared

Private

Special Roaming Only Talkgroup – Occasional Use.

Special Operations Tactical Talkgroup – Occasional Use. **If yes**, describe or list the counties or regions covered by a mutual aid agreement, memorandum of understanding, joint powers agreement, incident response plan or other relevant agreements here: _____

Main Dispatch or Tactical Talkgroup – Day to Day Use. **If yes**, applicant must demonstrate that the users of this talkgroup conduct their “Normal Day to Day Business Operations” throughout the requested coverage area. Describe or list the counties or regions where the users of this talkgroup conduct their “Normal Day to Day Business Operations” here: _____

Describe the users, entities or agencies that will operate on this talkgroup:

MN-TF1, MINNESOTA TASK FORCE 1
(MINNEAPOLIS FIRE, DAICOTA COUNTY SOT, EDINA FIRE, ROCHESTER FIRE, ST. PAUL FIRE)

Describe the type of operations that will occur on this talkgroup:

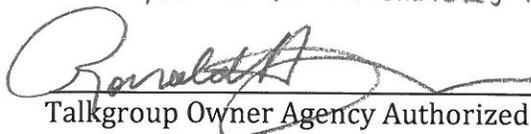
MISSION CRITICAL COMMUNICATIONS DURING A WIDE VARIETY OF SPECIAL RESCUE INCIDENTS

Describe the anticipated frequency, duration and extent of use of this talkgroup:

COMMUNICATIONS IS EXPECTED TO BE MINIMAL. THE RESOURCE WOULD BE USED FOR TRAINING AND ACTUAL DEPLOYMENTS.

Describe why the Statewide Shared Incident Response talkgroups or other shared roaming talkgroups are not suitable to meet these operational requirements:

AS THESE COMMUNICATIONS ARE MISSION CRITICAL IT IS IMPORTANT FOR TEAM MEMBERS TO BE ABLE TO LOCATE THIS RESOURCE BY REFLEX. WHEN OPERATING IN CONFINED SPACES THEY MAY NOT HAVE THE ABILITY TO VIEW THEIR RADIO OR SELECT FROM OTHER STATEWIDE RESOURCES. ADDITIONALLY THE TALKGROUP WOULD BE USED FOR COMMUNICATIONS DURING A CONVOY OF NUMEROUS VEHICLES DEPLOYING TO AN INCIDENT. THERE IS ALSO AN OCCASIONAL NEED TO BE ABLE TO COMMUNICATE TO /FROM HEADQUARTERS IN MINNEAPOLIS TO THE INCIDENT LOCATION.

 1/21/16
Talkgroup Owner Agency Authorized Official - Signature & Date

RONALD A. JANSEN DAICOTA COUNTY SYSTEM ADMINISTRATOR
Printed Name and Title



Hennepin Emergency Medical Services

701 Park Avenue South, Red 2

Minneapolis, MN 55415

612-873-5678

January 26, 2016

Statewide Emergency Communications Board
Operations & Technical Committee (OTC)

To Committee Members,

Hennepin County EMS is in the process of adding a Motorola AIS server on the Motorola ARMER system. As part of this, we will be purchasing a new logging recorder system from Revcord that will interface with the AIS server to log talkgroup and Metadata. We are currently using zone 2 logging CEBs and channel banks for logging radio talkgroups. The upcoming 7.15 upgrade to begin at the end of March will no longer support CEBs in the ARMER system. Therefore we respectfully request modification of the Hennepin County EMS participation plan.

Sincerely,

A handwritten signature in black ink that reads "Wendy Lynch". The signature is written in a cursive, flowing style.

Wendy Lynch

Hennepin EMS Chief

Communications, Technology, WMRCC

Hennepin County Medical Center

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.10.0	
Standard Title	Telephone Interconnect	
Date Established	03/01/2001	SRB Approval: 09/01/2005
Replaces Document Dated	04/12/2005	
Date Revised	01/11/2016	

1. Purpose or Objective

The purpose of this standard is to manage the use of the telephone interconnect feature on the system. Although this is a useful feature and needed by some users, it must be managed to an appropriate level to protect the primary radio communications purpose of the ARMER system.

2. Technical Background

▪ Capabilities

Telephone interconnect calls can be placed to individual users of the system if the subscriber radios are configured for telephone interconnect functionality.

Telephone interconnect is intended to be a BACKUP to cellular communications and used primarily on an emergency basis.

▪ Constraints

- A telephone interconnect call will consume a radio frequency (RF) channel for the duration of the call.
- Telephone interconnect calls are simplex; only one user on the call can talk at a time.
- Certain radio models may be unable to initiate a telephone interconnect call.
- Certain radio models can only place telephone interconnect calls to numbers that are pre-programmed into a list in the radio.
- Some radio models with a display and full keypad can place a telephone interconnect call by dialing the number directly.

3. Operational Context

If a radio user has a need for telephone interconnect, the owning agency shall request the feature, in writing, to the local System Administrator, but the resource needs to be carefully managed. Due to the risk of cutting off emergency/life safety communications, the duration of interconnect calls must be limited to a reasonable length, based on the radio user's operational and system needs.

4. Recommended Protocol/ Standard

Telephone interconnect usage shall only be programmed for users of the system that have a need for the function. The primary purpose of the system is for radio communications, but there may be some users that require a backup ability to cellular communications.

The priority level for telephone interconnect calls is "10", which is defined under State Standard 2.8.0, "Talkgroup and Radio User Priority".

The telephone interconnect equipment of the system will be configured to use the "overdial" method of operation where the incoming calls come into a generic phone number, and then the telephone interconnect ID of the radio is entered to complete the call.

5. Recommended Procedure

The System Administrators need to define and manage the interconnect properties of the RF subsystem(s) they are responsible for. Each RF subsystem can be configured individually for the number of telephone interconnect calls that they will be allowed to simultaneously carry.

6. Management

The System Administrators shall be responsible for following this procedure and monitoring the effect and usage of this resource. If negative impact or excessive usage is determined, telephone interconnect permission will be reconsidered and possibly revoked.

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.10.0	
Standard Title	Telephone Interconnect	
Date Established	03/01/2001	SRB Approval: 09/01/2005
Replaces Document Dated	12/04/2003 04/12/2005	
Date Revised	04/12/2005 01/11/2016	

1. Purpose or Objective

The purpose of this standard is to manage the use of the telephone interconnect feature on the system. Although this is a useful feature and needed by some users, it must be managed to an appropriate level to protect the primary radio communications purpose of the ARMER system.

2. Technical Background

▪ Capabilities

Telephone interconnect calls can be placed to individual users of the system if the [subscriber radios users](#) are configured for telephone interconnect functionality. ~~Telephone interconnect calls can be placed to talkgroups of the system if the talkgroup is configured for telephone interconnect functionality.~~

Commented [AC1]: Removed by OTC

Telephone interconnect is intended to be a BACKUP to cellular communications and used primarily on an emergency basis.

▪ Constraints

- A telephone interconnect call will consume a radio frequency (RF) channel for the duration of the call.
- Telephone interconnect calls are simplex; only one user on the call can talk at a time.
- Certain radio models may be unable to initiate a telephone interconnect call.
- Certain radio models can only place telephone interconnect calls to numbers that are pre-programmed into a list in the radio.
- Some radio models with a display and full keypad can place a telephone interconnect call by dialing the number directly.

3. Operational Context

If a radio user has a need for telephone interconnect, the owning agency shall request the feature, in writing, to the local System Administrator, but the resource needs to be carefully managed. Due to the risk of cutting off emergency/life safety communications, the duration

of interconnect calls must be limited to a reasonable length, based on the radio user's operational and system needs.

4. Recommended Protocol/ Standard

Telephone interconnect usage shall only be programmed for users of the system that have a need for the function. The primary purpose of the system is for radio communications, but there may be some users that require a backup ability to cellular communications.

The priority level for telephone interconnect calls is "10", which is defined under State Standard 2.8.0, "Talkgroup and Radio User Priority".

The telephone interconnect equipment of the system will be configured to use the "overdial" method of operation where the incoming calls come into a generic phone number, and then the telephone interconnect ID of the radio is entered to complete the call.

5. Recommended Procedure

The System Administrators need to define and manage the interconnect properties of the RF subsystem(s) they are responsible for. Each RF subsystem can be configured individually for the number of telephone interconnect calls that they will be allowed to simultaneously carry.

6. Management

The System Administrators shall be responsible for following this procedure and monitoring the effect and usage of this resource. If negative impact or excessive usage is determined, telephone interconnect permission will be reconsidered and possibly revoked.

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.12.0	
Standard Title	Scanning	
Date Established	01/19/2001	SRB Approval: 09/01/2005
Replaces Document Dated	04/12/2005	
Date Revised	01/11/2016	

1. Purpose or Objective

The purpose of this standard is to identify operational procedures and responsible authorities governing scanning activities.

2. Technical Background

▪ Capabilities

The network infrastructure and subscriber units need to be configured to permit managed user scanning of talkgroups. Scanning is a user option, and users need to be trained that including a talkgroup in a non-priority scan list will not necessarily result in them hearing traffic on that talkgroup. The talkgroup must also be “active” at the site where the user is affiliated. Talkgroups are activated if there is at least one user affiliated at the site that has the talkgroup of interest as their selected channel.

▪ Constraints

Certain radio models are not capable of setting individual talkgroups set for receive-only and must have the entire radio set for *either* receive-only on all talkgroups, *or* transmit and receive on all talkgroups. Any talkgroup programmed into a normal user radio is technically capable of both transmit and receive operation and any transmission can be displayed on a dispatch screen.

3. Operational Context

A talkgroup owner may pre-approve monitoring privileges. Any unauthorized transmission on non-owned talkgroups in violation of this policy may result in immediate subscriber unit de-authorization and removal of the talkgroup from the radio prior to reauthorization on the network.

The network infrastructure and subscriber units will need to be configured so users can have wide area coverage and still maintain an acceptable level of service for all users. The use of “Critical User” and “Critical Site” in the system for the purpose of non-priority

scanning is not permitted, and scanning between different sites will be accomplished by the use of “requested sites.”

4. Recommended Protocol/ Standard

Talkgroup owners and System Administrators may approve limited scanning/monitoring privileges. Before scanning/monitoring of owned talkgroups, permission must be granted.

As cited in State Standard 2.7.0, Use of Shared Talkgroups, permission must come from:

- the System Administrators of the sites that are being requested for the talkgroup
- the jurisdiction/agency who is the “owner” of the requested talkgroup

Mutual aid, special roaming, and other shared talkgroups may be scanned at any time; however, “requested site” determinations will be made by the System Administrators of the affected sites.

5. Recommended Procedure

Scanning Configuration

If trunked scanning is desired, it is recommended that the local System Administrator set the radio site preferences to facilitate the scanning needs of the user, as well as coordinate with other System Administrators that may be impacted by changes in site talkgroup load.

It is further recommended that scanning be disabled when the user switches their radio to a conventional (non-trunked) channel, such as a Scene of Action (SOA) channel. However, if mixed-mode scanning (both trunked talkgroups and conventional channel members) is required by some users, it is also recommended that this scan type only be available when the radio is selected to a conventional channel. Mixed-mode scan may not provide priority revert depending on radio model, and the user may miss necessary traffic on the selected channel.

Scanning of Non-Home Site Talkgroups

It is possible to monitor a non-home talkgroup by configuring the system to request the non-home talkgroup appear on your primary/ home system or “always preferred site(s).” However, doing so will consume a repeater channel on your primary/ home system or “always preferred site(s)” and will carry the requested non-home talkgroup priority setting with it. Also, a call on the requested non-home talkgroup will not be delayed (busy queued) if the home system or “always preferred site(s)” does not have a channel available. While this “requested site” is the recommended approach, it must be carefully controlled, monitored, and evaluated, as it could exhaust system resources. It must be approved by the affected administering agency.

Talkgroup permission forms can be found on the Emergency Communication Networks’ (ECN) website.

6. Management

The site owner and Local System Administrator will be the responsible authority for scanning issues. If an issue is unable to be resolved at the local level, it can be brought to the Statewide System Administrator.

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.12.0	
Standard Title	Scanning	
Date Established	01/19/2001	SRB Approval: 09/01/2005
Replaces Document Dated	12/04/2003 04/12/2005	
Date Revised	04/12/2005 01/11/2016	

1. Purpose or Objective

The purpose of this standard is to identify operational procedures and responsible authorities governing scanning activities.

