



PERFORMANCE AUDIT REPORT

The Kansas 911 Act: Reviewing Implementation of the 2012 Act

**A Report to the Legislative Post Audit Committee
By Stone Carlie Under Contract with
the Legislative Division of Post Audit
State of Kansas
January 2014**

Legislative Division of Post Audit

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January 16, 2014

To: Members, Legislative Post Audit Committee

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This report contains the findings, conclusions, and recommendations from the completed performance audit, *The Kansas 911 Act: Reviewing Implementation of the 2012 Act*. Stone Carlie, a certified public accounting firm under contract with the Legislative Division of Post Audit, conducted this audit.

We would be happy to discuss the findings, recommendations, or any other items presented in this report with any legislative committees, individual legislators, or other state officials.

Sincerely,

Scott Frank
Legislative Post Auditor

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This audit was conducted by Stone Carlie under contract with Legislative Post Audit. Julie Pennington was the audit manager. If you need any additional information about the audit's findings, please contact Julie at the Division's offices.

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KANSAS LEGISLATIVE DIVISION OF POST AUDIT KANSAS 911 PERFORMANCE AUDIT

DECEMBER 20, 2013



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December 20, 2013

1. INTRODUCTION

The Kansas Legislative Division of Post Audit (“Legislative Post Audit”, or “LPA”) contracted with Stone Carlie & Company, L.L.C. (“Stone Carlie”) on September 23, 2013 for the purpose of evaluating the status of 911 service implementation among Kansas Public Safety Answering Points (“PSAPs”), whether the moneys received by the PSAPs are being used appropriately, and whether the amount of moneys collected are adequate.

Stone Carlie teamed up with other consultants for this project who also possess industry specific experience, which included the following firms:

- Bauknight, Pietras & Stormer, P.A.
- Weikle & Co.

This Performance Audit was conducted so as to comply with the requirement in K.S.A. 12-5377(c) that requires an audit by the end of 2013 based on the scope of work in Section 2.1 of this report. Each of the 117 PSAPs in the State, which are individually controlled at the local level, were included in our scope.

The use of “Stone Carlie” throughout this report collectively refers to the work of this team, unless specifically stated otherwise. Stone Carlie is pleased to provide the LPA and the 911 Coordinating Council (“Council”) with the following report detailing our findings on the performance audit.

1.1 EXECUTIVE SUMMARY

This study of the State of Kansas’ 911 system was performed to address the following areas:

- Determine the status of 911 service implementation as of July 1, 2013 for all 117 Kansas PSAPs.
- Determine whether moneys received by PSAPs in calendar year 2012 pursuant to the Kansas 911 Act were being used appropriately.
- Provide an opinion as to whether the amount of money collected to fund the implementation of 911 services is adequate.
- Determine what level of funding is needed for ongoing support of 911 services in the State of Kansas.

A key part of this study was the surveying of all PSAPs in the State. In addition to gaining information from PSAP officials relevant to the objectives above, it was also helpful to identify trends and to obtain a unique perspective on the current state of 911 operations. Even though this information was accepted without verification or audit, it was still helpful in this regard. It is also noteworthy that 100% of the PSAPs responded to the survey, which is greatly appreciated.

Overall, we observed that the State has taken a proactive approach to its 911 service. This is evidenced by the Council's investment in the current geographic information system ("GIS") mapping project and the upcoming NG911 study. As a result, it appears that many things are working well. We observed some challenges and opportunities for improvement. These observations were gathered throughout our study which included our discussions with stakeholders and various experts, PSAP surveys, and other research.

General findings of our study were as follows:

- All but three of the 117 PSAPs are directly Phase II compliant. The other three PSAPs are not technically Phase II compliant, but in each case another PSAP that is Phase II compliant, answers wireless calls on their behalf and calls are transferred for dispatching. As a result, all wireless calls in the State appear to be answered by Phase II compliant PSAPs.
- We were able to obtain appropriate documentation for 99 of the 104 expenditures sampled satisfying us that moneys received by PSAPs in calendar year 2012 pursuant to the Kansas 911 Act were being used appropriately.
- We found significant variances in remaining 911 fund balances among PSAPs. When annual 911 funds and reimbursable expenses reported to the State are examined in total, it appears PSAPs are sufficiently funded. However, not all of 911 related costs are considered in the State's report. Further, given the wide spread of reported shortfalls and remaining balances that exist, the allocation currently used is creating "winners and losers." Based on survey responses, there were indications that the funding for certain PSAPs may not have been adequate to cover allowable expenditures during 2012. These PSAPs required additional funding from other sources to maintain their operations.
- Based on survey results and other information derived from our study, it appears that the current funding structure would not be sufficient to fund future upgrades and operations. At a minimum, there would need to be an allocation of funds to financially-challenged PSAPs to purchase standalone equipment either with 911 funds or funds from local government. Consideration of sharing equipment among several PSAPs should occur as well.

The remainder of this report provides further details, explanations, and recommendations for each of these areas. In Section 6 of this report we have made observations and recommendations based on our study. The recommendations are meant to be adaptable under the realization that the 911 environment will be undergoing continuous transition for the foreseeable future. Many of the recommendations should be evaluated both on a standalone basis and combined with other recommendations. They should also be reviewed periodically for appropriateness as changes occur at the national and local levels.

1.2 OVERVIEW OF KANSAS 911 SYSTEM

The State of Kansas has a well-established 911 system structure. In 2011, the Council was established by Senate Bill 50, empowering the Council with the ability to monitor the delivery of 911 services in Kansas, develop strategies for future enhancements to the 911 system and distribute grant funds to PSAPs. In a press release, Governor Brownback stated, "New technologies give Kansans in emergency situations more options to call for assistance, but unless our 911 call centers keep up with that changing technology, they can't take the calls or receive

the texts or emails. This council will play a critical role in shaping our State's approach to how we invest in new technologies."

The Council consists of 16 voting members appointed by the Governor, comprised of two members representing information technology personnel from government units, one member representing a law enforcement officer, one member representing a fire chief, one member recommended by the Adjutant General, one member recommended by the Kansas Emergency Medical Services Board, one member recommended by the KS Commission for the Deaf and Hard of Hearing, two members representing PSAPs located in counties with less than 75,000 population, two members representing PSAPs in counties with greater than 75,000 populations, and one member representing PSAPs without regard to the size of the county.

There are also 10 non-voting members appointed by the Governor which include one member recommended by the Kansas rural independent telephone companies, one member representing incumbent local exchange carriers with more than 50,000 access lines, one member representing large wireless providers, one member representing VoIP providers, one member recommended by the League of Kansas Municipalities, one member recommended by the Kansas Association of Counties, one member recommended by the KS Geographic Information Systems Policy Board, one member recommended by KAN-ED, one member recommended by the Kansas Division of Information Systems and Communications, and one member recommended by the Mid-America Regional Council. The Governor initially appointed the current Council's chairman, Walter Way. The Council establishes rules and regulations necessary to carry out the law and designates the local collection point administrator ("LCPA") to assist the council as it moves forward. Legislative leadership also is responsible for appointing four voting members.

K.S.A.12-5369 established the current 911 fee at \$0.53 per month per subscriber account of any exchange telecommunications service, wireless telecommunications service, VoIP service, or other service capable of contacting a PSAP. In addition to this fee, K.S.A.12-5371 established a fee on prepaid wireless transactions of 1.06% per retail transaction. A total of approximately \$20,477,000 in assessed 911 fees was collected during calendar year 2012. Of this total amount, approximately \$19,421,000 was remitted to the LCPA by the service providers, while a total of approximately \$1,055,000 was collected on prepaid wireless service. The collected funds are remitted by the service providers to the LCPA, who provides contractual services to the Council. The funds are then distributed by the LCPA to the individual PSAPs based on a funding formula established in K.S.A.12-5374. This formula ensures that every county within the State receives a minimum 911 fee disbursement of \$50,000 annually.

Written criteria of allowable use of 911 fee funds provided to the PSAPs by the State is established in K.S.A.12-5375. This statute provides for the following approved uses of 911 fee moneys: (1) Implementation of 911 services; (2) purchase of 911 equipment and upgrades; (3) maintenance and license fees for 911 equipment; (4) training of personnel; (5) monthly recurring charges billed by service suppliers; (6) installation, service establishment and nonrecurring start-up charges billed by the service supplier; (7) charges for capital improvements and equipment or other physical enhancements to the 911 system; or (8) the original acquisition and installation of road signs designed to aid in the delivery of emergency service. Such costs shall not include expenditures to lease, construct, expand, acquire, remodel, renovate, repair, furnish or make

improvements to buildings or similar facilities. Such costs shall also not include expenditures to purchase subscriber radio equipment.

