# STATEWIDE EMERGENCY COMMUNICATIONS BOARD
# NG911 Committee

Wednesday, January 27, 2016 1:00 p.m.
HSEM State EOC, 445 Minnesota Street
Suite223, St. Paul

Conference Call*
Dial-in: 1-888-742-5095
Code: 4898249110#

Chair: Darlene Pankonie
Video Conference Available –email Chair Pankonie

## AGENDA

**Call to Order**
**Approval of Agenda**
**Approval of Previous Meeting's Minutes**

**Action Items**

**ECN Reports**

- NG911 GIS Project Report (Adam Iten)
- NG911 Network/Features (Dana Wahlberg)
- StatusBoard (Cathy Anderson)

**New Business**

- Federal Engineering Presentation
- NG911 Power Point Templates
- 2015 Attendance

**Old Business**

**Regional Reports**

- Northwest (Shafer/Wernberg)
- Northeast (Olson/Erickson)
- Central (Diehl/McPherson)
- South Central (Wallace/Reimers)
- Southeast (Betcher/Evers)
- Southwest (Westfield/Ebert)
- Metro (McPherson/Bowler)

**Standing Committee Reports**

- NG911 Best Practices Subcommittee (Tina McPherson)
- GIS Subcommittee (Iten)

**Adjourn**

# STATEWIDE EMERGENCY COMMUNICATIONS BOARD
# NG911 COMMITTEE

**November 18, 2015**

# MEETING MINUTES

**Attendance**
**Member/Alternate**
Darlene Pankonie, Chair/ Capt. Kathy Hughes, MN SHERIFFS ASSN
Nancy Shafer/ Beryl Wernberg, NORTHWEST MINNESOTA
Steve Olson/ Patrice Erickson, NORTHEAST MINNESOTA
Judy Diehl/ Tina McPherson, Vice Chair, CENTRAL MINNESOTA
Wayne Betcher/ Faith Evers, SOUTHEAST MINNESOTA
Pat Wallace/Peggy Reimers, SOUTH CENTRAL MINNESOTA
Bonnie Westfield/Terri Ebert, SOUTHWEST MINNESTOA
Clif Giese/Mary Borst, MAA
Ross Tiegs/Vacant, MN CHIEFS OF POLICE
Nicholas Carlson/ Tim Boyer, STATE PATROL
Matt Goodman/vacant, GIS
Dana Wahlberg/Adam Iten, ECN
Deb Harmon/ Vacant, TRIBAL PSAP
Christine McPherson /Diane Lind, METRO MINNESOTA
Vacant/Vacant, MN FIRE CHIEFS

*Members attending are marked with yellow highlight.

**Guests reporting:**
Cathy Anderson, ECN
Carol-Linnea Salmon, ECN
Jacky Mines, ECN
Pete Eggimann, MESB
Mary Terwey, Stearns County
Joe Zunker, Douglas County
John Hoshal, MnGeo
Carrie Oster, Motorola
Mary Philippi, Red River Regional Dispatch
Judy Siggerud, Ottertail County



## CALL TO ORDER

Chair Pankonie calls the meeting to order at 1:07 p.m.

## APPROVAL OF AGENDA

**Tina McPherson moves to approve the agenda.**
**Kathy Hughes seconds.**
**Motion carries.**

## APPROVAL OF PREVIOUS MEETING'S MINUTES

**Kathy Hughes moves to approve the September minutes.**

**Faith Evers seconds.**

**Beryl Wernberg moves to approve the October meeting minutes.**
**Peggy Reimers seconds.**

**Motion carries to approve September and October meeting minutes.**

## ECN Reports

Dana Wahlberg reports that the RFP has not yet been awarded. The workgroup is still responding to requests from Administration. She will keep the committee updated. Respondents did not submit comparable pricing documents, which is making it difficult to identify true solution costs one for one. Best and final pricing will be requested of all respondents.

She reports on 911 transfers across the state boundaries. There have been some potential regulatory concerns expressed by CTL regarding enabling the call transfer feature across state borders. It looks like 911 will get exemption from paying costs associated with the regulations that normally apply to long distance calls across borders. Wahlberg brought this to the FCC task force she is a member of and they are very supportive of waiving any interstate fees in the spirit of the next generation 911 mission

Wireless Emergency Routing Management (WERM)
Wahlberg has gone through the Regional POC contact list and sent it out to everyone who is listed as a regional contact... The Northwest and Southwest are still looking for a secondary regional contact. WERM deployment is on track. MNIT and Intrado are making good progress on that. Each PSAP will have a POC as well. The point of contact is the person in the individual PSAP who is going to do the provisioning.

Federal Engineering
Jackie Mines reports that a few years ago Federal Engineering was hired by ECN at the request of the SECB to do a cost analysis about how much ARMER cost each of the counties. This was important because we were interested in what the cost would be to upgrade in the future. What we are noticing now with the NextGen equipment is that everything needs to be upgraded at a faster level. That puts a burden on PSAPs. We don't have a good sense of how often that needs to occur or what the lifecycle of 911 equipment is. We will be contracting with Federal Engineering to help find out this information so that we can be prepared to make requests at the Legislature on behalf of PSAPs. We want to look at the distribution model for the 911 fees. Are there things we should be paying for that we are not and are we paying for things we should not. It will be good for us to get a comprehensive view of PSAPs costs and what is provided by local government. That is the goal of this project with Federal Engineering. It will require another survey. Mines says she realizes that there have already been many surveys this year for GIS and FirstNet data. She asks if committee members will help support this initiative out in the field and to see it as a way to get more help for PSAPs. She thinks we will need this data if we want to go to the legislature to raise the rate again. We know the equipment needs to be refreshed more quickly. This is not about consolidating PSAPs it's about how can we properly fund you going forward. Joel McCamley, who did a NextGen presentation in St. Cloud, will be the lead technical person on this project. She feels very confident in Joel McCamley and thinks that he will be a good asset for this project.

Mines asks for feedback and concerns. Chair Pankonie says she thinks it's great that we are doing it because it was missing in 2014. Will the questions be run by the committee first? That would be her request—to see that we are asking the right questions. She suggesting adding questions about training.

When will the survey go out? Mines is asking to wait until after the first of the year. Mines says she would like the NextGen Committee to weigh in on the questions.

Pete Eggimann asks if they are going to look at the stability of the surcharge. Mines responds that they will not in this study. We are not seeing instability in the surcharge right now.

Mines says we will look at other states. She would like to explore the work that Alabama has done because they have done some innovative things on their 911 fees.

Wahlberg reports that unfortunately, Jason Jackson, the 911 Program Coordinator in Alabama who worked on this, is no longer there. The state is exploring collecting on bandwidth. He thinks that's where we should be going as a nation. As she learns more she will share it.

Mines says it's an innovative approach. It would likely to get a lot of pushback in MN. We have a very active MTA. It would be good to have some other state show success.

Eggimann says we would have to sell it on the basis that there is inequity in the current way we collect fees and that's how the MTA would support it.

Mines asks committee members if they would like to have a presentation by Federal Engineering. The committee responds that it would. Mines will schedule that for the next meeting.

## NG911 GIS PROJECT REPORT (ADAM ITEN)

Adam Iten reports that everyone should have received the first issue of the NG911/GIS newsletter distributed last week. Thanks to those who sent feedback on that. He will include information about your county when we have it. In upcoming issue we will have information about the Statewide Emergency Communications Board (SECB) because the GIS community doesn't know much about that. If you have any ideas for articles please let Iten know. Some of you may be asked to write articles as well.

The MnGEO project office will be helping with data collection and assessment and running reports. We have been collecting boundary data from PSAPs and Emergency Service boundaries specifically for the FirstNet project and we should be wrapping that up in a few weeks. We have received boundary data from all but a handful of counties and we know why those haven't submitted yet. He thanks everyone for their participation.

A data team which consists of three people will shift and focus on the Metro and the Northeast as those are the focus regions. We want to make sure the data is as useful as possible. We will probably start with one or two counties in the NE. In the Metro, the MESB is doing a wonderful job synchronizing data and we will help out the MESB in Washington County where they are working on scrubbing some data.

