

# IOWA DEPARTMENT OF HOMELAND SECURITY & EMERGENCY MANAGEMENT

2015 Enhanced 911 Annual Report



**Mark Schouten, Director**

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# Table of Contents

- Introduction ..... 4
- History of Iowa 911 ..... 5
- Current Status of the E911 System..... 6
  - Wireline 911 ..... 6
  - Wireless 911 and Statewide Next Generation Efforts ..... 6
  - Local PSAP Upgrades to NG911 ..... 7
  - Geographic Information Systems and NG911 ..... 7
  - Cybersecurity..... 8
  - Redundancy..... 8
  - Wireless 911 into the Future ..... 8
- Subscriber Surcharges and Distribution ..... 9
  - Prepaid Wireless and VoIP Surcharges ..... 9
  - Wireless Surcharge Distribution..... 9
- E-911 System Metrics ..... 10
- Conclusion ..... 11
- Attachment 1: Iowa’s Public Safety Answering Points..... 12
- Attachment 2: SIP-Capable/Scheduled PSAPs ..... 13
- Attachment 3: SIP-Enabled/Scheduled PSAPs ..... 14
- Attachment 4: GEM-Enabled PSAPs ..... 15
- Attachment 5: 2015 Carryover Grant..... 16
- Attachment 6: 2016 GIS Grant..... 19
- Attachment 7: Annual Wireless Call Volume and Cost Per Call..... 20
- Attachment 8: Calls by PSAP Type ..... 23
- Attachment 9: Revenues and Expenditures ..... 24
- Attachment 10: Pass-through Funding for Lease Payments..... 25

# Introduction

The Iowa Department of Homeland Security and Emergency Management (HSEMD) submits this enhanced 911 (E911) annual report to the Iowa General Assembly's standing committees on government oversight pursuant to Iowa Code § 34A.7A (3) (a). This section of the Code requires the E911 program manager to advise the General Assembly of the status of E911 wireline and wireless implementation and operations, the distribution of surcharge receipts, and an accounting of revenue and expenses of the E911 program.

The state's E911 system consists of 114 Public Safety Answering Points (PSAPs) across 99 counties. These PSAPs handle both landline and wireless 911 calls for the citizens of Iowa who make emergency calls. The wireline 911 system was started in Iowa in 1988, originally codified in Iowa Code Chapter 34, and is managed and financed by local 911 service boards through local funding and a landline surcharge system under Iowa Code Chapter 34A. The wireless capability was added to the system in 1998, funded through a wireless surcharge on monthly users' bills, and managed by HSEMD pursuant to Chapter 34A.

The wireless portion of the 911 system is currently undergoing a significant upgrade to an IP-based system. The first phase of a multi-phased effort into what is called the next-generation 911 (NG911) network has converted analog/copper trunking to the local PSAPs to a statewide, IP-based Ethernet network. The IP-based upgrade was completed in November 2012. Also recently completed was the upgrade of the network's data centers to ensure the latest technology capabilities were in place. Included in the data center upgrades was the move of the Newton data center to Davenport for greater geo-diversity. The second phase of the network upgrade is currently in progress. This phase of NG911 includes updating individual PSAPs to IP-enabled call handling equipment and logging recorders. When completed, this upgrade will ultimately allow PSAPs to receive IP-based signaling for the delivery of emergency calls that include text, video, and picture messaging. As part of a pilot program, nine PSAPs are currently able to receive text-to-911. Future phases of NG911 efforts have already started

and include improved GIS mapping and database and address reconciliation to improve the automatic locations services. When completed, this will allow a dispatcher to pinpoint the caller on recent GIS imagery of the geographical area the PSAP covers. It's increasingly important to begin thinking of the 911 system, including the individual PSAPs as a complex, multi-faceted, interconnected, IT network. PSAPs are no longer individual dispatch centers operating independently, but rather part of the state's entire 911 network.

Chapter 34A of the Code of Iowa requires that each county in the state establish the joint enhanced 911 service board that has authority over the local PSAP. Each board has the responsibility to develop a countywide E911 service plan, detailing the manner and cost for the implementation of a wireline and wireless E911 system for the PSAP geographical area. As of today, all 99 counties have approved enhanced E911 service plans.

HSEMD has the responsibility to review and approve the countywide E911 service plans. HSEMD is also responsible for the overall administration of Chapter 34A through a program administrator appointed by the HSEMD director.



# History of Iowa 911

The 911 system in the state started in 1986 when the Iowa General Assembly passed a law that created a 29-member State Emergency Telephone Number Commission that was directed to study the issue of statewide implementation of 911 services. The Commission issued its report in January 1987 and the legislative language contained in the report was introduced as House File 2400. House File 2400 was passed by the General Assembly and was signed into law by Governor Terry Branstad on May 6, 1988. It was this law that set out the basic wireline 911 system in Iowa in Iowa Code Chapter 34.

The state's initial 911 wireline system only directed callers dialing 911 to the local PSAP; it didn't include information about the caller to the 911 dispatcher nor did it require specific routing information to ensure that the call arrived at the correct PSAP. In 1989 the General Assembly encouraged local 911 service boards to include enhanced services dealing with the location of the person making the 911 call as part of their 911 service plan, as outlined in Iowa Code Chapter 34A.

To meet the requirements of an enhanced 911 system set out in Iowa Code § 34A.2 (7), the system must be capable of automatically providing voice as well as displaying the name, address of location, and the telephone number of the incoming 911 call. The system must also be able to route the incoming call to the PSAP that corresponds to physical location of the caller. Currently, all landline 911 services in Iowa meet the enhanced definition.

In 1996, the Federal Communications Commission (FCC) mandated that wireless 911 service be put in place and function similarly to the wireline 911 that Iowa had in place. The 1998 General Assembly amended Code of Iowa Chapter 34A in response to the FCC action to include wireless 911 services.

With respect to wireless calls, the transition to enhanced services was a two-step process. Phase one of the transition to enhanced wireless 911, as set out in Iowa Code § 34A.2 (19), requires the system to display to the dispatcher the call-back number of the caller and the cell tower that received the call and transmitted it to the PSAP. Phase two of the transition, described in subsection 20, requires the cellular company to provide the call-back number plus the latitude and longitude

of the caller so that the call and address information can be tied to GIS imagery information. Since Dec. 31, 2007, all 114 PSAPs in all 99 counties have accepted enhanced Phase two calls from the wireless service providers. Attachment 1 depicts the location of the 114 PSAPs in the state.

On July 8, 2011, the State of Iowa, via the RFP process, hired TeleCommunication Systems, Inc., (TCS) to begin the development and implementation of the next phase of Iowa's enhanced 911 system: the implementation of a statewide, IP-enabled, or NG911 system, that at its heart is digital rather than analog.

As part of this five-year \$4.4 million contract, TCS is responsible for the design, programming, installation, and maintenance of all components of the wireless 911 backbone and the delivery of wireless 911 calls. TCS is currently in the fourth year of its five-year contract for the system upgrade.

During the 2015 legislative session, a few key measures were put in place regarding E911 through HF 651 including the following:

- A \$4,000,000 lease payment was to be funded out of the E911 operating surplus to the vendor awarded the contract of the statewide land mobile radio project.
- \$100,000 was to be allotted for E911 council travel and public education related to 911.
- Adjusted the maximum proportion of the fund that could be used for actual costs of Phase One cost recovery by wireless providers. Previously the maximum allotted for cost recovery was 13 percent of the quarterly surcharge received and was set to expire in 2016. This was decreased to 10 percent through legislation and extended out to 2025.
- Code of Iowa 34A.7B was modified to address the allowable usage of the E911 operating surplus. The language expanded the use of the funding from network enhancements and improvements at the PSAP, to mirror the use of other sources of surcharge language, to include network improvements for the "receipt and disposition" of a 911 call.

# Current Status of E911 System

The E911 system within Iowa is the primary method for the public to reach out to emergency responders and request assistance. This system—comprised of two separate networks, wireline and wireless—remains one of the main tools the public uses to interact with emergency responders.

The system has been developed and maintained to primarily support local public safety answering points and the emergency responders that are dispatched from those facilities. As with almost all disasters, calls for help during an emergency begin and end at the local level. Of the 843,752 wireless calls made to Iowa PSAPs during the year ending Sept. 30, 2015, 98.4 percent of the calls were calls made to and disposed of at the city or county level or at PSAPs consolidated at the city or county levels.

The current 911 system is an E911 system that is transitioning to a NG911 system. As an E911 system, it can give the automatic address or location data and routing capabilities that an enhanced 911 system allows. As an NG911 system it is IP- or Internet-based rather than an analog system, allowing for more precise call delivery, and diverse routing and transferring of calls.

## Wireline 911

The wireline system has been developed and implemented by the local joint E911 service boards. As such, the system is comprised of a variety of differing network elements. This has led to a system of disparate 911 networks. These networks include direct trunking to the PSAP, locally-selectively routed calls and regionally-selectively routed calls. Trunk-based legacy systems are only capable of delivering wireline 911 calls.

## Wireless 911 and Statewide Next Generation Efforts

Initial deployment of the wireless NG911 system had most of the 114 PSAPs connected to the 911 data centers using multiple carriers. Utilizing multiple carriers completed the connectivity, but had the inherent obstacles of increased potential for failure, duration of outages, and higher recurring costs. To minimize these obstacles, HSEMD has worked to establish a direct

connection from each PSAP to the wireless 911 system. The Iowa Communications Network (ICN) was able to simplify the network by providing a direct circuit. The process of connecting PSAPs to the ICN has been underway for the past four years. At this time, all but two of the 114 PSAPs are directly connected to the ICN, decreasing the potential for failure and minimizing costs.

