

911 SERVICES SYSTEM REFORM FINANCIAL IMPLICATIONS

SENATE VETERANS AFFAIRS AND EMERGENCY PREPAREDNESS COMMITTEE

**Presented by
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Good morning, I am Douglas E. Hill, Executive Director of the County Commissioners Association of Pennsylvania (CCAP). The Association is a non-profit, non-partisan association providing legislative, educational, insurance, technology, research, and other services on behalf of all of the Commonwealth's 67 counties.

It is my pleasure to present to you counties' comments on the rewrite of Chapter 53 of Title 35, commonly known as the 911 Emergency Telephone Act, and specifically on the associated finances of the 911 system. A comprehensive rewrite of the act is the top county priority for 2015.

The rewrite now underway, and the draft it has produced, represent well over a year of substantive work among CCAP, 911 professionals, PEMA, legislative committees, the communications industry and other interests. Our mutual objectives include the ability to accommodate all current communication technologies including social networking platforms, ability to anticipate and fold in future technologies, consolidation of core elements of the system, and improvement in and consolidation of funding streams.

We appreciate the Committee taking a focused view on the finances of the 911 system, which we will address from the perspectives of historic foundation, current finances, and future need. First, though, are general comments on the state of the system and the basis for this broad-based call for a rewrite of the statute.

Counties provide one of the key functions in public safety, the operation of the 911 call-taking and dispatch system. Under counties' administration, Pennsylvania's system is by all measures one of the most effective, efficient and technologically compliant systems in the nation.

Yet the 911 system faces significant challenges – rapidly evolving technology requirements, a funding stream whose failure to keep pace with need requires counties to rely both heavily and increasingly on the property tax, a statute that is a mismatched collection of amendatory fixes, and the June 30, 2015, sunset of one key funding source, the wireless telephone surcharge – that require a complete and comprehensive rewrite of the statute.

Counties assumed responsibility for 911 service with the 1990 adoption of Act 78, the state Public Safety Emergency Telephone Act. The act set in place planning processes and lines of authority between counties and the Pennsylvania Emergency Management Agency (PEMA), along with a funding stream based on telephone subscriber surcharges. Prior to the act's passage, 911 was a municipal responsibility and on that basis was fragmented and virtually non-existent in the commonwealth. Within five years of passage, counties had developed 911 systems statewide.

Calls arrive at county call-taking centers (public safety answering points, or PSAPs), which then dispatch the appropriate emergency response. Automatic systems give call takers information on the location of the call's origin, with most counties having in place the latest technologies to capture this information regardless of the medium used.

Calls come in through many media, including traditional wireline phones, wireless lines and VoIP. In 2014, counties began to upgrade systems to receive emergency calls by text message. And they are now developing, with PEMA, strategic plans to accommodate the full range of next generation (NG911) technologies. From the callers' perspective, NG911 is likely to include calls from video, non-human (e.g. OnStar), or non-specific (e.g. iPad) devices, and as-yet unimagined sources. On the administrative end, NG911 includes developing shared broadband backbones for 911 PSAPs, shared network switching and better regional system redundancy.

The challenge is to accommodate these rapid changes in technological advancement through a law that was adopted in 1990 and amended in piece-meal fashion to accommodate intermediate technologies. The concurrent challenge is to fund the system, which has seen no adjustment since 1990 in its basic funding mechanism, telephone subscriber fees; even the wireless and VoIP fees, added in later years, were keyed to the 1990 wireline rates.

The costs and the complexities of the statute are exacerbated by the manner in which the act was amended over time to accommodate system changes. Despite the success of the act, it was not structured in a way that anticipated or accommodated new developments in technology, including wireless and VoIP telephony. Further, the law remains inadequate on PBX technology and wholly lacking regarding NG911 technology. The amendments adopted to date were keyed to the individual technology, and consequently the act has inconsistencies in system planning, development, funding and administration among technological platforms.

Many of these shortcomings were recognized in the 911 systems report issued in May 2012 by the Legislative Budget and Finance Committee. The report accurately reflects the technological, financial, organizational and administrative challenges facing the system, and makes multiple recommendations on ways in which it can be improved.