K.S.A.12-5364 established the Council and tasked it with requiring annual reporting of 911 fee expenditures by the PSAPs and reviewing those expenditures to ensure that 911 fee funds are being spent in accordance with the legislation. The Council provides guidance to the PSAPs on allowable and non-allowable expenditures. The Council has developed an annual report form that details 911 fee fund revenue received and expenditures made by the PSAPs. These reports are reviewed by the Operations Committee of the Council and any questionable expenditures are followed up with the PSAP. If an expenditure is deemed to be non-allowable, the PSAP is required to reimburse the 911 Fee Fund account for the expenditure plus a 10% penalty.

2. KANSAS 911 PERFORMANCE AUDIT SCOPE, OBJECTIVE AND METHODOLOGY

2.1 SCOPE AND OBJECTIVES

The scope of work as outlined in our contract dated September 23, 2013 was as follows:

“K.S.A 12-5377(c) requires an audit of the 911 system to evaluate the status of 911 service implementation, whether the moneys received by PSAPs are being used appropriately, and whether the amount of moneys collected through the act are adequate. That audit must be conducted on or before December 31, 2013.

A performance audit in this area would address the following questions:

- 1. What was the status of 911 service implementation as of July 1, 2013?** *To answer this question, the contractors will interview 911 Coordinating Council members to determine what type of 911 services PSAPs can offer, identify the most commonly provided services, and gather available information on the status of 911 service implementation. As necessary, they will also contact PSAP officials to obtain specific information on what level of service is currently provided and whether those services are being upgraded (e.g. to next-generation 911 service). The contractors will use this information to prepare an inventory showing implementation status for each PSAP, as well as an estimate of when any upgrades currently in progress would be completed.*
- 2. Were moneys received by PSAPs in calendar year 2012 pursuant to the Kansas 911 Act being used appropriately?** *To answer this question, the contractors will review state statutes to identify allowable uses for moneys distributed under the act. They will work with the 911 Coordinating Council and the Kansas Association of Counties to collect information on PSAP expenditures, including information reported in the 911 Coordinating Council’s most recent annual report. On a sample basis, the contractors will review documentation of purchases and expenditures made by PSAPs to determine if they conformed to state law.*
- 3. Is the amount of money being collected to fund the implementation of 911 services adequate, and what level of funding is needed for ongoing support of those systems?** *To determine whether the amount of money being collected is adequate, the contractors will work with the 911 Coordinating Council and PSAP officials to determine the total annual revenue and expenditures for a representative sample of at least 20 PSAPs. Moreover, for any PSAPs in the sample that are in the process of upgrading services identified in Question 1, contractors will work with PSAP officials to estimate how much it would cost to complete the upgrades. Based on the sample results, the contractors will determine whether current funding levels appear to be adequate for the services currently in place, and will project whether funding appears to be adequate to implement and maintain upgrades currently in progress.*

The main objective of this Performance Audit was to perform the necessary procedures to comply with the requirement in K.S.A. 12-5377(c) that requires an audit by the end of 2013. While this study does in fact accomplish this objective, it also provides additional information for the Council and other 911 stakeholders additional information that will be valuable in the ongoing quest to implement Next Generation 911 (“NG911”).

2.2 METHODOLOGY

In order to fulfill the three scope criteria discussed above in 2.1, Stone Carlie performed the following procedures:

- Created and distributed a survey to all 117 PSAPs in the State of Kansas. The survey included a variety of questions relating to 911 operations at the PSAP level. The questions were designed to gather operational and financial information to be used in addressing the scope questions above in 2.1. A copy of the survey is at Appendix 7.2 at the end of this report.
- Tested a sample of expenditures from 22 PSAPs to ensure 911 funds were used appropriately in accordance with K.S.A.12-5375.
- Interviewed eight Council members for their observations and opinions on a variety of topics covered in this report. Three of those interviewed were full Committee Chairs and two were Sub-Committee Chairs.
- Reviewed and analyzed materials on the www.kansas911.org website.
- Conducted weekly conference calls with the LPA, 911 Liaison, and 911 Coordinating Council to discuss progress of this study and address any concerns or questions.

As soon as the contract was signed, Stone Carlie began working on the project in order for the audit and final report to be completed in a timely manner. Stone Carlie appreciates the help and input received from the LPA, 911 Liaison, LCPA, and 911 Coordinating Council.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

3. KANSAS LEGISLATION SURROUNDING 911

3.1 OVERVIEW

The current laws surrounding 911 services in the State of Kansas are the result of legislation passed in 2011 referred to as the Kansas 911 Act (“911 Act”). The 911 Act updated and replaced some prior legislation that was passed in previous years. The 911 Act implemented many changes to funding, oversight, and reporting compared to prior law. Funding was changed to adopt a uniform surcharge for wireline and wireless customers instead of the prior system that had a different rate for each technology.

The 911 Act was enacted to address many of the important issues surrounding the present and future of 911 services in the State and to update the then existing laws in response to the many changes that had occurred since the prior legislation was enacted. The Act established statewide oversight, created guidelines for revenues and expenditures, reiterated allowed usages of state and federal grant programs, and defined NG911 services.

This performance audit is the result of a requirement in K.S.A. 12-5377(c) that requires an audit be completed by the end of 2013 “to determine: (1) Whether the moneys received by PSAPs pursuant to this act are being used appropriately; (2) whether the amount of moneys collected pursuant to this act is adequate; and (3) the status of 911 service implementation.” There are 117 individually controlled PSAPs in the State that collectively receive more than \$1,000,000 in 911 funding each month.

The national consumer movement from landlines to VoIP and handheld devices has introduced many technological challenges as well as opportunities to PSAPs and public safety in general. Technological advances continue to occur rapidly and the Federal Communications Commission (“FCC”) is setting the stage for a nationwide NG911 rollout. Adding in the element of the overall importance of the services provided to communities by emergency responders, decisions become even more complex in nature and require thought processes that must exceed just the basic legislative requirements. Therefore, it is essential that one be familiar not only with regulation currently in place, but also potential upcoming changes based on national trends.

3.2 STATE 911 OVERSIGHT

The 911 Act created a Council made up of 16 voting members and 10 nonvoting members to provide statewide 911 oversights. The 911 Act is very specific as to who shall be a part of the Coordinating Council. It has been written in such a manner that the Council will be collectively comprised of members having broad backgrounds and knowledge. Requirements are written into the Act to require the Council to have members with various demographics, responsibilities, and skill sets. In K.S.A. 12-5364.(a)(1), the Council was charged with the objectives to “monitor the delivery of 911 services, develop strategies for future enhancements to the 911 system and distribute available grant funds to PSAPs.”

As further explained in Section 3.3 below, the Council is allowed to adjust the monthly surcharge to a maximum of \$0.60 per month per subscriber account. The council also is

responsible to designate the LCPA. The primary duties of the LCPA are to collect and distribute 911 fees and to staff the Council. This is carried out through a set of rules and regulations spelled out in Kansas Administrative Regulation (“KAR”) 132-2-1.

During this performance audit, eight members of the Council were interviewed. It is apparent from our discussions that the Council takes its responsibilities seriously and strives to educate PSAPs and to prepare them for the future.

3.3 FUNDING MECHANISMS AND DISBURSEMENT STRUCTURE

Prior to the 911 Act, \$0.75 per line per month was charged to landline users and \$0.50 per line per month was charged to wireless and VoIP users. The 911 Act set a standard and uniform fee across the board of \$0.53 per line per month per subscriber account which went into effect on January 1, 2012. The Council is allowed to adjust the monthly surcharge up or down based on financial need as long as it does not exceed \$0.60. The 911 Act also increased the fees collected from wholesalers of pre-paid phone cards from 1.00% to 1.06% of each purchase.

With the exception of state and federal grant programs and local general government funding, there are currently no other methods for PSAPs to fund 911 operations. 911 funds are generally to be used for certain expenses for 911 equipment and fees to connect to the telecommunications network. The largest expense for a PSAP is personnel involved in maintaining operations and answering calls. Because of limited amounts of 911 funds, personnel expenses are typically funded by local, general tax revenues.

There is within the 911 Act a percentage distribution structure that allows for the PSAPs to receive between 82% and 100% of the 911 fees collected in their service coverage areas. The amounts are distributed based on their county’s population with larger counties receiving a lower payout percentage and smaller counties receiving a higher payout percentage, resulting in a subsidy to help fund the larger cost per citizen in the less densely populated areas. Regardless of population, there is a yearly minimum of \$50,000 that each county will receive. 51 of the State’s PSAPs (44%) received the \$50,000 minimum disbursement amount in 2012. If a county receives the minimum \$50,000 and there is more than one PSAP in the county, then the funds are divided among the PSAPs in the county proportionally based on the population serviced by each of the PSAPs. The LCPA is charged with distribution of 911 funds.