The core wireless 911 network, or ESInet (Emergency Services IP Network) includes two redundant data centers connected by two 50 MB circuits to handle the call volume and call routing. The two data centers are currently located in Davenport and West Des Moines. In November 2015, the previous data center in Newton was decommissioned when a new data center was established in Davenport to provide geo-diversity between the two data centers.

Data centers receive incoming 911 calls directly from the wireless carriers and route the calls based on the location of the caller to the corresponding PSAP. If a call is received at a data center and it is unable to process the call, the call will be automatically rerouted to another data center.

HSEMD and TCS have continually worked to upgrade the software and programming at the data centers in the way calls are delivered via IP. The upgrades use the National Emergency Number Association (NENA) i3 standard for call delivery. The upgrades are working toward a NG911 network that will ultimately support the use of text, video, and picture messaging to access 911. Once these services become available from the wireless carriers, and are capable of being processed and displayed by the PSAPs call taker equipment. As of November 2012, all 114 PSAPs have been migrated to the IP-based NG911 network. However, additional steps are still required for true end-to-end wireless IP-based call environment.

As of Dec. 31, 2015, 112 of 114 PSAPs have updated or scheduled to upgrade their call-handling equipment. The upgraded PSAPs are now technologically capable of receiving an IP-enabled call, although in some cases, additional local software upgrades or the purchase of an IP-capable logging recorder may be needed before migration to a true IP-based call environment (Attachment 2).

# Current Status of E911 System

Currently, there are 52 PSAPs that have migrated and are truly receiving end-to-end IP-enabled wireless calls over the ESInet (Attachment 3).

HSEMD began a pilot program deploying text-to-911 in April 2015. As of Dec. 31, 2015, nine PSAPs are capable of receiving text messages to 911 (Attachment 4). The pilot program was used to obtain best practices on the process of working with the wireless carriers, text control centers, and the various vendors of call-taking equipment. Currently, these PSAPs receive the text in a Web browser. The Web browser, while not an ideal method of delivery, is free of cost and one of the three NENA-approved methods. During the first quarter 2016, HSEMD expects the technology to be in place through software upgrades at the data centers to begin deployment of “integrated” text messaging; that is, the text message information will display on the call taker’s screen seamlessly, as if it were an incoming call. This method of delivery, while available statewide due to the IP-enabled network, will only be available as PSAPs are capable of receiving IP calls (Attachment 3) and work with their specific vendors on software upgrades on their call-taking screens and training with their call takers. Once the call-handling equipment is capable of receiving text messages, HSEMD will work with the PSAPs to submit the proper documentation to the FCC. The submission to the FCC will begin the wireless carrier testing phase of the text-to-911 deployment.

## Local PSAP Upgrades to NG911

The modern PSAP is increasingly becoming an integrated, complex, interconnected IT network rather than separate pieces of equipment. Statewide, individual PSAPs are interconnected as part of a statewide network like never before. As such, local PSAPs have had to replace many of their components to keep up with emerging technology and to be a part of a standardized, statewide network. The call handling equipment, logging recorders, computer-aided dispatch, and radio consoles at each PSAP, in many cases, must be upgraded to meet the NG911 standards.

Local 911 service boards are responsible for the implementation of the equipment upgrades inside the PSAP. Funding for upgrades is provided by the E911 operating surplus through HSEMD-managed carryover grants. HSEMD provides local PSAPs access to

\$100,000 each in carryover grant funding from the E911 operating surplus as specified in Code of Iowa 34A.7A Section 2f. Attachment 5 shows the PSAPs that obtained funding via carryover grant in FY2015. In sum, \$9,326,801.74 was approved for 109 local PSAPs.

## Geographic Information Systems and NG911

Geographic information systems (GIS) technology provides the critical data backbone of the NG911 network and is a key component for call routing, call handling, call delivery, location validation and emergency response. Data from GIS also provides dispatchers and responders access to more information such as location, details about the caller, and additional information to include the caller’s service provider or telematics. Information sharing is essential to building statewide GIS datasets, as more than 100 different data owners need to share information for the NG911 system. Over the next 10 years, HSEMD has budgeted some \$10.5 million for aerial imagery and \$21.3 million for GIS data creation, maintenance, hardware and software, needed to complete and maintain the GIS component of the NG911 system.

HSEMD, with support from Geo-Comm Inc., developed statewide E911 GIS standards in 2014-2015. The initial standards document was created and has been released to the E911 community. A committee of local GIS partners continue to assist with ongoing maintenance of the standards.

As of Jan. 30, 2015, Geo-Comm Inc. completed a statewide assessment of PSAP GIS data and provided the data analysis reports to the counties. HSEMD has contracted with Geo-Comm Inc. for another round of data assessments and GIS-managed services. Updated data from the counties is due to HSEMD in December 2015 for analysis. Geo-Comm Inc. will work on processing the data and aggregating the information for use in a statewide NG911 GIS system in spring 2016.

Starting in July 2015, HSEMD made \$15,000 per PSAP available out of the operating surplus in the form of carryover grants in order to help facilitate work at the local level to help feed the statewide system. Through Dec. 31, 2015, \$804,699 has been spent statewide through this program. The counties who received carryover grants for GIS data remediation are shown in Attachment 6.

# Current Status of E911 System

## Cybersecurity

The transition to the NG911 system architecture requires a more active approach to monitor and address cyber threats and vulnerabilities that did not exist with legacy 911 systems. The Iowa ESInet adheres to NENA's security standards for both NG911 and PSAPs, as well as a number of other security controls. The ESInet has detection and intrusion prevention systems that provide for packet-flow inspection that can be provided at the operating system or application environment.

## Redundancy

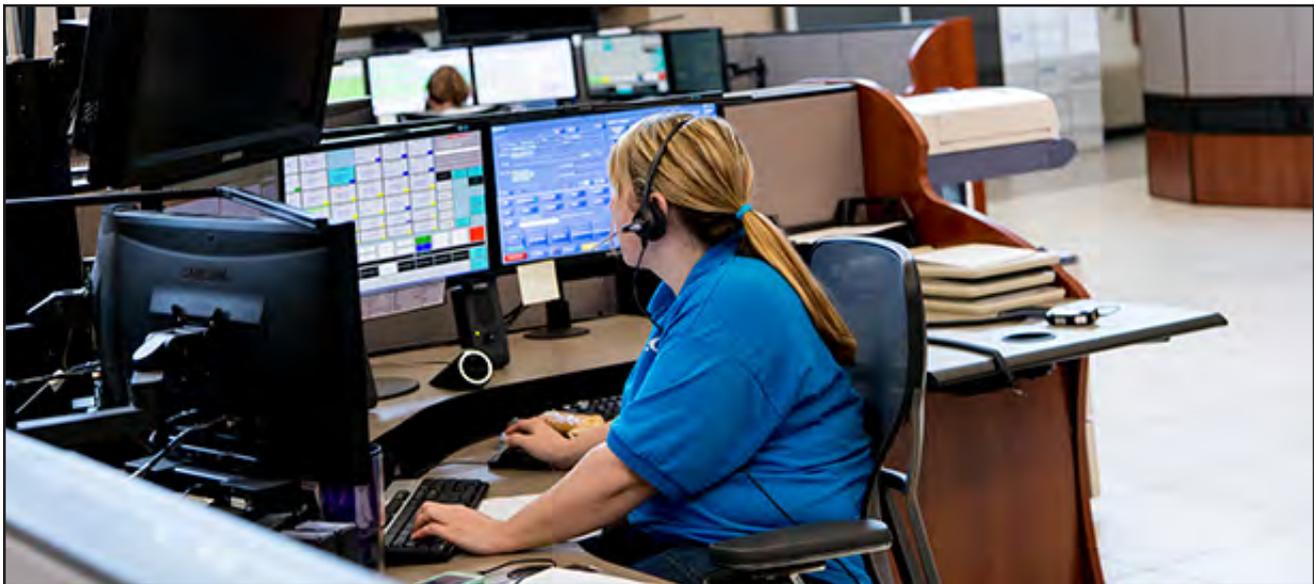
Realizing the need for additional redundancy, HSEMD began a project with TCS to provide additional safeguards for a statewide or large regional outage of the ESInet. Thirteen of the largest PSAPs were identified to act as a secondary ESInet. Completely diverse fiber, circuits, and state systems were used to build out a second network, separate from the primary ICN backbone. The secondary ESInet is able to automatically route calls during an outage to the 13 PSAPs that would answer calls on behalf of the area experiencing the outage. While there is an ongoing cost for managing this network of approximately \$242,000 annually, the secondary ESInet has been built at a cost of \$93,815 thus far, with three remaining PSAPs to complete the network.

## Wireless 911 into the future

To support these ongoing initiatives, continued upgrades, and eventual life-cycle replacement of state equipment within the wireless network, HSEMD has projected the costs required to put in place all the elements previously described. As detailed in Attachment 7, HSEMD will be able to fully deploy the NG911 network to include network redundancy, GIS database development, imagery, maintenance, and local PSAP equipment upgrades while maintaining a solid financial foundation for the entire program.

The funding strategy will increase the survivability of the wireless 911 network while also allowing state and local responders to fully leverage and utilize the statewide NG911 system for existing technology as well as being positioned to effectively utilize future technologies.

HSEMD recognizes that through next-generation technology, there is an opportunity to achieve cost savings, economies of scale, and shared services through technology and/or physical consolidation in the future. These are topics that should be addressed purposefully with the entire network in mind. We propose a strategic planning session be conducted at the beginning of fiscal year 2017 to address the above issues.