2. Technical Background

▪ Capabilities

The network infrastructure and subscriber units need to be configured to permit managed user scanning of talkgroups. Scanning is a user option, and users need to be trained that including a talkgroup in a non-priority scan list will not necessarily result in them hearing traffic on that talkgroup. The talkgroup must also be “active” at the site where the user is affiliated. Talkgroups are activated if there is at least one user affiliated at the site that has the talkgroup of interest as their selected channel.

▪ Constraints

Certain radio models are not capable of setting individual talkgroups set for receive-only and must have the entire radio set for *either* receive-only on all talkgroups, *or* transmit and receive on all talkgroups. Any talkgroup programmed into a normal user radio is technically capable of both transmit and receive operation and any transmission can be displayed on a dispatch screen.

[While scanning is available on ARMER, it works differently than in conventional radio systems.](#)

3. Operational Context

A talkgroup owner may pre-approve monitoring privileges. Any unauthorized transmission on non-owned talkgroups in violation of this policy may result in immediate subscriber unit de-authorization and removal of the talkgroup from the radio prior to reauthorization on the network.

The network infrastructure and subscriber units will need to be configured so users ~~to~~ can have wide area coverage and still maintain an acceptable level of service for all users. The

use of “Critical User” and “Critical Site” in the system for the purpose of non-priority scanning is not permitted, and scanning between different sites will be accomplished by the use of “requested sites.”

4. Recommended Protocol/ Standard

Talkgroup owners and System Administrators may approve limited scanning/monitoring privileges. Before scanning/monitoring of owned talkgroups, permission must be granted.

As cited in State Standard 2.7.0, Use of Shared Talkgroups, permission must come from:

- the System Administrators of the sites that are being requested for the talkgroup
- the jurisdiction/agency who is the “owner” of the requested talkgroup

Mutual aid, special roaming, and other shared talkgroups may be scanned at any time; however, “requested site” determinations will be made by the System Administrators of the affected sites.

5. Recommended Procedure

Permission

Permission must be obtained, in writing, from the talkgroup owner and the System Administrators of the non-home site or sites being “requested,” if applicable.

Scanning Configuration

If trunked scanning is desired, it is recommended that the local System Administrator set the radio site preferences to facilitate the scanning needs of the user, as well as coordinate with other System Administrators that may be impacted by changes in site talkgroup load.

It is further recommended that scanning be disabled when the user switches their radio to a conventional (non-trunked) channel, such as a Scene of Action (SOA) talk-around channel. However, if mixed-mode scanning (both trunked talkgroups and conventional channel members) is required by some users, it is also recommended that this scan type only be available when the radio is selected to a conventional channel. Mixed-mode scan may not provide priority revert depending on radio model, and the user may miss necessary traffic on the selected channel.

Scanning of Non-Home Site Talkgroups

It is possible to monitor a non-home talkgroup by configuring the system to request ~~the~~ the non-home talkgroup appear on your primary/ home system or “always preferred site(s).” However, doing so will consume a repeater channel on your primary/ home system or “always preferred site(s)” and will carry the requested non-home talkgroup priority setting with it. Also, a call on the requested non-home talkgroup will not be delayed (busy queued) if the home system or “always preferred site(s)” does not have a channel available. While this “requested site” is the recommended approach, it must be carefully controlled, monitored, and evaluated, as it could exhaust system resources. It must be approved by the affected administering agency.

Talkgroup permission forms can be found on the [Emergency Communication Networks' \(ECN\) website.](#)

Commented [AC1]: Changed at OTC from SECB to ECN.

6. Management

~~The Statewide System Manager will be the responsible authority for scanning issues.~~

~~The site owner and Local System Administrator will be the responsible authority for scanning issues. If an issue is unable to be resolved at the local level, it can be brought to the Statewide System Administrator.~~

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.14.0	
Standard Title	Private Call	
Date Established	03/01/2001	SRB Approval: 09/01/2005
Replaces Document Dated	09/01/2005	
Date Revised	02/01/2016	

1. Purpose or Objective

The purpose of this standard is to manage the use of private calls on the system. Although this is a useful feature needed by some users, it must be managed to an appropriate level to protect the primary radio communications purpose of the system.

2. Technical Background

▪ Capabilities

Private calls can be placed between individual users of the system. This communication is outside of the talkgroup communications and is a private communication between two radio users.

Console operators can place private calls to the radio users.

▪ Constraints

- A private call will consume a site radio channel for each site involved for the duration of the conversation.
- Private calls are simplex; only one user can talk at a time.
- Portable radios without a keypad or display cannot initiate a private call.
- Portable radios with a limited (non-alphanumeric) keypad can only place private calls to destination radio user IDs that are pre-programmed into the radio.
- Portable radios with a full (alphanumeric) keypad can place a private call by dialing the destination radio user ID directly, as well as by using radio user IDs that are pre-programmed into the radio.
- Private calls are not recorded.
- For the duration that a radio user is involved in a private call, the user will not be involved in dispatch/talkgroup communications/scanning.
- The system is not able to restrict the usage of private call on the system, unlike interconnect calls, which can be managed.

3. Operational Context

The private call resource should primarily be used as a supervisory function. If there is a business need for a radio user to have this ability, the owning agency shall request the feature, in writing, to the local System Administrator; however, this resource needs to be managed to protect the site radio channel resources of the system.

Dispatch consoles are capable of providing this function, as well.

4. Recommended Protocol/ Standard

Private call usage will only be programmed for the users of the system that have a need for the function. The primary purpose of the system is for radio communications.

The priority level for private calls is "10", as defined in State Standard 2.8.0. Site access for private call is managed in the "Sites Profile Group" that the radio user belongs to.

5. Recommended Procedure

Local System Administrators shall work with the user groups they are responsible for to plan the appropriate private call programming requirements for those users, in order to protect the radio frequency (RF) resources of the system.

6. Management

The Local System Administrators shall be responsible for following this procedure and monitoring the effect and usage of this resource. If negative impact or excessive usage is determined, private call permission will be reconsidered and possibly revoked.

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.14.0	
Standard Title	Private Call	
Date Established	03/01/2001	SRB Approval: 09/01/2005
Replaces Document Dated	12/04/2003 09/01/2005	
Date Revised	04/12/2005 02/01/2016	

1. Purpose or Objective

The purpose of this standard is to manage the use of private calls on the system. Although this is a useful feature needed by some users, it must be managed to an appropriate level to protect the primary radio communications purpose of the system.

2. Technical Background

▪ Capabilities

Private calls can be placed between individual users of the system. This communication is outside of the talkgroup communications and is a private communication between two radio users.

Console operators can place private calls to the radio users.

▪ Constraints

- A private call will consume a site radio channel for [each site involved for](#) the duration of the conversation.
- Private calls are simplex; only one [user end](#) can talk at a time.
- Portable radios without a keypad or display cannot initiate a private call.
- Portable radios with a limited (non-alphanumeric) keypad can only place private calls to destination radio user IDs that are pre-programmed into the radio.
- Portable radios with a full (alphanumeric) keypad can place a private call by dialing the destination radio user ID directly, as well as by using radio user IDs that are pre-programmed into the radio.
- Private calls are not recorded.
- For the duration that a radio user is involved in a private call, the user will not be involved in dispatch/talkgroup communications/[scanning](#).
- The system is not able to restrict the usage of private call on the system, unlike interconnect calls, which can be managed.

3. Operational Context

The private call resource should primarily be used as a supervisory function. If there is a business need for a radio user to have this ability, the owning agency shall request the feature, in writing, to the local System Administrator; however, this resource needs to be managed to protect the site radio channel resources of the system.

Dispatch consoles are capable of providing this function, as well.

4. Recommended Protocol/ Standard

Private call usage will only be programmed for the users of the system that have a need for the function. The primary purpose of the system is for radio communications.

The priority level for private calls is "10", as defined in State Standard 2.8.0. Site access for private call is managed in the "Sites Profile Group" that the radio user belongs to.

5. Recommended Procedure

Local System Administrators shall work with the user groups they are responsible for to plan the appropriate private call programming requirements for those users, in order to protect the radio frequency (RF) resources of the system.

6. Management

The Local System Administrators shall be responsible for following this procedure and monitoring the effect and usage of this resource. If negative impact or excessive usage is determined, private call permission will be reconsidered and possibly revoked.

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 1	Management of System	Status: Complete
State Standard Number	1.3.0	
Standard Title	Database Management	
Date Established	08/07/2001	SRB Approval: 03/03/2005
Replaces Document Dated	03/03/2005	
Date Revised	02/01/2016	

1. Purpose or Objective

The purpose of this standard is to define the responsibilities for managing the system database.

The database contains objects for the system and subsystems defining the operational characteristics “personality” of things like:

- subscriber radios
- talkgroups and multigroups
- profiles for radio users and talkgroups
- storm plans
- system and subsystem equipment operational parameters
- security group structures
- login user accounts and privileges

2. Technical Background

▪ Capabilities

The system and subsystems contain a central database; however, the management of the database can be distributed among the agencies/staff responsible for the various aspects of the data in the database.

▪ Constraints

The database contains the operational personality of the entire system. Because of this critical function, the data must be properly managed for system functionality and archived in case of data loss or corruption.

3. Operational Context

The system database will be partitioned to facilitate the distributed management of the data contained in the database; each Local System Administrator shall manage the portions of the above-listed data they are responsible for. Local System Administrators may, at their discretion, make mutual arrangements with other Local System Administrators for the management of their data.

Individual agencies will be responsible for maintaining and archiving their own radio code plug data as defined by the agency's internal procedures.

The Statewide System Administrator, at a minimum of twice per month, will back up the system database. Additional backups may be requested by Local System Administrators if large volumes of data have been entered or changed.

Multiple revisions of backups will be dated and kept in a rotating stock so a restore would be possible from an earlier backup if the need arises. Multiple database backups will be made and kept on-site at the backup location. Database backups will also be kept off-site in the event of a building disaster.

Database restores will only be done by the Statewide System Administrator and only in the event of one of the following: system software reloading and version changes, system database corruption, or as defined in the "Disaster Recovery" section of the System Standards Manual.

Database restores may also be performed where there is a need, in a non-critical condition, if there is a reasonable consensus from the appropriate Local System Administrator(s).

Local System Administrators shall notify other Local System Administrators of any database issues they encounter that may adversely impact them. .

4. Recommended Protocol/ Standard

This will be an ongoing task in the operation and management of the system.

5. Recommended Procedure

The methods for performing the database operations are defined in the technical resource manuals and training for the system. The technical resource manuals are classified as "Security Information" and "General Non-Public Data," pursuant to Minn. Stats. §13.37, Subd. 1a.

6. Management

The Statewide System Administrator and Local System Administrators are responsible for managing the data attributes that they are individually responsible for. The Statewide System Administrator shall be responsible for backing up the system database.

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

Document Section 1	Management of System	Status: Complete
State Standard Number	1.3.0	
Standard Title	Database Management	
Date Established	08/07/2001	SRB Approval: 03/03/2005
Replaces Document Dated	08/13/2001 <u>03/03/2005</u>	
Date Revised	03/03/2005 <u>02/01/2016</u>	

1. Purpose or Objective

The purpose of this standard is to define the responsibilities for managing the system database.

The database contains objects for the system and subsystems defining the operational characteristics “personality” of things like: such things as:

- subscriber radios
- ~~radio users~~
- talkgroups and multigroups
- profiles for radio users and talkgroups
- storm plans
- ~~system side of the fleetmap programming~~
- system and subsystem equipment operational parameters
- security group structures
- login user accounts and privileges

~~The database does not contain the software load information of servers and client computers or equipment programming parameters for such things as routers, switches, hubs, channel banks, etc.~~

2. Technical Background

▪ Capabilities

The system and subsystems contain a central database; however, the management of the database can be distributed among the agencies/staff responsible for the various aspects of the data in the database.

- **Constraints**

The database contains the operational personality of the entire system. Because of this critical function, the data must be properly managed for system functionality and archived in case of data loss or corruption.

3. Operational Context

The system database will be partitioned to facilitate the distributed management of the data contained in the database; each Local System Administrator and Manager shall manage the portions of the above-listed data they are responsible for. Local System Administrators Managers and Administrators may, at their discretion, make mutual arrangements with ~~the~~ other Local System Administrators Managers for the management of their data.

Individual agencies will be responsible for maintaining and archiving their own radio code plug data as defined by the agency's internal procedures.

The Minnesota Department of Transportation (MnDOT) Statewide System Administrator, at a minimum of twice per month, will back up the system database. Additional backups may be requested by Local System Administrators Managers if large volumes of data have been entered or changed.

