

MAINE PUBLIC UTILITIES COMMISSION

Report on Fire and Police Protocols Pilot Program for E911

**Presented to the
Joint Standing Committee on
Energy, Utilities and Technology
January 1, 2014**

I. INTRODUCTION

During the First Regular Session of the 126th Legislature, the Energy, Utilities and Technology Committee (Committee) held public hearings on three bills related to the Enhanced 911 system and public safety answering points (PSAPs):

LD 196, An Act Regarding the Implementation of the Quality Assurance Program for PSAPs;

LD 275, Resolve, To Require the Emergency Services Communication Bureau to Expand the Existing Quality Assurance Program; and

LD 774, Resolve, Regarding a Fire and Police Protocols Pilot Program for E911 Call Processing.

The Committee voted to carry LD 196 and LD 275 over to the Second Regular Session of the 126th Legislature and voted LD 774 ought not to pass with the intent of addressing the concepts raised in that bill when it considers LD 196 and LD 275.

In preparation for the Committee's work on the policies raised in the three bills, the Committee, in a letter dated June 26, 2013¹, requested that the Commission provide the following information to the Committee by January 1, 2014:

1. The number of PSAPs to be included in the pilot and the various characteristics of the PSAPs being sought;
2. Whether the number of PSAPs participating in the pilot is sufficiently representative of the population for the results to be applicable statewide;
3. While ensuring that participation is voluntary, the selection process for identifying the PSAPs in the pilot;
4. Funding available to complete the pilot program;
5. A timeline with milestones for completing the pilot program; and
6. Specific items to be studied as part of the pilot program (including but not limited to);
 - Possibilities for streamlining or gaining efficiencies in the quality assurance done at the PSAPs;
 - Rolling out fire and police at the same time or one at a time;

¹ A copy of the Committee's letter is attached (Attachment 1).
Submitted by the Maine Public Utilities Commission

- Impact on the quality of service being provided to the public;
- Cost information, both startup and recurring, for implementing a statewide system, including personnel costs to municipalities for doing the quality assurance (for Emergency Medical Dispatch (EMD), fire and police); and
- Funding stream options to implement a statewide program.

II. BACKGROUND ON PROTOCOLS

A. EMD Protocol

Maine is one of twelve states to require that all 911 call takers be certified in EMD, an advanced training requirement that prepares the 911 call taker to assist callers by providing life saving instructions to follow while waiting for 911 assistance. The EMD protocol system has been used successfully in Maine PSAPs since 2009. Call takers at every PSAP are trained in the use of this structured protocol. One of the primary purposes of protocols, including the EMD protocol, is to enable 911 call takers to determine the appropriate response to send to a given emergency. The protocols help them quickly obtain the patient status and scene information necessary to determine the appropriate dispatch response. Another primary purpose of the protocol system is to enable call takers to assist callers in aiding the patient prior to on-scene arrival of field personnel (e.g., provide cardiopulmonary resuscitation (CPR) instructions over the phone until emergency responders arrive at the scene). This is accomplished through uniform, medically approved protocols. When personnel are properly trained and equipped, emergency medical care can begin the moment the dispatcher answers the phone.

Quality assurance programs in Maine's PSAPs involve the regular review of individual calls where the EMD protocol is used. This regular review of calls helps ensure that the protocol is being followed correctly. The application and strict adherence to these protocols have saved lives in Maine. The 911 surcharge currently pays for EMD training for all PSAP call takers, providing the PSAPs with the EMD protocols, quality assurance training, and necessary software and card sets. It does not pay for the staff time associated with the quality assurance review of individual calls at the PSAPs where the protocols are used.

B. Fire and Police Protocols

In February 2010, the Office of Program Evaluation & Government Accountability (OPEGA) issued a report entitled: "Emergency Communications in Kennebec County." The report identified a need for improvement in the areas of standardized protocols and quality assurance with respect to police and fire calls. During the 2010 session, the Commission's Emergency Services Communication Bureau (Bureau) was also directed by the 124th Legislature (P.L. 2009, ch. 617) to

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implement a quality assurance program to audit and monitor compliance with emergency dispatching standards, practices and procedures of PSAPs and make recommendations relating to these practices as part of its Annual Report.

