



**STATE 911**  
**ASSESSMENT**  
PROGRAM

**Iowa Report**  
September 2019



## INTRODUCTION

### The State of Iowa

Iowa, also known as the Hawkeye State, is the 30th largest State in the United States. The state borders six states. Missouri to the south, South Dakota and Nebraska to the West, Minnesota to the north, and Wisconsin and Illinois to the east. Iowa's geographic area is 55,869 square miles and is the 26th largest State by area. Iowa is bordered on two sides by rivers; the Mississippi separates it on the east from Wisconsin and Illinois, and the Missouri and the Big Sioux separate it on the west from Nebraska and South Dakota. The terrain is low and gently sloping, except for the hills in the unglaciated area of northeast Iowa, the steeply sloping bluffs on the banks of the Mississippi, and the mound-like bluffs on the banks of the Missouri. The rivers of the eastern two thirds of Iowa flow to the Mississippi, those of the west flow to the Missouri. Only 0.1 percent of Iowa, the lowest total in the 50 states, is owned by the federal government.

#### *Population*

Iowa is composed of 99 counties. Its two largest metropolitan areas are Des Moines (the State Capital) and Cedar Rapids. The population of Iowa was 3,156,000 and ranks as the 31<sup>st</sup> largest State by population.

#### *Economy*

Iowa's largest industries are manufacturing and agriculture. Iowa leads the nation in corn and soybean production and comes in third in total livestock sales. Local manufacturing is largely focused around food processing and heavy machinery. Iowa is home to a large number of insurance and financial groups, as well as a notable publishing industry. The GDP is 185 billion dollars which ranks 29<sup>th</sup> in United States.

#### *Government*

In Iowa government, as at the national level of government, power is distributed among three branches: legislative, executive, and judicial. The legislative branch creates laws that establish policies and programs; the executive branch carries out the policies and programs contained in the laws; and the judicial branch resolves any conflicts arising from the interpretation or application of the laws. While each branch of government has its own separate responsibilities, one branch cannot function without the other two branches.

### Status of the Iowa 911 System

Iowa's 911 system consists of 113 public safety answering points (PSAPs) across 99 counties. These PSAPs handle both landline and wireless emergency 911 calls from within Iowa. The wireline 911 system was launched in Iowa in 1988 and is managed by local 911 service boards. The funding to support the system is obtained through the contributions of local and landline phone surcharges authorized by Code of Iowa Chapter 34A. Wireless 911 capability was added to the system beginning in 1998. This is funded through a wireless surcharge on wireless phone users' monthly bills and is managed by the Iowa Department of Homeland Security and Emergency Management (HSEMD) pursuant to Code of Iowa Chapter 34A. In 2012, the department converted the wireless 911 network from analog technology to an Emergency Services IP Network (ESInet), which is the backbone to the future of 911, referred to as a Next Generation 911 (NG 911). From January 1, 2018, through December 31, 2018, PSAPs in Iowa processed 914,327 wireless 911 calls to Iowa's PSAPs and 1,714 text messages. PSAPs reported 215,312 wireline calls. Local PSAPs are the primary users of the NG 911 network and answer and dispatch resources for more than 98 percent of all wireless 911 calls in Iowa. The Iowa Department of Public Safety (DPS) operates three PSAPs and handles the remainder of the wireless 911 calls.



911 responsibilities are split in Iowa with multiple entities having a piece of the puzzle. HSEMD is responsible for the ESInet and wireless surcharge remittance, along with overall program administration. The Iowa Law Enforcement Academy manages the 40-Hour Basic Telecommunicator Course. DPS manages and oversees local access to the National Crime Information Center and the Iowa Online Warrants and Articles (IOWA) System. Local jurisdictions are represented through local 911 Service Boards. CAD and radio systems are often disparate by jurisdiction, but the Iowa Statewide Interoperability Systems Board fosters interoperable system communication, including statewide Land Mobile Radio.

### ***History, Legislature, and Funding***

In 1988, the State of Iowa launched the 911 program for wireline through the establishment of the local 911 service boards. In 1998 wireless 911 was added under the authority of the Iowa Homeland Security and Emergency Management Department (HSEMD).

911 in the State of Iowa is Governed by:

- The Iowa Code Chapter 34A: 911 Emergency Telephone Systems
- Iowa Administrative Code Section 605, Chapter 10: 911 Telephone Systems
- NG911 Implementation and Operations Plan (Required by Administrative Rule for further governance)
- Iowa Code Chapter 80B.11C: Telecommunicator Training Standards

### ***The 911 Program***

The 911 Program Manager was appointed by the Director of HSEMD with duties and responsibilities outlined in Iowa Code Chapter 34A to guide the technical, political, financial and programmatic efforts of the State of Iowa 911.