Iten says the time is coming that we are going to need to start scrubbing the MSIG data with the GIS data. We will start with the street names. There will be a lot of changes that will need to happen. Another thing for PSAP managers to consider will be providing MSIG change access to your GIS person. As we work through these changes it will be more efficient if the GIS person can make the changes as they find them. We will work on efficient workflow systems.

Internally at MnGEO we are working at architecting the data so we have a consistent process and that has been taking a lot of planning and time.

The GIS Standards workgroup meets each Wednesday. It is made up of about 12 people with one from each region.

The GIS Subcommittee meets the second Thursday each month. That is made up of around 50 from around the state. The next meeting will be on Thursday, December 10th at 2 p.m.

## STATUSBOARD REPORT (CATHY ANDERSON)

Cathy Anderson introduces the Statusboard Report, as submitted in the meeting materials. She reports that Quickstart does not automatically reset at midnight. If anyone has concerns, report them and get screen shots. There were some anomalies from dispatch centers where their profile becomes corrupt and I.T. went in to fix it.

In the first quarter of 2016, MNIT is planning to do an update for Statusboard. They intend to fix some performance things. They will potentially address several high priority business issues. Sometime in December, Anderson will set up a regional statusboard administrator call to start a list of issues. Statusboard seems to be fairly stable right now.

## NG911 NETWORK/FEATURES (DANA WAHLBERG)

Wahlberg has some good information from APCO on 911 apps. Each month she will try to feature one app that has been brought to her attention and what the industry is suggesting that we should be aware of. She will send the first piece with the minutes for next month's meeting. Going forward if anyone wants to contribute, she would welcome that but otherwise she will try to find one app a month to do a feature on.

Yesterday we had some questions with the U-connect. Angelina took a call from a Dodge Ram it was a child who pushed the button on the rearview mirror. You can subscribe to U-connect but it is really separate from the 911-assist button. The 911-assist button works whether or not you have U-connect. It works through Sprint. When it generates a call, the call-taker will get a recorded message that says emergency call from type of vehicle which is located at and it gives the coordinates. It will say "press one" for the coordinates again, "press two" to speak with the people in the vehicle. It comes with a ten digit number that is associated with the vehicle but it does not call back the people in the car. It is not a Telematics device, it does not automatically call 911 if the vehicle crashes.

Chair Pankonie says it is a Telematics device. Discussion about this. Wahlberg says IES may not have the class of service correct with the phone record. Pankonie sent something out before on this. She will send it again.

Pankonie says the wireless providers have had the voice-over wireless (voice over mobile – vmbl) for a long time. She reached out to Kim Leigh at Intrado. She has not reached out to IES to ask if they are going to introduce this into their database. The state of Arizona has added this class of service. Pankonie will get more information about this and will send it out to the regions to see if we want to have this added in Minnesota.

Eggimann says he asked Kim Leigh if ATT was going to ask for a new pool of pANIs to support this new class of service.
Discussion about whether ATT can deliver that class of service without asking for a new pool of pANIs.

Wahlberg has a phone message into ATT to get more information about this. What she has learned up until now is that if you have an ATT phone that has the ability to work over a voice over Wi-Fi network you can enable that on that phone. When you have that enabled and you place a 911 call, it will always look for a wireless network first and if one is not accessible it will look for a Wi-Fi hotspot rather than using the wireless network it will use ATT's voice over Wi-Fi network and will appear as a voice over Wi-Fi call. Somehow the network can look at the Wi-Fi hot spot that sent that signal and can transfer it to a lat and long from the location of the Wi-Fi hotspot. So it makes sense that there would have to be a VoIP pANI associated with that but it would also revert to your home address.

Wahlberg says what if it happens if we were in this building and the call is from her phone which is registered in Duluth. Eggimann says his understanding is that would give an x and y

Wahlberg thinks it is taking the IP address off of the Wi-Fi and knows the IP address close to where that device is sitting.

Wahlberg asked Mike Beagles, our MCP liaison, who said it is the same technology they use to try to identify hackers.

The SIP Enablement Guidelines

Chair Pankonie says they met to discuss SIP Enablement Guidelines. It's not ready for review yet. Wahlberg says what we started out with was a draft of what we want to use as a minimum functional elements and some diagrams of options for security on today's environment. When we start looking at bringing in texts we have to be concerned about security around the flow of data. We met with the group and asked some really good questions. Now MCP is going to make some modifications to the initial requirements and make some changes. We want to have a minimum requirements document that will be suitable for those PSAPs who don't have IT support and for those who do have IT people who are very concerned about virus, etc. We first proposed having the CPE vendors monitor this and they weren't interested. We talked to Intrado and they said we protect your ESInet but once it comes to your PSAP and goes out we don't want to monitor it. Mission Critical Partners is suggesting that we use a third party vendor to manage it. They are going to do some research to see what has been done in other states. Pankonie suggested maybe MNIT would do it for us for a fee. MCP has made a commitment to have something to present at next month's meeting.

The consensus is that the firewalls that are being provided in that solution today are acceptable going forward so for right now you are good to go.

Pankonie says could that get worked into the RFP that we ask that vendor to provide. Wahlberg says it could be negotiated.

Pankonie says we do know coming out of that meeting is that firewalls will be required and that was not part of our solution before.

Pankonie correlates it to the ARMER system. MnDot manages the security on the firewalls on our radios. There is the precedent. It should be considered part of the puzzle.

Pankonie says you can still do SIP enablement but she recommends that you tell Wahlberg. Wahlberg says there is a 911 plan change letter that needs to be done with that.

Mary Borst asks if the network provider says there is already a firewall in place is there still concern on the CPE side. Yes, that is the case. Pankonie says you would typically need two and the service provider can provide but who will manage it. The service provider doesn't want to manage it. It is a point of failure.

What you have coming into your internal network will determine if you need another one there. If you have no firewall now, you could potentially need two or three. Get a diagram from your provider

Jon Eckel was also there yesterday. He knows a lot about network and security and provided a lot of good input.

## OLD BUSINESS

None.

## NEW BUSINESS

Chair Pankonie points out the LTE network pilot is happening next week on Tuesday. If you need information, get ahold of any one of us. This is the second one. The first one they did a presentation on at the last SECB meeting and it was very interesting. She learned a lot. It was interesting to hear what the wireless providers learned and what the energy company learned about what public safety does and how we can work together.

Anderson adds that there will be four stations and people will rotate through. It will be set up like a game of clue. The information is on Central Minnesota's website.

## STANDING COMMITTEE REPORTS

## REGIONAL REPORTS

**Northwest (Shafer/Wernberg)**
Wernberg reports that they did not meet in November. They are working on updating grant procedures and she is still looking for a backup point of contact for the WERM project. They have been doing a lot of training.

**Northeast (Olson/White)**
No report.

**Central (Diehl/ McPherson)**
Judy Diehl says the region had its last meeting on November 12 with good turnout. They will meet in December and Dana Wahlberg and Adam Iten will attend. They have a good group with lots of questions.

**South Central (Wallace/Reimers)**
Peggy Reimers says the regional workgroup met at the beginning of the month. They piggyback that with the ARMER group. The region is going to start meeting quarterly unless there is something that needs to be pushed through because the ARMER meetings are going to a quarterly meeting schedule.

**Southeast (Betcher/Evers)**
Faith Evers says they met last week. Nothing new to report.

**Southwest (Westfield/Ebert)**
No report.

**Metro (McPherson/Lind)**
Chair Pankonie reports that the MESB is meeting tomorrow. Everything technology-wise has changed in the metro. We are having a special meeting and discussion on that to brainstorm.

Pete Eggimann says he hopes what have is a conversation about what the MESB could do for you that we aren't doing today and identifying issues that you see coming down the road that you have concerns about.

## NG911 BEST PRACTICES SUBCOMMITTEE (TINA MCPHERSON)

Tina McPherson reports that the subcommittee did not meet but hope to in the first part of December.