The report also notes that the current funding structure covers only an average of 71 percent of counties' costs to provide this vital service – and that percentage is calculated only against reimbursable costs which exclude part of personnel and training costs and the entirety of bricks-and-mortar facility improvements and overhead.

The bottom line for counties is a significant and growing backfill of local property tax dollars needed to keep 911 systems operational for their residents and for all those who visit or travel through their communities, particularly given the intent of the original law for the subscriber fee to fully fund all eligible costs. The need to address the funding stream is immediate, and will reach crisis proportions if action is delayed past the June 30, 2015, expiration of the wireless telephone subscriber surcharge.

Funding Mechanism: Description

The funding structure is a monthly surcharge on wireline, wireless (standard and pre-paid) and VoIP subscribers, ranging from \$1.00 to \$1.50 per month for wireline, and set at \$1.00 per month for wireless and VoIP, and \$1.00 per transaction for prepaid wireless (including either purchase of a prepaid wireless device or purchase of minutes).

The wireline rates are established by each county. The variance in wireline rates is set in the statute: The maximum rate in 1st class, 2nd class, and 2A counties is \$1.00; the maximum in 3rd through 5th class counties is \$1.25, and the maximum in 6th through 8th is \$1.50. The monthly rates for wireless and VoIP, along with the per-transaction rates for pre-paid wireless, are set statutorily statewide (there is no county action), and are a flat \$1.00.

Funding Mechanism: History

It is important to note at the outset that counties, recognizing the inability of municipal government to effectively or efficiently provide for statewide access to 911 services, requested the legislative mandate to provide the service at the county level, provided for in the Public Safety Emergency Telephone Act (Act 78 of 1990). In return, counties requested and statutorily received a funding mechanism intended to be sufficient to fully fund all allowable 911 costs the counties incurred. Apart from counties absorbing disallowed costs (bricks-and-mortar, housing overhead, and a portion of personnel and training expenses), there was no requirement for county match nor was there a presumption that there would be stranded costs for the counties to absorb.

Given the then-prevalent technology, the original 1990 law dealt exclusively with wireline; wireless was a small and exclusive market and VoIP did not exist. The primary rate-setting mechanism in the act was individual county-proposed monthly surcharge rates, subject to Public Utility Commission approval. The fee is collected by the telephony provider, and is remitted directly to each county based on the subscriber billing address.

The law provided for each county to develop its 911 system budget and calculate the rate necessary to fully fund its statutorily-allowable costs, and then submit its documentation to the PUC. The PUC in turn, after close review, determined the county's final rate.

Throughout legislative consideration of the bill that became Act 78, the PUC rate-making system was the proposal's exclusive funding provision. It was only when the bill went to conference committee that the final report added – in addition to the PUC process – the \$1.00/\$1.25/\$1.50 caps.

Still, in the initial years, the PUC-approved amount in each county was sufficient to cover all allowable costs, and it was not until the broad public acceptance of wireless, and the market effects of that transition, that the wireline-based funding system became inadequate.

Public adoption of wireless technology had three significant effects. First, a core safety standard for 911 is to be able to identify the point of origin of calls to aid in dispatch. However, unlike wireline phones, the wireless devices have no fixed address and so required “enhanced 911” (E-911) which originally was triangulation off cell towers and, later, GPS locator systems. The cost of developing and installing these systems was significant, well beyond the available wireline funds. Further, these system upgrades had to be integrated with existing wireline call-taking systems, often requiring their replacement as well.

The second effect of wireless, although not as immediate, was a gradual plateau, and then ultimately precipitous decline, of wireline revenues. As public adoption of wireless grew, new

installations of wireline slowed, and within a relatively short time frame the line counts began to shrink as households abandoned wireline altogether.

The third effect of wireless was call volume. In the wireline era, a highway accident generated one or two calls as witnesses made their way to nearby payphones. With the advent of wireless, the same accident would generate a sizable volume of calls and, because each had to be handled properly despite redundancy, it increased both equipment and staffing costs.