The 911 Program Manager is supported by the 911 Communications Council. The Council advises the HSEMD director and the 911 Program Manager and makes recommendations for the operation of 911 at the State level. The 911 Communications Council is represented by:

- DPS
- Iowa State Sheriffs' and Deputies Association
- Iowa Peace Officers Association
- Iowa EMS Association
- Iowa Professional Fire Fighters
- Iowa Firefighters Association
- Iowa NENA
- Iowa APCO
- Iowa Emergency Management Directors Association
- Iowa Telephone Association (one representative from a large provider and one representative from a small provider)
- Iowa Wireless Industry (one cellular representative, one personal communications service company representative)
- Iowa Geographic Information Council
- Auditor of the State (Ex Officio)

Local 911 Service Boards have been established at the county level (with one regional local service board) that are responsible for the local 911 service plans, management of the local 911 budget and to coordinate the operation of 911 with the 911 Program Manager.

The 911 surcharge of \$1.00 for both wireline and wireless; is split between HSEMD and the local 911 Service Boards. Wireline and wireless surcharges are each \$1.00 per month per line. Local 911 service boards keep the wireline surcharge, and HSEMD keeps 40% of the wireless surcharge, with the remaining 60% going to local 911 service boards. HSEMD also receives \$.51 for each prepaid use as a pass-through from the Department of Revenue. The fee explicitly covers the "Receipt and Disposition of the 911 Call", which excludes personnel and building costs.

The wireless surcharge of 60% to the local 911 services boards is distributed based on a formula that accounts for land area and call counts (65% square area, and 35% call count).

- 40% to HSEMD for network costs
- \$250,000 annually to HSEMD for Program Administration
- \$200,000 annually for Physical Consolidation Incentive Grant
- \$100,000 annually for 911 Council Travel, Public Education and Training
- Operating surpluses (2013-2017 carryover grants, 2018-present pass through funding)

\$39,349,122.76 million in 911 fees is collected annually. \$27,146.110 is wireless, \$9,980,018 is wireline and \$2,222,994 is prepaid.

HSEMD does not have explicit authority to audit service providers to ensure accuracy of the surcharge remittance. The Local 911 Service Boards are able to request quarterly extracts from the local providers to audit the wireline surcharge.

Local 911 Service Boards are largely responsible for legacy 911, (excluding wireless) while HSEMD is responsible for wireless and NG911.

The 911 Program Manager maintains collaboration with the Iowa Statewide Interoperable Communications Systems Board (ISICSB). The ISICSB is governed by Iowa Code Chapter 80.28 and 80.29 and is responsible for maintaining statewide interoperability.

### ***PSAPs in Iowa***

Iowa is a home rule state with 113 PSAPs., 95% of those PSAPs are already Session Initiation Protocol (SIP) enabled.

### ***911 Calls***

Iowa estimates 1,161,410 911 calls annually. 914,327 of those are wireless and 1,714 are text.

### ***Progress towards Next Generation 911***

The State of Iowa has established an Emergency Services IP network (ESInet) and implemented NG911 in a transitional state. The ESInet delivers 10MB to PSAPs and 50MB to the data centers. The NG core services supplied deliver SIP based calls to the 95% of the PSAPs.

## EXECUTIVE SUMMARY

### Background on Statewide 911 System Assessment Process

The State 911 Assessment program has established a comprehensive benchmark based upon uniform goals for Next Generation 911 (NG911) across the United States and territories. The Assessment program uses a series of 83 guidelines that allow State 911 authorities to measure the progress and status of a state's 911 program. The assessment results are based upon consensus from a team of qualified assessors and are used to gauge the status of state and local programs, and to identify strengths and areas for improvement within the current 911 program. The results of the assessment are meant to serve as a tool to reveal areas for attention by the 911 program.

The 83 guidelines illustrate what an effective 911 program and system encompasses but does not dictate how to achieve an end result. States are not required to adopt the guidelines but are encouraged to review the results to highlight areas that may improve their program.

To continue enhancing their statewide 911 system, the State of Iowa requested participation in a peer 911 assessment process project. The National 911 Statewide Assessment Team, composed of subject matter experts from diverse backgrounds and geographic areas, performed an onsite statewide analysis of the current status of 911 in Iowa. Based on the established guidelines and data gathered through State-provided documentation and presentations, the assessment team has made the following observations and recommendations.

Iowa has been an early adopter of NG911 and has made great progress toward that goal. In the same leadership fashion, Iowa is the third state to participate in the National Program's Statewide 911 Assessment Program. To continue enhancing their statewide 911 system, Iowa requested to participate in a peer-lead Statewide 911 Assessment Program, facilitated by the National 911 Program. The assessment uses consensus guidelines developed by a focus group of 911 experts and stakeholders from across the country.