3.4 FUNDING OVERSIGHT

The 911 Act spells out approved uses on how funding can be spent and explains penalties for non-compliance. K.S.A. 12-5375.(a) spells out that the 911 funding “shall be used only for necessary and reasonable costs incurred or to be incurred by PSAPs for: (1) Implementation of 911 services; (2) purchase of 911 equipment and upgrades; (3) maintenance and license fees for 911 equipment; (4) training of personnel; (5) monthly recurring charges billed by service suppliers; (6) installation, service establishment and nonrecurring start-up charges billed by the service supplier; (7) charges for capital improvements and equipment or other physical enhancements to the 911 system; or (8) the original acquisition and installation of road signs designed to aid in the delivery of emergency service. Such costs shall not include expenditures to

lease, construct, expand, acquire, remodel, renovate, repair, furnish or make improvements to buildings or similar facilities. Such costs shall also not include expenditures to purchase subscriber radio equipment.” In the event that disallowed expenditures occur, the money spent must be returned to the LCPA along with a 10% penalty. According to K.S.A. 12-5375.(b), a PSAP that has used funds for an unauthorized purpose “...such PSAP shall repay all such funds used for any unauthorized purpose plus 10% to the LCPA...” This is also addressed in more detail in KAR 132-4-1.

The LCPA is also charged with keeping detailed and accurate records of all funds that come in from service providers that are disbursed to PSAPs. K.S.A. 12-5364.(g) states that “[t]he Council may appoint subcommittees as necessary to administer grants, oversee collection and distribution of moneys by the LCPA...” It should be noted that the Council works with the LCPA to monitor and enforce the proper use of 911 funds. The Council Operations Committee is charged with investigating any alleged misuses of 911 funds. The LCPA is authorized to require an audit of any PSAP in addition to this performance audit which is one form of funding oversight.

3.5 FEDERAL ISSUES

There are various participants involved at the national level in the regulation and advancement of 911 technologies and services ranging from the Department of Homeland Security, the United States Coast Guard, and the National Highway Traffic Safety Administration to the Federal Communications Commission and the National Emergency Number Association. Congress also created in 2003 the E911 Caucus with a focus promoting 911 policies and educating the public. Just as next generation technologies are becoming more and more of a reality for the near future, in 2011 they renamed the caucus to the NG911 Caucus.

In addition to following state legislation and requirements, it is important to monitor and track federal activities. As stated above in 3.1, the FCC is setting the stage for a nationwide NG911 rollout and their activities will need to be monitored for possible impacts to Kansas. As noted by the Council, National Emergency Number Association (“NENA”) is working on standards for NG911 and the Council has recommended PSAPs avoid purchasing new 911 equipment until national standards are adopted. The Council “recommends that CPE [Customer Premises Equipment] purchases be postponed if at all possible until such time as standards and specifications are determined.”¹

3.6 SUMMARY

When the 911 Act was passed, Kansas was able to modernize its prior laws and better take into account changes that are occurring in technology and subsequent impacts to 911 services. Making the 911 surcharge uniform across all customers regardless of the technology used was an indication of the State’s understanding of shifts in technologies used by customers and financial challenges that were upcoming. The 911 Act provided clear guidance on how funding could be spent and the penalty for noncompliance. The 911 Act also created a Council that appears to be

¹ Council Advice to PSAPs regarding replacing Customer Premise Equipment (CPE), viewed at this website: <http://www.kansas911.org/DocumentCenter/View/171>.

focused and committed to serving all PSAPs in the State and helping improve services across Kansas. While training is addressed in Kansas legislation no standards were adopted similar to what other states have done. This is an area on which the Council has the authority to act and may be able to pick up and explore the pros and cons of establishing minimum or uniform training standards.

There have been significant changes in the 911 environment in recent years, due primarily to changes in technology. In addition, there will almost certainly be a nationwide push for a migration to NG911 services in the not-so-distant future. While there are many unknowns at this point, the NG911 revolution is expected to impact all 911 stakeholders. The transition to NG911 is expected to be expensive in the short-term and will require significant planning. The 911 Act appears to be flexible enough to allow and not impede upcoming changes to 911 services and technology changes. The State has recognized these issues and appears to be proactive in its response. For example, the Council has already implemented a statewide effort to upgrade GIS information and has awarded a contract for an in-depth analysis of a future planned ESInet and NG911 equipment costs.

4. KANSAS 911 EXPENDITURE COMPLIANCE TESTING

4.1 OVERVIEW

As stated in the scope of the performance audit, we were tasked with answering the following question: “Were moneys received by PSAPs in calendar year 2012 pursuant to the Kansas 911 Act being used appropriately?” This requirement is further explained in Kansas K.S.A. 12-5375, which also lists specific approved uses for 911 fee moneys. K.S.A 12-5375 reads as follows:

“911 fee moneys; approved uses (a) *The proceeds of the 911 fees imposed pursuant to this act, and any interest earned on revenue derived from such fee, shall be used only for necessary and reasonable costs incurred or to be incurred by PSAPs for: (1) Implementation of 911 services; (2) purchase of 911 equipment and upgrades; (3) maintenance and license fees for 911 equipment; (4) training of personnel; (5) monthly recurring charges billed by service suppliers; (6) installation, service establishment and nonrecurring start-up charges billed by the service supplier; (7) charges for capital improvements and equipment or other physical enhancements to the 911 system; or (8) the original acquisition and installation of road signs designed to aid in the delivery of emergency service. Such costs shall not include expenditures to lease, construct, expand, acquire, remodel, renovate, repair, furnish or make improvements to buildings or similar facilities. Such costs shall also not include expenditures to purchase subscriber radio equipment.”*

The statute also discusses the consequences of a non-approved use of 911 fee moneys:

“(b) If the 911 coordinating council, based upon information obtained from the PSAP reports or an audit of the PSAPs, determines that any PSAP has used any 911 fees for any purpose other than those authorized in this act, such PSAP shall repay all such funds used for any unauthorized purposes plus 10% to the LCPA for deposit in the 911 state grant fund. No such repayment of 911 fees shall be imposed pursuant to this section except upon the written order of the council. Such order shall state the unauthorized purposes for which the funds were used, the amount of funds to be repayed and the right of such PSAP to appeal to a hearing before the council. Any such PSAP may, within 15 days after service of the order, make a written request to the council for a hearing thereon. Hearings under this subsection shall be conducted in accordance with the provisions of the Kansas administrative procedure act. (c) Any action of the council pursuant to subsection (b) is subject to review in accordance with the Kansas judicial review act. (d) As long as the PSAP is working in good faith to use the 911 fees for expenditures authorized by this act, no repayment of 911 fees shall be required prior to January 1, 2013. (e) This section shall take effect on and after January 1, 2012.”

4.2 METHODOLOGY

In order to determine whether 911 moneys were being used in compliance with the terms set out in the State statute, we used a sampling approach for testing the PSAP expenditures. In cooperation with the Council, we selected a sample from 22 PSAPs, obtained a listing of expenditures by PSAP from the Council and judgmentally chose three to five expenditures from calendar year 2012 for each of the PSAPs in our sample to test for compliance with the applicable laws. We contacted each of the 22 PSAPs and requested documentation supporting the expended amounts. Responses were obtained through a combination of electronic means (e-mail and fax) and U.S. mail.

4.3 RESPONSE RATE

We received documentation from each of the 22 PSAPs (100%). We also had a 100% response rate for our request of supporting documentation for the 104 selected expenditures sampled.

4.4 RESULTS OF TESTING

During our testing, we found adequate documentation to support a proper expenditure for 18 of the 22 PSAPs selected (99 of the 104 tested expenditures) in accordance with the Statutes discussed in the “Overview” section above. In general, the exceptions can be classified in the following two categories:

1. The documentation that was provided to substantiate the expenditure prevented us from determining whether or not the correct expended amount was reported to the 911 Coordinating Council because the supporting documentation could not be reconciled to the reported expenditure, or
2. supporting documentation provided led us to the conclusion that the expenditure was not an allowable use of 911 funds.