**Meeting adjourns at 2:50 p.m.**

# Next Generation 9-1-1 GIS Project

**SECB Project Update**
**Arden Hills, MN**
**January 28, 2016**

**Presenter:**
**Adam Iten, Project Manager**

# NG9-1-1 GIS Project Update

- 2015 Accomplishments
- 2016 Goals
  - GIS Data Collection, Assessment, and Preparation
  - GIS Data Workflow and Repository
  - MN NG9-1-1 GIS Standards
  - Communication Plan

# 2015 Accomplishments

- Hired Project Manager – Q1 2015
- Scope of Work – Q1 2015
- Regional project kickoff meetings – Q2 2015
- Request for Information – Q2 2015
- Formed NG9-1-1 GIS Subcommittee – Q2 2015
- RFI Summary Report – Q3 2015
- Hired two GIS Analysts for project – Q3 2015
- Formed GIS Standards Workgroup – Q3 2015
- Initial NG9-1-1 GIS data collection and assessment – Q3 2015
- Delivered compiled statewide emergency service boundaries for FirstNet project – Q3 2015
- Issue #1 of Project Newsletter – Q4 2015
- Purchased development and repository servers – Q4 2015

# 2016 Goals

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

# GIS Data Collection, Assessment, and Preparation

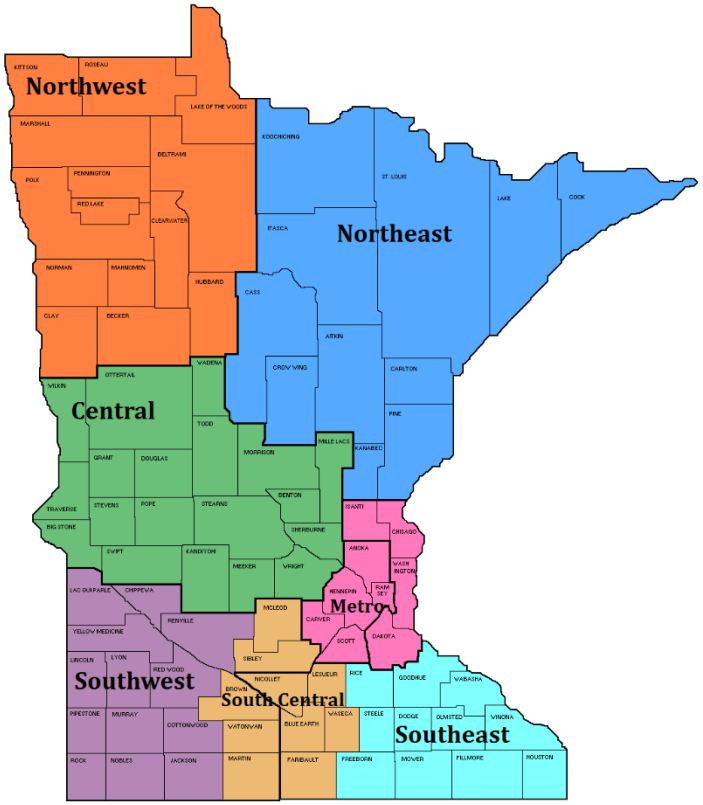
- Required GIS Data
  - Street centerlines with address ranges
  - Address points
  - Public Safety Answering Point (PSAP) boundaries
  - Emergency Service boundaries
    - Fire
    - Law Enforcement
    - Emergency Medical Service
  - Data maintenance boundaries

- 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
  - Complete Metro and NE – Q2 2016
  - Complete all regions – Q4 2016

- MSAG/GIS Synchronization Project
  - Metro – ongoing with MESB
  - NE – begin Q2 2016
  - Remaining regions – begin Q3 2016



# GIS Data Workflow and Repository

- NG9-1-1 GIS Data Workflow Scope and Requirements
  - Data uploads and portal – Q2 2016
  - Normalization – Q2 2016
  - Validation – Q2 2016
  - Aggregation – begin Q3 2016
  - Provision ECRF/LVF – begin Q3/Q4 2016
- Add PSAPs/counties to NG9-1-1 GIS repository
  - Metro region
    - Centerlines – Q1 2016
    - Remaining GIS data – begin Q3 2016
  - NE region – begin Q2 2016
  - 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 Q1 2016
  - Metropolitan Emergency Services Board (MESB)
  - GIS Subcommittee and stakeholders
  - NG9-1-1 Committee and PSAP stakeholders

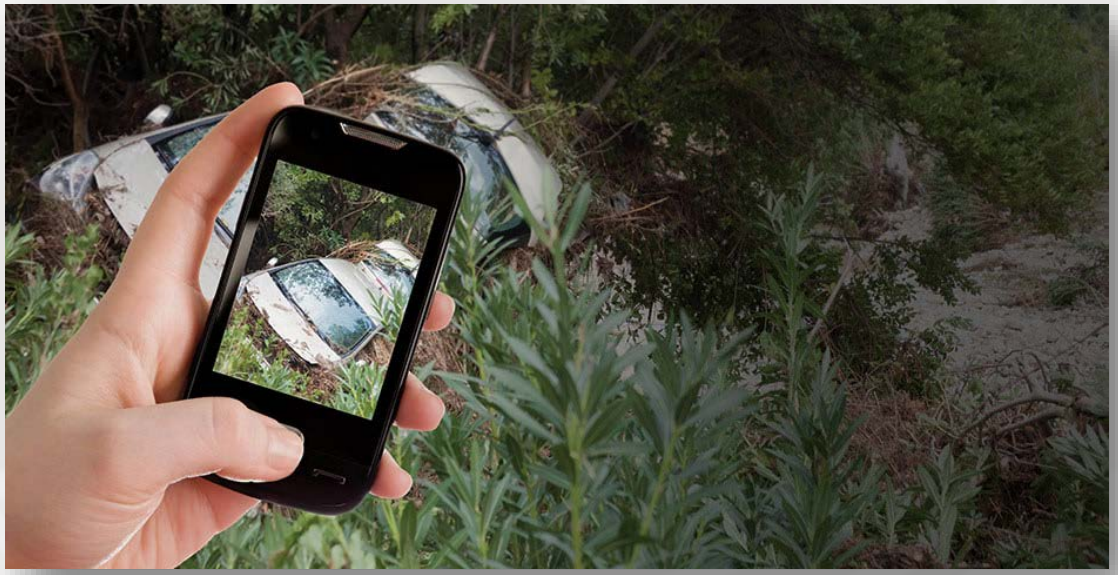
# MN NG9-1-1 GIS Standards

- Stakeholder approval of v1.0 – Q3 2016
  - 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)

# Communication Plan

- ECN website
- Monthly
  - Project newsletter
  - GIS Subcommittee meeting
  - 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