Multiple revisions of backups will be dated and kept in a rotating stock so a restore would be possible from an earlier backup if the need arises. Multiple database backups will be made and kept on-site at the backup location. Database backups will also be kept off-site in the event of a building disaster.

Database restores will only be done by the Statewide System Administrator and only in the event of one of the following: system software reloading and version changes, system database corruption, or as defined in the "Disaster Recovery" section of the System Standards Manual.

Database restores may also be performed where there is a need, in a non-critical condition, if there is a reasonable consensus from the appropriate Local System Administrator(s) system and subsystem representatives.

Local System Administrators Managers shall notify ~~the appropriate other Local~~ System Administrators Manager of any database issues they encounter that may adversely impact ~~them. another System Manager~~.

4. Recommended Protocol/ Standard

This will be an ongoing task in the operation and management of the system.

5. Recommended Procedure

The methods for performing the database operations are defined in the technical resource manuals and training for the system. The technical resource manuals are classified as “Security Information” and “General Non-Public Data,” pursuant to Minn. Stats. §13.37, Subd. 1a.

~~The procedures for this standard are at the discretion of the System Managers Group (SMG).~~

6. Management

The ~~Statewide System Administrator and Local~~ System ~~and Subsystem~~ Administrators ~~and Managers~~ are responsible for managing the data attributes that they are individually responsible for. The ~~Statewide MnDOT~~ System Administrator shall be responsible for backing up the system database.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

The Honorable Tony Cornish
Minnesota House of Representatives
369 State Office Building
100 Rev. Dr. Martin Luther King, Jr. Blvd.
Saint Paul, MN 55155

February 19, 2016

Dear Representative Cornish,

I am writing to you on behalf of the Statewide Emergency Communications Board (SECB) and as Chair of its Legislative Committee. I am respectfully requesting an opportunity to meet with you to discuss the SECB's concerns about the status of the sales tax exemption for joint powers boards and special taxing districts and, the effect of this on public safety agencies.

As you know, a couple of legislative sessions ago, local governments received a general sales tax exemption in statute. The change was vague in relation to joint powers boards and special taxing districts, so in the following session, language was approved to extend the sales tax exemption to joint powers boards and special taxing districts as well. At that time, the exemption was to be effective January 1, 2016 however, during the 2015 Special Legislative Session, language was added to the K12 funding bill that moved the effective date of the sales tax exemption forward to January 1, 2017.

Many boards and taxing districts planned on making large purchases in 2016 to obtain the exemption and save money. Because the date was pushed forward during a Special Session, many groups were caught off guard. On behalf of its public safety partners, the SECB supports moving the effective date back to July 1, 2016, thereby allowing agencies to complete their planned purchases during 2016 without the additional expense of sale tax.

An example of how this affects public safety is that when the Metropolitan Emergency Services Board (MESB) makes a purchase for the 9-1-1 system on behalf of a county or city (which has the sales tax exemption) the MESB has to pay sales tax because at this time it does not have the exemption. At times, that additional sales tax may have to get passed on to those cities or counties if the MESB is acting as a pass-through agency (which it frequently does). Pushing the sales tax exemption back to July 1, 2016 would save these funds which could be used for further investments in public safety. Allowing sales tax exemptions on large equipment purchases helps tax money go further and more directly toward ensuring the safety of Minnesota's citizens and visitors.

I look forward to having an opportunity to meet with you to discuss the fiscal impact to our public safety partners of delaying the sales tax exemption for joint powers boards and special taxing districts. I will contact your office to determine your availability. Should you or your staff have any questions in the meantime, I can be reached at _____ . Thank you in advance for your consideration.

Sincerely,

Liz Workman
Chair, Legislative Committee of the SECB
Commissioner, Dakota County

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

The Honorable Greg Davids
Minnesota House of Representatives
585 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, Minnesota 55155

February 19, 2016

Dear Representative Davids,

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I look forward to having an opportunity to meet with you to discuss the fiscal impact to our public safety partners of delaying the sales tax exemption for joint powers boards and special taxing districts. I will contact your office to determine your availability. Should you or your staff have any questions in the meantime, I can be reached at _____ . Thank you in advance for your consideration.

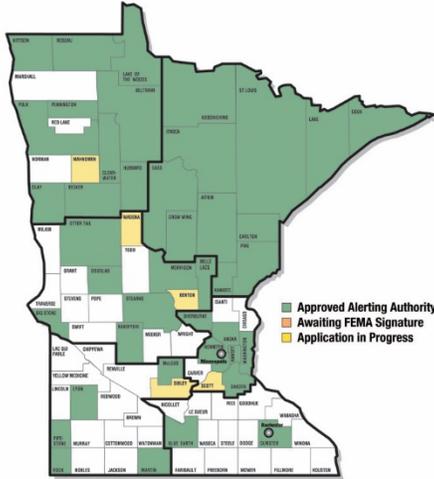
Sincerely,

Liz Workman
Chair, Legislative Committee of the SECB
Commissioner, Dakota County

IPAWS Committee Activity

19 Feb 2016

 **Local Alerting Authorities Approved for IPAWS**



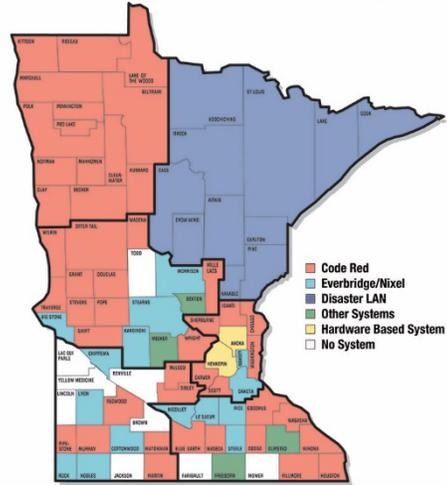
[List of Counties Approved by FEMA – Jan 2016](#)

Counties added since last report:

In process:

- Carver
- Scott
- Stevens
- Wilkin

 **IPAWS Capable Mass Notification Systems**



[Counties with Class 1 rail traffic](#)

Counties with Class 1 Rail traffic without IPAWS capable warning system: (Goal 2.3.1)

- Todd
- Yellow Medicine

Training:

Up Coming, Public Alerting Authority Best Practices Workshop:

- 24 February – Region IV Central, Fergus Falls
- 25 February – Region III North West, Clay County at the Fargo Public Safety Building, Fargo, ND
- 9 March – Region IV, Central, St. Cloud
- 24 March – April, Region I, South East, Rochester

Recent, Public Alerting Authority Best Practices Workshops:

- 5 November 2015 – Region II North East – 15 Participants
- 6 January 2016 – Region IV South West, Slayton – 23 Participants
- 7 January 2016 – Region IV and VII, South Central and West, Glencoe – 32 Participants
- 20 January 2016 - Region I & VII South Central and East – 30 Participants
- 9 February – Session at the Governors HSEM Conference, Brooklyn Center – 19 Participants



Welcome to Our Survey

The State of Minnesota currently has 104 E9-1-1 capable PSAPs. With the onset of Next Generation 9-1-1 (NG 9-1-1) PSAPs will be required to transition to Internet Protocol (IP) based technologies that meet NENA i3 standards.

This transition will require the upgrade and/or replacement of 9-1-1 legacy technologies as well as supporting systems, resulting in an increase in capital expenditures as well as an increase in recurring costs for PSAPs. Furthermore, the manner in which 9-1-1 calls for service are delivered to the PSAP will require Geographic Information Systems (GIS) data to be compliant with NG 9-1-1 standards.

ECN is seeking the information requested in this survey in an effort to understand the current state of PSAP technologies (CAD/RMS/CPE/Logging Recorders/Radio Consoles), to identify the associated costs for upgrade and/or replacement of those technologies, along with the anticipated timeframe in which those upgrades and/or replacements will take place.

The information that you provide will aid the Sheriffs, PSAP management, and Emergency Communication Networks (ECN) in planning and budgeting for PSAPs to continue migration to NG 9-1-1 compatible technologies and explore new features and functionalities. More importantly, this information will be used to understand how this new technology impacts hardware and software upgrade frequency and the impact upon state and local budgets.



PSAP Contact Information

Please provide the name and contact information for the person replying to this survey. Please also provide the physical address and primary phone number of the PSAP responding to this survey.

* 1. Survey Point of Contact

Name

Title

Agency

Email Address

Contact Phone Number

* 2. PSAP Information

PSAP Name

PSAP Address

PSAP Address 2

PSAP City/Town

PSAP ZIP/Postal Code

PSAP Main Number



PSAP Operational Information

*** 3. How would you categorize the size of your PSAP?**

(workstations are defined as capable of answering 911 calls, staffed or not)

- Small (4 total workstations or less)
- Medium (5 to 15 total workstations)
- Large (16 total workstations or more)

**4. Do your telecommunicators perform other duties in addition to / while also answering 911 calls?
(e.g. walk up windows, answering admin lines, jail duties, building access and security monitoring)**

- Yes
- No

5. If yes, please list any additional duties performed by your telecommunicators.

6. Please identify the number of Supervisory staff at your PSAP

Authorized FTE's	<input type="text"/>
Full Time	<input type="text"/>
Part Time	<input type="text"/>

7. Please identify the number of Telecommunicators (i.e dispatchers, calltakers) at your PSAP

Authorized FTE's	<input type="text"/>
Full Time	<input type="text"/>
Part Time	<input type="text"/>

8. Please identify the number of Administrative staff at your PSAP

Authorized FTE's

Full Time

Part Time

9. Does your PSAP have dedicated IT Support Staff?

Yes

No

10. Please select which of the following apply to your IT Support Staff

- Full time on site support provided by PSAP staff
- Part time on site support provided by PSAP staff
- Part time on site support provided by County IT department
- Full time remote support provided by other agency's staff
- Part time remote support provided by other agency's staff
- Full time on site support provided by a third party contractor or vendor
- Part time on site support provided by a third party contractor
- Full time remote support provided by a third party contractor or vendor
- Part time on site support provided by a third party contractor or vendor
- Other (please specify)

11. Has your IT staff either implemented or discussed the importance of implementing firewalls to protect your equipment from cyber security threats?

Yes

No

Not Sure

*** 12. Please provide the count of agencies your PSAP dispatches for**

Police/Law Enforcement

Fire

(if Fire and EMS...report

EMS below as well)

EMS

Other



PSAP Training

13. Does your PSAP have training programs planned for 2016?

- Yes
- No
- Other (please specify)

14. Please list the PSAP training programs planned for 2016

15. If no training is planned for 2016, please state the reason why

16. What other training subjects or opportunities would be useful for your PSAP?

17. Identify certifications that you think would be of value to your personnel

18. Do you believe that there should be recommended best practices established for calltakers / dispatchers in the State of Minnesota?

- Yes
- No



PSAP NG9-1-1 Applications

*** 19. Does your PSAP plan to deploy Text-to-911 services?**

- Yes, we plan to implement Text-to-911 Service
- No, we do not plan to implement Text-to-911 Service

Other (please specify)

20. If yes, when do you plan to deploy Text-to-911 Services?

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Not currently planned

21. What method of Text-to-911 Service do you plan to deploy?

- Web Browser Application using an internet connected PC (not on my CPE)
- TDD/TTY using our current CPE system
- Message Switch Routing Protocol (MSRP) using our current CPE system

Other (please specify)



PSAP Technology Survey - CPE

The following sections of the survey are focused on the technical systems used by your PSAP.