There were five exceptions, as summarized below, by PSAP sampled:

Exception No.	PSAP	Exception number (see items 1-2 above)	Amount Reported as Expended	Exception Amount
1.	Kingman	1	\$11,624	\$1,114
2.	Kiowa	1	\$7,328	\$533
3.	Leavenworth City & County	2	\$11,400	\$11,400
4.	Sedgwick	1	\$1,123	\$236
5.	Sedgwick	1	\$568,333	\$135

4.5 EXCEPTION EXPLANATIONS

1. Kingman - Heather Kinsler, contact at Kingman County, reported that while gathering her documents, she discovered two invoices that were never processed. The unprocessed invoices were accounted for in the total expenditure reported to the State, thus overstating the expenditure when originally reported.
2. Kiowa - Ray Stegman, contact at Kiowa County, provided the following statement – “After much review of our audit submitted to the Kansas State 911 Board, it has been discovered that an error has been made on our part in entering Non-Grant Expenditures to the State on the survey. This is only on the AT&T recurring costs portion of the survey. I have supplied documentation showing actual expenditures made by Kiowa County to AT&T totaling \$6,795, not \$7,328 as the State provided information states. It appears that a payment was made in January for the 12/25/2012 AT&T bill.”
3. Leavenworth - The expenditure was a transfer of money from the 911 fees fund to another account, the “equipment reserve fund,” to save money for a future purchase. Leavenworth City & County used a purchase from 2010 as a basis to save the money, \$11,400 per year for the next 10 years (original purchase of \$114,000). After discussion with Scott Ekberg, the 911 Liaison at the Council, it was determined that this was not an allowable expenditure under current Kansas Law. Once the funds are moved from the 911 fees fund to the “equipment reserve fund” each year, the Council no longer has control of the funds to ensure that the funds are used for allowable expenses. The Council contacted this PSAP requesting the funds to be transferred back to the 911 fund. On December 9, 2013, a Board Order was executed to transfer these funds. On Monday, December 16, 2013, Stone Carlie received documentation that the funds had been transferred from the “equipment reserve fund” back to the 911 fees fund as requested by the Coordinating Council. This exception was discovered and resolved during the course of the audit. It should be noted that the funds were not used inappropriately, the issue turned out to be one of transparency.
4. Sedgwick - After discussion with Sara Jantz at Sedgwick County, she was unable to provide the adequate documentation related to the Best Buy expenditure originally reported to the State of Kansas; therefore, this expenditure is considered an exception to the testing.
5. Sedgwick - Sara Jantz at Sedgwick County has provided copies of all necessary AT&T documents. A portion of the AT&T expenditure stated to the State includes Plexar charges. These charges are allocated by the IT department county-wide. The 911 fund contact receives a copy of the spreadsheet calculation each month the IT department prepares to indicate what the 911 fund owes. Sara provided copies of the monthly Plexar allocations to each of the accounts within the county, but was unable to provide adequate documentation for a portion of the AT&T expenditure related to Plexar charges that were originally reported to the State. Therefore, this was listed as an exception since the PSAP cannot provide the necessary and appropriate supporting documentation requested.

4.6 OTHER FINDINGS

The following items are expenditures which came to our attention during our testing, but were not considered to be an exception in accordance with the statute (i.e. no misuse of funds or lack of supporting documentation). These items were underreported to the Council, meaning supporting documentation for the expenditures exceeded the dollar amount reported to the Council. Therefore, Stone Carlie does not deem these items to be exceptions and will report them instead as findings.

1. Cowley – Here is text from an email from Beth Leach, contact at Cowley County – “The Spillman expense for Arkansas City was put under the wrong category. Spillman is the company the PSAP purchased a countywide CAD from under the 2011 Kansas Wireless Grant. It was mistakenly put in Non-grant expenditure. If you check Arkansas City and Winfield, the cost of the software and hardware is divided between the two cities at \$83,752.76 each. That would be a total of \$167,505.52. There is no invoice for either of those exact amounts as the PSAP indicated they made installment payments and purchased hardware. With the invoices we received, we were not able to match the amount reported to the State and the survey with the invoices. We believe the amount was under reported as invoices total \$187,662.20. This amount divided in half would be \$93,831.10 between the two cities.”
2. Cowley - Here is additional text from an email from Beth Leach, contact at Cowley County – “the cost of training for both PSAPs (City of Arkansas and City of Winfield – now Cowley County) is split by the two cities and reflected on the survey forms. There is a discrepancy with the amount reported to the State and actual invoices we located. Both surveys show \$1799.65 per PSAP in training/certifications/course materials from APCO. That would total \$3,599.30. Upon review of the invoices, the total we have is \$3408.31, less \$190.99 than the total for both cities. When the \$3,408.31 is divided between the cities, the expense would be \$1704.16 per PSAP rather than the original \$1799.65; therefore, there is \$95.50 per PSAP that was reported that we cannot account for.”
3. Fort Scott - After discussion with Jon Garrison at the City of Fort Scott, he was unable to explain why only a portion of AT&T monthly statements was allocated to the 911 fund. Based on this, we considered this a finding because the PSAP could not produce documentation as to why only a portion of the AT&T statement was applied to the 911 fund, not because the funds were used inappropriately or the funds were misstated.
4. Sherman - Crissy Livengood, contact at Sherman County, stated the S&T Telephone expenditure for 911 Access lines (911 Wireline) was incorrectly reported based on the supporting documentation she gathered. The total expenditure that should have been reported is \$582.36, therefore understating the expenditure by \$97.10.
5. Crissy Livengood, contact at Sherman County, has requested to amend the non-grant expenditures worksheet provided to the State of Kansas as the AT&T expenditure for 911 Access Lines (911 Wireline) was incorrectly stated. The total expenditure that should have been reported is \$8,298.96, therefore understating the expenditure by \$2,074.40.

4.7 CONCLUSION

Based on the testing of expenditures performed above, five exceptions totaling \$13,418 (net) were identified from the total of 104 expenditures tested, totaling \$2,805,069. The exceptions represented less than 0.5% of the total expenditures tested. We intentionally did not extrapolate the error rate in our sample to the entire population as we do not believe it would provide meaningful information to the reader of this report. We requested supporting documentation from each of the PSAPs for the selected expenditures and then matched them to the total expended amount originally reported to the State to the source documents from the supporting documentation provided. Exceptions were reported if the PSAP was unable to provide adequate supporting documentation that matched the amount originally reported to the State or funds were improperly used according to current Kansas State Law. Explanations to all exceptions discovered during testing are discussed in Section 4.5 above. With the exception of the above items, we noted there was proper compliance with K.S.A 12-5375.

5. KANSAS 911 SERVICE IMPLEMENTATION AND FUNDING

5.1 911 SERVICE OVERVIEW

Prior to 911 being assigned as a universal emergency services contact number, an individual with an emergency had to call either the fire, emergency, or police directly and had to determine the phone number to call since each organization had a different one. When 911 service became a reality in Kansas and across the United States, a PSAP became a centralized call center to handle emergency calls from those needing fire, police, or other emergency services. A PSAP handles calls made to 911 and is responsible for collecting information from callers and then relaying information and dispatching the appropriate agency when needed. There are 105 counties in the State and a total of 117 PSAPs. Below is a general summary of the current technologies callers use for making 911 calls. Section 5.2 discusses the status of these technologies in the State.

5.1.1 WIRELINE

When an individual is placing a 911 call from a residential location with traditional service using a wireline phone to a PSAP that provides enhanced 911 (also referred to as E911) services, the call delivery is automated and databases behind the scenes are used to provide the caller's telephone number and address to the PSAP. This information speeds up a dispatch in an emergency situation. Location information is placed in the databases by the caller's telephone service provider. When an individual is placing a 911 call from a business on an individual line where one telephone number is associated with the phone connection, the PSAP receives the caller's telephone number and address from which the call originated. Some larger businesses may use a private branch exchange ("PBX") telephone system which is essentially a mini-telephone switch located on their premises that will allow interoffice dialing and access to place and receive calls outside of the business. Because much of the calling may be internal to the business, there are a limited number of PBX trunks supplied from the telephone company for external dialing. In many areas of the country, when an individual is placing a call from a business over a PBX trunk, only the main telephone number and address associated with the PBX location is delivered to the PSAP. The FCC is taking steps to require more exact location information to be delivered to a PSAP for more accurate dispatching.

5.1.2 WIRELESS

Wireless 911 calls work differently from wireline, primarily because of the mobility of the service structure. Because there is not a fixed service location for wireless phones, it is impossible to create a location database similar to that used for wireline telephone customers.

The percentage of wireless 911 calls has continued to grow in recent years both in Kansas and nationwide. This trend is expected to continue as consumers continue to "cut the cord" and abandon traditional wireline services. According to Former FCC Chairman Julius Genachowski, in 2011, "the percentage of 9-1-1 calls from mobile has increased dramatically – from about 25% in 2001 to over 65% today."² FCC Commissioner Jessica Rosenworcel recently said "Today,

² Federal Communications Commission, Statement of Chairman Genachowski, (rel. July 13, 2011) at page 2.

over 70 percent of calls to 9-1-1 are made from wireless phones. That is over 400,000 calls per day.”³

The FCC regulates wireless services and has defined three phases of wireless 911 services and requirements for wireless carrier as follows:

- Phase 0 or “Basic” 911 rules require wireless service providers to transmit all 911 calls to a PSAP, regardless of whether the caller subscribes to the provider’s service or not. No information about the caller’s location is transmitted with the call.
- Phase I Enhanced 911 rules require wireless service providers to provide the PSAP with the telephone number of the originator of a wireless 911 call and the location of the cell site or base station transmitting the call.
- Phase II Enhanced 911 rules require wireless service providers to provide more precise location information to PSAPs; specifically, the latitude and longitude of the caller. The caller location information must be accurate to within 50 to 300 meters depending upon the type of location technology used.