# Summary December 2015

Wednesday, January 06, 2016 10:43 AM

# StatusBoard CY 2015

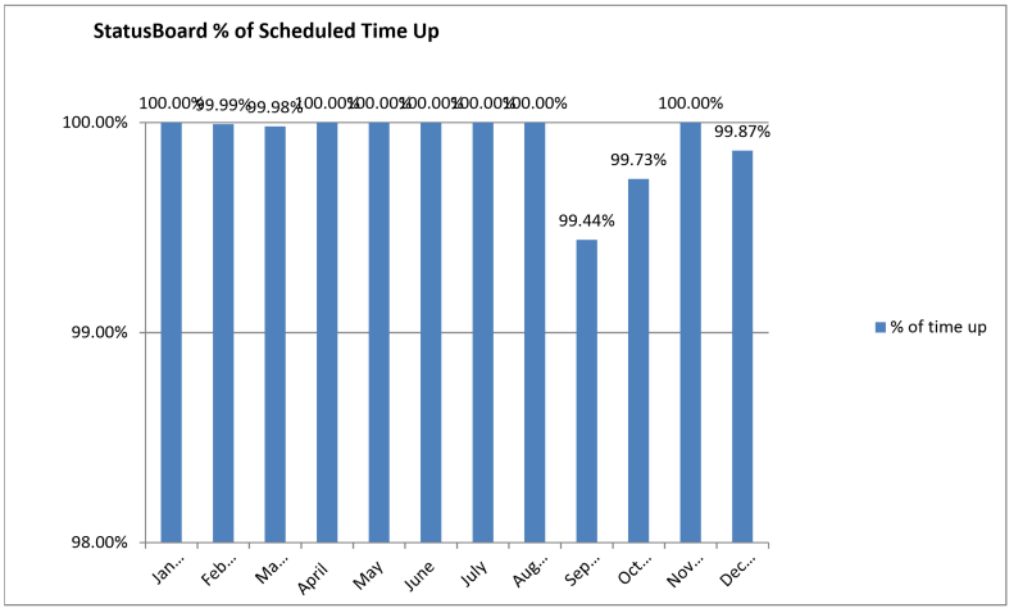
| | Total Hours Month | Total hours SCHEDULED MAINTENANCE Tues. 0900 - 1100 Wed. 1900 - 2300 | Total Hours SCHEDULED Availability | Actual Duration of maintenance Rounded up to nearest hour | Total hours available AFTER scheduled maintenance | UNSCHEDULED OUTAGES Rounded up to nearest hour | TOTAL HOURS AVAILABLE | YTD Availability |
|---|---|---|---|---|---|---|---|---|
| January* | 744 | 24 | 720 | 16 | 728 | 0 | 728 | 100.00% |
| February** | 672 | 24 | 648 | 24 | 648 | 1 | 647 | 99.85% |
| March | 744 | 24 | 720 | 2 | 742 | 1 | 741 | 99.87% |
| April | 720 | 28 | 692 | 8 | 712 | 0 | 712 | 100.00% |
| May | 744 | 24 | 720 | 4 | 740 | 0 | 740 | 100.00% |
| June | 720 | 28 | 692 | 4 | 716 | 0 | 716 | 100.00% |
| July | 744 | 24 | 720 | 4 | 740 | 0 | 740 | 100.00% |
| August*** | 744 | 24 | 720 | 0 | 744 | 0 | 744 | 100.00% |
| September**** | 720 | 28 | 692 | 4 | 716 | 4 | 712 | 99.44% |
| October | 744 | 24 | 720 | 2 | 742 | 0 | 742 | 100.00% |
| November | 720 | 28 | 692 | 0 | 720 | 0 | 720 | 100.00% |
| December | 744 | 24 | 720 | 0 | 744 | 1 | 743 | 99.87% |

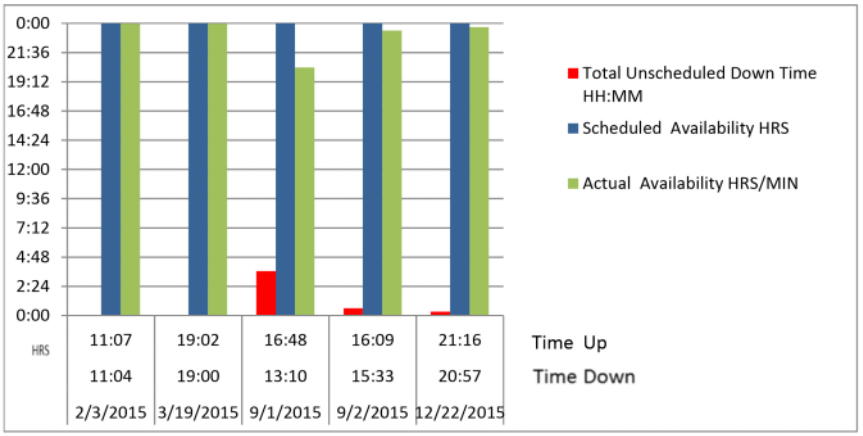
| | |
|---|---|
| January 16-22 | URL issues. Some users report unable to access application. |
| February 17th | URL issues. Some users unable to access application |
| August 28th | 3 users reported being knocked off of the system for a few minuets, but logged back on without issue. We are currently researching this issue and will modify this report once we receive the results if needed. |
| September 1st | MNiT@DPS experienced degraded services that impacted performance and availability of DPS Systems including Statusboard. Issues were resolved and system performance was restored. |
| September 2nd | Server hardware issues caused an outage, and fluctuating functionality. |
| December 22nd | An emergency change made to one of our servers after hours caused a brief 15 minute outage to Status Board. |

# Status December 2015

Wednesday, January 06, 2016 10:42 AM

| | | StatusBoard Unscheduled Down Time | | | | | |
|---|---|---|---|---|---|---|---|
| Date | Time Down Military Time | Time Up Military Time | Total Unscheduled Down Time HH:MM | Scheduled Availability HRS | Actual Availability HRS/MIN | % of time up | Cause |
| 2/3/2015 | 11:04 | 11:07 | 0:03 | 24:00:00 | 23:57 | 99.79% | Emergency server maintenance fix |
| 3/19/2015 | 19:00 | 19:02 | 0:02 | 24:00:00 | 23:58 | 99.86% | Emergency server proactive maintenance fix |
| 9/1/2015 | 13:10 | 16:48 | 3:38 | 24:00:00 | 20:22 | 84.87% | Emergency server manitenance |
| 9/2/2015 | 15:33 | 16:09 | 0:36 | 24:00:00 | 23:24 | 97.50% | Emergency server proactive maintenance fix |
| 12/22/2015 | 20:57 | 21:16 | 0:19 | 24:00:00 | 23:41 | 98.68% | Emergency Backup Maintenance |

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9/2/2015
21:16
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12/22/2015
Time Up
Time Down