Scott County PSAP

# Subscriber Surcharges and Distribution

Funding for the wireline and wireless portion of the E911 system were set in Iowa Code §34A.7 and 34A.7A, respectively. In July 2013, the General Assembly set the surcharge for both wireline and wireless 911 services at \$1 per month per access line across the entire state. The wireline surcharge is deposited in the local E911 service fund and disbursements are made by the local E911 service board. The wireless surcharge is deposited in the state E911 emergency communication fund administered by HSEMD.

For the 12 months ending Sept. 30, 2014, wireless surcharges totaled \$26,040,843, a decrease of \$1,242,471 from than the same time frame the previous year. In FY2015, the total of wireline surcharges was a projected \$12,316,005, an increase of \$481,448 from the previous year.

HSEMD has the responsibility to order the implementation of the surcharge with each telephone service provider who provides service within the E911 service area. Within the state, there are 175 competitive local exchange service providers. Each local telephone service provider remits collected surcharge funds directly to the respective local E911 service board on a quarterly basis.

## Prepaid Wireless and VoIP Surcharges

In 2012, Iowa Code § 34A.7B authorized a surcharge on prepaid wireless phone transactions in the amount of 33 cents per prepaid transaction occurring in the state. The prepaid surcharge is remitted to the Iowa Department of Revenue, which transfers all remitted prepaid wireless 911 surcharges to the state treasurer for deposit in the E911 emergency communications surcharge fund. In 2013 Iowa Code §34A.7A was amended to allow the prepaid wireless surcharge to increase or decrease proportionately to the wireless surcharge. As a result of that change the prepaid surcharge is currently 51 cents per prepaid transaction and the total revenue generated for this surcharge for the 12 months ending with Sept. 30, 2015, is \$2,001,068—\$294,164 more than the same timeframe the previous year.

In 2012 the definition of a communication service provider in Iowa Code §34A.2 was amended to include service providers that transported information over the Internet, including voice over Internet protocol (VoIP) companies.

These companies are now required to collect and remit surcharges as a communications service provider.

Cable TV companies that sell static VoIP services as part of a bundled package (such as Mediacom) pay their collected surcharges to the local wireline E911 service board. The nomadic VoIP providers, such as Vonage, that are not restricted to a particular location, pay the surcharges assessed to their customers to HSEMD through the state E911 emergency communication fund.

## Wireless Surcharge Distribution

The bulk of the E911 surcharge revenue obtained is through the wireless surcharge. Under Iowa Code §34A.7A (2), the collected surcharges must be distributed in the following order:

1. To Homeland Security and Emergency Management for program administration, an amount equal to that appropriated by the General Assembly. In 2015, this amount was \$250,000.
2. To wireless service providers, 13 percent of surcharge funds generated for the three-year period of July 1, 2013, through June 30, 2016, to recover their costs of providing E911 wireless phase one services. As mentioned earlier, the 2015 legislation modified this, so that starting on July 1, 2015, 10 percent of total surcharge funds can be claimed by wireless providers, now through 2025. For the 12 months ending Sept. 30, 2015, this amount was \$553,350—an increase of \$95,388 from the previous 12 months.
3. To communication service providers, wireline carriers for eligible expenses for transport costs of calls between the E911 network routers and the local PSAPs. For the 12 months ending Sept. 30, 2015, this amount was \$721,042—a decrease of \$122,552.
4. To wireline carriers and automatic location information database providers, for the costs of maintaining and upgrading E911 components and functionalities including the E911 selective routers and beyond and the costs of maintaining the automatic location information database. For the 12 months ending Sept. 30, 2015, this amount was \$1,324.

# Subscriber Surcharges and Distribution

5. To joint E911 service boards, 46 percent of the total surcharge funds generated for communications equipment utilized in the implementation and maintenance of E911 services within the local PSAP. Iowa Code §34A.7A (2) (e) (2) (a) – (c) sets

out how the 46 percent amount is to be distributed among the 114 PSAPs in the state. For the 12 months ending Sept. 30, 2014, this amount was \$12,879,112—an increase of \$181,572 from the previous 12 months.

## E911 System Metrics

Attachment 7 shows the relationship among the annual volume of wireless calls received by PSAP counties, the annual wireless surcharge payment made to those counties, and the resulting cost per call for the period Oct. 1, 2014, to Sept. 30, 2015.

As indicated in Attachment 7, the annual cost per wireless call ranges from a low of \$5.71 per call in Polk County to a high of \$120.05 per call in Ringgold County. For the 12-month period ending Sept. 30, 2015, there were 843,752 wireless 911 calls answered by Iowa PSAPs. The median cost per call is \$36.60. The number of calls to a PSAP per month ranges from a low in Audubon County of 58 calls per month to a high in Polk Co of 15,802 calls per month—with the median monthly wireless call volume of 227 calls per month.

As indicated in Attachment 8, the vast majority of calls made to the state's PSAPs are made to PSAPs at the city and county levels. Of the 843,752 wireless calls made to Iowa PSAPs from Oct. 1, 2014, to Sept. 30, 2015, 26.1 percent were made to PSAPs operated at the county level, 38.7 percent to PSAPs operated at the city levels, and 35.1 percent to PSAPs that were consolidated at either the city or county levels. The remaining 2.6 percent of the calls were made to or transferred to State of Iowa PSAPs operated by the Iowa Department of Public Safety.



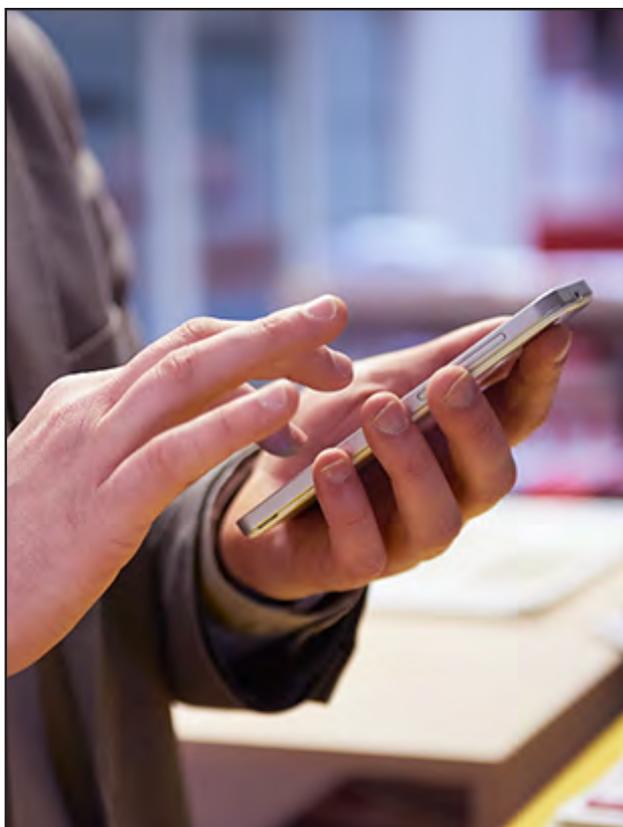
*Westcom PSAP in Polk County*

## Conclusion

Advancements in technology have enabled the use of these technologies to provide more accurate, timely, redundant systems that enable citizens to contact 911 and access much needed life-saving resources. While cost savings in some areas have been achieved through economies of scale and creation of the ESInet, continued costs and resources still need to be dedicated to the program. Future expenses for life-cycle replacement and emerging technologies need to be considered, as we continue to work toward a fully implemented, end-to-end NG911 environment. As technology evolves and advances, the people of Iowa expect its public safety lifeline to adapt and make parallel strides to stay technologically relevant. As more and more citizens maintain only a mobile phone, it is even more imperative that the system be able to receive calls, transfer calls, visualize the caller's environment, and dispatch the right responders, with the right equipment, all in a

matter of seconds from the PSAP. Simultaneously, as more success stories emerge nationwide of text-to-911 saving lives during a home invasion while the texter is in hiding, or that of a deaf/hard of hearing individual, we must realize that technology and expectations continue to increase. We continue to push toward pictures and video being sent to the PSAP via 911, and relayed to responders in the field. The deployment of Firstnet and the integration of the 911 system is already being planned and discussed.

HSEMD will continue to work hand in hand with the Statewide 911 Communications Council, the Iowa Utilities Board, the Iowa Telecommunications Association, the Iowa Statewide Interoperable Communications System Board, the Iowa Communications Network, and Local 911 Service Boards to maintain and improve the level of 911 services within the state.