Because wireless 911 requires the wireless service provider to have specialized location tracking equipment for either Phase I or Phase II to work, FCC rules state that PSAPs desiring to go from Basic to Phase I and then Phase II must request carriers to perform equipment upgrades. Today, most wireless carriers across the country are Phase II capable. The accuracy of the caller tracking ability depends on the type of technology deployed by the carrier. Some carriers use a handset-based technology (based on GPS) and some use a network-based technology such as triangulation. The handset-based technology is generally able to provide more accurate locations to PSAPs than the network-based technology. Either way, PSAPs converting to Phase I or Phase II have had to either upgrade the existing equipment or in some cases perform a total replacement of significant portions of their networks to receive additional data and allow for more accurate mapping of caller locations.

The FCC adopted an Order on July 12, 2011 to require all wireless carriers to phase out the less accurate network based technology in 2019 and to only utilize the more accurate handset-based technology. In addition to this rule for existing carriers, carriers that build new wireless networks will be required to meet the handset based technology standards immediately.

5.1.3 VoIP

While VoIP can be considered a wireline service, 911 works differently for VoIP calls than traditional landline calls. Upon service activation, VoIP customers are prompted to provide a physical service address to their carrier, similar to what happens with wireline customers. The difference is that with wireline service, the service provider owns the facilities and equipment needed to provide service and usually makes a service call to the customer’s location. With VoIP service, the service is often provided over a computer broadband connection provided by a

³ Federal Communications Commission, Statement of Commissioner Rosenworcel, (rel. December 4, 2013) at page 5.

different company and no service call by a local service technician is made to the customer's location. In order to obtain accurate location data that PSAPs would receive with 911 calls, VoIP customers must provide accurate, current location information to the VoIP carrier. Many VoIP service customers keep a fixed location service. Other VoIP customers have a nomadic service that will allow the service to be used in a transient manner at locations wherever the customer can access a broadband network. When a customer moves their VoIP service to a different location, they are expected to register an updated address. The last registered address is the one used to determine what PSAP receives a call placed to 911. If a customer with a nomadic VoIP service does not actively update location changes, then 911 calls would be misrouted to an incorrect PSAP, possibly even to a PSAP in a different state.

The FCC is looking into ways to automate registering the location of VoIP customers to replace the current process that customers follow to manually register a location.

5.2 STATUS OF KANSAS 911 SERVICE

5.2.1 WIRELINE

The current 911 network used by PSAPs is based on analog wireline trunking technology. As discussed above, 911 calls from wireline phones to the PSAPs automatically include number and location information. During 2012, based on the PSAP survey responses, approximately 30% of 911 calls were collectively received from wireline and VoIP phones. There was insufficient data to determine what percent of this traffic was solely from VoIP phones.

5.2.2 WIRELESS

In December 2008, the LPA issued a Wireless Enhanced 911 Performance Audit Report that tested the compliance with certain aspects of the now superseded 2004 Act. The report addressed three areas required by the Kansas 911 Act relating to fund usage, fund adequacy, and service implementation. At that time, 87% of the PSAPs were reported to be Phase II compliant, and the other 13% were expected to have Phase II fully implemented by 2010⁴.

According to the Kansas 911 2013-2017 NG9-1-1 Strategic Plan⁵, the goal of statewide Phase II compliance was achieved because all PSAPs were able to receive E911 Phase II calls.

In our survey of PSAPs, we asked each PSAP if they were Phase II compliant. Five PSAPs responded that they were not Phase II compliant. The five PSAPs were contacted and the information was clarified. Three PSAPs are not directly Phase II compliant, but each utilizes another PSAP that is Phase II compliant to answer wireless calls on their behalf and calls are transferred for dispatching, including location information. Technically, all wireless calls in the State appear to be answered by Phase II compliant PSAPs. During 2012, based on the survey responses, approximately 70% of 911 calls were received from wireless phones.

⁴ Performance Audit Report Wireless Enhanced 911: Reviewing Implementation of the 2004 Act, rel. December 2008, at pages 7-9.

⁵ Kansas NG911 Strategic Plan 2013-2017, by Kansas 911 Coordinating Council, rel. April 2013, at page 23.

5.2.3 VoIP

911 calls from VoIP service phones are typically routed over trunks that carry wireline calls. Most PSAPs do not have the ability to separately track and count VoIP calls from other wireline calls. Approximately 20 PSAPs specifically stated in their survey responses that they do not, or are not aware if they receive VoIP emergency telephone calls. It appears that most of the PSAPs that responded they did not receive VoIP calls are smaller in size and have limited annual call volumes. Only one PSAP that said they did not receive VoIP calls stated that they were answered by a different PSAP and forwarded.

5.2.4 NG911

There has been federal legislation and various dockets at the FCC addressing NG911. There is a federal push for NG911 services. Last year the FCC released a Further Notice of Proposed Rulemaking on December 13, 2012 with proposed rules on NG911. The FCC accepted comments this year and has yet to issue an order with rules. In the Further Notice, the FCC stated that “implementing text-to-911 represents a crucial next step in the ongoing transition of the legacy 911 system to a Next Generation 911 (NG911) system that will support not only text but will also enable consumers to send photos, videos, and data to PSAPs, enhancing the information available to first responders for assessing and responding to emergencies”⁶ (emphasis added).

Because NG911 involves wireless phone callers being able to send text messages, pictures, and videos to PSAPs in addition to the current voice calls made, existing analog 911 trunks are not sufficient to carry the volume and format of data each PSAP could receive. NG911 could require PSAPs to have a new backbone network in place that connects to other PSAPs for information sharing.

The Council contracted with Mission Critical Partners, Inc. (“MCP”) on October 28, 2013 to perform a detailed study and analysis of NG911 implementation at all levels. This study and its results will be beneficial in providing information needed for future NG911 planning and cost estimates. This study is the next critical step in providing the Council the necessary data for determining how to proceed with the NG911 decision making process. Not only is it intended that MCP evaluate the current financial and technological position of Kansas 911 from a forward looking point of view, it is also intended that they look to other states to evaluate systems and procedures in place, in the implementation process, and considerations being made for moving forward in other states.

⁶ Federal Communications Commission, Other Next Generation 911 Applications, PS Docket No. 11-153, Framework for Next Generation 911 Deployment, PS Docket No. 10-255, Further Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC 12-149 (rel. Dec. 13, 2012) at para. 4.

5.3 ADEQUACY OF FUNDING

In order to make a determination as to whether or not current 911 funding is sufficient to cover operational expenditures, we reviewed information from a 2012 PSAP report⁷ to look at statewide results including results for the 22 PSAPs selected for expenditure compliance with 911 Act rules (see Section 4). We compared the expenditures and revenue information contained in the survey to information in the PSAP report. In addition, the survey had a question that asked if PSAPs felt that the current funding was adequate. A summary and analysis of the findings is below.

Based on the 2012 PSAP report, statewide 2012 911 PSAP revenues generated were approximately \$18,000,000 while reported allowable 911 expenditures were approximately \$13,000,000. This resulted in a reported surplus of approximately \$5,000,000. This simple approach only takes into account static expenses and does not take into account any equipment purchases that were necessary or were postponed to replace obsolete equipment or to wait for NG911. Furthermore, it does not take into account other operating expenses not allowed to be funded by 911 fees. It does, however, shine light on the reality that with the exception of such purchases, the funding system appeared to be adequate to fund for the State, in aggregate, in 2012. Many PSAPs reported that revenues were not sufficient to cover both operating expenses and to establish a reserve account for future equipment upgrades. Almost half of the PSAPs in the State, 51, only received the minimum \$50,000 in annual 911 funding during 2012.

As seen in the chart below, a review of the 2012 Report indicated that 27 PSAPs experienced a 911 funding shortfall and that 89 PSAPs received 911 funding in excess of expenses. Annual funding shortfalls reported by the PSAPs ranged from a low of (\$316) to a high of (\$531,274) and annual funding in excess of allowable expenditures ranged from a low of \$1,574 to a high of \$866,730. The average reported deficit per PSAP was (\$70,437) and the average reported funding excess per PSAP was \$80,308. Additional information is summarized in the following table:

⁷ Excel file, 2012PSAPReports-Compiled_Final.xlsx, provided by Dennis Kriesel of the Kansas Association of Counties, October 4, 2013.