22. Who is your Call Taking system provider (CPE)?
(e.g. Plant, Positron, CML)

23. What is the make and model of your CPE system?
(e.g. CML Patriot or Positron Viper)

24. What software version or hardware version of CPE do you have?
(e.g. Vesta 4, Sentinel 3.2)

25. How many call taking positions do you have?
(total, all seats including training/backup)

26. Who maintains your CPE equipment?
(e.g. CenturyLink)

27. What was the cost of your current CPE system?
(less maintenance)

28. What is the annual cost for CPE hardware / software maintenance?

29. When did you purchase your current CPE (MM/YYYY)?

30. Does your current CPE support Session Initiation Protocol (SIP) Connectivity?

- Yes
- No
- Don't Know

31. If No, when do you plan to migrate to SIP connectivity?

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Not currently planned

32. Do you have any plans to upgrade or replace your current CPE?

- Yes
- No

33. If yes, please select your CPE upgrade/replacement timeframe.

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Other (please specify)



PSAP Technology Survey - Radio Dispatch Consoles

**34. Who is your Radio Dispatch Console system provider?
(e.g. Avtec, Harris, Motorola, Moducom, Zetron)**

**35. What is the make and model of your Radio Dispatch Console system?
(e.g. ACOM, Elite, Maestro)**

36. What software version or hardware version of Radio Dispatch Console do you have?

37. How many Radio Dispatch Consoles do you have (total, all licenses)?

38. Who maintains your Radio Dispatch Console equipment?

39. What is the annual cost for Radio Dispatch Console hardware / software maintenance?

40. When did you purchase your current Radio Dispatch consoles (MM/YYYY)?

41. What was the cost of your current Radio Dispatch console system (excluding maintenance)?

42. Do you have any plans to upgrade or replace your current Consoles?

- Yes
- No

43. If yes, please select your Radio Dispatch Console upgrade/replacement timeframe.

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Other (please specify)



PSAP Technology Survey - Computer Aided Dispatch (CAD)

44. Who is your CAD system provider?

45. What is the make and model of your CAD system?

46. What is the software version of your CAD system?

47. How many CAD workstations do you have (total, all licenses)?

48. Who maintains your CAD system equipment?

49. What is the annual cost for CAD hardware / software maintenance?

50. When did you purchase your current CAD system (MM/YYYY)?

51. What was the cost of your current CAD system?

52. Do you have any plans to upgrade or replace your current CAD system?

Yes

No

53. If yes, please select your CAD system upgrade/replacement timeframe.

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Other (please specify)



PSAP Technology Survey - Logging/Recording System

54. Does your logging/recording system record both phone and radio traffic?

- Yes
- No
- Don't know

55. If no, do you share a radio logging recorder with another agency?

- Yes
- No
- Don't know

56. Who is your Logging/Recording system service provider?

57. What is the make and model of your Logging/Recording System?

58. What is the software version of your Logging/Recording System?

59. How many Logging/Recording licenses do you have (total, all licenses)?

60. Please identify the level of recording provided by your logging recorder.

- Records phone audio by position
- Records phone audio by trunk
- Records radio audio by position
- Records radio audio by channel / talkgroup

61. Who maintains your Logging/Recording System equipment?

62. What is the annual cost for Logging / Recording system hardware / software maintenance?

63. When did you purchase your current Logging/Recording System (MM/YYYY)?

64. What was the cost of your current Logging/Recording System?

65. Do you have any plans to upgrade or replace your current Logging/Recording System?

Yes

No

66. If yes, please select your Logging/Recording System upgrade/replacement timeframe.

12 months or less

13 - 24 months

24 - 36 months

Other (please specify)



PSAP Technology Survey - Administrative Phone System

67. Who is your Administrative Phone System service provider?

68. What is the make and model of your Administrative Phone System?

69. What is the software version of your Administrative Phone System?

70. How many Administrative Phone System end stations or licenses do you have (total, all licenses)?

71. Who maintains your Administrative Phone System equipment?

72. What is the annual cost for Administrative Phone system hardware / software maintenance?

73. When did you purchase your current Administrative Phone System (MM/YYYY)?

74. What was the cost of your current Administrative Phone System?

75. Do you have any plans to upgrade or replace your current Administrative Phone System?

Yes

No

76. If yes, please select your Administrative Phone System upgrade/replacement timeframe.

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Other (please specify)



PSAP Technology Survey - Emergency Notification System

77. Does your PSAP use an Emergency Notification system?

Yes

No

78. If so, what is the make and model of your Emergency Notification System?

79. What is the software version of your Emergency Notification System?

80. How many Emergency Notification System stations or licenses do you have (total, all licenses)?

81. Who maintains your Emergency Notification System equipment?

82. What is the annual cost for Emergency Notification System hardware / software maintenance?

83. When did you purchase your current Emergency Notification System (MM/YYYY)?

84. What was the cost of your current Emergency Notification System?

85. Does your Emergency Notification System have an interface to FEMA's Integrated Public Alert and Warning System (IPAWS)?

Yes

No

86. Does your PSAP currently have access to / use the FEMA IPAWS notification system?

- Yes
- No

87. Does your PSAP plan to access / use the FEMA IPAWS notification system?

- Yes
- No

88. If your PSAP does NOT plan to access/use the FEMA IPAWS notification system, why not?

89. If yes, please identify when you plan to implement / begin using the FEMA IPAWS notification system.

- 12 months or less
- 13 - 24 months
- 24 - 36 months

90. Do you have any plans to upgrade or replace your current Emergency Notification System?

- Yes
- No

91. If yes, please select your Emergency Notification System upgrade/replacement timeframe.

- 12 months or less
- 13 - 24 months
- 24 - 36 months
- Other (please specify)



Conclusion

92. Please identify expenses that are not allowable for purchase with the 911 funds that you feel should be considered allowable.

93. Thank you very much for taking the time to complete this survey. If you have any additional comments please list them here.



Minnesota's FirstNet Consultation Project (MnFCP)

FirstNet RFP Briefing

presented by:

Jackie Mines, Director of Emergency Communication
Networks (ECN), DPS

Brandon Abley, Consultant
Televate (contractor to ECN)



TELEVATE

February 16, 2016

Overall Key Points



- The RFP is an “**objectives-based**”
 - Many **evaluation factors**, few **requirements**
 - Appears to be intentional strategy allows a wide variety of creative solutions from vendors
 - It is a massive document; **over 500 pages**; many attachments
- Any qualified vendor would likely have to be a **commercial cellular carrier**
 - OR—be partnered with a cellular carrier
 - A “greenfield” proposal is not likely

Overall Key Points



- The most important metric is **subscriber adoption**
 - The vendor is penalized for not reaching adoption targets
 - Many metrics and evaluation factors are tied to adoption
 - This is a clever strategy: good service will get a lot of subscribers
- The vendor assumes **nearly all aspects of the service**
 - The vendor handles implementation, operations, etc.
 - The vendor also handles sales and marketing
 - **The vendor has the right to market itself as “FirstNet”**, including the right to use FirstNet’s trademarks

Key Dates



- Contract: November 1, 2016
- Vendor markets “FirstNet” service: 6 months after award
- State Plans: Q1/Q2 2017
- First Band 14 FirstNet RAN sites: April 30, 2017
- IOC-3: 24 months from award
- FOC: 60 months from award

- IOC-3, or “Initial Operating Capability Phase 3”
- **24 months from award is a key date**
- Vendor is required to:
 - Have over 50% of the proposed user base
 - Have over 60% of the proposed Band 14 spectrum
 - Provide mission-critical services **including PTT**
 - Provide public safety priority services

Schedule Breakdown



IOC-1 6 months	<ul style="list-style-type: none">• State Plans Delivered• Nationwide Coverage (Band 14 or non-Band 14)• Deployment of “App Store” and application developer tools
IOC-2 12 months	<ul style="list-style-type: none">• Complete CRM, sales, billing, and financial business support systems specific to FirstNet• 20% proposed urban and rural coverage• Consumer grade PTT• Band 14 devices available
IOC-3 24 months	<ul style="list-style-type: none">• Achievement of 50% of Contractor’s IOC-5 public safety device connections target• 60% proposed urban and rural coverage• Mission-critical services including PTT and public safety priority• Core additions for state-deployed RANs
IOC-4 36 months	<ul style="list-style-type: none">• 80% proposed urban and rural coverage
IOC-5 48 months	<ul style="list-style-type: none">• Achievement of 100% of Contractor’s public safety device connections target• 95% proposed urban and rural coverage• Mission-critical video solution
IOC-6 60 months	<ul style="list-style-type: none">• 100% proposed urban and rural coverage

Section M – Evaluation Factors



- **Objectives-based** procurement
 - Few requirements, many objectives
- Evaluation Factors:
 - Business Management
 - Coverage and Capacity
 - Products and Architecture
 - Offeror’s Value Proposition Assessment
 - Past Performance
- 15% of coverage shall “include partnerships with rural telecommunications providers”

Section M – Evaluation Factors cont.



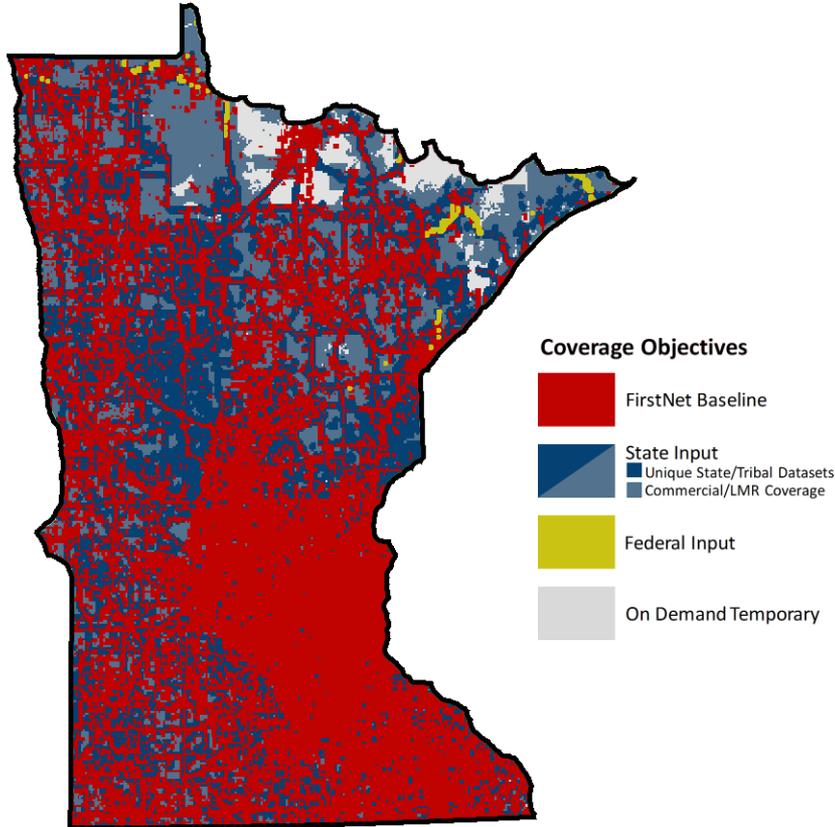
- Business Management:
 - Project Management and the ability to “achieve the state solution”
 - Customer Acquisition & Support
 - Life-Cycle Sustainment: activation, repair, tech assistance, retention, billing,
 - Financial Standing (of the offeror)
 - Device fleet
 - **Most heavily weighted factor in the RFP**
- Coverage and Capacity:
 - Non-Band 14 Coverage Area and Population Served
 - Band 14 Coverage Area and Population Served
 - Band 14 Network Capacity
 - **State coverage submission directly cited, but included in coverage objectives**

Section J-1 – Coverage and Capacity



- Coverage and Capacity:
 - No minimum coverage requirement in the RFP
 - However, coverage is a major evaluation factor
 - Coverage is defined ONLY in terms of throughput for an unspecified device
 - **3 feet, outdoor 50% uniform cell load, cell edge**
 - **768k down/ 256k up at the cell edge**
 - This is **sufficient for CAD, data transactions** and PTT. Not for video
 - Risk: Without specific engineering criteria, Offerors may have latitude to “play” with their projected coverage, or Offerors may use inconsistent criteria and not be easily comparable