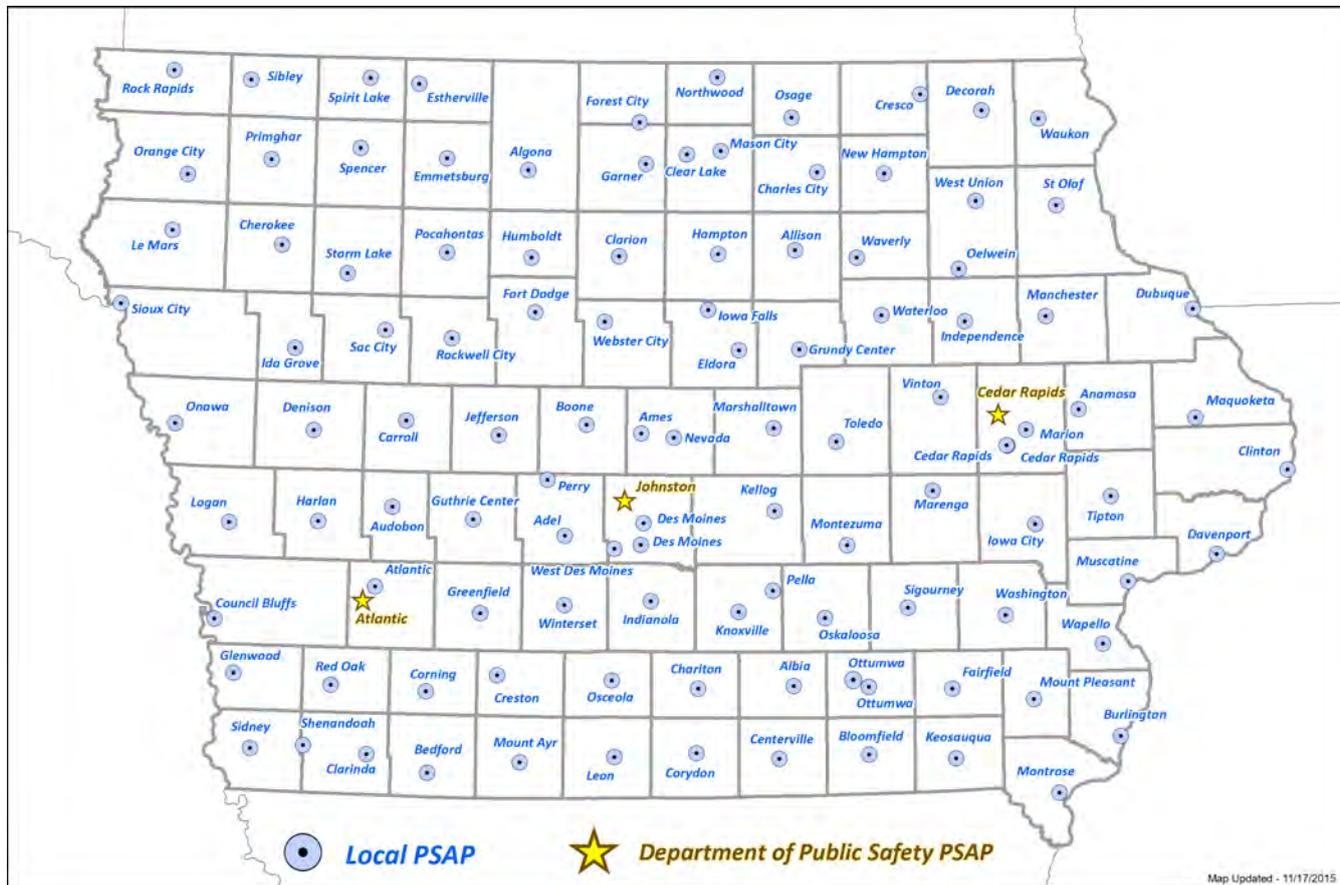
***For additional information about Iowa's E911 program, visit HSEMD's website:***

***[www.homelandsecurity.iowa.gov](http://www.homelandsecurity.iowa.gov)***

***Inquiries may be directed to the E911 program administrator at 515.725.3231 or [E911@iowa.gov](mailto:E911@iowa.gov).***

# Attachment 1

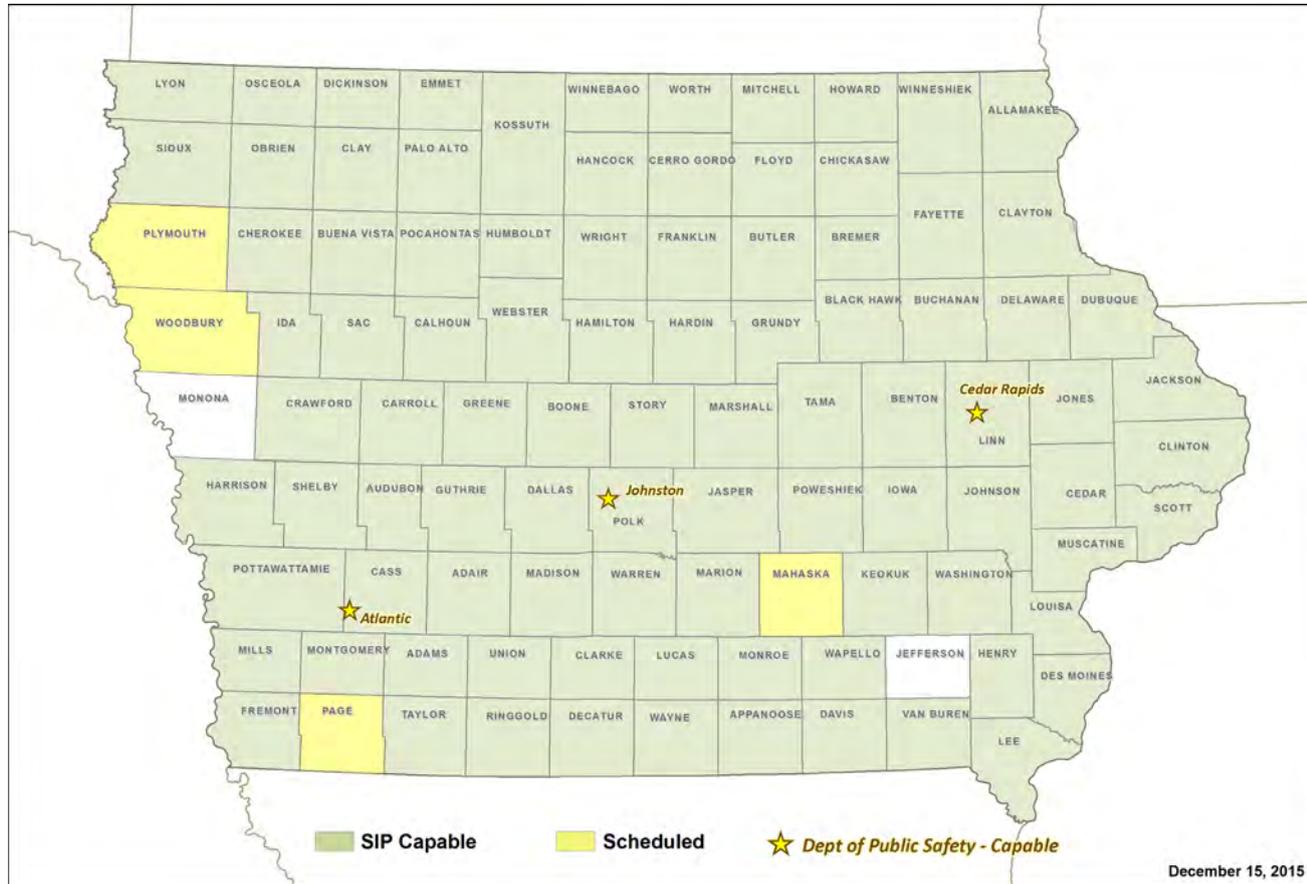
## Iowa's Public Safety Answering Points



## Attachment 2

# SIP-Capable/Scheduled PSAPs

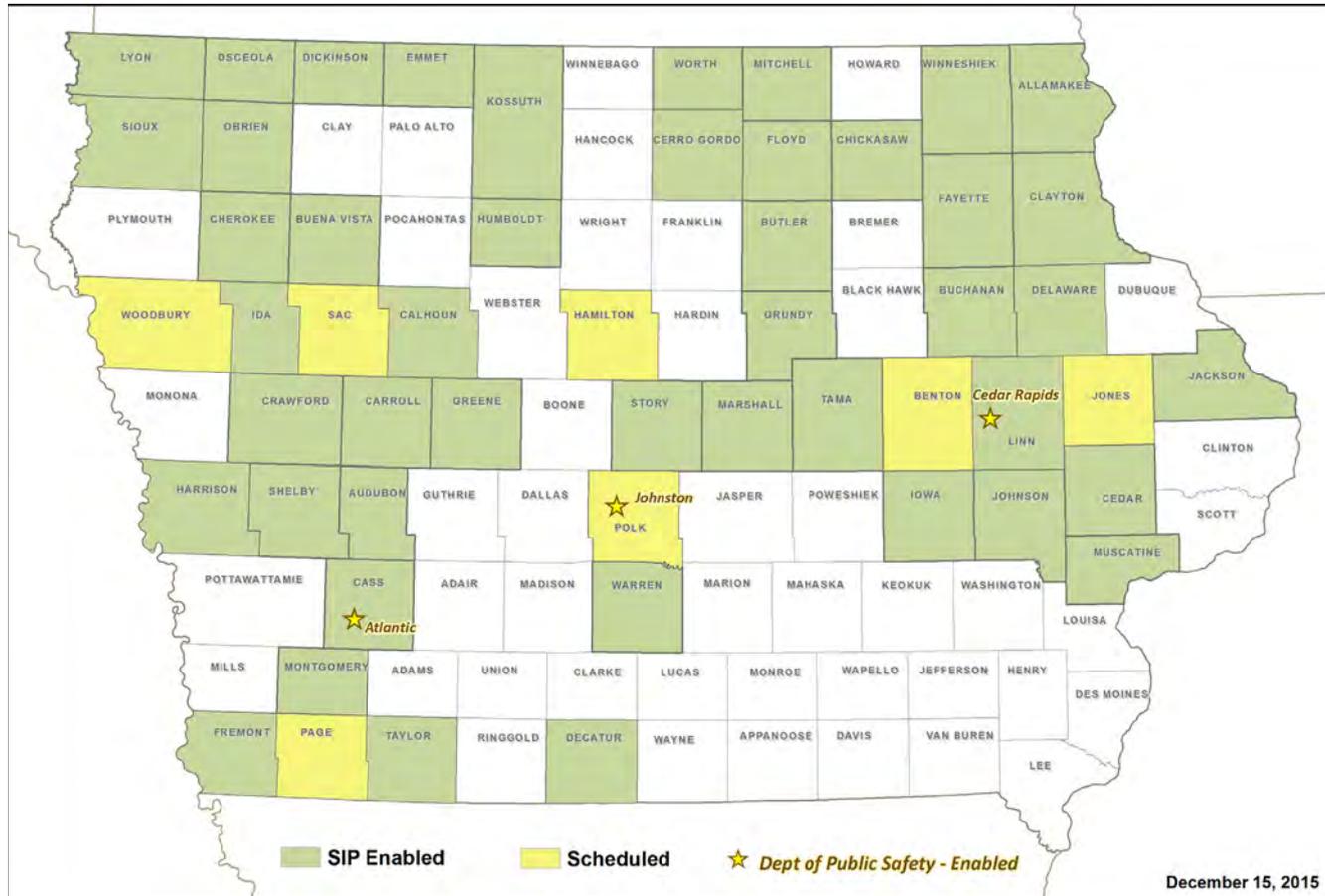
*PSAPs that are capable of receiving an IP-enabled call (or scheduled to be upgraded to do so)*