We addressed our wireless issue with Act 56 of 2003, which established a statewide fee of one dollar per month per wireless subscriber, and gave us tools for planning and development of wireless locator and response systems. The fee is collected by the wireless provider and is remitted to the Commonwealth, and then is redistributed to the counties based on wireless plans submitted to PEMA.

The fee was established statewide because, unlike wireline, wireless billing addresses are not a good indicator of the usage patterns or system needs for mobile devices. The grant mechanism was used for distribution on the presumption that the fee would be sufficient to fully fund E-911 build-out, and so the planned costs developed by counties were presumed to be a fair indicator of need. As a safe-guard, the original law provided that, to the extent a given year's wireless collections were insufficient to fund all of that year's cost, those costs would be carried forward to the subsequent year and paid first-dollar out of that year's receipts. In this context the fee structure reflected, as did the original wireline fee, a legislative intent that the fee fully fund eligible county 911 costs.

And then with that problem barely solved, we found we had comparable problems with VoIP communications systems, and counties again worked with PEMA, emergency management professionals, and the industry to develop Act 72 of 2008, which also incorporates a one dollar per month wireless subscriber fee along with the tools for planning and development of VoIP locator and response systems. Like the wireless fee, it is a statewide statutory levy; unlike the wireless fee, because VoIP is for now a more static technology, its revenues are redistributed to the counties based on the subscriber address.

Finally, in response to growing use of prepaid wireless phones and attendant issues on the changing means of their sale and deployment, Act 118 of 2010 clarified how the \$1.00 monthly wireless subscriber fee and related administrative matters apply to those devices.

Funding Mechanism: Current Issues

The two predominant current issues with the 911 system funding mechanisms relate to structural shortcomings in its administration, and the adequacy of funding.

Administration issues encompass the fragmented nature of the funding streams, and their lack of responsiveness to system needs. One fund stream is wholly local, one funding stream is state-collected and distributed based on a de facto competitive grant, and one funding stream is state-levied and distributed based on billing address either through state collections or by direct provider remittance to the county. Each of these funding streams has collection issues as well; there is no ready means for counties to verify line counts or collections for the wireline fee,

PEMA has no clear capability to audit wireless or VoIP collections, and collection patterns for prepaid wireless are suspect.

Administration issues also point to distribution inefficiencies. On one hand, wireline and VoIP distributions based on place of service are not a wholly equitable indicator of system need (especially in smaller or less-densely populated counties). On the other, the stage has been reached where the wireless fee is far from adequate and, coupled with the elimination of the act's carry-over provision, PEMA is now compelled to award funds based on pro-rata percentages of requested funding. As a result, county plan submissions can often be overly-robust in an effort to maximize allocations from the limited funding pool.

Yet fund administration issues are far overshadowed by the growing crisis in overall funding. Funding inadequacies arise in several different ways. First, the adoption of the flat rate fee structure, coupled with the absence of any mechanism for regular adjustment, did not envision the potential for recurring capital costs, the expansion of service levels based on volume, nor the general rise in the cost of providing service. Yet counties have managed to build and maintain the system on a fee rate and structure that has not materially changed in 25 years.

The Legislative Budget and Finance Committee, in its 2012 report, found that the fee now covers just 71 percent of system costs, and that the initial rates, if adjusted for inflation, should be between \$1.72 and \$2.58. We note parenthetically our disagreement with the LBFC conclusion that the inflation-adjusted wireless and VoIP rates should be \$1.19 and \$1.04 respectively; in fact, when those fees were adopted the providers insisted that rates create no competitive advantage, and so the \$1.00 established for each actually reflects the least-common-denominator from 1990. On that basis, wireless and VoIP inflation rates should be \$1.72 as well.