REVIEW OF THE 2012 REPORT

	PSAPs Reporting Expenditures in Excess of Funding	PSAPs Reporting Funding in Excess of Expenditures
# of PSAPs	27	89
Population Served by PSAPs	634,471	2,488,563
Minimum Population served by a PSAP	1,967	1,247
Maximum Population served by a PSAP	157,505	559,913
Average Population served by a PSAP	23,499	27,961
Total Annual \$ of (Funding Shortfall) or Funding Excess	(\$1,901,808)	\$7,147,446
Minimum Annual \$ Impact per PSAP	(\$316)	\$1,574
Maximum Annual \$ Impact per PSAP	(\$531,274)	\$866,730
Average Annual \$ Impact per PSAP	(\$70,437)	\$80,308
Average Annual \$ Impact per Population Served by a PSAP	(\$3.00)	\$2.87

The survey also requested 2012 revenue and expenditure information, however, the responses to these questions were often incomplete, contained apparent inconsistencies, or were not answered at all. As a result, we have not included a summary of those responses. While the survey responses do not provide complete or reliable numeric data, there were indications that the 911 funding for certain PSAPs was not adequate to cover all allowable expenditures during 2012. These PSAPs required additional funding from other sources to maintain their operations.

It is important to note that PSAPs have been encouraged by the Council to avoid purchasing equipment, if possible, until national NG911 standards are finalized. This advice was to help reduce the risk of a PSAP purchasing equipment that could ultimately prove not to be NG911 compatible. PSAPs with surpluses could be in a position to build up a reserve account to help with future equipment purchases.

The chart below is a summary of FCC Local Competition reports on the number of wireline and wireless connections in each state and the country over the past 5 years, wireline connections have been decreasing and wireless connections have been increasing. This data may be helpful in predicting future trends and funding.

FIVE YEAR CHANGE IN WIRELINE AND WIRELESS

	June 2007⁸	June 2012⁹	% Difference
Wireline Lines in Kansas	1,395,617	1,113,000	(20.25%)
Wireless Lines in Kansas	2,133,399	2,690,000	26.09%
Totals	3,529,016	3,803,000	7.76%

	June 2007	June 2012	% Difference
Wireline Lines in US	163,170,381	143,524,000	(12.04%)
Wireless Lines in US	238,229,953	298,293,000	25.21%
Totals	401,400,334	441,817,000	10.07%

The chart below (also using the FCC data from the chart above) indicates what annual 911 funding should have been based on the reported number of connections in the State. The chart helps demonstrate possible annual funding based on the current 911 charge of \$0.53 as well as three other possible rates.

ANNUAL FUNDING MODELED USING DIFFERENT 911 FEES

	June 2007	June 2012
Total Wireline and Wireless Lines in Kansas	3,529,016	3,803,000
Percent Change in Lines (2007-2012)		7.76%
Annual Funding with 911 Fee at \$0.50/Line	\$21,174,096	\$ 22,818,000
Annual Funding with 911 Fee at \$0.53/Line	\$22,444,541	\$ 24,187,080
Annual Funding with 911 Fee at \$0.55/Line	\$23,291,505	\$ 25,099,800
Annual Funding with 911 Fee at \$0.60/Line	\$25,408,915	\$ 27,381,600

5.4 FUTURE FUNDING REQUIREMENTS

As discussed in Section 5.2.4, the Council has contracted with MCP for a separate study on NG911 and a statewide ESInet. Upon completion of the work to be provided by MCP, the Council expects that a better picture will be available to help determine what 911 expenses the State may be faced with in the future compared to projected 911 funding. In the meantime, information received from our interviews with certain Council members and the PSAP surveys does provide some insight into expected future funding requirements.

⁸ “Local Telephone Competition: status as of June 30, 2007” Federal Communications Commission Industry Analysis and Technology Division Wireline Competition Bureau March 2008, Tables 7 and 14.

⁹ “Local Telephone Competition: status as of June 30, 2012” Federal Communications Commission Industry Analysis and Technology Division Wireline Competition Bureau June 2013, Tables 9 and 18.

In general, the future funding requirements will largely depend on the decisions that are made as to how Kansas proceeds with NG911 implementation. In particular the type of ESInet structure the State adopts and the extent of back office equipment sharing will have a significant impact on the future costs of providing 911 services.

The majority of the PSAPs responding to funding and NG911 questions on the survey indicated that conversion to NG911 is not financially possible under the current funding mechanism. Approximately 40 of the PSAPs did respond positively as to the existing funding structure as it relates to current needs. However, the majority of PSAPs do not expect that current funding will meet future expenses, such as those associated with the rising costs of maintenance contracts and the necessary equipment upgrades. As reflected in Section 5.3, 27 PSAPs ran a shortfall in 2012. This is especially true for the smaller PSAPs. These same concerns were voiced on conference call interviews that we conducted with various Council members.

There are significant up-front and ongoing costs to start-up and operate a NG911 PSAP. Many of these costs are fixed capital costs and are only somewhat dependent on the size of the population served. The process of upgrading an existing standalone PSAP can be nearly impossible for certain communities without additional outside financial support. For example, the cost to upgrade one dispatch panel can exceed \$200,000. For a PSAP receiving the minimum \$50,000 of funding per year, it would take over four years just to pay for one piece of equipment. In addition, the Council has determined that there are a number of GIS mapping issues that will likely result in a significant amount of time and expense to correct throughout the State.

5.5 SUMMARY/CONCLUSION

In summary, it appears that the current 911 funding mechanism will not be sufficient to fund future upgrades and operations under the current structure. There are many factors that have a significant impact on the cost of upgrading the PSAP systems, which drive the amount of funding required. Instead of looking at any one aspect in a vacuum, it is better to look at all variables together as a system to make the best decisions for those that rely on 911 services in that particular area.

At a minimum, there would need to be an allocation of funds to financially challenged PSAPs to purchase standalone equipment either with 911 funds or funds from local government. Consideration of sharing equipment among several PSAPs should occur too. During interviews with Council members, it was evident that this is something that has been considered as a way to help reduce expenses in areas with limited funding.

There are other states that have or are moving to statewide Internet Protocol (“IP”) networks dedicated to emergency services to begin the transition to NG911. Current analog networks are owned and managed by telecommunications companies and shared by customers making phone calls. The concept of NG911 networks are based on IP networks that are private whether in the sense of ownership or in use. IP networks are digital in nature and allow voice calls, text messages, pictures, and videos to be broadcast. To help avoid viruses and other technology related infections, it is considered important to have a dedicated or private network. It is anticipated that the MCP study will explore options and possible costs for the State.

6. RECOMMENDATIONS

During our study of the State 911 system, we observed that the State has taken a proactive approach to its 911 service. This is evidenced by its investment in the current GIS Mapping project and the upcoming NG911 study. As a result, it appears that many things are working well. We also observed some issues and opportunities for improvement. These observations were gathered throughout our study which included our discussions with stakeholders and various experts, PSAP surveys, and other research.

Below are several categories of observations and recommendations developed based on our study. Our recommendations are based on the premise that the State plans to obtain a consistent level of 911 service across the State, including NG911. The recommendations are meant to be adaptable under the realization that the 911 environment will be undergoing continuous transition for the foreseeable future. Many of the recommendations should be evaluated both on a standalone basis and combined with other recommendations. They should also be reviewed periodically for appropriateness as changes occur at the national and local levels.

6.1 ADEQUACY OF FUNDS

- It is evident there is a funding gap between 911 revenues and expenditures for many PSAPs. Even if some 911 expenditures are being covered by other revenues, in many cases there isn't enough 911 revenue for a PSAP to build a reserve fund for capital expenditures in technology and equipment upgrades to keep up with the rapid changes of today's environment. The Council should consider an increase to the 911 surcharge and begin a reserve fund for a statewide IP network, equipment replacement grants, future upgrades, training for 911 employees, and for educating the public about NG911.
- Collect 911 fund reserves information from PSAPs to gain a better understanding of statewide future funding needs.
- One survey indicated systems such as OnStar do not pay wireless surcharges. This could be an area of further study by the Council to determine whether these services are an additional potential funding source.

6.2 EFFICIENCY OPPORTUNITIES

- In many cases, jurisdictions would prefer not to consolidate staffing with one another and retain their authority over decision making when it comes to 911 in their region. Staffing decisions should be left to PSAPs, but, when appropriate, the State should explore scheduled deadlines and financial incentives such as grants to urge PSAPs to share resources or consolidate, particularly with regard to equipment and other back office functions.