# Attachment 3

## SIP-Enabled/Scheduled PSAPs

*PSAPs receiving end-to-end IP-enabled wireless calls over the ESInet (or are scheduled to do so)*

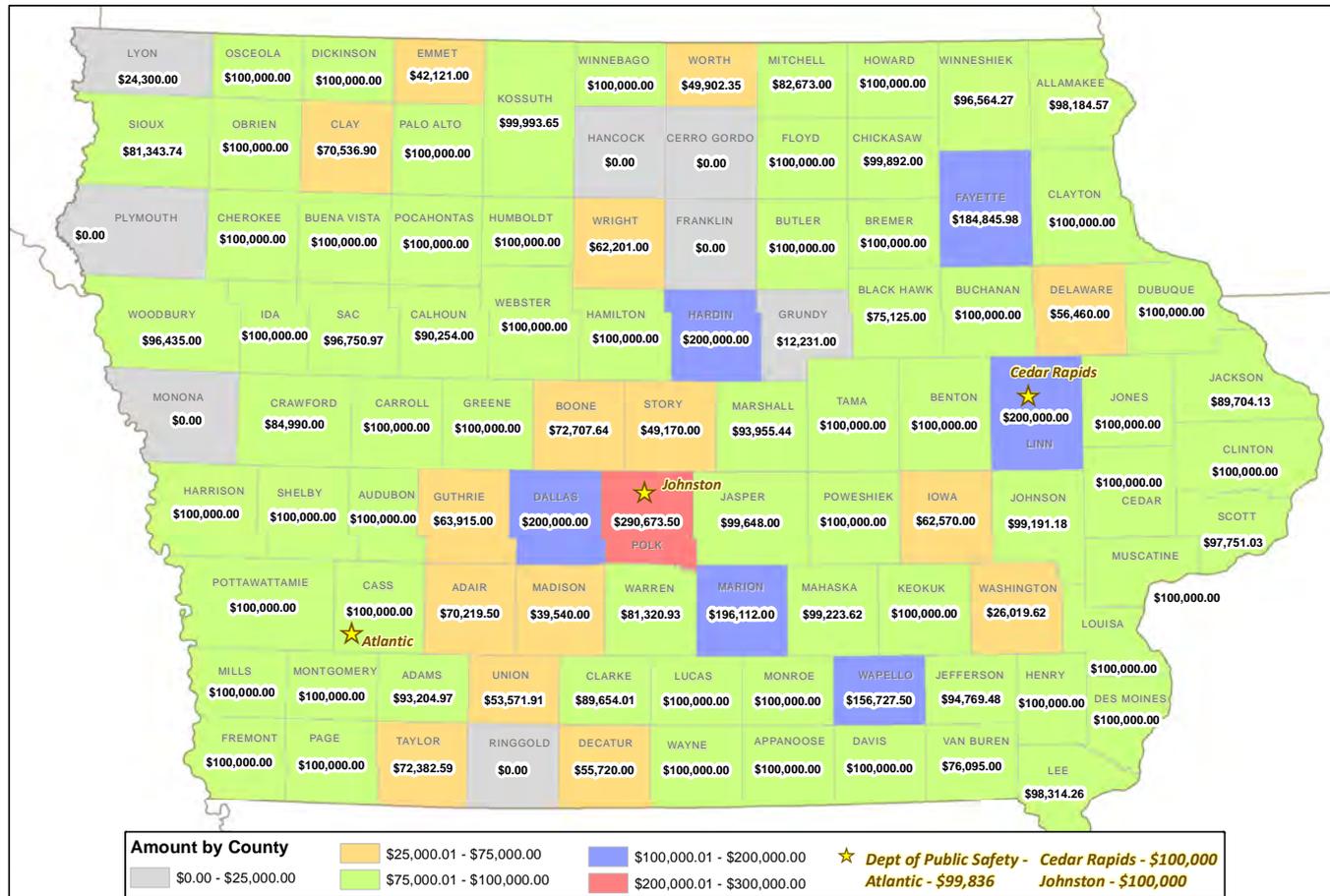




# Attachment 5

## 2015 Carryover Grant: Amount Expended

Oct. 1, 2014, through Sept. 30, 2015



## Attachment 5 (continued)

# 2015 Carryover Grant: Amount Expended

Oct. 1, 2014, through Sept. 30, 2015

County	Amount Received	Total Possible	County	Amount Received	Total Possible
Allamakee	\$ 98,184.57	\$ 100,000.00	Henry	\$ 100,000.00	\$ 100,000.00
Appanoose	\$ 100,000.00	\$ 100,000.00	Howard	\$ 100,000.00	\$ 100,000.00
Audubon	\$ 100,000.00	\$ 100,000.00	Humboldt	\$ 100,000.00	\$ 100,000.00
Benton	\$ 100,000.00	\$ 100,000.00	Ida	\$ 100,000.00	\$ 100,000.00
Black Hawk	\$ 75,125.00	\$ 100,000.00	Iowa	\$ 62,570.00	\$ 100,000.00
Boone	\$ 72,707.64	\$ 100,000.00	Jackson	\$ 89,704.13	\$ 100,000.00
Bremer	\$ 100,000.00	\$ 100,000.00	Jasper	\$ 99,648.00	\$ 100,000.00
Buchanan	\$ 100,000.00	\$ 100,000.00	Jefferson	\$ 94,769.48	\$ 100,000.00
Buena Vista	\$ 100,000.00	\$ 100,000.00	Johnson	\$ 99,191.18	\$ 100,000.00
Butler	\$ 100,000.00	\$ 100,000.00	Jones	\$ 100,000.00	\$ 100,000.00
Calhoun	\$ 90,254.00	\$ 100,000.00	Keokuk	\$ 100,000.00	\$ 100,000.00
Carroll	\$ 100,000.00	\$ 100,000.00	Kossuth	\$ 99,993.65	\$ 100,000.00
Cass	\$ 100,000.00	\$ 100,000.00	Lee	\$ 98,314.26	\$ 100,000.00
Cedar	\$ 100,000.00	\$ 100,000.00	Linn	\$ 200,000.00	\$ 300,000.00
Cerro Gordo	\$ -	\$ 200,000.00	Co SO	\$ 100,000.00	\$ 100,000.00
Co SO	\$ -	\$ 100,000.00	CR JCA	\$ 100,000.00	\$ 100,000.00
Clear Lake PD	\$ -	\$ 100,000.00	Marion PD	\$ -	\$ 100,000.00
Cherokee	\$ 100,000.00	\$ 100,000.00	Louisa	\$ 100,000.00	\$ 100,000.00
Chickasaw	\$ 99,892.00	\$ 100,000.00	Lucas	\$ 100,000.00	\$ 100,000.00
Clay	\$ 70,536.90	\$ 100,000.00	Lyon	\$ 24,300.00	\$ 100,000.00
Clayton	\$ 100,000.00	\$ 100,000.00	Mahaska	\$ 99,223.62	\$ 100,000.00
Clinton	\$ 100,000.00	\$ 100,000.00	Marion	\$ 196,112.00	\$ 200,000.00
Crawford	\$ 84,990.00	\$ 100,000.00	Co SO	\$ 100,000.00	\$ 100,000.00
Dallas	\$ 200,000.00	\$ 200,000.00	Pella PD	\$ 96,112.00	\$ 100,000.00
Co SO	\$ 100,000.00	\$ 100,000.00	Marshall	\$ 93,955.44	\$ 100,000.00
Perry PD	\$ 100,000.00	\$ 100,000.00	Mills	\$ 100,000.00	\$ 100,000.00
Davis	\$ 100,000.00	\$ 100,000.00	Mitchell	\$ 82,673.00	\$ 100,000.00
Decatur	\$ 55,720.00	\$ 100,000.00	Monona	\$ -	\$ 100,000.00
Delaware	\$ 56,460.00	\$ 100,000.00	Monroe	\$ 100,000.00	\$ 100,000.00
Des Moines	\$ 100,000.00	\$ 100,000.00	Montgomery	\$ 100,000.00	\$ 100,000.00
Dickinson	\$ 100,000.00	\$ 100,000.00	Muscatine	\$ 100,000.00	\$ 100,000.00
Dubuque	\$ 100,000.00	\$ 100,000.00	O'Brien	\$ 100,000.00	\$ 100,000.00
Emmet	\$ 42,121.00	\$ 100,000.00	Osceola	\$ 100,000.00	\$ 100,000.00
Fayette	\$ 184,845.98	\$ 200,000.00	Page	\$ 100,000.00	\$ 200,000.00
Co SO	\$ 87,925.08	\$ 100,000.00	Clarinda PD	\$ -	\$ 100,000.00
Oelwein PD	\$ 96,920.90	\$ 100,000.00	Shenandoah PD	\$ 100,000.00	\$ 100,000.00
Floyd	\$ 100,000.00	\$ 100,000.00	Palo Alto	\$ 100,000.00	\$ 100,000.00
Franklin	\$ -	\$ 100,000.00	Plymouth	\$ -	\$ 100,000.00
Fremont	\$ 100,000.00	\$ 100,000.00	Pocahontas	\$ 100,000.00	\$ 100,000.00
Greene	\$ 100,000.00	\$ 100,000.00	Polk	\$ 290,673.50	\$ 300,000.00
Grundy	\$ 12,231.00	\$ 100,000.00	Co SO	\$ 100,000.00	\$ 100,000.00
Hamilton	\$ 100,000.00	\$ 100,000.00	DMPD	\$ 98,997.83	\$ 100,000.00
Hancock	\$ -	\$ 100,000.00	Westcom	\$ 91,675.67	\$ 100,000.00
Hardin	\$ 200,000.00	\$ 200,000.00	Pottawattamie	\$ 100,000.00	\$ 100,000.00
Co SO	\$ 100,000.00	\$ 100,000.00	Poweshiek	\$ 100,000.00	\$ 100,000.00
Iowa Falls PD	\$ 100,000.00	\$ 100,000.00	Ringgold	\$ -	\$ 100,000.00
Harrison	\$ 100,000.00	\$ 100,000.00	Sac	\$ 96,750.97	\$ 100,000.00