The Bureau hired a 911 consultant, Mission Critical Partners (Mission Critical), to assist with this effort. Mission Critical visited every PSAP and, using a pre-approved survey, evaluated each call center's compliance with existing standards, rules and procedures. The Bureau implemented a number of Mission Critical's recommendations dealing with a statewide call transfer policy, rerouting 911 calls made by cell phones to the PSAP most likely to dispatch, and annual PSAP audits to measure PSAP compliance with 911 statutes, rules, policies and procedures.

Mission Critical's review also found that although all PSAPs had EMD protocols as well as quality assurance review programs in place, no PSAP was using structured fire or police protocols and only four had developed rudimentary fire and police call processing guidelines. Mission Critical noted in its March 2011 report that 1) the absence of a structured protocol makes it virtually impossible to objectively review these types of calls, 2) a sound quality assurance program is essential to the safe and efficient use of any structured call processing protocol system, and 3) that quality assurance helps standardize service by ensuring compliance to the protocol system. Mission Critical concluded that the adoption of fire and police protocols, along with sound quality assurance practices, is the next logical and necessary step to ensure the highest level of care for Maine citizens and emergency responders. The Bureau then requested that Mission Critical further define implementation strategies and costs associated with the expansion to police and fire protocols, including alternatives to providing quality assurance. In its February 2012 report, Mission Critical provided three implementation strategies and also three approaches to quality assurance. Mission Critical estimated that the cost for the first year of fire and police protocols would be \$2,243,480. The cost in the first year is high as it reflects the one-time capital costs associated with implementing a fire and police protocols program (e.g., purchasing the software). There would also be annual recurring costs associated with annual licensing fees for all three protocols of \$274,000. The two reports prepared by Mission Critical can be found on the Bureau's website at:

http://www.maine911.com/forms_publications.htm²

C. Pilot Program

Following the release of the February 2012 report by Mission Critical, the Bureau reached out to PSAPs and other 911 stakeholders including various law

² The two reports are: Recommendations for Implementing Fire and Police Protocol Systems for Maine's Public Safety Answering Points (February 2012); and Recommendations for Establishing and Maintaining A Quality Assurance Program (March 2011).

enforcement and fire associations to gauge support for implementing fire and police protocols. Although the vast majority agreed that EMD has provided significant benefits to the level of emergency care provided, a common concern was the lack of resources required for quality assurance review of calls at the PSAPs. Some PSAPs also raised this concern when they testified on LD 175, LD 196 and LD 774 last session. Stakeholders also had questions about how fire and police protocols would impact the emergency services that are currently provided.

As a result, the Commission determined that it would be appropriate to seek legislative authorization to conduct a pilot program to fully examine the benefits and costs, at the State and local level, associated with doing a statewide fire and police protocol system and report back to the Committee with our findings and recommendations. The Commission then submitted LD 774, which would have authorized such a pilot program and had the Commission submit a report summarizing its findings and recommendations, including any necessary legislation, to the Committee by December 31, 2014. We noted that the cost of doing the pilot program would be absorbed using existing Commission resources and the size of the pilot program would depend on resources available.

The Commission has the following goals for a pilot program:

- To gain direct firsthand experience with the implementation of fire and police protocols and better understand any challenges with implementation of these protocols;
- To determine a long term strategy for protocol growth statewide (e.g., in the event that the State moves forward with fire and police protocols, should the State implement one protocol at a time or implement them both simultaneously?);
- To identify any technical challenges and costs associated with the ability of the protocol software systems to work together with the PSAPs' existing computer aided dispatch (CAD) systems³;
- To recommend an administrative structure for certification at the State level, including needed statutory changes to ensure that the process for certification is being done consistently throughout the PSAPs; and

³ Computer Aided Dispatch is a computer based system which aids PSAP call takers in dispatching emergency resources and record keeping regarding what occurred at the scene.

- To offer professional coaching to PSAPs to gain efficiencies in the quality assurance review process, determine the staff resources and cost impacts of quality assurance at the PSAPs, and develop a model for quality assurance review that can be applied to all PSAPs (e.g., time needed to do efficiently).

Public safety stakeholders in Maryland had similar goals when they conducted a fire and police protocols pilot program. In 2004, four counties joined together to request a pilot project to evaluate the effectiveness of emergency police dispatch and emergency fire dispatch protocols.⁴ The pilot also assisted all PSAPs in the State to gain an understanding of the challenges they might face while implementing the protocols. Stakeholders saw the goals of the pilot program as leading to a standardization of the call taking process and improving the quality of service to Maryland citizens calling 911 for a fire or police emergency, and believed the protocols would provide call processing consistency, improved training and enhanced information for the emergency service responders and more responsive service to the citizens/visitors of their counties. The four Maryland counties saw value in the pilot program and believe they made improvements in the service they provide to their citizens.⁵ Use of police and fire protocols is voluntary in Maryland, but if they are used, quality assurance is mandatory and audited by the State.