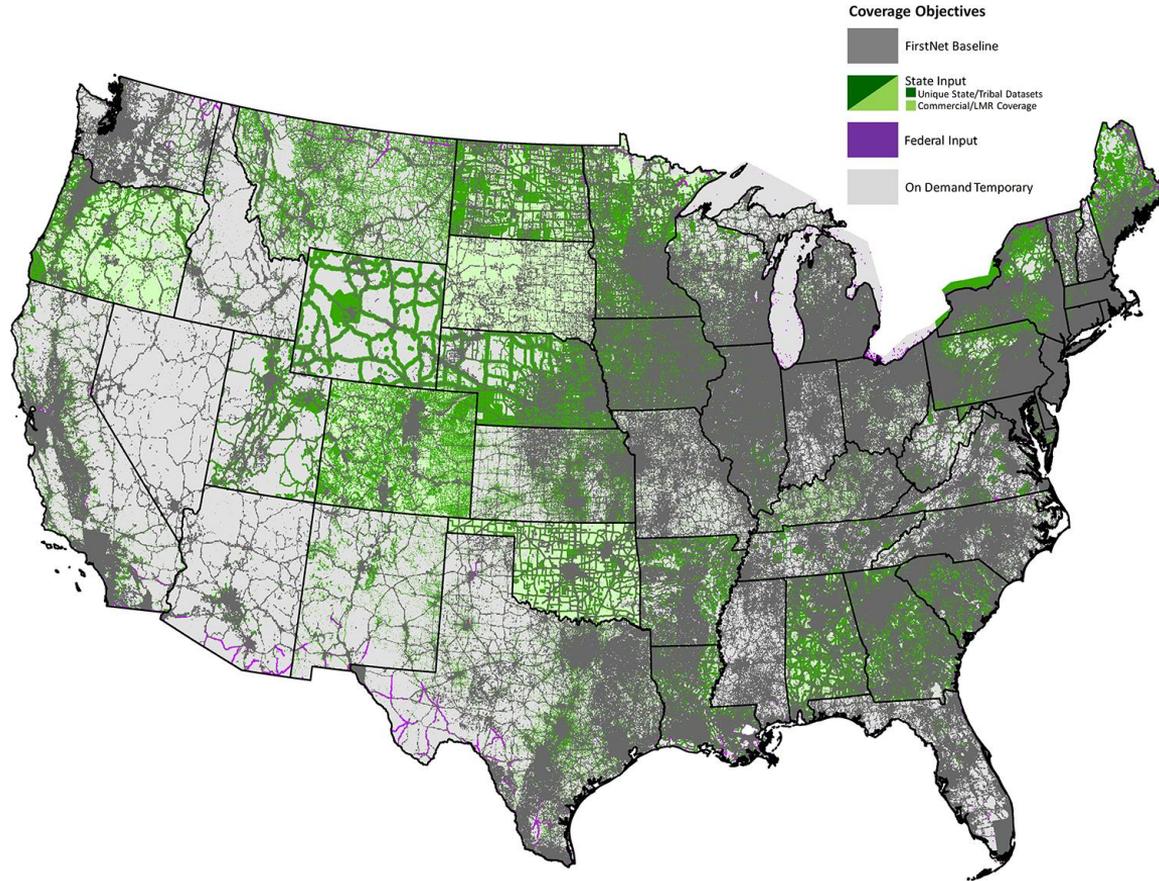
Coverage



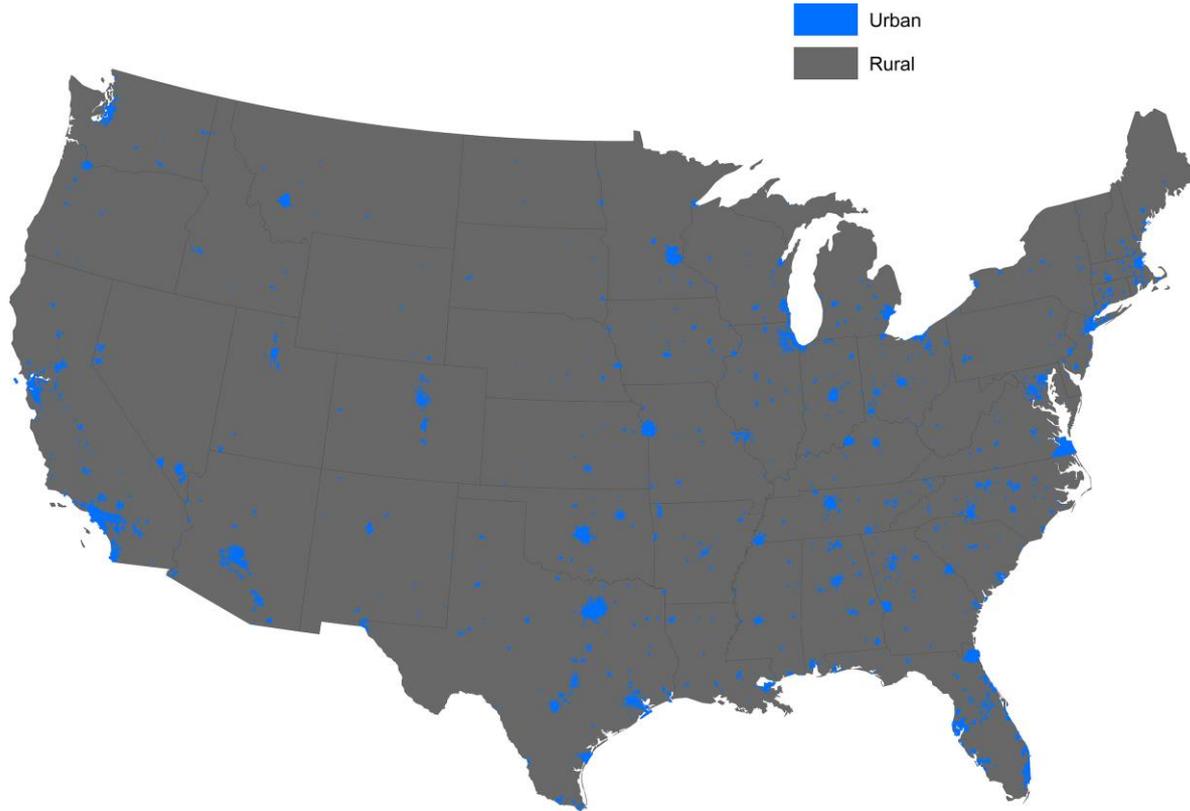
- FN coverage objective is FN baseline+state-submitted data
- Provides coverage for about 97% of the state
- **This is an objective, not a requirement**
- Offerors will be evaluated **state-by-state** based on how much of the FN coverage objective they meet

Category	% of State
FirstNet Baseline	67.38%
State Datasets	23.96%
Commercial/LMR Coverage	4.89%
Federal Input	0.67%
Temporary/Deployable	3.11%

Coverage



Rural Areas



Rural Areas

The definition of “rural” has some interesting results across different states.

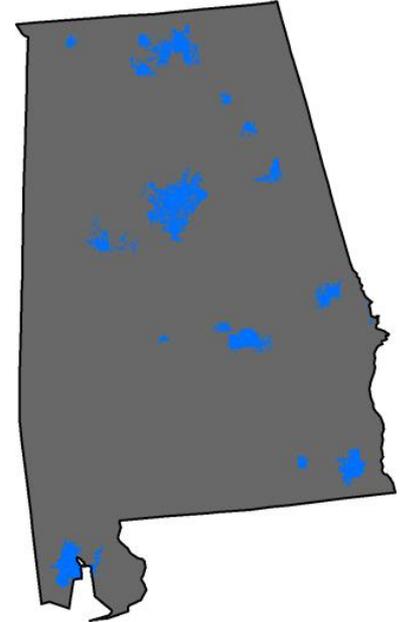
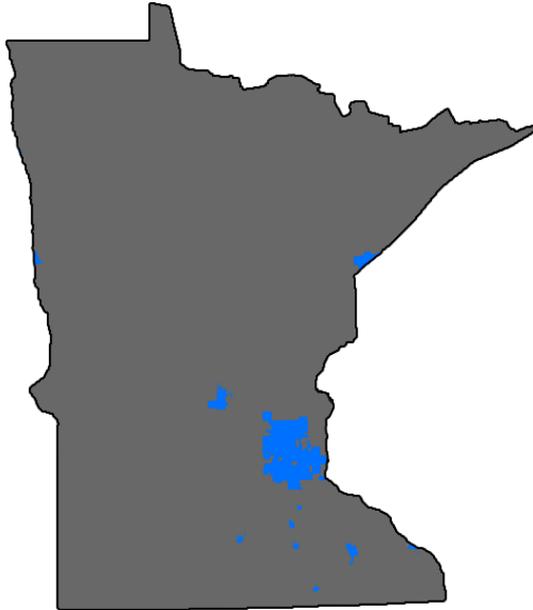
E.G. Minnesota and Alabama:

Minnesota:

- 1.91% urban; population 5.46 million
- Density 68.9 pops/sq mi
- Twin Cities MSA: 3.4 million people

Alabama:

- 4.53% urban; population 4.84 million
- density 95.4 pops/sq mi
- Birmingham MSA: 1.3 million



Applications & Security



- RFP includes an “app store”
 - Concern: This could segment the market
 - Play Store (Google) and App Store (iOS)
- Section J-4 System and Standards:
 - Calls for “Third Party Apps”, but mentions “(FirstNet certified)” for those third party apps
- Section J-10 Cybersecurity
 - This section has over 100 evaluation criteria—nearly all marked as “SHOULD”; a few are listed as “must”
 - **Encryption for traffic and stored data required**

Disincentive Payments



- The vendor is penalized if it does not achieve its target adoption rates
 - Vendor pays full payment at less than 70% of target adoption rates
- These payments increase over time, but average \$2-\$3M per year for Minnesota
 - Starting from year 6 (FOC) to year 25 (end of term)
- This is the main penalty engineered into the RFP to manage the vendor over the life of the service

Summary



- FirstNet's RFP is a **massive, detailed and creative approach** to providing NPSBN service to the nation
- The **vendor assumes most aspects of the NPSBN** including managing the service and all sales and marketing
- The **coverage objective for Minnesota is 97%**
- The RFP is almost entirely **objectives-based**
- Qualified vendors will likely have to be or be affiliated with a **major carrier**
- State plans and basic "FirstNet" service available after **6 months**
- **After year 2, the service is fairly mature** and provides most of what it will provide. **Later phases are mostly filling in coverage.**

MINNESOTA DEPARTMENT OF PUBLIC SAFETY



Emergency Communication Networks

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Alcohol
and Gambling
Enforcement

Bureau of
Criminal
Apprehension

Driver
and Vehicle
Services

Emergency
Communication
Networks

Homeland
Security and
Emergency
Management

Minnesota
State Patrol

Office of
Communications

Office of
Justice Programs

Office of
Traffic Safety

State Fire
Marshal

DATE: 02/10/2016
TO: Finance Committee
FROM: Jackie Mines, Director ECN
SUBJECT: 2015 SHSP funding allocation

Dear Chair Gerlicher and Members of the Finance Committee,

HSEM has awarded ECN with the 2015 SHSP grant for \$800,000.00.

The Grants Workgroup has established that the distribution of these funds would be based upon the applications received by and voted upon by the Grants Workgroup. The projects submitted total \$749,621.85, these funds will be distributed based upon the chart below. The remaining \$50,378.15 will be utilized by DPS-ECN for M&A and planning costs.

Region	Region Distribution
CMESB	\$191,084.19
MESB	\$25,000.00
NE-ECB	\$153,062.09
NW-ECB	\$140,083.07
SCM-RECB	\$38,742.50
SE-ECB	\$115,040.00
SW-ECB	\$86,610.00
TOTALS	\$749,621.85

The primary scope of the 2015 SHSP Grant was dedicated for training and exercises. However, the Grants Workgroup identified specific equipment that may also be purchased with the funds. The Workgroup unanimously decided that in order to prevent individual entities from becoming dependent on State funding, there will be a required 50% matching requirement on all equipment purchases. The Investment Hierarchy is attached.

We are soliciting the approval of the Finance Committee, after which ECN will begin working with each region to complete the initial grant process.

Respectfully submitted,

A handwritten signature in black ink that reads "Jackie Mines". The signature is written in a cursive style with a large initial "J".

**Jackie Mines, Director
Emergency Communication Networks**

Investment Hierarchy

Grants Workgroup Review Rating Form (Step3)

FY2015 SHSP

Applicant projects should fit within the scope of the priorities listed below. This hierarchy pertains to this grant only. The matching fund requirement for equipment is two times the amount of the state grant. Invoices and proof of payment must demonstrate that the agency paid the equivalent.

Priority 1 Training & Exercises

Training and exercise events that enhance the abilities of emergency responders to achieve seamless interoperable communications. Examples are ARMER Train the Trainer; Refresher ARMER Train the Trainer, System Admin Training; Dispatch training; ICS/Communication Workshops; Radio Programming; ICS 300; Interoperability Conference; CASM training; tabletop exercises for planned events, dispatch exercises.

*NOTE: All training costs must be **pre-approved** by the DECN per HSEM requirements. Forms can be found on the ECN website.*

Priority 2 ARMER Integration Costs (Infrastructure Enhancements):

Investments into infrastructure projects which result in a material enhancement to the performance of the ARMER backbone by expanding its capacity, coverage area, or wide-area network. Examples of such are channel additions, tower sites, MCC7500 consoles and outdoor BDAs as needed to fill in coverage gaps. NOTE: All outdoor BDAs must be approved through OTC to ensure MNDOT is aware of them and they are set up correctly so as not to cause interference with ARMER backbone.