## Attachment 5 (continued)

# 2015 Carryover Grant: Amount Expended

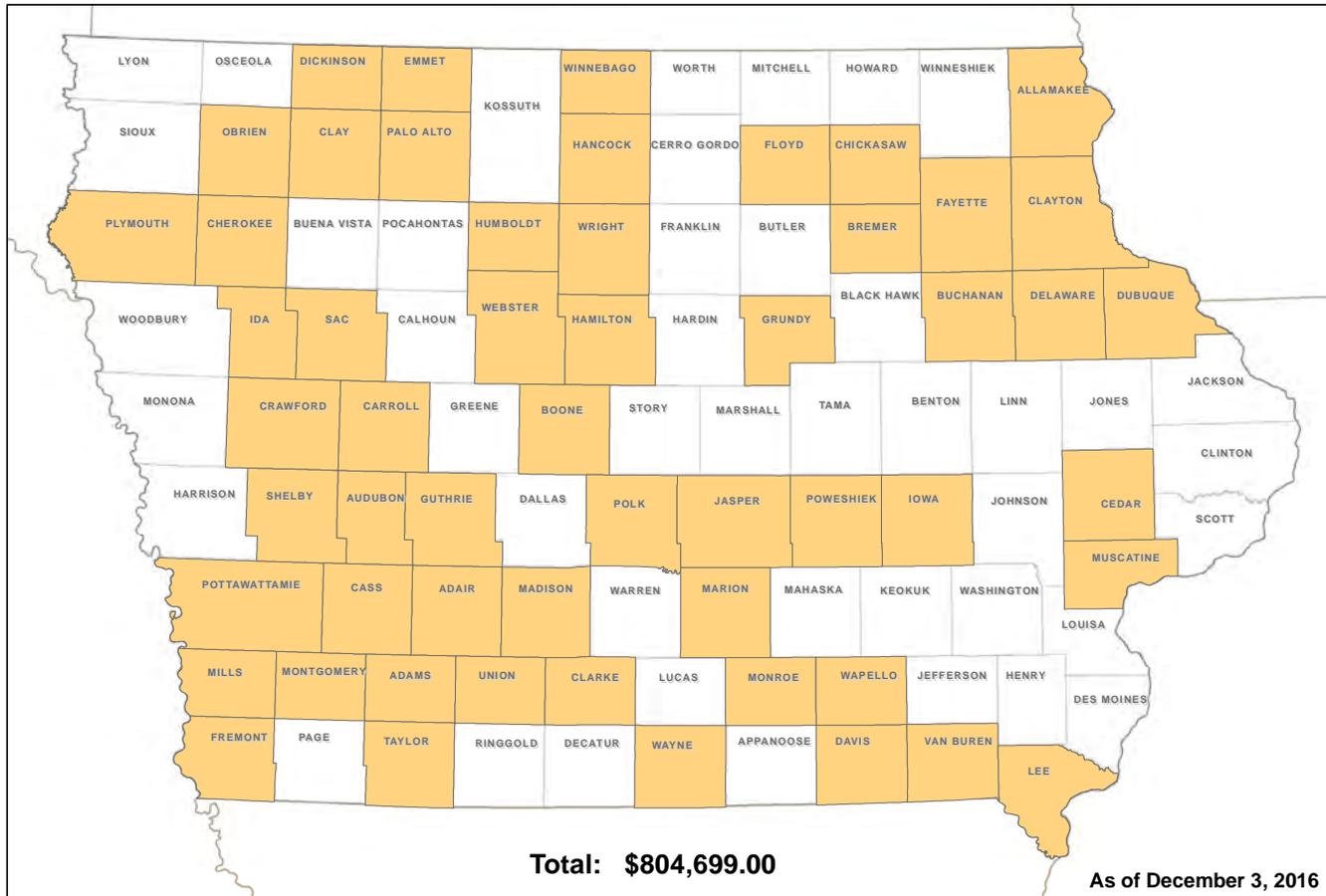
Oct. 1, 2014, through Sept. 30, 2015

County	Amount Received	Total Possible
<b>Scott</b>	\$ 97,751.03	\$ 100,000.00
Co SO	\$ 97,751.03	\$ 100,000.00
Bettendorf		
Davenport		
<b>Shelby</b>	\$ 100,000.00	\$ 100,000.00
<b>Sioux</b>	\$ 81,343.74	\$ 100,000.00
<b>Story</b>	\$ 49,170.00	\$ 200,000.00
Co SO	\$ 15,955.00	\$ 100,000.00
Ames PD	\$ 33,215.00	\$ 100,000.00
<b>Tama</b>	\$ 100,000.00	\$ 100,000.00
<b>Van Buren</b>	\$ 76,095.00	\$ 100,000.00
<b>Wapello</b>	\$ 156,727.50	\$ 200,000.00
Co SO	\$ 62,102.50	\$ 100,000.00
Ottumwa PD	\$ 94,625.00	\$ 100,000.00
<b>Warren</b>	\$ 81,320.93	\$ 100,000.00
<b>Washington</b>	\$ 26,019.62	\$ 100,000.00
<b>Wayne</b>	\$ 100,000.00	\$ 100,000.00
<b>Webster</b>	\$ 100,000.00	\$ 100,000.00
<b>Winnebago</b>	\$ 100,000.00	\$ 100,000.00
<b>Winneshiek</b>	\$ 96,564.27	\$ 100,000.00
<b>Woodbury</b>	\$ 96,435.00	\$ 100,000.00
<b>Worth</b>	\$ 49,902.35	\$ 100,000.00
<b>Wright</b>	\$ 62,201.00	\$ 100,000.00
<b>South Central Iowa Regional Board</b>	\$ 482,487.98	\$ 700,000.00
Adair	\$ 70,219.50	\$ 100,000.00
Adams	\$ 93,204.97	\$ 100,000.00
Clarke	\$ 89,654.01	\$ 100,000.00
Guthrie	\$ 63,915.00	\$ 100,000.00
Madison	\$ 39,540.00	\$ 100,000.00
Taylor	\$ 72,382.59	\$ 100,000.00
Union	\$ 53,571.91	\$ 100,000.00
<b>Public Safety</b>	\$ 299,836.00	\$ 300,000.00
Atlantic	\$ 99,836.00	\$ 100,000.00
Cedar Rapids	\$ 100,000.00	\$ 100,000.00
Johnston	\$ 100,000.00	\$ 100,000.00
<b>Totals</b>	\$ 9,326,801.74	\$ 11,400,000.00