6.3 OPERATIONAL AND TECHNICAL IMPROVEMENTS

- In the survey responses, at least one PSAP reported only using on the job training for new call operators while another reported 6 months of training. If legislation is not enacted to address this then the Council should adopt minimum training, testing, and certification requirements. In addition, the Council should consider regional training facilities to facilitate consistent training programs.

6.4 NEXT GENERATION 911

- The Council should continue exploring the options, costs, and benefits of implementing NG911. It should monitor the status of federal legislation, FCC rulemakings, and national NG911 standards. If cost effective and timely statewide implementation is to occur, it should be thoroughly researched and planned to ensure a smooth transition. Some PSAPs might be reluctant to adopt initially due to high costs and learning a new process.
- Additional training of dispatchers and the general public may be needed once text to 911 is established and should include common texting shorthand language.

APPENDICES

7.1 LIST OF ACRONYMS

	Description
CAD	Computer Aided Dispatch
CPE	Customer Premises Equipment
ESInet	Emergency Services IP Network
E911	Enhanced 911
FCC	Federal Communications Commission
GIS	Geographic Information System
GPS	Global Positioning System
IP	Internet Protocol
IT	Information Technology
LCPA	Local Collection Point Administrator
LPA	Legislative Post Audit
KSA	Kansas Statutes Annotated
MCP	Mission Critical Partners
NENA	National Emergency Number Association
NG911	Next Generation 911
PBX	Private Branch Exchange
PSAP	Public Safety Answering Points
VoIP	Voice over Internet Protocol

7.2 BLANK SURVEY UTILIZED

Kansas 9-1-1 System Survey			
		<i>Note: Please provide your responses in the yellow-shaded fields.</i>	
PSAP Name/Location:			
Your Name:			
Title/Position:			
Date Completed:			
Telephone Number:			
Office Address:			
E-mail Address:			
Primary Technical Contact:			
Secondary Technical Contact:			
Survey Questions		Responses	
Organization			
1)	Is your center a primary or secondary PSAP?		
1a)	Is your center a host, remote, or stand alone?		
1b)	Where is your host?		
1c)	If secondary, who are your primaries?		
2)	Do you receive VoIP calls?		
3)	What was the annual call volume for your center for the calendar year 2012 ?	<i>Call Volume</i>	<i>Remarks, if any</i>
3a)	Wireline 9-1-1		
3b)	Wireless 9-1-1		
3c)	VoIP calls (If you can break them out)		
3d)	Administrative Lines		
3e)	Total (Totals of 3a through 3d)	-	
4)	What is the current number of 9-1-1 trunk lines coming into your center?	<i># of 9-1-1 Trunk lines</i>	<i>Remarks, if any</i>
4a)	Wireline only? (if applicable)		
4b)	Wireless only? (if applicable)		
4c)	Combined Wireless and Wireline Trunks?		
4d)	Is your PSAP tandem/selective routed or direct trunk?		
5)	How many employees were in your agency as of September 30, 2013?		
6)	How many dispatchers are on duty dedicated to handling 9-1-1 calls at peak times?		
7)	How much initial training do 911 operators get before they begin?		
8)	Is your PSAP in Phase II? If you are not Phase II compliant, what are your plans to become Phase II compliant?		
9)	Do you have a recording system? (Yes/ No/ Not Sure)		
9a)	If yes, what is the name of the recording system?		
9b)	If yes, is your recording system Next Generation 9-1-1 capable (NG9-1-1)?		
10)	Do you have a CAD system? (Yes/ No/ Not Sure)		
10a)	If yes, what is the name of your CAD system?		
10b)	If yes, is your CAD system NG9-1-1 capable?		
11)	Do the habitable structures within your PSAP's venue have a physical street address? (Rural route (RR) box numbers are NOT considered physical addresses)		
11a)	If not, percent of your venue, if any, that is addressed?		
11b)	Do you have a digital map of your venue?		
12)	Do you have a backup center in place to accept 9-1-1 calls and dispatch those calls via radio?		
12a)	Do you have a formal plan in place?		

13)	What is the structure (governance) of your PSAP?		
13a)	"Stand-alone" PSAP with Board?		
13b)	Department/Division of city or county government?		
13c)	Department/Division within a public-safety agency? (If so, which agency?)		
13d)	Other? (Please explain)		
14)	How many calls for service were dispatched in calendar year 2012 ? (broken out by type)	<i>Number of calls</i>	<i>Remarks, if any</i>
14a)	Law Enforcement?		
14b)	Fire?		
14c)	EMS?		
14d)	Other? (Please Specify)		
14e)	Total (Totals of 19a through 19d)	-	
15)	If your PSAP is capable of tracking, what % of emergency calls received came in on: (if the percentage break-out is unknown, please list the total number by type instead).	%	<i>Remarks, if any</i>
15a)	Wireline?		
15b)	Wireless?		
15c)	VoIP?		
	Total	0%	<--This should total 100%
Demographics			
16)	What is the population (2010 census number) for your service area?		
17)	Does the population of your service area fluctuate by season? If yes, please provide population information by season:		
		<i>Population #</i>	<i>Remarks, if any</i>
17a)	Spring (March-May)		
17b)	Summer (June-August)		
17c)	Fall (September-November)		
17d)	Winter (December-February)		
17e)	If yes, include the primary reason(s) for the fluctuation (i.e. population increases during the school year, tourist season, etc.).		
Next Generation			
18)	Is your PSAP currently capable of providing Next-Generation 9-1-1 services (the ability to receive text messages, pictures, and video from mobile phones (NG9-1-1)?		
18a)	If so, what was the cost of transitioning to NG9-1-1? If not NG9-1-1 capable, how much funding would be needed for an upgrade to NG9-1-1? Please provide calculations and/or rationale (vendor proposals, invoices, etc. if your PSAP has obtained an actual, detailed cost estimate) for this estimate for the following items:		
		<i>Amount</i>	<i>Remarks, if any</i>
18b)	Actual or estimated cost of upgrading to NG9-1-1 for: Equipment & Installation		
18c)	Actual or estimated cost of upgrading to NG9-1-1 for: Network costs		
18d)	Actual or estimated cost of upgrading to NG9-1-1 for: Other (Please describe in detail)		
18e)	Total costs of upgrading to NG9-1-1 (25a-25c)	\$ -	
18f)	Date of estimate/upgrade		
18g)	Remarks/comments		

Budget			
19)	What was your total PSAP budget for calendar year 2012?		<--See #21g below.
20)	Is your current funding level adequate to meet your costs?		<--(Yes/No)
20a)	If Yes, what is your estimate surplus?		
20b)	If No, what is your estimated shortfall?		
20c)	Remarks?		
21)	Please provide the PSAP's total amount for each section stated below for calendar year 2012, or most recent available year. Mark "N/A" if you have no corresponding budgeted expenditures.	<u>Amount Funded by 911 Funds</u>	
21a)	Total Personnel Expenditures for 2012:		
21b)	Total Operating Expenditures for 2012:		
21c)	Total 911 Trunking Expenditures for 2012:		
21d)	Total Capital Outlay Expenditures for 2012:		
21e)	Total Reserves for 2012:		
21f)	Other Expenditures (please specify):		
21g)	TOTAL EXPENDITURES for Calendar Year 2012 (total should be the same amount as question #19 above)	\$	-
22)	With respect to your funding sources, what are the dollar amounts of your funding from each of the sources listed below for the calendar years 2011 and 2012 ?	<i>2011 Amount</i>	<i>Remarks, if any</i>
22a)	Sales Tax		
22b)	911 Fee Funds		
22c)	General Fund		
22d)	Other (please explain)		
	Total Funding (Totals of 22a through 22d)	\$	-
		<i>2012 Amount</i>	<i>Remarks, if any</i>
22e)	Sales Tax		
22f)	911 Fee Funds		
22g)	General Fund		
22h)	Other (please explain)		
	Total Funding (Totals of 22e through 22h)	\$	-

Recommendations		
(Please note: the questions in this recommendations section are for the purpose of helping to develop our own recommendations. Copies of responses will <i>not</i> be included in the final report.)		
1)	Is the current 9-1-1 surcharge adequate to fund PSAP operations? Please explain your thoughts on the issue.	
2)	What other recommendations do you have with respect to improving the current 9-1-1 funding model in the State of Kansas?	
3)	What recommendations do you have to increase the efficiency of 9-1-1 services in your area?	
4)	What recommendations do you have to be able to continue providing the same level of service as you are currently?	
5)	Should PSAPs be encouraged to consolidate or share equipment to reduce expenses? Please explain your thoughts on the issue.	
6)	How many PSAPs are currently needed in the State of Kansas? Is the current level adequate? Please explain your thoughts on the issue.	
7)	Please provide your recommendations or comments on how the funding structure could be improved and how future funding for 9-1-1 services should occur.	
8)	Given the movement to NG9-1-1, should 9-1-1 in Kansas be governed on a local level or should it be managed from a statewide perspective?	
9)	What recommendations do you have for the Kansas legislature with regard to the current and future state of 9-1-1 operations in Kansas?	
10)	If grant funding is not available for 9-1-1 equipment replacement, is the current 9-1-1 surcharge adequate to fund replacement? Should additional funding for equipment replacement be funded through increased 9-1-1 fee funds directly to the PSAP or through increased funds	
11)	Other comments or recommendations?	