Second, at original enactment, there was a presumption that there would be initial capital costs of installing systems, but there was no recognition of the shelf life of equipment or the likelihood of regular changes in technology. Most equipment is now replaced on a cyclical basis, at minimum when the vendor deems the system old enough that a drop-dead date is set for discontinuing system support. Similarly, there was no anticipation of technological change, and so the installation of E-911 locator systems, along with the attendant personnel costs attached to the higher calls-per-incident ratio, were unexpected.

Third, changes in market as well as market saturation have caused overall collections to plateau and, in recent years, to actually erode. The number of businesses and households in Pennsylvania is relatively static, and the Commonwealth is at or near the saturation point in the net number of lines for wireless. At the same time the rapid public adoption of wireless in the 1990s caused an equally rapid reduction in wireline phones, replacing corresponding \$1.25 to \$1.50 wireline fees with \$1.00 wireless fees in half the state. Likewise VoIP, rather than adding new lines, has become a direct replacement for wireline; its fee trade-offs are comparable but the fiscal effect is greater due to VoIP prevalence in the business sector.

As a result of all of these factors, the current fee structure fails to meet the original intent of providing funding adequate to develop, operate and maintain the system. The difference is made up exclusively from county property tax dollars, an amount that has begun to grow at a rapid and

unsustainable rate. Others testifying later today will give you numbers and trend lines specific to their counties.

Emerging Fiscal Challenges

Apart from a stagnant fee structure and a stagnant market against which the fee is assessed, the 911 system faces technology challenges, as well as challenges of a changing communications marketplace.

The external technological challenge for 911 is to maintain currency in its capabilities to handle next generation communications. We have invested in our capabilities to handle wireless and VoIP calls and locate the call origins. We are now deploying capability to received text messages. Our challenge in the near horizon is next generation (NG911) technology, including video, non-human (e.g. home and business monitoring systems, OnStar, and others), or non-telephonic (e.g. iPad or Skype) devices, and other as-yet unimagined sources. The public benefit of being able to accept and process these contacts, and dispatch and manage incidents based on their capabilities, is incalculable, but equally incalculable for now is the price tag attached to doing so.

We also have to understand and anticipate changes in the communications marketplace. Already we are seeing changes in device usage, billing methodologies, and communications methodologies that dilute or skirt the existing fee structure. For example, what appears to our subscriber-fee based system to be a three-line VoIP customer may actually have 300 caller devices behind it. Similarly, magicJack, Skype, iPod Touch, and comparable devices may not have an associated phone number or subscription base to trigger the subscriber fee. And communication devices that are wireless in one context but connect through broadband in another blur the lines of fee administration.

Cost Savings Opportunities

While changing technology presents challenges, it also presents clear opportunities. We can maintain our status as a leading state in provision of comprehensive 911 service by leveraging new technologies – both to increase scope of service, and to provide service efficiencies. We already have the fewest PSAPs per capita of any large state, and we have several counties that contract with neighbors to provide 911. We have two active projects deploying a common broadband backbone among groups of counties, which allow them to use fewer switches (interfaces with the telephone system), improve critical system redundancies, and serve as back-up to each other, and other groups of counties are looking to do the same. We are also engaged with PEMA in comprehensive NG911 planning, both to anticipate and determine system needs, and to find opportunities to leverage technology to improve system efficiencies.

Counties' assumption of 911 responsibilities also results in cost savings in one way that is not normally acknowledged. In most other states, 911 services are more broadly dispersed, provided by a mix of county and municipal systems. By contrast, our model almost from inception in 1990 consisted of county-based PSAPs, coupled with a corresponding predominance of county, rather than responder, dispatch. County dispatch has become almost universal in recent years; a few years ago Allegheny County assumed dispatch for the City of Pittsburgh while last year Dauphin County assumed dispatch for Harrisburg and Cumberland County assumed dispatch for Carlisle.

The bottom line is that municipalities' police departments and fire companies, and EMS responders, benefit directly from the system and no longer have to bear this cost.

Recommendations

The draft legislation that CCAP has been developing in concert with other stakeholders constitutes a full rewrite of the 911 Public Safety Emergency Telephone Act. It includes comprehensive revision of governance mechanisms, accountability mechanisms, technology references, distribution of fees, and rate of fees, and is intended to recognize that the commonwealth and counties need not just to maintain current systems, but to invest in the future response capabilities based on technologies as well as citizen and corporate expectations.