Priority 3 Local ARMER Integration Costs (Subscriber Equipment)

Investments in end-user subscriber equipment that is required for users to utilize the ARMER system. Includes radios, control stations and equipment in PSAPs to deal with site trunking. (Only SHSP Grants can be used to purchase radios)

Priority 4 Other ARMER Interoperability Infrastructure (must be consistent with the SCIP)

Infrastructure investments which generally enhance radio interoperability but do not provide any material enhancement to the performance of the ARMER backbone. Examples include indoor BDAs for public safety sites such as LECs, jails or courthouse and schools only.

Priority 5 Planning

Associated costs for planning events. Examples are Food and Beverages provided at meetings; contractor fees; and employee labor costs for administrating grant applications.

Region	SECB Eligible	Investment Hierarchy	Regional Ranking	Category	Description	Cost	Amount for Equipment	Amount for Calculation	Totals for adjusting	Notes
MESB		1	1	Training	MESB Training Alotment	\$ 22,000.00		\$ 22,000.00	\$ 22,000.00	
MESB		1	2	Exercises	Exercises	\$ 3,000.00		\$ 3,000.00	\$ 3,000.00	
Proposed 2015 SHSP total allocation for MESB TOTAL									\$ 25,000.00	
NE-ECB		1	1	Training	NE-ECB Training Alotment	\$ 25,000.00		\$ 25,000.00	\$ 25,000.00	
NE-ECB		4	2	Equipment	2 x BDA - Leach Lake	\$ 10,803.84	\$ 5,401.92	\$ 5,401.92	\$ 5,401.92	
NE-ECB		3	3	Equipment	38 portable Radios - Hibing Public Works	\$ 73,857.00	\$ 36,928.50	\$ 36,928.50	\$ 36,928.50	
NE-ECB		3	4	Equipment	2 Base Stations - Hibing Public Works	\$ 5,024.00	\$ 2,512.00	\$ 2,512.00	\$ 2,512.00	
NE-ECB		3	5	Equipment	74 Portable Radios - City of Duluth Public Works	\$ 186,748.62	\$ 93,374.31	\$ 93,374.31	\$ 76,970.72	Duluth received funding for radios from the 2014 SHSP - 2015 SHSP request was originally for 74 radios \$186,748.62/\$93,374.31 reduced to 61 radios - \$153,941.43/\$76,970.72
NE-ECB		3	6	Equipment	2 Control Stations	\$ 12,497.90	\$ 6,248.95	\$ 6,248.95	\$ 6,248.95	
NE-ECB	Yes	3	7	Equipment	Pike Lake Emergency Center - MCC7500 Systems	\$ 35,904.90	\$ 17,952.45	\$ 17,952.45	\$ -	
NE-ECB	Yes	3	8	Equipment	Pike Lake Emergency Center - Software	\$ 20,000.00	\$ 10,000.00	\$ 10,000.00	\$ -	
Proposed 2015 SHSP total allocation for NE-ECB TOTAL									\$ 153,062.09	
SCMR-ECB		1	1	Training	SCMRECB Training Alotment	\$ 25,000.00		\$ 25,000.00	\$ 25,000.00	
SCMR-ECB		4	2	Equipment	McLeod County - Lester Prarie Public School BDA	\$ 27,485.00	\$ 13,742.50	\$ 13,742.50	\$ 13,742.50	
Proposed 2015 SHSP total allocation for SCMR-ECB									\$ 38,742.50	
SE-ECB		1	1	Training	SE-ECB Training Alotment (INTEROP CONF)	\$ 12,000.00		\$ 12,000.00	\$ 12,000.00	
SE-ECB		3	2	Equipment	Fillmore County FD Base, Mobile and Portable Radios	\$ 157,880.00	\$ 78,940.00	\$ 78,940.00	\$ 78,940.00	
SE-ECB		5	2	Planning	SE-ECB Meetings	\$ 4,000.00		\$ 4,000.00	\$ 4,000.00	
SE-ECB		3	3	Equipment	Mower County FD portable radios	\$ 40,200.00	\$ 20,100.00	\$ 20,100.00	\$ 20,100.00	
Proposed 2015 SHSP total allocation for SE-ECB									\$ 115,040.00	
SW-ECB		1	1	Training	SW-ECB Training Alotment	\$ 20,000.00		\$ 20,000.00	\$ 25,000.00	
SW-ECB		5	2	Planning	SWECB - Shetek planning and Coordinating Services	\$ 21,500.00		\$ 21,500.00	\$ 21,500.00	
SW-ECB	Yes	5	3	Planning	SWECB - System Administrator	\$ 70,000.00		\$ 70,000.00	\$ -	
SW-ECB		2	4	Equipment	Pipestone County Vehicle Repeater Systems	\$ 80,220.00	\$ 40,110.00	\$ 40,110.00	\$ 40,110.00	
Proposed 2015 SHSP total allocation for SW-ECB									\$ 86,610.00	
NW-ECB		1	1	Training	NW-ECB Training Alotment	\$ 25,000.00		\$ 25,000.00	\$ 25,000.00	
NW-ECB		5	2	Equipment	Beltrami County - PSAP upgrades	\$ 55,000.00	\$ 27,500.00	\$ 27,500.00	\$ 7,500.00	Revised total as of 2/5/15 was \$55,000/\$27,500 and is now \$15,000/\$7,500
NW-ECB		1	3	Equipment	Lake of the Woods County - Repeater	\$ 58,500.00	\$ 29,250.00	\$ 29,250.00	\$ 29,250.00	
NW-ECB		3	4	Equipment	Beltrami County - Portable and Mobile Radios	\$ 114,418.00	\$ 57,209.00	\$ 57,209.00	\$ 57,209.00	
NW-ECB		3	5	Equipment	Mahnomen County Mobile Radios	\$ 21,660.00	\$ 10,830.00	\$ 10,830.00	\$ 10,830.00	
NW-ECB		3	6	Equipment	Pennington County Portable and Mobile Radios	\$ 20,588.13	\$ 10,294.07	\$ 10,294.07	\$ 10,294.07	requested \$10,295.07 actual amount should be \$10,294.07
Proposed 2015 SHSP total allocation for NW-ECB									\$ 140,083.07	
CMESB		1	1	Training	CMESB Training Alotment	\$ 25,000.00		\$ 25,000.00	\$ 25,000.00	
CMESB		2	2	Equipment	Mille Lacs County - Isle and Wahkon ASR GTR Equipment	\$ 383,000.00	\$ 191,500.00	\$ 191,500.00	\$ 116,725.42	Actual cost will be \$116,725.42 based upon prior funding used to reduce cost.
CMESB		2	3	Equipment	Stevens County - Hancock & Chokio SOAR (Repeater)	\$ 30,649.54	\$ 15,324.77	\$ 15,324.77	\$ 15,324.77	
CMESB		2	4	Equipment	Kandiyohi County - Atwater & Mobile SOAR (Repeater)	\$ 15,000.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	
CMESB	Yes	2	5	Equipment	Wilkin County - Breckenridge ASR GTR Equipment	\$ 300,000.00	\$ 150,000.00	\$ 150,000.00	\$ -	
CMESB		4	6	Equipment	Douglas County - Alexandria HS BDA	\$ 53,068.00	\$ 26,534.00	\$ 26,534.00	\$ 26,534.00	Actual request was 26,533.94
Proposed 2015 SHSP total allocation for CMESB									\$ 191,084.19	
Total Grant allocation requested - Initial								\$ 1,103,752.47		
Proposed 2015 SHSP total allocation for Regions									\$ 749,621.85	
Regional distribution Projects pending move to SECB funding and funding adjusted based upon revisions to applications.										

Allied Radio Matrix for Emergency Response



ARMER

Project Status Report

Reporting Period January 1, 2015 through February 1, 2016

Executive Summary

Overall Status:

	Green (Controlled)	Yellow (Caution)	Red (Critical)	Reason for Deviation
Budget	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
Schedule	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	Land acquisition delays will impact completion of some sites
Scope	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	

ARMER
Backbone
97%
On-the-air

Controls

Issue Status:

Change Status:

- No pending plan changes

Accomplishments

Accomplishments during this Reporting Period:

- The following sites went on the air:

- The land acquisition has been completed for the following sites:

Budget

Construction Budget Status as of February 1, 2016

Project Funding	Original Budget	Spent to Date	Unspent Balance Remaining	Encumbered	Available Balance
Phase 3	\$45,000,000	\$44,952,397.19	\$47,602.82	\$0.00	*COMPLETE
SRB Funds (FY 09)	\$1,902,831.00	\$1,902,831.00	\$0	\$0	COMPLETE
Phase 456 (FY 09)	61,996,957.89	\$61,981,069.99	\$15,887.90	\$15,887.90	\$ 0.00
Phase 456 (FY 10)	\$62,015,407.77	\$61,896,212.77	\$119,190.00	\$119,190.00	\$ 0.00
Phase 456 (FY 11, 12, 13)	\$61,987,634.34	\$52,920,120.22	\$9,067,514.12	\$2,757,102.04	\$ 6,310,412.08
Total Phase 456	\$186,000,000.00	\$176,797,407.98	\$9,202,592.02	\$2,892,179.94	\$ 6,310,412.08
Projected Contingency as of February 1, 2016					\$200,412.00

Comments:

Scheduled Milestones / Deliverables

Status updated February 1, 2016

Milestone	Total Sites	Sites Not Started	Sites in Progress	Sites Complete
ARMER Backbone Construction	335 Sites			
Tower Site Acquisition	335	0	8	
Tower Construction & Site Development Work	335	8	5	
Microwave Connectivity & RF Deployment	335	11	0	326 On the Air

Some Sites are on the air, but on the old towers or temporary towers. They are counted as on the air, but still require construction and/or installation at the new tower sites before they are complete:

- o Finland
- o Duluth South
- o Eden Valley
- o Lake Crystal

Of the 326, 4 are on temporary sites; sites construct and move still in the works.

- SE – all sites completed
- SR – 2 land acquisitions remaining, 1 new site plus leased site replacement for Lake Crystal.
- SW – all sites completed
- CM – 1 land acquisitions remaining, leased site replacement for Eden Valley.
- Metro – all sites completed
- NW – 2 land acquisitions remaining.
- NE – 3 land acquisitions remaining, 5 site under construction.

Completion Targets

ARMER all Phases:

4 original plan sites will be delayed due to delays in land acquisition.

Ongoing ARMER System Work**Motorola System Upgrade**

- 7.15 upgrade scheduled to begin May 2016. Lock down for any system changes prior to the 7.15 upgrade will be around the beginning of April 2016.
- Motorola 2016-2020 Support services contract is completed.
- Working on contracts for billing with local agencies involved in 7.19 equipment replacements under the Motorola contract.
- Notice for 2016 Motorola SUAll local agency billing amounts will be sent out will do actual billing invoices in March.

Site improvements

- Still working on the addition of card key reader to the equipment shelters. Parts are in. Working on installs, 95% of the sites completed.
- We are continuing our review of our leased sites/land. Plans had always been to build towers in these areas, but to get the project moving we leased sites to get on the air. In review of some of the land and lease cost it would make sense to find land in these areas and build towers. Also looking at long term land lease from private parties, would prefer to have towers we own on state, County or City owned land.
- Replace Lake Crystal leased site with 2 new sites. This adds a new site to the area.

Microwave improvements

- At this point we have identified one bad path where an intermediate microwave site is needed. So we are looking to add a microwave site somewhere in the Cromwell area to split the Lawler – Moose Lake link. Working with the County, a site has been identified. Need to work through the acquisition and easements.
- We are also working to get the DC power systems updated at all sites to improve system reliability. Battery system install is nearing completion.
- Still reviewing microwave performance, ongoing.

VHF interop layer

- VPN access for access to MotoBridge network has been worked out. Remote access is now working.
- Working on plans in the metro area to simplify the VHF interop layer as we move from Gold Elites to 7500s.

Old towers that need replacement

- We have a number of towers that are on the air for ARMER that are old towers constructed in the 50's. These towers did not pass structural when we added the new ARMER equipment. But the level of structural deficiency was not a risk that required immediate replacement. So we have held off on replacement of these towers to see where we were in the ARMER budget to build what we had planned. We are still holding off on these until we are a little further along with ARMER. Towers not replaced under the ARMER project will be scheduled for replacement as the ARMER maintenance budget allows, estimate 1 to 2 per year until completed.