# Attachment 6

## 2016 GIS Grant

*Counties that have received carryover grants for GIS data remediation*



## Attachment 7

# Annual Wireless Call Volume and Cost Per Call

Oct. 1, 2014, through Sept. 30, 2015

County	Total Calls	Average Calls per month	Total Payments	Yearly cost per wireless call
Polk	189,629	15,802	\$ 1,082,307.67	\$ 5.71
Scott	91,082	7,590	\$ 538,796.54	\$ 5.92
Linn	64,096	5,341	\$ 447,442.82	\$ 6.98
Black Hawk	43,262	3,605	\$ 309,230.31	\$ 7.15
Johnson	35,403	2,950	\$ 276,482.65	\$ 7.81
Pottawattamie	46,333	3,861	\$ 379,213.27	\$ 8.18
Woodbury	37,724	3,144	\$ 324,422.23	\$ 8.60
Des Moines	15,129	1,261	\$ 143,181.89	\$ 9.46
Dubuque	21,027	1,752	\$ 200,968.18	\$ 9.56
Story	15,954	1,330	\$ 172,720.03	\$ 10.83
Muscatine	11,932	994	\$ 129,616.01	\$ 10.86
Wapello	9,639	803	\$ 120,157.47	\$ 12.47
Clinton	13,434	1,120	\$ 174,899.67	\$ 13.02
Cerro Gordo	11,389	949	\$ 149,328.42	\$ 13.11
Lee	9,861	822	\$ 131,869.70	\$ 13.37
Marshall	10,234	853	\$ 138,942.11	\$ 13.58
Warren	9,091	758	\$ 132,937.59	\$ 14.62
Dallas	8,620	718	\$ 137,120.77	\$ 15.91
Jasper	9,974	831	\$ 160,569.78	\$ 16.10
Webster	9,113	759	\$ 153,877.89	\$ 16.89
Marion	5,547	462	\$ 118,451.86	\$ 21.35
Public Safety	850	71	\$ 19,487.58	\$ 22.93
Henry	3,731	311	\$ 85,885.83	\$ 23.02
Cedar	4,847	404	\$ 112,409.60	\$ 23.19
Mills	3,649	304	\$ 85,958.45	\$ 23.56
Boone	4,611	384	\$ 110,097.20	\$ 23.88
Bremer	3,501	292	\$ 85,188.15	\$ 24.33
Mahaska	4,491	374	\$ 109,426.96	\$ 24.37
Poweshiek	4,417	368	\$ 110,808.51	\$ 25.09
Iowa	4,208	351	\$ 109,894.80	\$ 26.12
Dickinson	2,884	240	\$ 76,563.64	\$ 26.55
Washington	3,836	320	\$ 105,732.02	\$ 27.56
Hamilton	3,855	321	\$ 106,704.71	\$ 27.68
Sioux	4,916	410	\$ 139,552.72	\$ 28.39
Cass	3,600	300	\$ 103,645.13	\$ 28.79
Jefferson	2,717	226	\$ 80,637.47	\$ 29.68
Floyd	2,852	238	\$ 90,648.47	\$ 31.78
Tama	3,976	331	\$ 128,026.16	\$ 32.20
Jones	3,178	265	\$ 103,245.45	\$ 32.49
Harrison	3,758	313	\$ 123,957.86	\$ 32.99
Buchanan	3,088	257	\$ 102,170.22	\$ 33.09
Louisa	2,196	183	\$ 75,249.31	\$ 34.27
Buena Vista	2,925	244	\$ 102,308.75	\$ 34.98
Benton	3,587	299	\$ 125,659.31	\$ 35.03

## Attachment 7 (continued)

# Annual Wireless Call Volume and Cost Per Call

Oct. 1, 2014, through Sept. 30, 2015

County	Total Calls	Average Calls per month	Total Payments	Yearly cost per wireless call
Clay	2,811	234	\$ 100,561.14	\$ 35.77
Jackson	3,122	260	\$ 113,270.79	\$ 36.28
Hardin	2,864	239	\$ 104,618.43	\$ 36.53
Montgomery	2,064	172	\$ 75,669.62	\$ 36.66
Worth	1,886	157	\$ 71,372.06	\$ 37.84
O'Brien	2,613	218	\$ 99,696.21	\$ 38.15
Carroll	2,500	208	\$ 98,752.67	\$ 39.50
Appanoose	2,184	182	\$ 89,408.03	\$ 40.94
Page	2,184	182	\$ 96,052.71	\$ 43.98
Winnebago	1,576	131	\$ 69,861.46	\$ 44.33
Crawford	2,602	217	\$ 119,983.29	\$ 46.11
Fayette	2,730	228	\$ 127,046.99	\$ 46.54
Decatur	1,905	159	\$ 90,420.05	\$ 47.46
South Central Iowa Regional Board (includes Adair, Adams, Clarke, Guthrie, Madison, Taylor, and Union)	12,493	1,041	\$ 600,637.37	\$ 48.08
Plymouth	2,849	237	\$ 142,591.75	\$ 50.05
Franklin	1,732	144	\$ 88,771.16	\$ 51.25
Lucas	1,409	117	\$ 73,690.44	\$ 52.30
Humboldt	1,395	116	\$ 73,683.08	\$ 52.82
Emmet	1,279	107	\$ 68,325.47	\$ 53.42
Wright	1,812	151	\$ 96,918.45	\$ 53.49
Clayton	2,413	201	\$ 130,158.82	\$ 53.94
Grundy	1,552	129	\$ 84,061.29	\$ 54.16
Winneshiek	2,098	175	\$ 113,828.10	\$ 54.26
Delaware	1,743	145	\$ 96,109.06	\$ 55.14
Monroe	1,324	110	\$ 73,198.03	\$ 55.29
Lyon	1,661	138	\$ 96,804.84	\$ 58.28
Butler	1,615	135	\$ 95,755.67	\$ 59.29
Fremont	1,412	118	\$ 85,406.91	\$ 60.49
Chickasaw	1,383	115	\$ 83,670.91	\$ 60.50
Allamakee	1,776	148	\$ 107,693.43	\$ 60.64
Cherokee	1,493	124	\$ 94,467.50	\$ 63.27
Osceola	1,031	86	\$ 66,592.75	\$ 64.59
Monona	1,711	143	\$ 113,013.54	\$ 66.05
Ida	1,072	89	\$ 71,552.44	\$ 66.75
Hancock	1,382	115	\$ 93,359.26	\$ 67.55
Mitchell	1,131	94	\$ 77,144.41	\$ 68.21
Howard	1,073	89	\$ 77,464.53	\$ 72.19
Shelby	1,301	108	\$ 95,552.96	\$ 73.45
Greene	1,203	100	\$ 92,068.47	\$ 76.53
Calhoun	1,187	99	\$ 92,118.73	\$ 77.61
Palo Alto	1,183	99	\$ 91,847.42	\$ 77.64

**Attachment 7 (continued)**

**Annual Wireless Call Volume and Cost Per Call**

*Oct. 1, 2014, through Sept. 30, 2015*

County	Total Calls	Average Calls per month	Total Payments	Yearly cost per wireless call
Sac	1,174	98	\$ 92,967.03	\$ 79.19
Keokuk	1,162	97	\$ 93,215.54	\$ 80.22
Van Buren	990	83	\$ 79,456.03	\$ 80.26
Kossuth	1,610	134	\$ 152,098.25	\$ 94.47
Pocahontas	939	78	\$ 91,857.94	\$ 97.83
Wayne	832	69	\$ 83,973.43	\$ 100.93
Audubon	692	58	\$ 71,223.73	\$ 102.92
Davis	745	62	\$ 80,329.08	\$ 107.82
Ringgold	708	59	\$ 84,995.99	\$ 120.05
<b>TOTAL:</b>	843,752	70,313	\$ 12,879,112.42	
<b>MEDIAN:</b>	2,724	227	\$ 101,365.68	\$ 36.60
<b>AVERAGE:</b>	8,976	748	\$ 137,011.83	\$ 42.49

# Attachment 8

## Calls by PSAP Type

Oct. 1, 2014, through Sept. 30, 2015

County Sheriff	Calls	PD	Calls	Consolidated	Calls	DPS	Calls
Adair	3,095	Algona PD (Kossuth)	1,610	Audubon	692	Public Safety	850
Adams	553	Ames PD (Story)	9,958	Black Hawk	43,262	DPS Transfers*	21,254
Allamakee	1,776	Burlington PD (Des Moines)	15,129	Bremer	3,501	<b>Total</b>	<b>22,104</b>
Appanoose	2,184	Cedar Rapids (Linn)	45,676	Buchanan	3,088	<b>Percentage</b>	<b>2.6%</b>
Benton	3,587	Charles City PD (Floyd)	2,852	Buena Vista	2,925		
Boone	4,611	Clarinda PD (Page)	871	Carroll	2,500		
Butler	1,615	Clear Lake PD (Cerro Gordo)	1,564	Cass	3,600		
Calhoun	1,187	Davenport PD (Scott)	91,082	Clay	2,811		
Cedar	4,847	Decorah PD (Winneshiek)	2,098	Clayton	2,413		
Cerro Gordo	9,825	Des Moines PD (Polk)	121,172	Crawford	2,602		
Cherokee	1,493	Iowa Falls PD (Hardin)	750	Delaware	1,743		
Chickasaw	1,383	Maquoketa PD (Jackson)	3,122	Dubuque	21,027		
Clarke	2,529	Marion PD (Linn)	7,194	Emmet	1,279		
Clinton	13,434	Marshalltown PD (Marshall)	10,234	Franklin	1,732		
Dallas	7,079	Oelwein PD (Fayette)	1,258	Harrison	3,758		
Davis	745	Ottumwa PD (Wapello)	7,426	Humboldt	1,395		
Decatur	1,905	Pella PD (Marion)	1,769	Jefferson	2,717		
Dickinson	2,884	Perry PD (Dallas)	1,541	Johnson	35,403		
Fayette	1,472	Shenandoah PD (Page)	1,313	Lee	9,861		
Fremont	1,412			Mills	3,649		
Greene	1,203	<b>Total</b>	<b>326,619</b>	Mitchell	1,131		
Grundy	1,552	<b>Percentage</b>	<b>38.7%</b>	Muscatine	11,932		
Guthrie	1,280			Pottawattamie	46,333		
Hamilton	3,855			Shelby	1,301		
Hancock	1,382			Tama	3,976		
Hardin	2,114			Webster	9,113		
Henry	3,731			Westcom (Polk)	31,208		
Howard	1,073			Winnebago	1,576		
Ida	1,072			Woodbury	37,724		
Iowa	4,208			Wright	1,812		
Jasper	9,974						
Jones	3,178			<b>Total</b>	<b>296,064</b>		
Keokuk	1,162			<b>Percentage</b>	<b>35.1%</b>		
Linn	11,226						
Louisa	2,196						
Lucas	1,409						
Lyon	1,661						
Madison	2,205						
Mahaska	4,491						
Marion	3,778						
Monona	1,711						
Monroe	1,324						
Montgomery	2,064						
O'Brien	2,613						
Osceola	1,031						
Palo Alto	1,183						
Plymouth	2,849						
Pocahontas	939						
Polk	37,249						
Poweshiek	4,417						
Ringgold	708						
Sac	1,174						
Sioux	4,916						
Story	5,996						
Taylor	898						
Union	1,933						
Van Buren	990						
Wapello	2,213						
Warren	9,091						
Washington	3,836						
Wayne	832						
Worth	1,886						
<b>Total</b>	<b>220,219</b>						
<b>Percentage</b>	<b>26.1%</b>						