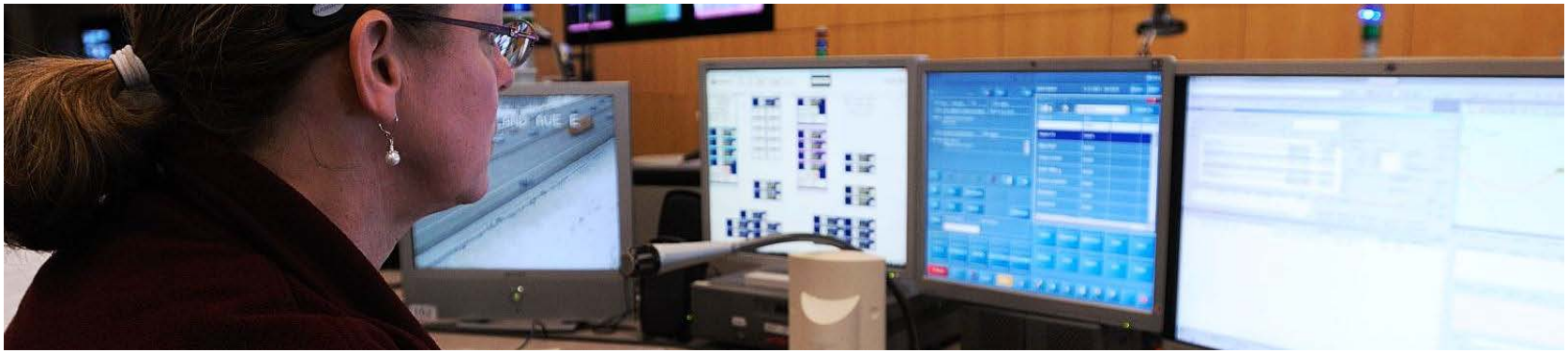
# NG911

Title of presentation here

Presenter and date

SECB

STATEWIDE EMERGENCY COMMUNICATIONS BOARD



# NG911

## Title of Presentation

Presenter and date

SECB

STATEWIDE EMERGENCY COMMUNICATIONS BOARD


# Next Generation 9-1-1

## Title of Presentation

Presenter and date

SECB

STATEWIDE EMERGENCY COMMUNICATIONS BOARD


# Next Generation 9-1-1

## Title of Presentation

Presenter and date

SECB

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

# Presentation Title here

Slide Content here

SECB NG911 Committee 2015 Attendance

| | NG911 Committee Members and Alternates | Jan 21 | Feb 18 | Mar 18 | Apr 29 | Jul 15 | Sept 16 | Oct 21 | Nov 18 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 8 | **MN Sheriffs Assn**: Darlene Pankonie | X | X | X | X | X | X | X | X |
| 7 | Alternate: Jim Bayer/Kathy Hughes | X | X | | X | X | X | X | X |
| 3 | **NW Region**: Nancy Shafer | X | X | | X | | | | |
| 5 | Alternate: Beryl Wernberg | | X | X | X | | | X | X |
| 5 | **NE Region**: Steve Olson | | X | X | X | | | X | X |
| | Alternate: Karla White/Patrice Erickson | | | | | | | | |
| 7 | **Central Region:** Judy Diehl | X | X | X | X | X | X | | X |
| 8 | Alternate: Tina McPherson | X | X | X | X | X | X | X | X |
| 3 | **SE Region:** Wayne Betcher | | X | X | X | | | | |
| 8 | Alternate: Faith Evers | X | X | X | X | X | X | X | X |
| 6 | **SC Region:** Pat Wallace | X | X | X | X | X | | X | |
| 5 | Alternate: Peggy Reimers | | | X | X | X | X | | X |
| 4 | **SW Region:** Bonnie Westfield | X | | X | X | | X | | |
| 0 | Alternate: Terri Ebert | | | | | | | | |
| 6 | **MAA:** Clif Giese | X | X | | X | X | X | X | |
| 5 | Alternate: Mary Borst | X | X | X | | | | X | X |
| 7 | **Chiefs of Police:** Ross Tiegs | X | X | X | | X | X | X | X |
| V | Alternate: vacant | | | | | | | | |
| 2 | **State Patrol:** Nicholas Carlson | X | | | | X | | | |
| 1 | Alternate: vacant/Tim Boyer | v | v | v | v | v | X | | |
| 5 | **GIS:** Matt Goodman | X | X | X | | X | X | | |
| V | Alternate: vacant | | | | | | | | |
| 7 | **ECN**: Dana Wahlberg | | X | X | X | X | X | X | X |

SECB NG911 Committee 2015 Attendance

| | | Jan | Feb | Mar | Apr | Jul | Sept | Oct | Nov |
|---|---|---|---|---|---|---|---|---|---|
| 6 | Alternate: Patty Kraft/Adam Iten | X | | X | X | X | X | | X |
| 5 | **Tribal PSAP**: Deb Harmon | X | | X | X | | X | | X |
| V | Alternate: vacant | | | | | | | | |
| 1 | **Metro Region**: Christine McPherson | X | | | | | | | |
| 0 | Alternate: Diane Lind | | | | | | | | |
| V | **Fire Chiefs**: vacant | | | | | | | | |
| V | Alternate: vacant | | | | | | | | |

# STATEWIDE EMERGENCY COMMUNICATIONS BOARD

## *NG-911 COMMITTEE*

| MEMBER | REPRESENTING | ALTERNATE |
|---|---|---|
| Christine McPherson<br>christine.mcpherson@ci.minneapolis.mn.us | **Metro Minnesota**<br>Isanti, Chisago, Anoka, Washington, Ramsey, Hennepin, Carver, Scott, Dakota, Airport, Bloomington, Eden Prairie, Edina, Minneapolis, Minnetonka, Richfield, University of MN, St Louis Park, White Bear Lake | Susan Bowler<br>sbowler@co.carver.mn.us |
| Nancy Shafer<br>nancy.shafer@co.polk.mn.us | **Northwest Minnesota**<br>Kittson, Roseau, Lake of the Woods, Marshall, Beltrami, Polk, Pennington, Red Lake, Becker, Clearwater, Norman, Mahnomen, Hubbard, Clay, | Beryl Wernberg<br>beryl.wernberg@co.beltrami.mn.us |
| Steve Olson<br>steve.olson@co.lake.mn.us | **Northeast Minnesota**<br>Koochiching, St Louis, Lake, Cook, Itasca, Cass, Aitkin, Crow Wing, Carlton, Pine, Kanabec | Patrice Erickson<br>patrice.erickson@co.aitkin.mn.us |
| Judy Diehl<br>judydiehl@co.stevens.mn.us | **Central Minnesota**<br>Wilkin, Ottertail, Wadena, Todd, Morrison, Mille Lacs, Grant, Douglas, Traverse, Stevens, Pope, Stearns, Benton, Sherburne, Big Stone, Swift, Kandiyohi, Meeker, Wright. | Tina McPherson<br>PSAP Rep<br>Vice Chair<br>tinamc@co.douglas.mn.us |
| Wayne Betcher<br>wayne.betcher@co.goodhue.mn.us | **Southeast Minnesota**<br>Rice, Goodhue, Wabasha, Steele, Dodge, Olmsted, Winona, Freeborn, Mower, Fillmore, Houston | Faith Evers<br>fevers@rochestermn.gov |
| Pat Wallace<br>Pat.wallace@blueearthcountymn.gov | **South Central Minnesota**<br>McLeod (including Hutchinson), Sibley, Nicollet, LeSueur, Brown, Watonwan, Blue Earth, Waseca, Martin, Faribault | Peggy Reimers<br>preimers@co.nicollet.mn.us |
| Bonnie Westfield<br>bonnie.westfield@co.ym.mn.gov | **Southwest Minnesota**<br>Lac Qui Parle, Chippewa, Renville, Yellow Medicine, Lincoln, Lyon, Red Wood, Pipestone, Murray, Cottonwood, Rock, Nobles, Jackson | Terri Ebert<br>terri.ebert@co.rock.mn.us |
| Mary Borst<br>borst.mary@mayo.edu | **MAA**<br>Minnesota Ambulance Service (MAA) representatives who have responsibilities in secondary PSAPs (Allina, HCMC, North, Mayo, Ridgeview) or private sector dispatching | Marion Larson<br>marion.larson@co.stearns.mn.us |
| Ross Tiegs,<br>Chief, Morris PD<br>rosstiegs@co.stevens.mn.us | **MN Chiefs of Police**<br>Representatives who have responsibilities in PSAPs | vacant |

## NG-911 COMMITTEE

| | | |
|---|---|---|
| Tim Boyer<br>**Timothy.Boyer@state.mn.us** | **State Patrol**<br>Representatives who have responsibilities in the State Patrol PSAPs (Rochester, Roseville) | vacant |
| Matt Goodman<br>**goodmanm@stlouiscountymn.gov** | **GIS**<br>Representatives who perform work for PSAPs | vacant |
| Dana Wahlberg<br>**Dana.Wahlberg@state.mn.us** | **ECN**<br>Representatives from DPS Emergency Communication Networks | Adam Iten<br>**Adam.Iten@state.mn.us** |
| Deb Harmon<br>**dharmon@redlakenation.org** | **Tribal PSAP**<br>Representatives as selected by the Tribal PSAP Managers (Red Lake Nation) | vacant |
| Darlene Pankonie *for Washington County Sheriff Hutton*<br>**darlene.pankonie@co.washington.mn.us** | **Minnesota Sheriff's Assn** | Kathy Hughes<br>**Kathy.Hughes@hennepin.us**. |
| vacant | **Minnesota Fire Chiefs**<br>**Representatives who have responsibilities in PSAPs** | vacant |

BEST PRACTICES SUBCOMMITTEE
Members: Rick Juth (ECN), Vacant (Co-Chair-Greater MN), Jerry (Mission Critical Partners), Susan Bowler (Carver), Ace Bonnema (Kandiyohi), Darlene Pankonie (Washington), Nancie Pass (Ramsey), Dana Wahlberg (State), Pete Eggimann (MESB).

GIS SUBCOMMITTEE
Members: Gordy Chinander (Co-Chair-MESB), Vacant (Co-Chair-Greater MN), Dana Wahlberg (State), Brett Forbes (Sherburne), Brad Digre (Lyon), Chad Riley (Carver), Dan Haasken (Aitken), Matt Goodman (St. Louis), Michelle Perish (State Patrol), Mary Borst (Mayo), Doug Matzek (Washington), Sarah Schrader (Goodhue), Stuart Lien (Clearwater), Dan Krzoska (Houston). Alternates – Don Smiley (Ramsey), Ben Nemitz (Mayo), Ken Paschke (State Patrol), Marcia Broman (MESB).




# State of Minnesota SIP Enablement Guidelines for PSAPs

**SUBMITTED OCTOBER 2015 TO:**
**STATE OF MINNESOTA**

MissionCriticalPartners
690 Gray's Woods Boulevard | Port Matilda, PA 16870 | 888.8.MCP.911 or 888.862.7911 | www.MCP911.com

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## PURPOSE

The State of Minnesota has made significant investments in time and money to build a reliable and robust Emergency Services Internet Protocol (IP) Network (ESInet). It is the goal of the Department of Public Safety to encourage and help guide public safety answering points (PSAPs) to utilize the ESInet to the fullest extent. The first step is to move away from Centralized Automatic Message Accounting (CAMA) technology by implementing Session Initiation Protocol (SIP) to deliver 9-1-1 calls. This SIP enablement for a PSAP and its customer premises equipment (CPE) will help to bring public safety technology up to the same level used by wireline and wireless carriers when they deliver service to the community.