ARMER Construction Budget (Remaining Work)

Unencumbered Fund Balance (As of December 1, 2015)					\$6,310,412.00
Site Name <small>(Green - site on air)</small>	County	Description	Land/ Construction	Estimate to Complete	Balance
Duluth South	St Louis	New tower	Spec posted	\$280,000.00	\$6,030,412.00
Cromwell	Carlton	New tower	Spec posted	\$605,000.00	\$5,425,412.00
Finland	Lake	Replace Tower	Envir	\$440,000.00	\$4,985,412.00
NE Lake County	Lake	New tower	DNR/Envir	\$930,000.00	\$4,055,412.00
Lima Mt	Cook	New tower	DNR/Envir	\$880,000.00	\$3,175,412.00
Red Lake	Beltrami	New tower	Indent Land	\$505,000.00	\$2,670,412.00
Eden Valley	Meeker	New tower	Envir/Lease	\$500,000.00	\$2,170,412.00
Lake Crystal	Blue Earth	New tower	Indent Land	\$575,000.00	\$1,595,412.00
Madelia	Watonwan	New tower	DOT/Envir	\$350,000.00	\$1,245,412.00
Molde	St Louis	Replace fire tower	DNR/Envir	\$320,000.00	\$925,412.00
Berner	Clearwater	New tower	Indent Land	\$505,000.00	\$420,412.00
PENDING WORK					
Card Key				\$20,000.00	\$400,412.00
Site clean up, shelter and tower removals				\$200,000.00	\$200,412.00
MSO - Backup equipment				\$0.00	\$200,412.00
Microwave DC power - Upgrades to meet run time required				\$0.00	\$200,412.00
TOWER REPLACEMENTS (This work being held until above projects completed)					
Hawley	Replace tower			\$600,000.00	
Freedhem	Replace tower			\$600,000.00	
Middle River	Replace tower			\$600,000.00	
Theif River Falls	Replace tower			\$600,000.00	
Windom	Replace tower			\$600,000.00	
Virginia	Replace tower			\$600,000.00	
Cass Lake	Replace tower			\$600,000.00	
Viola	Replace tower			\$600,000.00	
Kimball	Replace tower			\$600,000.00	
Hoffman	Replace tower			\$600,000.00	
New London	Replace tower			\$600,000.00	
Woodland	Replace tower			\$600,000.00	
Littlefork	Replace tower			\$600,000.00	
Roosevelt	Replace tower			\$600,000.00	
Hewit: Land Purchase, replace tower.				\$500,000.00	
Scandia: Need to look at land purchase.				\$100,000.00	
Geneva: Need to look at land purchase, new tower ?				\$500,000.00	
Mapleton: Find land and build new tower				\$500,000.00	
Red Wing: Land purchase				\$100,000.00	



Next Generation 9-1-1 GIS Project

**NG9-1-1 Committee
Project Update
February 17, 2016**

**Presenter:
Adam Iten, Project Manager**

- 2016 Goals
 - GIS Data Collection, Assessment, and Preparation
 - GIS Data Workflow and Repository
 - MN NG9-1-1 GIS Data Standards
 - Communication Plan

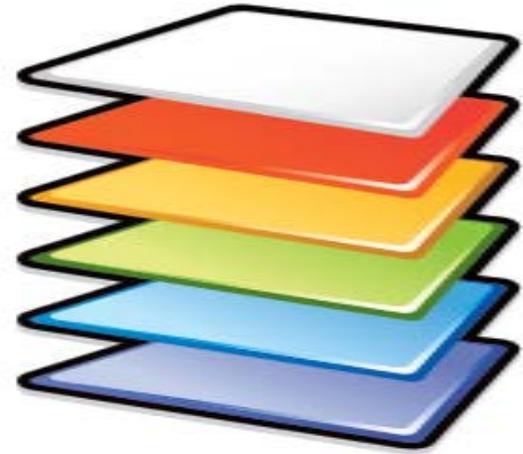
GIS Data Collection, Assessment, and Preparation

- Required GIS Data

- Street centerlines with address ranges
- Address points
- Public Safety Answering Point (PSAP) boundaries
- Emergency Service boundaries
 - Fire
 - Law Enforcement
 - Emergency Medical Service
- Data maintenance boundaries

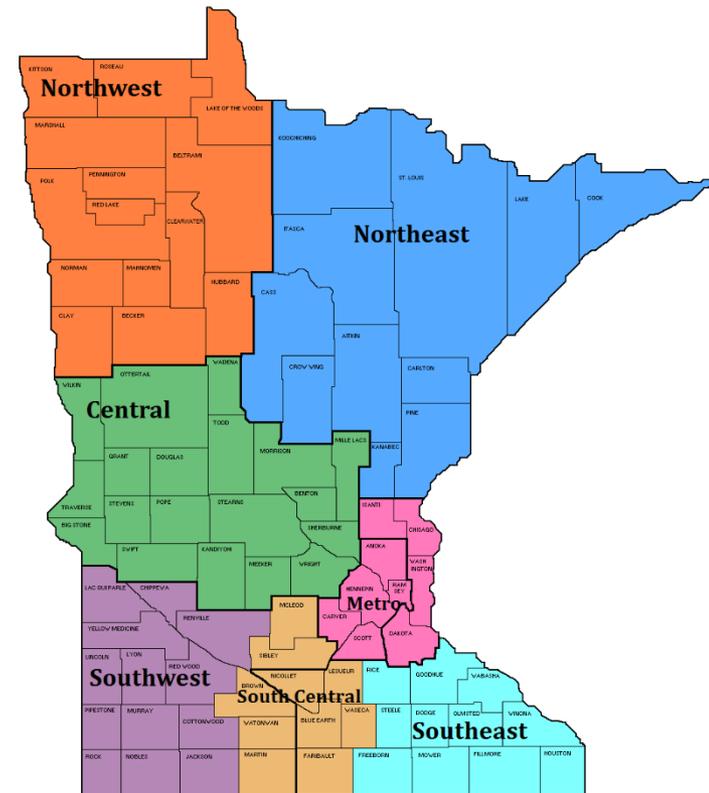
- Required 9-1-1 Data

- Master Street Address Guide (MSAG)
- Automatic Location Information (ALI)
- English Language Translation (ELT)



GIS Data Collection, Assessment, and Preparation

- Data Readiness Profiles
 - Currently working on NE Region
 - Complete Metro and NE – Q2 CY16
 - Complete all regions – Q4 CY16
- MSAG/GIS Synchronization Project
 - Metro – ongoing with MESB
 - NE – begin Q2 CY16
 - Remaining regions – begin Q3 CY16



GIS Data Workflow and Repository

- NG9-1-1 GIS Data Workflow Scope and Requirements
 - Data uploads and portal – Q2 CY16
 - Normalization – Q2 CY16
 - Validation – Q2 CY16
 - Aggregation – begin Q3 CY16
 - Provision ECRF/LVF – begin Q3/Q4 CY16
- Add PSAPs/counties to NG9-1-1 GIS repository
 - Metro region
 - Centerlines – Q1 CY16
 - Remaining GIS data – begin Q3 CY16
 - NE region – begin Q2 CY16
 - Remaining regions – TBD



MN NG9-1-1 GIS Standards



- Developing GIS data requirements for NG9-1-1 in Minnesota
- Aligning with NENA standards and validate against similar standards
 - Other states (IA, KS, ND, TN, TX) and MRCC
- Standards Workgroup working on Version 1.0
- Stakeholder review of v1.0 – **starting late February 2016**
 - Metropolitan Emergency Services Board (MESB)
 - GIS Subcommittee and stakeholders
 - NG9-1-1 Committee and PSAP stakeholders

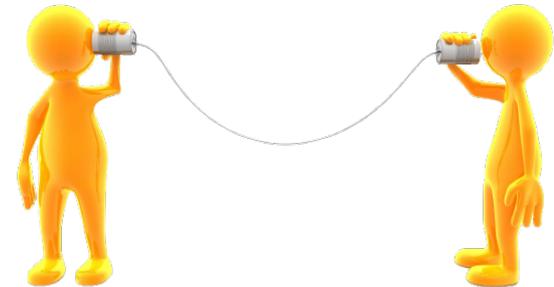


MN NG9-1-1 GIS Standards



- Stakeholder approval of v1.0 – **Q3 CY16**
 - Metropolitan Emergency Services Board (MESB)
 - GIS Subcommittee
 - NG9-1-1 Committee
 - Statewide Emergency Communications Board (SECB)
 - Statewide Geospatial Advisory Council (SGAC)
 - MN Information Technology Agency (MNIT)

- ECN website
 - Project newsletter - **Issue #2 to be distributed soon!**
- Monthly
 - GIS Subcommittee meeting
 - **Next meeting: Thursday, March 10 at 2pm**
 - NG9-1-1 Committee meeting
 - SECB meeting
- Quarterly
 - Regional PSAP/GIS meetings
 - Statewide Geospatial Advisory Council



Thank You!



Adam Iten, Project Manager

Adam.Iten@state.mn.us

651-201-7559



Minnesota NG9-1-1 GIS News

February, 2016

Issue #2

In This Issue:

- 2015 In Review
- 2016 Goals
- FirstNet Support - Update
- NG9-1-1 GIS Standards - update
- MSAG/GIS Data Synchronization
- Upcoming Events
- Neighboring States

Useful Links:

DPS/ECN

Minnesota Department of Public Safety – Emergency Communications Networks

MnGeo

Minnesota Geospatial Information Office

SECB

State Emergency Communications Board

NENA

National Emergency Number Association

FirstNet

First Responder Network Authority

Contact Us:

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or 651-201-7559

2015 In Review

With the transition to a new year underway, it is fitting that we take a moment and look back at work accomplished in 2015 and examine what lies ahead for 2016.

Although work to advance Minnesota’s NG9-1-1 program has been underway for several years, 2015 saw significant strides forward beginning with the establishment of a formal partnership between the Minnesota Department of Public Safety, Emergency Communication Networks division (DPS-ECN) and Minnesota’s Information Technology Agency (MNIT), Minnesota Geospatial Information Office (MnGeo). Over the next three years MnGeo will provide GIS support – oversight, coordination and technical, for the program. Additional accomplishments in calendar year 2015 included:

Q1 CY15

- Hiring Adam Iten as MN.IT’s NG9-1-1 Project Manager
- Completing a project Scope of Work

Q2 CY15

- Holding eight regional project kickoff meetings across the state
- Completing a [Request for Information \(RFI\)](#) from 104 public safety answering points (PSAPs) in the state’s 87 counties, covering 86,939 square miles. The RFI sought to assess the GIS capabilities, software and data currently being used - or needed but not currently available - to support daily E9-1-1 workflows. The RFI also attempted to identify each PSAP’s GIS data issues and data sharing considerations.
- Forming a [NG9-1-1 GIS Subcommittee](#)
- Defining roles and responsibilities between DPS-ECN, MnGeo and the [Metropolitan Emergency Services Board \(MESB\)](#) to effectively support the nine-county Twin Cities metropolitan area in the application of NG9-1-1 GIS datasets/technology.

Q3 CY15

- Completing a [RFI Summary Report](#)
- MnGeo’s hiring of two GIS Analysts for the project
- Forming a GIS Standards Workgroup
- Completing the initial, statewide NG9-1-1 GIS data collection and assessment
- Delivering geospatial statewide emergency service boundaries for the FirstNet project

Q4 CY15

- Producing [Issue #1 of the NG9-1-1 Project Newsletter](#)
- Purchasing “development” and “repository servers” to host geospatial data created by counties and PSAPS

2016 Goals

The next 12 months will be both challenging and exciting for the NG9-1-1 program. We have a very ambitious set of goals we would like to meet that involve the participation of many of the state’s PSAPs, the MESB, and county GIS staff; particularly in the Twin Cities metropolitan area and northeastern Minnesota – our pilot areas. Our goals for calendar year 2016 include:

Q1 CY16

- An expanded data collection, assessment, and preparation effort. This includes collecting and evaluating updated street centerlines, address points and PSAP boundaries as well as Master Street Address Guide (MSAG), Automatic Location Information (ALI) and English Language Translation (ELT) tabular data.