7.3 STATE OF KANSAS PSAPs

Allen County Communications
Anderson County Communications Center
Andover Police Department
Atchison County Communications Center
Augusta Department of Public Safety
Barber County Sheriff's Department
Barton County Communications Center (Joint City/County)
Brown County Sheriff's Office Communications
City of Horton Police Department
Butler County Emergency Communications
Chase County Sheriff's Department
Chautauqua County Sheriff's Department
Cherokee County Sheriff's Office
Cheyenne County Communications
Clark County Sheriff's Office
Clay County Sheriff's Department
Coffey County Sheriff's Office
Comanche County Sheriff's Office
Concordia Police Department Communications
Cowley County Emergency Communications
Crawford County Sheriff's Office Communications
City of Pittsburg Police Department
Decatur County Emergency Communications
Dickinson County Emergency Communications
Doniphan County Sheriff's Office
Douglas County Emergency Communications
Edwards County Sheriff's Department
Elk County Treasurer's Office
Ellis County 911/City of Hays
Ellsworth County Sheriff's Office
Emporia Police Department
Ford County Communications
Fort Scott Police Department
Franklin County Sheriff's Office/911
Garden City Police Department
Graham County Sheriff's Office
Grant County Law Enforcement Center
Gray County Sheriff's Office
Greeley County Sheriff's Office

Greenwood County Sheriff's Office
Hamilton County Sheriff's Office
Harper County 911
Harvey County Communications
Haskell County Sheriff's Office
Hodgeman County Sheriff's Office
Hutchinson/Reno County Emergency Communications
City of Independence Police Department
City of Coffeyville Police Department
Jackson County Sheriff's Office
Jefferson County 911 Communications
Jewell County Sheriff's Office
Johnson County Emergency Communications
Junction City Police Department
Kansas City, Kansas Police Department Public Safety Communications
Kearny County Sheriff's Office
Kingman County Sheriff
Kiowa County Sheriff's Department
Labette County Emergency Communications Center
City of Parsons
Lane County Sheriff's Office
Larned Police Department
Leavenworth County Sheriff's Office
Leavenworth Police Department
Leawood Police Department
Lenexa Police Department
Liberal/Seward County Emergency Communications
Lincoln County Sheriff's Office
Linn County Sheriff's Department
Logan-Gove County 911 (Oakley Police Department)
Marion County Emergency Communications
Marshall County Sheriff's Office
McPherson County Communications
Meade County Sheriff's Office
Miami County Sheriff's Office
Mitchell County Communications Center
Morris County Sheriff's Department
Morton County Sheriff's Office
Nemaha Sheriff's Department
Neosho County Sheriff's Office
Ness County Sheriff's Office

Norton County Sheriff's Office
Osage County Sheriff's Office
Osborne County Sheriff's Department
Ottawa County Sheriff's Department
Overland Park Police Department
Phillips County Sheriff's Department
Pottawatomie County Sheriff's Office Communications
City of Wamego Police Department
Prairie Village Police Department
Pratt County 911
Rawlins County Communications
Republic County Communications Center
Rice County Emergency Communications
Riley County 911
Rooks County Sheriff's Office Communications
Rush County Sheriff's Office Communications
Russell Police Department
Salina Police Department Emergency Communications
Scott City Police Department
Sedgwick County Emergency Communications
Shawnee County Sheriff's Office
Shawnee Police Department/Justice Center
Sheridan County Sheriff's Office
Sherman County Communications
Smith County Communications
Stafford County Sheriff's Office Communications
Stanton County Sheriff's Office
Stevens County Sheriff 911
Sumner County Emergency Communications/911
Thomas County/Colby Police Department Communications
Trego County Communications
Wabaunsee County Sheriff's Office Communications
Wallace County Sheriff's Department
Washington County 911 Communications
Wichita County Sheriff's Office
Wilson County Central Dispatch
Woodson County Sheriff's Office



**911 Coordinating Council
Walter Way, Chair**

December 23, 2013

Mr. Scott Frank
Legislative Post Auditor
Legislative Division of Post Audit
800 SW Jackson St., Suite 1200
Topeka, Kansas 66612

Dear Mr. Frank:

On behalf of the 911 Coordinating Council, I appreciate the opportunity to provide a response to the findings of the Kansas 911 Performance Audit report prepared by Stone Carlie & Company, L.L.C. I also appreciate the professional manner in which both the staff of the Legislative Division of Post Audit and Stone Carlie & Company conducted this audit.

The Council does not disagree with the recommendations made in Section 6 of the report, but would expand upon the recommendations to provide additional information concerning how the Council has been, or intends to, address these recommendations.

In the introduction to the Recommendations section, it is observed that the 911 Coordinating Council--acting on behalf of the State--has taken a proactive approach to 911 service in the State of Kansas. It was also noted that the Council has adopted an underlying premise of equity of 911 service for all Kansas jurisdictions which guides its fiscal and policy decision-making. The Council is taking a deliberative approach to fully understanding the requirements and local needs for implementation of Next Generation 911 (NG911) service in Kansas, and that is reflected by its careful approach to the development of cost-effective and technically-feasible plans for implementing NG911 service for jurisdictions of all population sizes. The statements in the report affirm the direction undertaken by the Council.

Adequacy of Funds. The Council would concur there is a funding gap between 911 revenues and expenditures for PSAPs and would note that is true for all PSAPs in Kansas. The reason is that PSAPs rarely use 911 funds to pay for staff salaries and benefits; large capital expenditures; or for other significant operating and capital expenses incurred in operation of a PSAP. The authors of the report noted that many PSAPs are not able to build up capital reserves for technology and equipment upgrades, and instead rely on local general funds and capital projects to meet such needs. To accommodate the total cost of operating a PSAP with 911 funds, a significant increase in the 911 fee would be required. In lieu of recommending an increase in the 911 fee at this time, the Council is currently funding a comprehensive NG911 design and technical standards study that will provide more specific information

by the spring of 2014 on the optional methods to transition PSAPs to NG911 and of the probable costs to local jurisdictions for that transition. The Council has also researched vendor-hosted 911 services available to PSAPs in lieu of purchasing expensive equipment, and that information is available to all PSAPs.

The Council currently has statutory authority to increase the 911 Fee from \$.53/month to \$.60/month and is open to considering such an increase upon completion of the current NG911 design and technical standards study. The Council has designated the existing 911 State Grant Fund as the source of funding for both the State level IP network that will carry NG911 calls, and for the enhancement of the GIS databases to ensure PSAPs can receive and locate 911 callers in each jurisdiction. Those two projects will easily cost over \$4 million to implement and can be funded by the Council instead of by PSAPs. The 911 State Grant Fund is also funding the ongoing NG911 design study and necessary expertise to manage the GIS database enhancements and the technical implementation of the NG911 network and its specialized services.

The Council can modify the annual report filed by all PSAPs to collect 911 fund reserves information as recommended in the report.

The Council agrees that more research is needed to determine whether services such as OnStar are obligated to collect the 911 fee and to establish the process to collect such fees if required.

Efficiency Opportunities. The Council concurs that it should continue to explore incentives and NG911 design alternatives to encourage PSAPs to share resources and consider both equipment and operational consolidation of PSAPs in order to reduce overall expenses of providing 911 service. Initial steps in this direction include providing research information to PSAPs on obtaining vendor-hosted 911 services and structuring grants to emphasize multi-jurisdictional collaboration.

Operational and Technical Improvements. Training of PSAP personnel continues to receive attention nationally due to the lack of uniform standards for hiring and training personnel. The Council acknowledges the need to address minimum training standards for PSAP personnel and has included this as an action item in its 2014 Work Plan.

Next Generation 911. The Council concurs with the recommendation to continue its work to explore the options, costs and benefits of implementing NG911, as well as to remain current on emerging 911 standards and federal regulations. The NG911 design study underway will provide well-researched information and recommendations to address this set of recommendations.

The recommendation to address additional training of dispatchers and the public upon usage of Text to 911 is appropriate and needed. The Council will address this subject in the first half of 2014.

Please contact me if additional information on the Council's response is desired.

Sincerely,

Walter Way, Chairman
911 Coordinating Council