It improves administration by removing the three silos in existing law that treat wireline, wireless/prepaid wireless and VoIP as separate technologies for planning, funding, and audit purposes. While development, deployment, upgrade, maintenance, and operation of 911 systems remains a local responsibility, under local ownership and control, PEMA gains some strength as a planning, regulatory, approval, funding disbursement and oversight body.

A new 911 Board is established, replacing the existing advisory committees and composed of a cross section of professionally-competent state, local, and provider interests, along with members of the General Assembly, charged with planning, funding disbursement, and funding accountability responsibilities, with some responsibilities shared with, or in consultation with, PEMA.

The proposal includes a number of reforms to promote system efficiency. PEMA and the 911 Board are required to develop state-of-the-art standards for 911 systems. Incentives are provided for multi-county deployment as well as system efficiencies through technology upgrades and shared background services. Specific planning requirements and funding set-asides are established to develop a shared broadband backbone for the system, which taken together reduce requirements for county switches, improve operability, facilitate system backup and redundancies, and reduce system costs. And the funding distribution is changed from a de facto competitive grant basis to a formula basis, encouraging tighter planning and budgeting at the county level.

For the time being, the wireline, wireless, prepaid wireless, and VoIP subscriber funding system is maintained, along with current language and schedules on fee payment. To meet current and near-term fiscal needs, the proposal increases the monthly subscriber rate by between \$.50 and \$1.00, for a new uniform rate of \$2.00. Although CCAP supports inclusion of an inflation adjuster and has language if that route is viable, the draft relies on a four year sunset to spur legislative review of the rate. At the same time, a concurrent requirement for the 911 Board to study and make recommendations on system structure and funding opens the door for consideration of a broadband percentage-based fee system, comparable to that proposed by PEMA in its 2014 draft.

Rather than the current fragmented fee distribution system (wireline and VoIP funds directly to county of billing address and wireless funds to PEMA for redistribution based on county costs determined through plan/grant submission), funds will all be channeled through the state.

Although funds flow through the state, all of the funds except a small PEMA administrative fee are ultimately disbursed to the counties.

Funds will be distributed quarterly, primarily on a formula basis. A formula distribution gives counties a defined amount that provides annual budget certainty while also serving as an incentive to manage within available dollars; counties spending above available amounts do so knowing that the difference comes from the county general fund.

The formula distribution in the current draft consists of a flat 5 percent uniformly divided among the counties (including the two city-based systems), 70 percent to counties in formula distributions, 15 percent to competitive incentive grants for consolidation and system efficiencies, eight percent to PEMA for joint state-county development of a common system broadband backbone, and two percent to PEMA for 911 administration and support.

The formula for the 70 percent distribution is to be arithmetic and established by PEMA with the advice of the 911 Board, with regular periodic review. It is to fairly and proportionately reflect county and regional 911 system needs and must consider and may include factors such as base level costs, population, call volume, and extenuating factors such as topography, population density, and special hazard exposures. Because it will take some minimum amount of time for the 911 Board to develop a formula, in the interim funds are distributed based in part on relative prior wireline collections and in part on relative historic expenditure reports. A short term hold-harmless and a permanent anti-windfall provision are included.

The 911 Board created by the draft is given two years to develop and submit a report and recommendations on the impacts of current and anticipated technological and market changes on the provision of 911 communications service, including the structure and adequacy of the 911 surcharge and 911 fund. We anticipate that the study will include review and recommendations on the broadband percentage-based proposal offered in the 2014 PEMA draft.

Conclusion

Counties are proud of their role in providing this critical public service, but need a statute and funding mechanism that allow them to continue doing so at the level the public expects and deserves. The draft legislation now under consideration would meet this objective, and we look forward to working with the Committee to make any final adjustments necessary to put it into bill form, and to start it on its path to the Governor's desk ahead of the June 30 sunset.