The consensus guidelines serve as an objective benchmark for the assessment of the status of a statewide 911 system. States will not be required to adopt the guidelines; any established assessment process will be conducted on a voluntary basis. Nine guideline categories constitute the basis for the consensus guidelines:

1. Statutory and Regulatory
2. Governance
3. Functional and Operational Planning
4. Standards
5. Security and Continuity of Operations
6. Human Resources and Training
7. Evaluation
8. Public Education
9. NG911 Maturity Model

The guidelines are operational in nature and are not meant to be technical, nor are they intended to be standards or requirements. The guidelines are intended to unify the goals of the industry and facilitate a coordinated effort to advance 911 across the country. The guidelines are designed to be as constructive as possible and do not establish a pass/fail designation or a graded structure.

## National 911 Guidelines Assessment Report

There are three core elements for each guideline: the guideline itself, the criteria, and the rationale. The rationale describes why the guideline is important; the guidance is designed to provide assistance for assessors but may also provide information for states. Most guidelines are based on three criterion levels: minimum, advanced and superior. Each graduated rating assumes compliance with the prior rating. Some guidelines are binary in nature and are indicated by 'Binary' in the minimum criteria and grayed-out in the advanced and superior criteria boxes. With a binary guideline, the assessment result will be either a yes or no answer; either the state does it or it does not. There are no graduated ratings possible with such a guideline.

A state, for the purpose of this document, includes the political subdivisions, and the people of a state. When a guideline says that the "state" should do something, it does not imply that it should be done by state government, but rather that it should be done in the state and apply to the entire state. Statewide defines functions that apply to the entire state in order to provide uniform 911 service for all public and private entities within the state. This report and these guidelines do not assign responsibility to any entity within the state. The guidelines are agnostic to who performs the functions included in the guidelines. This report assesses only whether the functions are being performed and how.

Using the recommendations provided by the Assessment will assist the Iowa 911 Office, and the State of Iowa, in improving 911 for the benefit of all citizens of and visitors to the state, as well as emergency service providers.

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## Report Structure

The assessment report is divided into eight sections, which reflect the eight categories developed by National 911 Assessment Guidelines Work Group (NAGWG) that constitute the basis for the consensus guidelines. The eight sections and a brief summary of each section is provided below.

### ***Statutory and Regulatory***

The statutory and regulatory environment outlines the items that a state should have codified to enhance 911 system performance. This does not have to be within the 911 statutes but can be from another area of statute. For example, privacy issues may be in a right-to-know statute. Examining these against a state's current statutory and regulatory environment will enhance the service provided to the citizens and visitors to the state.

### ***Governance***

The governance environment outlines areas of stakeholder involvement with the 911 system. History has shown that cooperation enhances a 911 system, and with the diversity of stakeholders and user needs, the governance of the 911 system is critical.

### ***Functional and Operational Planning***

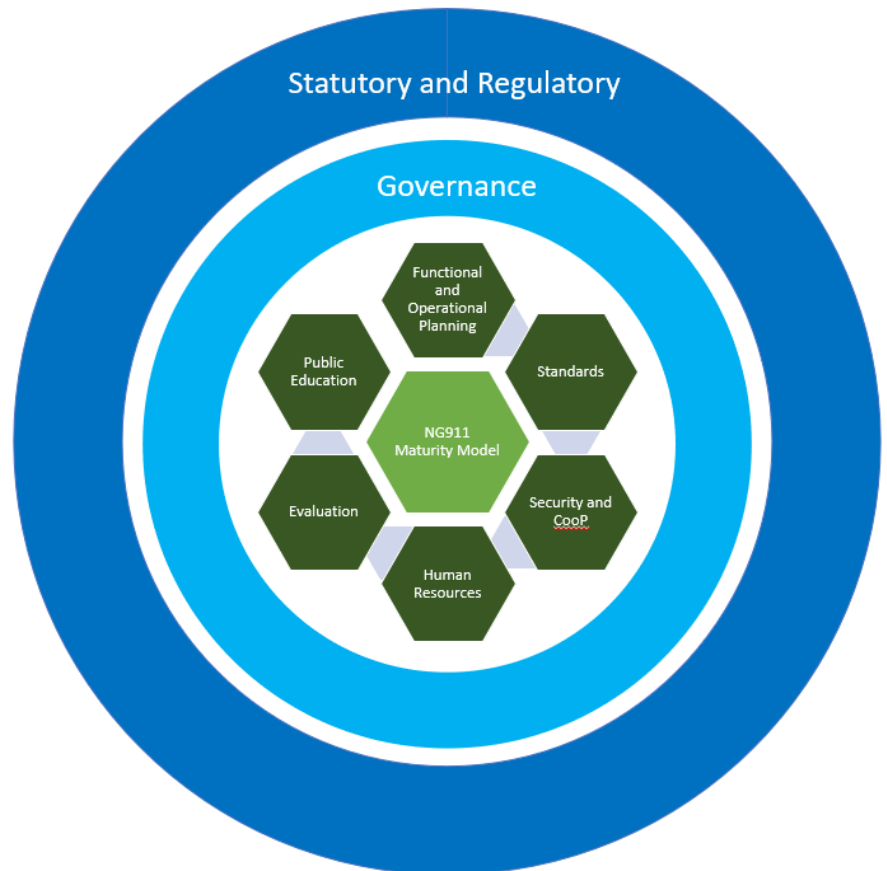
The functional and operational planning environment outlines the areas of service delivery that should be addressed in a 911 system. This environment includes areas such as record retention, call handling protocols, continuity of operations plans, and exercises.