## SCOPE

The guidelines in this document are designed to help PSAPs plan for and implement a SIP conversion from CAMA, and to provide them with a better understanding of the tasks, costs, and requirements for this undertaking. PSAPs will be responsible for ensuring that their public safety applications are capable of converting to SIP. If the CPE and/or call-taker applications are not capable of supporting SIP, the replacement of those systems may be necessary and is beyond the scope of this document.

## DESIGN GUIDELINES

The design goal for any PSAP converting to SIP will be reliability. This is achieved through enhanced functional requirements for SIP and redundancy at the hardware level. In addition it is recommended that a final design incorporate SIP capable firewalls in front of the CPE as a security measure for internet facing CPE functions and as a security layer for future Next-Gen 911 (NG911) capabilities. Recommended designs and functional requirements are listed below.

SIP Firewall Device Functional Requirements:

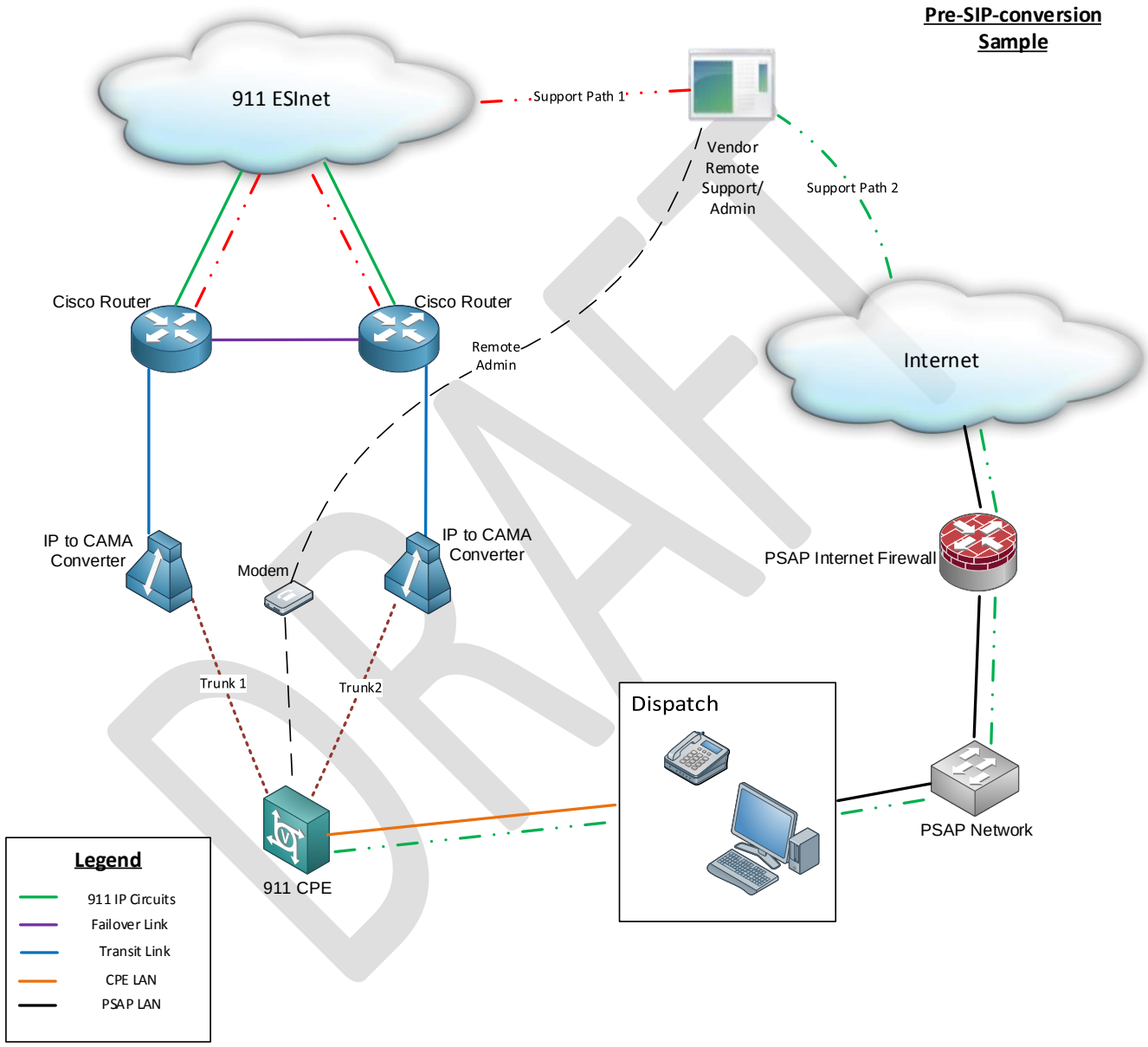
- SIP application layer gateway (ALG) capable or equivalent (required for SIP calls to work)
- Intrusion detection system (IDS), Intrusion prevention system (IPS)
- High availability/failover capable (active/passive)
- At least five (5) interfaces/ports
- Supports FIPS 140-2 Compliance

SIP Firewall Device Minimum Configuration Requirements:

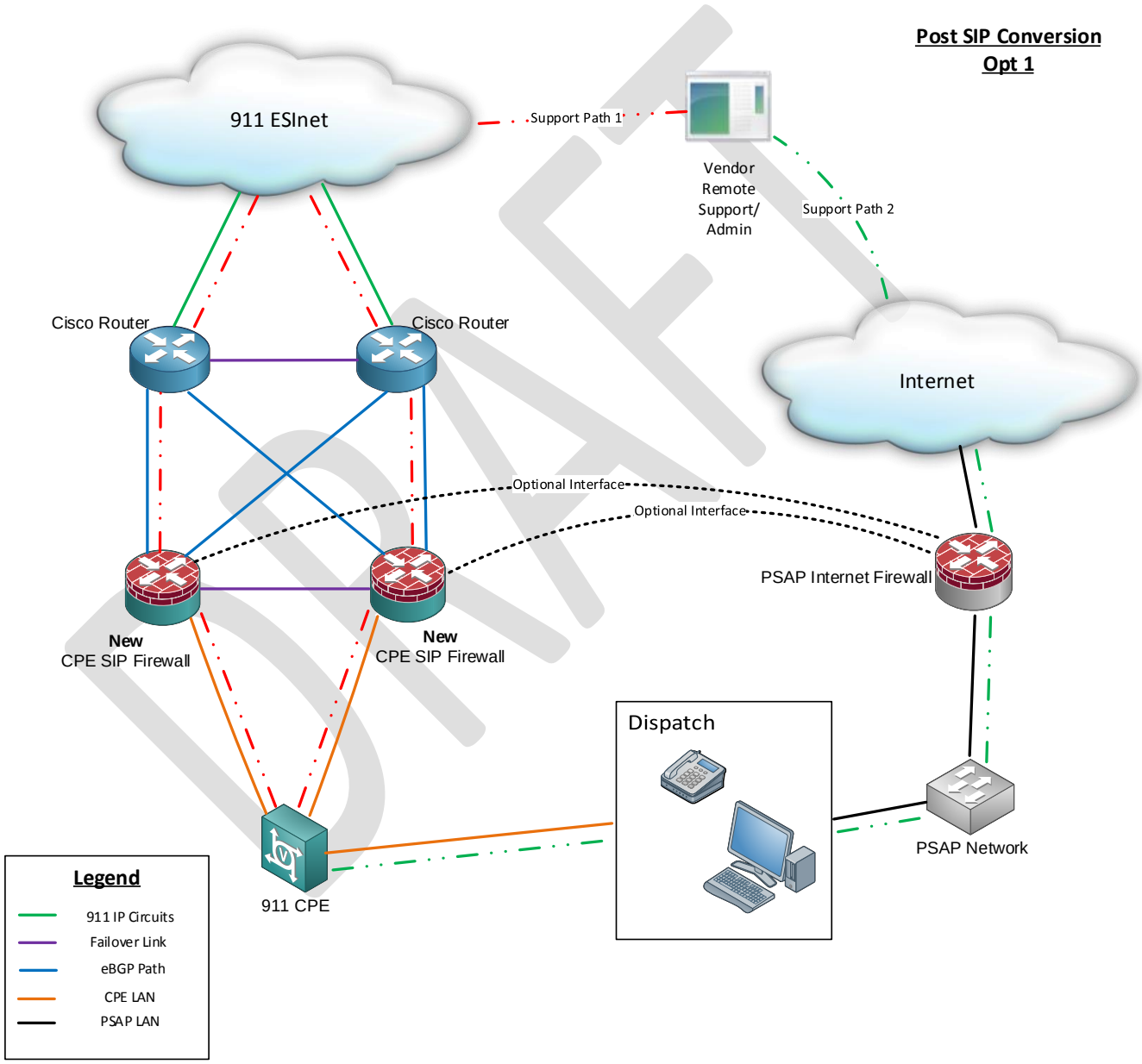
- Explicit deny all statement on all external interfaces
- Vendor access to CPE is restricted to VPN only