III. ADDITIONAL INFORMATION RELATED TO A POTENTIAL FIRE AND POLICE PROTOCOLS PILOT PROGRAM

During the Committee's consideration of these bills last session, there was discussion about a number of issues including the number of PSAPs to include in the pilot program, the number of PSAPs needed to be representative of the population statewide, the pilot participant selection process, the cost of quality assurance review, the impact of the protocols on the quality of service to the public and the amount of funds to be devoted to a pilot program.

At the time the bills were being considered, the Next Generation 911 (NG911) contract had not yet been approved and the existing contract needed to be extended until the NG911 system was in place. That made it difficult for the Commission to predict what funds it could devote to the pilot program. The discussion on all of these issues led to the Committee carrying over LD 196 and LD 275 and the Committee's letter requesting that the Commission provide more details about a potential pilot program at the beginning of the 2014 session. The Commission also believed that we

⁴ See Maryland Department of Public Safety and Correctional Services *EPD – EFD Pilot Project, Caroline, Dorchester, Queen Anne's & Talbot Counties*, September 2004-January 2006 Report (Maryland Report) at 5.

⁵ *Id.* at 9.

would know more about the resources the Commission could dedicate to a pilot program when some of these larger items (e.g., approval of the contract and the extension agreement) had been resolved. More specifically, the Committee requested that the Commission provide the Committee with information in response to the following questions:

A. Number of PSAPs to be Included in the Pilot, Whether that Number is Sufficiently Representative of the Population for the Results to be Applicable Statewide and PSAP Characteristics Being Sought

The Commission intends to select two PSAPs for the pilot program and believes this number will be sufficiently representative of the population for the results to be applicable statewide and provide the necessary information for the Committee to decide whether to move forward with a statewide fire and police protocols program. We envision selecting a county PSAP that has both rural police patrol and volunteer fire departments and which may not directly dispatch all their emergency services, and one larger PSAP, probably a municipality run PSAP, that has full time fire and police departments where call takers dispatch the vast majority of their emergency services. There was some discussion last session about possibly using one State, one county and one municipal PSAP in the pilot program, but we note that if the municipal PSAP selected has a large police department, that PSAP will give the Commission similar information to that available at a State run PSAP, which operates much like a large police department.

There was some testimony at the Committee last session suggesting that the pilot program should have five or six PSAPs. Given that there are 26 PSAPs in Maine, the Commission believes that having five or six PSAPs participate, which could be 23% of the PSAPs, moves beyond the concept of a pilot program and into partial implementation of a statewide protocols program. The Commission is also concerned that using five or six PSAPs would impose costs on more PSAPs than necessary for the Commission to develop the information it needs. The Bureau will pay for the software and training during the pilot program, but PSAPs may have to make investments in their systems, such as installing the appropriate updates to their systems to be able to run all three protocols. In addition, if the State does not move forward with a statewide program, the PSAPs will need to pay for the training and licensing of the protocols software and card sets at the conclusion of the pilot program if they want to continue using the fire and police protocols.

B. Selection Process For Identifying PSAPs for the Pilot

The Commission intends to seek the following information from PSAPs interested in participating in a pilot program: number of employees (full time and part time); number of 911 calls per year; number of towns served and the total population served; number of fire departments served (full time and part time); number of police departments served and the size of the police force; signed letters of support from

public safety community; employee retention data (ideally we want to have PSAPs with stability in staffing for the past year as that may affect the training costs during the pilot program); and the CAD version installed at the PSAP (this relates to the ability of the PSAP to run all three protocols).

Potential pilot program PSAPs will also need to agree that: the agreement is for a two year period (September 2014 – October 1, 2016) and if the project is not made permanent it will be at the PSAP's expense to continue doing fire and police protocols; the PSAP will track and provide staff costs to achieve recommended quality assurance review levels and make it available to the Bureau; the project is voluntary and other than the cost of training, software and card sets and implementation support (e.g. helping to get the software loaded on and making sure it works), there will be no reimbursement from the State; the PSAP will install the appropriate CAD version capable of interfacing with the most current version of the protocols (necessary to run all three protocols); the PSAP and public safety responders will participate in a survey to determine the effectiveness of fire and police protocols; and the PSAPs will review calls prior to and after implementation to compare the average length of time to dispatch emergency services.