Q2 CY16 – Q4 CY16

- Completing data readiness profiles for our pilot areas by Q2 CY16, and for the balance of the state by Q4 CY16. In addition to the information we collected through the RFI’s, the data readiness profiles will provide us with detailed information such as: How many MSAG entries existed in a county as of Q4 2015? How many MSAGs use Postal Standard Suffix Abbreviations? What is the number of unique MSAG street names that exist in the county? Who are the addressing authorities in the county?
- Continue to support the MSAG/GIS synchronization project being coordinated by the MESB in the Twin Cities metro area. This will involve a great deal of collaboration with MESB and the metro counties. We will begin synchronization work in northeastern Minnesota in Q2 CY16. For the remaining regions in the state we will begin this work in Q3 CY16. See the article [below](#) for details.
- Continue work to define NG9-1-1 GIS data workflow scope and requirements. This includes:
 - Testing data uploads and MnGeo NG9-1-1 data portal – Q2 CY16
 - Defining and testing data normalization routines – Q2 CY16
 - Defining and testing data validation processes – Q2 CY16
 - Defining and testing data aggregation processes – begin Q3 CY16
 - Test the provisioning of the Emergency Call Routing Function (ECRF)/Location Validation Function (LVF) – begin Q3/Q4 CY16
- Adding PSAPs/counties to NG9-1-1 GIS repository:
 - For the Metro region add road centerlines – Q1 CY16 with remaining GIS data beginning Q3 CY16
 - For the northeast region – begin in Q2 CY16
- Continue to develop Minnesota’s NG9-1-1 GIS standards. This effort includes:
 - Developing GIS data requirements for NG9-1-1 in Minnesota
 - Aligning with [National Emergency Number Association \(NENA\)](#) standards and validate against similar standards including those in other states (IA, KS, ND, TN, TX) and the MRCC
 - Soliciting stakeholder review of v1.0 – starting Q1 CY16. Standards will be vetted by the MESB, GIS Subcommittee and other stakeholders including the NG9-1-1 Committee and PSAP stakeholders.
 - Soliciting stakeholder approval of v1.0 – Q3 CY16. Final approval by MESB, GIS Subcommittee, NG9-1-1 Committee, Statewide Emergency Communications Board (SECB) and MN.IT’s [Minnesota Statewide Geospatial Advisory Council](#).

See the article [below](#) for a status report on the Standards Committee.

We look forward to working with the NG9-1-1 community in this busy year ahead. Thank you!

Jackie Mines, Director DPS-ECN

FirstNet Support - Update

FirstNet's (First Responder Network Authority) responsibility is to build, operate and maintain the first high-speed, nationwide wireless broadband network dedicated solely to public safety. It will provide a single, interoperable platform for emergency and daily public safety communications.

DPS-ECN and MnGeo recently delivered important geospatial data layers to Minnesota's FirstNet contractor. Uploaded from local government (county, city and tribal) sources, these data were carefully reviewed before being merged to create a single statewide GIS dataset. Data layers included PSAP and emergency services boundaries for law, fire, and emergency medical service areas in Minnesota. First Responder and Rescue service area boundaries were also reviewed - if they existed. Only one county and tribal government did not provide the state with data.

FirstNet's contractor will link attribute information to the spatial data to document areas in the state that are the highest priority for first responders - typically highly populated areas, and areas where broadband coverage is not available today from commercial providers. This work will help guide FirstNet and state officials when building out the communications infrastructure needed to support first responders.

Although intended for the FirstNet program, the GIS data collected by DPS-ECN and MnGeo will prove useful for NG9-1-1. This was the first time that local Emergency Service Zone (ESZ) data was processed and combined into a statewide coverage. It is clear from this effort that this foundational data will require additional work before it can be incorporated in the NG9-1-1 effort. For example, ESZ boundary inconsistencies, i.e. buildings being "cut in half" (Figure 1) or gaps (yellow area) in service areas (Figure 2) must be resolved. This will require a great deal of cooperation and coordination between state, regional, county, PSAP and local officials.



Figure 1: Buildings Split by ESZ

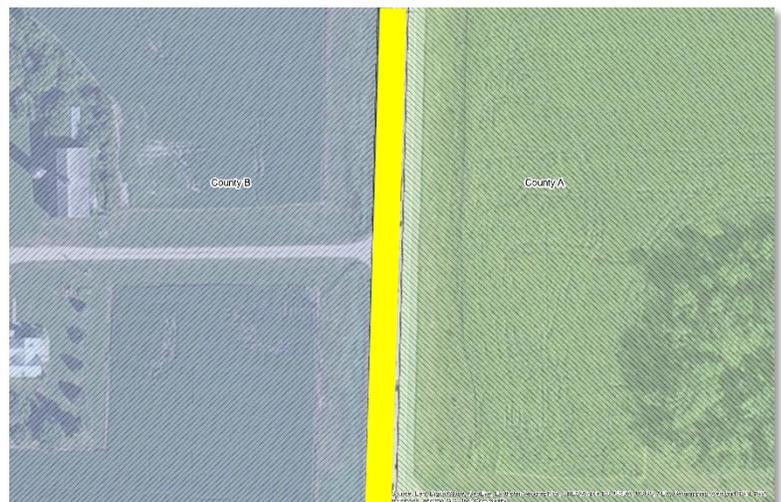


Figure 2: ESZ Gap Between Counties

NG9-1-1 GIS Standards - Update

The Minnesota NG9-1-1 GIS Standards Workgroup has been working industriously over the past month to develop and recommend geospatial standards needed to integrate locally collected and maintained GIS data into statewide layers deemed critical for the ECRF and LVF of NG9-1-1. These layers include road centerlines, site/structure address points, PSAP boundaries, emergency service boundaries (law, fire, emergency medical service, first response, and rescue) and NG9-1-1 GIS data maintenance authority boundaries. Before local GIS data can take on these critical roles in Minnesota's NG9-1-1 system, certain criteria must first be considered. For example: What existing GIS data

can be used? Does existing GIS data meet minimum accuracy requirements for NG9-1-1? What standard schema should be followed?

Supported by DPS-ECN and MnGeo staff, the GIS Standards Workgroup has been assessing several well established but evolving set of standards, beginning with those prepared by the NENA. They have also reviewed standards proposed by the [Federal Geographic Data Committee \(FGDC\)](#), several other states including Iowa, Kansas, Texas, Tennessee and North Dakota, and those standards of the [Metropolitan Regional Centerline Collaborative \(MRCC\)](#) - a joint effort by nine counties in the Twin Cities metropolitan area to create a seamless, regional street centerline GIS dataset that will support NG9-1-1. Each set of standards are evaluated and a determination is made as to which can be used “as-is” and which may require modification to meet Minnesota’s needs. Attribute fields are also compared across all sources and their commonalities noted (Figure 3).

Figure 3: NG9-1-1 Field Comparisons

MINNESOTA			NENA Road Centerlines Data Model			MRCC Local Centerline Model			IOWA		
Descriptive Name	Field Name	Type	NENA Descriptive Name	Field Name	Type	Field	M/C/O	Type	Field	M/C/O	Type
Source of Data	SOURCE	A	Source of Data	Source	A	SOURCE	M	A	SOURCE	M	A
Date Updated	EDITED_DT	D	Date Updated	Updated	D	EDITED_DT	M	D	UPDATED	M	D
Effective Date	ACT_DATE	D	Effective Date	Effective	D	ACT_DATE	M	D	EFF_DATE	M	D
Expiration Date	RET_DATE	D	Expiration Date	Expire	D	RET_DATE	M	D	EXP_DATE	O	D
RCL_Unique_ID	UNIQUE_ID	A	Road Centerline NGUID	RCL_NGUID	A	UNIQUE_ID	M	A	RCL_LUID	M	A
Country Left	COUNTRY_L	A	Country Left	Country_L	A	n/a			COUNTRY	M	A
Country Right	COUNTRY_R	A	Country Right	Country_R	A	n/a			n/a		
State Left	STATE_L	A	State Left	State_L	A	STATE_L	M	A	STATE_L	M	A
State Right	STATE_R	A	State Right	State_R	A	STATE_R	M	A	STATE_R	M	A
County Left	COUNTY_L	A	County Left	County_L	A	COUNTY_L	M	A	COUNTY_L	M	A
County Right	COUNTY_R	A	County Right	County_R	A	COUNTY_R	M	A	COUNTY_R	M	A
ADDCODE Left	ADDCODE_L	A	Additional Code Left	AddCode_L	A	n/a			n/a		
ADDCODE Right	ADDCODE_R	A	Additional Code Right	AddCode_R	A	n/a			n/a		
Municipality Left	CITY_L	A	Incorporated Municipality Left	IncMuni_L	A	CITY_L	M	A	INC_MUNI_L	M	A
Municipality Right	CITY_R	A	Incorporated Municipality Right	IncMuni_R	A	CITY_R	M	A	INC_MUNI_R	M	A
Unincorporated Community Left		A	Unincorporated Community Left	UnincCom_L	A	n/a			UN_COMM_L	C	A
Unincorporated Community Right		A	Unincorporated Community Right	UnincCom_R	A	n/a			UN_COMM_R	C	A
Neighborhood Community Left		A	Neighborhood Community Left	NbrhdCom_L	A	n/a			NGHBD_L	O	A
Neighborhood Community Right		A	Neighborhood Community Right	NbrhdCom_R	A	n/a			NGHBD_R	O	A
Left Address Number Prefix		A	Left Address Number Prefix	AdNumPre_L	A	n/a			ADD_PFX_L	C	A
Right Address Number Prefix		A	Right Address Number Prefix	AdNumPre_R	A	n/a			ADD_PFX_R	C	A
Left FROM Address	ADR_FR_L	N	Left FROM Address	FromAddr_L	N	ADR_FR_L	M	N	L_FROM_ADD	M	N
Left TO Address	ADR_TO_L	N	Left TO Address	ToAddr_L	N	ADR_TO_L	M	N	L_TO_ADD	M	N
Right FROM Address	ADR_FR_R	N	Right FROM Address	FromAddr_R	N	ADR_FR_R	M	N	R_FROM_ADD	M	N
Right TO Address	ADR_TO_R	N	Right TO Address	ToAddr_R	N	ADR_TO_R	M	N	R_TO_ADD	M	N
Parity Left	PARITY_L	A	Parity Left	Parity_L	A	PARITY_L	M	A	PARITY_L	M	A
Parity Right	PARITY_R	A	Parity Right	Parity_R	A	PARITY_R	M	A	PARITY_R	M	A

By early March, it is anticipated that the workgroup’s *draft* recommendations will be complete and ready to be vetted by the [Metropolitan Emergency Services Board \(MESB\)](#), NG9-1-1 GIS Subcommittee, NG9-1-1 Committee and SECB. Formal approval by the [Minnesota Statewide Geospatial Advisory Council](#) may not occur until mid-2016.

MSAG/GIS Data Synchronization

Having completed the delivery of GIS data to the Minnesota’s FirstNet contractor ([see above](#)), DPS-ECN and MnGeo staff are now focused on supporting the MESB, Twin Cities area PSAPs, and local GIS agencies in their efforts to synchronize addresses, street names and associated Emergency Service Numbers (ESN) between their GIS data (streets, address points, and polygons) and their 9-1-1 MSAG and ALI databases. This is one of many processes that must be completed before the geospatial data can be used for call routing. MESB is assisting DPS-ECN and MnGeo staff by sharing the processes and procedures they are using to achieve successful synchronization. In turn, DPS-ECN and MnGeo are documenting these processes and workflows with the intention of using them throughout the state. In collaboration with MESB, MnGeo staff are also assisting Washington County with its synchronization process, starting first with the street name validation.

DPS-ECN and MnGeo staff have also begun working with several counties and PSAPs in the northeastern part of the state. Lake, Cook and St. Louis counties have delivered to MnGeo updated road centerlines, address points and associated data which the MnGeo staff are currently assessing.

Upcoming Events

Notable upcoming DPS-ECN NG9-1-1 events:

- ❖ February 17, 2016: NG9-1-1 Committee Meeting
- ❖ February 25, 2016: SECB Meeting
- ❖ March 2, 2016 : Statewide Geospatial Advisory Council
- ❖ March 10, 2016: NG9-1-1 GIS Subcommittee Meeting
- ❖ March 16, 2016: NG9-1-1 Committee Meeting
- ❖ March 21-24, 2016: Minnesota Sheriff's Association/APCO/NENA Conference
- ❖ March 24, 2016: SECB Meeting
- ❖ April 25-26, 2016: Public Safety Interoperability Conference (DPS-ECN's Adam Iten will be presenting)

Neighboring States

For more information about NG9-1-1 efforts in the states surrounding Minnesota, visit:

[Iowa Enhanced 9-1-1](#)

[North Dakota ND911](#)

[South Dakota 9-1-1](#)

If you have a news item pertaining to NG9-1-1 that you would like to share in future publications of this newsletter, please contact:

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Or 651-201-7559