\*Surcharge distribution is based on incoming calls, not transfers

## Attachment 9

# Revenues and Expenditures

Oct. 1, 2014, through Sept. 30, 2015

Revenues	3rd Qtr 2015	2nd Qtr 2015	1st Qtr 2015	4th Qtr 2014	Totals
Surcharge Funds Received	\$ 6,930,926.39	\$ 7,049,503.43	\$ 7,029,652.75	\$ 7,026,948.58	\$ 28,037,031.15
Interest	\$ 30,216.61	\$ 26,370.28	\$ 21,817.97	\$ 18,685.29	\$ 97,090.15
<b>Total Revenues</b>					<b>\$ 28,134,121.30</b>
<b>Expenditures</b>					
HSEMD Funding-used to administer 911 program, i.e. personnel costs, travel, supplies, equipment, Auditor fess for program audits	\$ 250,000.00	\$ 62,500.00	\$ 62,500.00	\$ 62,500.00	\$ 437,500.00
Wireless Service Providers-cost recover for wireless Phase 1 services	\$ 137,585.19	\$ 137,446.33	\$ 139,793.56	\$ 138,525.52	\$ 553,350.60
Network and Selective Router-costs for ICN circuits, TCS contract, transport services, selective router, and automatic location services	\$ 646,411.14	\$ 622,729.31	\$ 577,441.35	\$ 588,777.84	\$ 2,435,359.64
Operating Surplus Expenditures-future network and equipment upgrades and PSAP equipment upgrades	\$ 161,646.61	\$ 6,916,684.84	\$ 2,171,985.18	\$ 1,511,829.61	\$ 10,762,146.24
PSAP Distribution	\$ 3,233,640.27	\$ 3,245,071.58	\$ 3,188,226.14	\$ 3,212,174.43	\$ 12,879,112.42
<b>Total Expenditures</b>	\$ 4,429,283.21	\$ 10,984,432.06	\$ 6,139,946.23	\$ 5,513,807.40	<b>\$ 27,067,468.90</b>
<b>Additional to Carryover</b>	\$ 2,792,232.76	\$ 3,013,126.49	\$ 2,984,783.31	\$ 3,043,510.10	<b>\$ 11,833,652.66</b>

## Attachment 10

# Pass-through Funding for Lease Payments

Actual costs in FY2013, FY2014, and FY2015

46% pass through, paying for one time \$4,000,000 in Lease Payments

	Actuals		
	FY2013	FY2014	FY2015
<b>Revenue</b>			
Surcharge Collected	\$17,500,000.00	\$23,000,000.00	\$26,000,000.00
Prepaid Wireless		\$1,300,000.00	\$2,000,000.00
Interest	\$37,000.00	\$34,000.00	\$75,000.00
Carryover brought forward	\$8,032,840.95	\$11,809,840.95	\$19,900,840.95
	<b>\$25,569,840.95</b>	<b>\$36,143,840.95</b>	<b>\$47,975,840.95</b>
<b>Expenditures</b>			
HSEMD	\$250,000.00	\$250,000.00	\$250,000.00
911 Council Travel, Public Education	N/A	N/A	N/A
Possible Lease Payment	N/A	N/A	N/A
Wireless Service Providers (10% of fund, Actual Costs)		\$315,000.00	\$560,000.00
Network transport (Actual costs, includes Secondary ESInet)	\$5,000,000.00	\$2,500,000.00	\$2,400,000.00
PSAP (46% of surcharge generated)	\$8,050,000.00	\$11,178,000.00	\$12,880,000.00
Carryover Applications-Funds Obligated/Expended	\$460,000.00	\$2,000,000.00	\$9,326,801.74
	<b>\$13,760,000.00</b>	<b>\$16,243,000.00</b>	<b>\$25,416,801.74</b>
(max per psap from carryover)	\$50,000.00	\$100,000.00	\$100,000.00
<b>NG 911 Future Proposed Enhancements</b>			
Data Center: Move/upgrade equipment/installation/engineering (NRC)			\$1,800,000.00
Network Equipment Refresh (State Equip in PSAPs)			
GIS PSAP Data Maintenance (Annually)			\$232,428.00
HSEMD on site backup servers and data			\$40,000.00
Statewide Imagery Service			
Secondary ESInet (NRC equipment/Installation/Engineering)			\$319,800.00
ICN Fiber Installs to remaining PSAPs/PSAP Moves			\$368,000.00
<b>Projected Future Network Expenses</b>			<b>\$2,760,228.00</b>
	<b>\$11,809,840.95</b>	<b>\$19,900,840.95</b>	<b>\$19,798,811.21</b>

Present law sets aside 10% of revenues to reimburse wireless carriers for costs associated with delivering the 911 call. Costs are paid based on presented expenses. Prior to removal of cost recovery, they billed \$3,000,000 annually. With reinstatement of cost recovery, bills have been \$500,000 annually. Remainder of funds placed in Carryover Fund.

Payments to the PSAPs are 46% of total amount of surcharge generated per Code of Iowa section 34A.7A(2)d(2).

Network transport costs are reimbursed based on actual cost presented. Prior to conversion to NG911 network, transport costs averaged \$7,200,000 annually. With NG911 annual transport costs have declined to \$2,400,000. Cost savings have increased carryover balance.

# Attachment 10 (continued)

## Pass-through Funding for Lease Payments

Cost projections for FY2016 through FY2025

46% pass through, paying for one time \$4,000,000 in Lease Payments

	Projections									
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
<b>Revenue</b>										
Surcharge Collected	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00	\$26,000,000.00
Prepaid Wireless	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00	\$2,000,000.00
Interest	\$19,298,811.21	\$8,734,811.21	\$4,155,811.21	\$3,686,811.21	\$3,717,811.21	\$3,448,811.21	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21
Carryover brought forward	\$47,873,811.21	\$36,809,811.21	\$32,230,811.21	\$31,761,811.21	\$31,792,811.21	\$31,523,811.21	\$31,754,811.21	\$31,485,811.21	\$31,216,811.21	\$31,747,811.21
<b>Expenditures</b>										
HSEMD	\$350,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00
911 Council Travel, Public Education	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00
Possible Lease Payment	\$4,000,000.00									
Wireless Service Providers (10% of fund, Actual Costs)	\$560,000.00	\$560,000.00	\$560,000.00	\$560,000.00	\$560,000.00	\$560,000.00	\$560,000.00	\$560,000.00	\$560,000.00	\$0.00
Network Transport (Actual costs, includes Secondary ESinet)	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00	\$2,400,000.00
PSAP (46% of surcharge generated)	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00	\$12,880,000.00
Carryover Applications-Funds Obligated/Expended	\$13,110,000.00	\$13,110,000.00	\$9,500,000.00	\$8,500,000.00	\$9,000,000.00	\$8,500,000.00	\$9,000,000.00	\$9,000,000.00	\$8,500,000.00	\$9,500,000.00
	\$33,300,000.00	\$29,300,000.00	\$25,190,000.00	\$24,690,000.00	\$25,190,000.00	\$24,690,000.00	\$25,190,000.00	\$25,190,000.00	\$24,190,000.00	\$25,130,000.00
	\$115,000.00	\$115,000.00	\$78,947.37	\$74,561.40	\$78,947.37	\$74,561.40	\$78,947.37	\$78,947.37	\$70,175.44	\$83,333.33
<b>NG 911 Future Proposed Enhancements</b>										
(max per psap from carryover)										
Data Center: Move/upgrade equipment/installation/engineering (NRC)	\$10,000.00									
Network Equipment Refresh (State Equip in PSAPs)	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$200,000.00
GIS PSAP Data Maintenance (Annually)	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00	\$2,114,000.00
HSEMD on site backup servers and data	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00
Statewide Imagery Service	\$1,500,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00
Secondary ESinet (NRC equipment/installation/Engineering)	\$75,000.00									
ION Fiber installs to remaining PSAPs/PSAP Moves	\$2,100,000.00									
<b>Projected Future Network Expenses</b>	\$5,839,000.00	\$3,354,000.00	\$3,354,000.00	\$3,354,000.00	\$3,154,000.00	\$3,154,000.00	\$3,154,000.00	\$3,154,000.00	\$3,354,000.00	\$3,354,000.00
2016 Projection	\$8,734,811.21	\$4,155,811.21	\$3,686,811.21	\$3,717,811.21	\$3,448,811.21	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21
2017 Projection	\$4,155,811.21	\$3,686,811.21	\$3,717,811.21	\$3,448,811.21	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21
2018 Projection	\$3,686,811.21	\$3,717,811.21	\$3,448,811.21	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2019 Projection	\$3,717,811.21	\$3,448,811.21	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2020 Projection	\$3,448,811.21	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2021 Projection	\$3,679,811.21	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2022 Projection	\$3,410,811.21	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2023 Projection	\$3,141,811.21	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2024 Projection	\$3,672,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21
2025 Projection	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21	\$3,263,811.21

Payments to the PSAPs are 46% of total amount of surcharge generated per Code of Iowa section 34A.7A(2)(d2).

Present law sets aside 10% of revenues to reimburse wireless carriers for costs associated with delivering the 911 call. Costs are paid based on presented expenses. Prior to removal of cost recovery, they billed \$3,000,000 annually. With reinstatement of cost recovery, bills have been \$500,000 annually. Remainder of funds placed in Carryover Fund.

Network transport costs are reimbursed based on actual cost presented. Prior to conversion to NGS11 network, transport costs averaged \$7,200,000 annually. With NGS11 annual transport costs have declined to \$2,400,000. Cost savings have increased carryover balance.