C. Funding Available to Complete the Pilot

Barring unforeseen increases in the cost of the migration to NG911, the Commission believes it will have the funds necessary for a pilot program using two PSAPs, which we estimate will cost \$309,000.⁶

D. Proposed Timeline and Milestones for Completing the Pilot

A proposed draft timeline for completing the pilot program is attached (Attachment 2).

E. Specific Items to be Studied as Part of the Pilot

1. Possibilities for Streamlining or Gaining Efficiencies in the Quality Assurance Done at PSAPs

During the public hearings on the protocols bills, some representatives of PSAPs expressed concerns about the staff time needed and the cost to do the quality assurance at the PSAPs. Part of the Commission's goal is to help PSAPs become more efficient with their quality assurance at the PSAPs before adding any new protocols to their workload. As a result, the Commission expects to select

⁶ The quote for a two PSAP pilot program is based on a large municipal PSAP and a medium sized County PSAP. Depending on the specific PSAPs that participate in any pilot program that cost could increase or decrease to some degree.

PSAPs that are more experienced in using protocols and quality assurance to participate in the pilot. Information learned from their practice and the experience of adding fire and police protocols during the pilot will help provide all PSAPs with an effective model for quality assurance for the existing EMD protocol and any additional protocols which may be added in the future. There will also be a project manager to assist PSAPs with the quality assurance throughout the pilot program.

2. Rolling Out Fire and Police at the Same Time or One at a Time

The fire protocol is simpler than the police protocol and there are fewer fire 911 calls than police 911 calls. As a result, the Commission believes it makes sense to do the fire protocol first during the pilot and then move on to the police protocol. This will lessen the initial workload increases of the participating PSAPs. When Maryland's Department of Public Safety and Correctional Services reported on the results of its fire and police protocols pilot program it noted that "attempts to train and implement both programs simultaneously or close together increased stress for staff in some jurisdictions" and the report recommended "implementing only one protocol system at a time, permitting the call takers to become adept with one before moving forward on the remaining protocol." The report added that "[t]his appeared to make the implementation process somewhat smoother and less stressful for the call takers."⁷ The Commission, similarly, intends to require that the PSAPs participating in the pilot reach a certain proficiency with the fire protocol before moving onto the police protocol. We will also be measuring the increased workload for the PSAPs in using the protocols and doing the required quality assurance.

3. Impact on the Quality of Service Being Provided to the Public

The Commission will also be examining the pilot program PSAPs' experience with the fire and police protocols in terms of the quality of service provided to the public when they call 911 for a fire or police emergency. As part of the pilot program, the Commission will survey the participating PSAPs and emergency responders on their experience as well as comparing call processing times before and after the pilot project (e.g., are the protocols providing more complete and reliable information for improving the response decision making process and do the protocols improve the time it takes from receiving a call to the time of dispatch).

4. Cost Information (Startup and Recurring) for Implementing a Statewide System (Including Personnel Costs to Municipalities for Doing the Quality Assurance for EMD, Fire and Police)

The Commission will work during the pilot program to further refine and update the cost estimates (startup and recurring) that were provided in the Mission Critical Report for implementing a statewide program. Cost estimates have likely increased from the time the report was issued. We will also be obtaining

⁷ Id.

information on the cost of doing quality assurance from the PSAPs participating in the pilot program.

5. Funding Stream Options to Implement a Statewide Program

With the cost information gained during the pilot program the Commission will be able to update the cost estimates provided by Mission Critical for doing a statewide program and identify what the potential 911 surcharge increase or general fund obligation would be to fund a statewide fire and police protocols program.

IV. CONCLUSION

This report provides more detail about a potential fire and police protocols pilot program as the Committee considers whether to authorize a pilot program. It also provides more information about what the Commission hopes to learn from the pilot program. We note that we are still very early in the migration to NG911. We expect to turn the first PSAP over to the new system in early 2014. We expect that it will take six to eight months for all 26 PSAPs to transition to the NG911 system and additional time to make sure the new technology is working properly, work on issues the PSAPs may encounter and make any necessary system refinements.

The migration to NG911 remains the priority of both the Bureau and the PSAPs for the next eight months and given the size of the Bureau's staff, the Bureau will not be able to devote staff resources to a pilot program until September 2014 at the earliest. It is also possible that PSAPs interested in participating in a pilot program may not seek to participate because they are busy with NG911 implementation. The Committee may, therefore, want to consider authorizing the Commission to conduct a pilot program as outlined in this report once the migration to NG911 has been completed and the Commission can ensure it has the \$309,000 to expend on a two PSAP pilot program.