Example Network Diagrams – Pre- & Post-SIP Enablement follow:

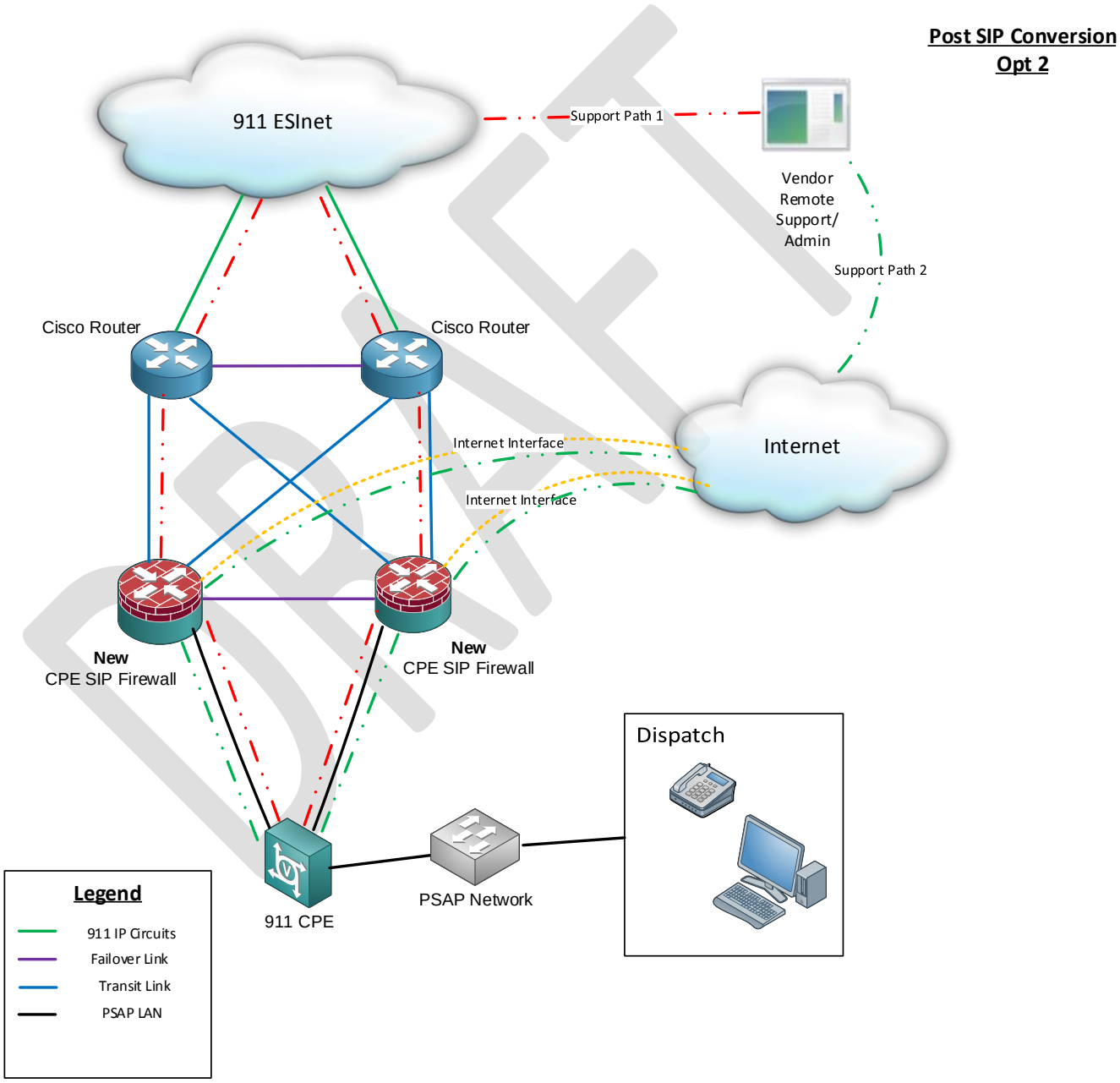
- Example 1 – Current PSAP/Pre-SIP Conversion
  - Below is a high-level network diagram showing what a typical PSAP CPE network looks like before a SIP conversion.



- Example 2 – Post-SIP Conversion Option 1
  - The below diagram is an example of what a PSAP with CPE on a separate local area network (LAN) would look like after a conversion to SIP following the design guidelines listed in this document. Note that there are two (2) CPE SIP firewalls, allowing for failover should one device become inoperable.
  - This example shows that there are two (2) support paths for vendors to use to gain secure access to the CPE equipment for management and administration.



- Example 3 – Post-SIP Conversion Option 2
  - The below diagram is an example of what a PSAP with CPE on the same LAN as other PSAP applications and equipment would look like after a conversion to SIP following the design guidelines listed in this document. Note that there are two (2) CPE SIP firewalls, allowing for failover should one device become inoperable.
  - This example shows that there are two (2) support paths for vendors to use to gain secure access to the CPE equipment for management and administration.



## CONVERSION COST GUIDE

To help PSAP managers prepare for the SIP-conversion process, some associated cost ranges are listed below for a typical conversion from CAMA to SIP. Each PSAP will be responsible for determining the exact costs involved with the conversion. Each PSAP should solicit specific, individual quotes from their CPE vendor, as well as from CenturyLink, the State's ESInet provider. The amounts provided in Table 1 below are based on the following assumptions:

- The CPE is SIP capable
- CPE version/maintenance is current
- Cost calculations based on a 4-position PSAP

**Table 1 – SIP Conversion Cost Estimate**

| Quantity | Description | Estimated Price Range | Estimated Total |
|---|---|---|---|
| 4 | SIP CPE Licensing | $260 – $410 | $1,040 – $1,640 |
| 4 | SIP CPE Support Option | $50 – $160 | $200 – $640 |
| 2 | Firewall Hardware | $600 – $2000 | $1,200 – $4,000 |
| 2 | Firewall Licensing/Support | $200 – $880 | $400 – $1,760 |
| 2 | Firewall Managed Services | $0 | $0 |
| 120 | Vendor Labor Hours | $60 – $100 | $7,200 – $12,000 |
| 2 | CenturyLink Analog Telephone Adapters (ATAs) for SIP | $375 | $750 |
| 30 | Intrado Labor Hours | $196 | $5880 |
| | | ***Estimated Grand Total*** | **$16,670 – $26,670** |

**Pricing is subject to change based on the number of PSAP positions and CPE configuration (CPE may require initial configuration/upgrades to become SIP capable).*

## MANAGEMENT & GOVERNANCE

As Minnesota PSAPs schedule their migration to SIP appropriate planning must include the management of the firewall devices that will be part of the network. These devices are placed at a critical point in the overall call delivery path and therefore require consistent monitoring, support, and governance. To help PSAPs stay focused on their core mission, the Department of Public Safety ECN is offering a managed services option for the firewalls deployed in a SIP conversion. This offering is at X cost to the PSAP.

The management and support of these firewalls is conducted by a 3rd party. Mission Critical Partners (MCP) is the partner chosen by the state and is charged with the task of monitoring and maintaining the firewalls as they are deployed to PSAPs across Minnesota. [Company Name] will also work in conjunction with the state and PSAP managers to deploy the firewalls during a SIP migration plan.