ATTACHMENT 1

SENATE

JOHN J. CLEVELAND, District 15, Chair
 TROY D. JACKSON, District 35
 EDWARD M. YOUNGBLOOD, District 31

JEAN GUZZETTI, Legislative Analyst
 KRISTEN GOTTLIEB, Committee Clerk



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State of Maine
 ONE HUNDRED AND TWENTY-SIXTH LEGISLATURE
 COMMITTEE ON ENERGY, UTILITIES AND TECHNOLOGY

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June 26, 2013

Thomas L. Welch, Chairman
 Public Utilities Commission
 18 State House Station
 Augusta, ME 04333-0018

Dear Chairman Welch:

During the first regular session of the 126th Legislature, the committee received three bills related to the Enhanced E-9-1-1 system and Public Safety Answering Points:

LD 196, *An Act Regarding the Implementation of the Quality Assurance Program for Public Safety Answering Points;*

LD 275, *Resolve, To Require the Emergency Services Communication Bureau to Expand the Existing Quality Assurance Program; and*

LD 774, *Resolve, Regarding a Fire and Police Protocols Pilot Program for E-9-1-1 Call Processing.*

The committee voted to carry LD 196 and 275 over to the Second Regular Session of the 126th Legislature and voted LD 774 ought-not-to-pass with the intent of addressing the concepts raised in LD 774 when it considers LD 196 and LD 275.

In preparation for the committee work on the policies raised in all three of these bills, the committee requests that the commission provide the committee with the following information by January 1, 2014, regarding the pilot program that was proposed in LD 774:

1. The number of Public Safety Answering Points (PSAPs) to be included in the pilot and the various characteristics of the PSAPs being sought;
2. Whether the number of PSAPs participating in the pilot is sufficiently representative of the population for the results to be applicable statewide;
3. While ensuring that participation is voluntary, the selection process for identifying the PSAPs in the pilot;

100 STATE HOUSE STATION, AUGUSTA, MAINE 04333-0100 TELEPHONE 207-287-4143

ATTACHMENT 1

4. Funding available to complete the pilot program;
5. A timeline with milestones for completing the pilot program; and
6. Specific items to be studied as part of the pilot program; we expand the list to include, but not be limited to:
 - Possibilities for streamlining or gaining efficiencies in the quality assurance done at the PSAPs;
 - Rolling out fire and police at the same time or one at a time;
 - Impact on the quality of service being provided to the public; and
 - Cost information, both startup and recurring, for implementing a statewide system, including personnel costs to municipalities for doing the quality assurance (for EMD, fire and police); and
 - Funding stream options to implement a statewide program.

Thank you for your time and attention to this important matter. The committee looks forward to receiving the information in January.

Sincerely,


John Cleveland
Senate Chair


Barry Hobbins
House Chair

c: Members, Energy, Utilities and Technology Committee
✓ Paulina Collins, Public Utilities Commission

Attachment 2

Proposed Draft Timeline (September 2014 – October 1, 2016) and Milestones for Completing the Pilot Program

Bureau Discussion with PSAPs and Public Safety Stakeholders – To Allow Them to Hear More About the Pilot Program and Understand What the Pilot Program Will Involve Prior to Deciding Whether They Want to Volunteer to Participate — September 2014

Work Out Contractual Details with Protocol Vendor: - September 2014

Conduct PSAP Selection Process –September 2014

Pre-implementation Surveys and Information Sessions with Public Safety Stakeholders and Emergency Personnel—October/November 2014

Fire Protocol Training - January 2015

Fire QA Training - January 2015

Begin Fire Protocol Use - January 2015

QA Evaluation of Fire Protocol – 30, 60, 90 days

Six Month QA Evaluation of Fire Protocol –June 2015

Police Protocol Training – June 2015

Police QA Training—June 2015

Begin Police Protocol Use - July 2015

QA Evaluation of Police Protocols – 30, 60, 90 days

Six Month QA Evaluation of Police Protocol/One Year QA Evaluation of Fire Protocol - January 2016

Final QA Evaluation at End of Pilot - September 30, 2016

Post Implementation Surveys - October 2016

Submit Report to the Legislature with Recommendations and any Necessary Legislation - December 1, 2016