MCP will have three areas of focus to sustain the integrity of the PSAPs network that can be best described as **Prevention and Protection, Detection and Response.**

- **Prevention and Protection** includes SIP firewall management and administration, life cycle and oversight management. MCP will also provide ongoing consultative support as needed to the PSAPs for issues related to the network firewall use, security, functionality and accessibility.

- **Detection** involves proactive SIP firewall monitoring through the MCP Network Operation Control Center (NOCC).

- **Response** includes call center support, trouble reporting, and problem escalation along with logging and reporting. It will also include scheduled on-site support and preventative maintenance.

The managed services component of the SIP firewalls will apply to both new and existing SIP deployments. PSAPs with firewalls currently in place as designed (refer to the Design Guidelines section of this document) can also partake in the managed services offer and in so doing can enhance or replace their own monitoring/management efforts.

### *Governance*

Adhering to the standards and guidelines set forth in this document is crucial to ensure the integrity of the PSAPs respective network environments as well as the ESInet. Included with the managed services provided will be reporting on the state of the monitored devices and their settings. The DPS also reserves the right to order on-site audits on the functionality, physical layout, and setup of the SIP firewalls at each PSAP.

[Additional information from the state on governance?]

[Costs? Covered in previous section or listed separately?]

## FAQ

***Question: "Why should I convert to SIP?"***

Answer:

***Question: "What other costs may be associated with my conversion to SIP?"***

Answer: There may be costs associated with upgrading your CPE or replacing it altogether if SIP is not supported. Converting to SIP should be a phase in your upgrade to new CPE.

***Question: "Will I be required to make any updates to my call logger when migrating to SIP?"***

Answer: Depending on the brand, age, and version of your master recorder, there may be some upgrade requirements, especially if you currently record at the trunk level.

In a SIP environment, IP recording capability must be enabled. This may require the purchase of a third party recording kit. In most instances the third party recording kit is necessary only to accomplish trunk level recording. Recording at the position level only, may not require any logging recorder modifications.

It is important to understand that trunk level recording does not work exactly the same as it did in the legacy environment. All "audio before answer" is eliminated in a SIP environment. Thus there is nothing to record prior to the call being answered by a call taker. However, the third party recording kit does make it possible to record during the time a call is placed on hold.

Please coordinate SIP recording capabilities between your CPE vendor and your call logging vendor to ensure your specific needs and requirements for recording may be met.

***Question: "What brand of firewall should I deploy for this?"***

Answer: Many manufacturers support the features described in this guide and can perform to the standards required for a PSAP. Examples of reputable brands would be Cisco, SonicWall, Fortinet, and Check Point.

***Question: "How do these costs apply to a PSAP that is part of a shared call-handling system?"***

Answer:  This is dependent on the network configuration between the PSAPs on the shared system and the terms contained in the cooperative agreement in place related to cost management.

***Question:  "Can I use my Enhanced 9-1-1 (E9-1-1) money to pay for costs associated with this transition?"***

Answer:  Yes. Costs associated with this transition are eligible for payment through your E9-1-1 funds.

***Question: "What are the implications if firewalls are not deployed in front of the CPE?"***

Answer: Conversions to SIP can be completed without the presence of firewalls and will work by plugging CPE equipment directly into the Intrado routers. However, this is not the long term solution that DPS/ECN envisions for PSAPs utilizing the ESInet anticipating that more media (other than traditional voice 911 calls) will be introduced in the future.

Having the additional layer of security in front of the CPE is a prudent step in not only for protecting PSAPs from internal threats, but also for protection from external threats. As CPE capabilities expand and allow 911 call takers to exchange information such as text, photos, building plans, etc. with the public and with public safety responders via the internet pulled directly from the CPE systems, the presence of firewalls becomes a necessary step to protect against inherent external threats. Other advantages for the PSAPs include secure VPN capability for vendors and maintenance personnel to remote into CPE equipment to perform diagnostics, maintenance and complete system upgrades.

# Minnesota ECN PSAP Survey 2016

## 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 reccurring 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

**This section of the survey focuses on operational aspects of your PSAP related to size, staffing etc.**

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

### *Staffing Information*

4. Please provide the following PSAP staffing numbers

| | |
|---|---|
| Full Time Telecommunicators (i.e. dispatchers, calltakers) | |
| Part Time Telecommunicators | |
| F/T Supervisors | |
| P/T Supervisors | |
| F/T Technical (i.e IT, GIS, other) Staff | |
| P/T Technical (i.e IT, GIS, other) Staff | |
| F/T Administrative Staff | |
| P/T Administrative Staff | |
| Other | |

5. Does your PSAP have dedicated call takers whose primary role is to answer 9-1-1 calls?

- Yes
- No

6. If your PSAP has dedicated call takers, are they cross trained to perform dispatching duties?

- Yes
- No

7. Does your PSAP have dedicated dispatchers whose primary role is to dispatch units in response to 9-1-1 calls?

- ◯ Yes
- ◯ No

8. If your PSAP has dedicated dispatchers, are they cross trained to perform call taking duties?

- ◯ Yes
- ◯ No

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
- ☐ 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. What are your current (2015) PSAP personnel costs (salary only)?

* 13. Your PSAP dispatches the following number of agencies

| | |
|---|---|
| Police/Law Enforcement | |
| Fire<br>(if Fire and EMS...report EMS below as well) | |
| EMS | |
| Other | |

## PSAP Training

14. What are your PSAP's annual costs for training?

* 15. Does your PSAP have training programs planned for 2016

- Yes
- No
- Other (please specify)

16. Please list the PSAP training programs planned for 2016

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

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

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

20. Do you believe that there should be MINIMUM training standards established for all calltakers / dispatchers in the State of Minnesota?

- ◯ Yes
- ◯ No

21. Do you believe the State of Minnesota should implement a Statewide Certification Requirement for Telecommunicators as a prerequisite to hiring?

- ◯ Yes
- ◯ No

22. If so, please explain how you envision such a Certification Requirement being implemented statewide

## PSAP NG9-1-1 Applications

23. 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)

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

- ◯ Web Browser based Text-to-911 Service application provided by a Text Control Center service provider
- ◯ 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.**

25. Who is your Call Taking system provider (CPE)?

26. What is the make and model of your CPE system

27. What software version or hardware version of CPE do you have?

28. How many call taking positions do you have (total, all licenses)

29. Who maintains your CPE equipment?

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

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

32. What was the cost of your current CPE?

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

- ◯ Yes
- ◯ No
- ◯ Don't Know

34. If yes, when do you plan to migrate to SIP connectivity

- ◯ Currently using SIP
- ◯ 12 months or less
- ◯ 13 - 24 months
- ◯ 24 - 36 months
- ◯ Not currently planned

35. If no, do you plan to upgrade / replace your CPE to support SIP connectivity

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

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

- ◯ Yes
- ◯ No

37. 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

38. Who is your Radio Dispatch Console system provider?

39. What is the make and model of your Radio Dispatch Console system

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

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

42. Who maintains your Radio Dispatch Console equipment?

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

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

45. What was the cost of your current Radio Dispatch consoles?

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

- ◯ Yes
- ◯ No

47. 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)

48. Who is your CAD system provider?

49. What is the make and model of your CAD system

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

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

52. Who maintains your CAD system equipment?

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

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

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

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

- Yes
- No

57. 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

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

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

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

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

62. 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

63. Who maintains your Logging/Recording System equipment?

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

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

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

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

- Yes
- No

68. 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

69. Who is your Administrative Phone System service provider?

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

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

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

73. Who maintains your Administrative Phone System equipment?

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

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

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

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

- ◯ Yes
- ◯ No

78. 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

79. Does your PSAP use an Emergency Notification system?

- ◯ Yes
- ◯ No

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

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

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

83. Who maintains your Emergency Notification System equipment?

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

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

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

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

- ◯ Yes
- ◯ No

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

- ◯ Yes
- ◯ No

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

- ◯ Yes
- ◯ No

90. 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

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

- ◯ Yes
- ◯ No

92. 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

93. Please identify expenses that are not covered by ECN funding for your PSAP.

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