### ***Standards***

The standards environment outlines the areas for which a state should develop or adopt standards. This includes technology and performance standards.

### ***Security and Continuity of Operations***

The Security environment outlines areas that should be addressed to secure the facility and data associated with 911. These guidelines outline plans and actions that a state should facilitate or coordinate to enhance the 911 system.





### ***Human Resources and Training***

The Human Resources and Training environment outlines the areas where personnel can have an impact on 911. This includes training for staff, establishing standards and certifications, and programs for staff stress management. The people that work in 911 are a critical asset and should be considered in any 911 system.

### ***Evaluation***

The Evaluation environment as a whole relates to how states evaluate/assess their 911 systems. This is an ongoing process to use statewide data for evaluation purposes. It also encourages a practice that is not a standard operating procedure across the board. Some states will have quality assurance and quality improvement (QA/QI), while others will not.

### ***Public Education***

The Public Education environment outlines areas of education for the general public, appointed/elected officials, and stakeholders. A better-informed user community enhances the 911 system. Target audiences should be identified, and specific messages should be tailored for each of them. For example, informational needs differ depending on whether the audience is the general public, people with special needs, emergency responders, or government officials and policy makers. Messages include the appropriate use of 911, when to call, what to call, the limitations of system capabilities, and national issues.

### ***NG911 Maturity Model***

The Next Generation 911 (NG911) Maturity Model section outlines the items that a state should have implemented to enhance 911 system infrastructure. Examining these against a state's current infrastructure will enhance the efficiency and effectiveness of the 911 system.

This category's guidelines are adapted from the Next Generation 911 (NG911) Maturity Model, which was developed by the Federal Communications Commission's (FCC) Task Force on Optimal Public Safety Answering Point Architecture (TFOPA). TFOPA is a federal advisory committee chartered under the Federal Advisory Committee Act (FACA) to provide recommendations to the FCC regarding actions states, public safety answering points (PSAPs) and 911 Authorities might take to enhance security, operations, and funding as NG911 migration occurs.

The maturity model, otherwise known as the NG911 Readiness Scorecard, identifies essential elements which are necessary to be present within each NG911 Implementation Maturity State as defined later in the document. It should be noted that the NG911 Readiness Scorecard is limited to essential elements and is not meant to be all inclusive.

Further information on TFOPA, including its charter, the final report, and the development of the NG911 Maturity Model can be found online at: [www.fcc.gov/about-fcc/advisory-committees/general/task-force-optimal-public-safety-answering-point](http://www.fcc.gov/about-fcc/advisory-committees/general/task-force-optimal-public-safety-answering-point)

## **Iowa State 911 Assessment Team**

The Iowa State 911 Assessment Team consists of subject matter experts from across the country. The team includes:



**Chuck Berdan**

Chuck Berdan has devoted over 40 years to public safety communications. Chuck retired in 2013 as the Dispatch Manager of a multi-agency, multi-discipline fire dispatch center in Alameda County, California, where in 2007 he was awarded the Communications Center Director of the Year by the Association of Public Safety Communications Officials, International. Prior to his time in Alameda, Chuck spent a couple of years in the private sector, managing 911 projects for Pacific Bell.

Chuck started his career as a firefighter, then dispatcher, training officer, shift supervisor, emergency communications manager, deputy director of communications, dispatch manager and early in his career, as a firefighter in Sacramento County, CA. Chuck was a gubernatorial appointee on the California 9-1-1 Advisory Board for 4 years, representing the California Chapters of the Association of Public Safety Communications Officials, International. Since 2014, Chuck has been working as a consultant, providing expertise in PSAP management and CAD technical specifications, procurement, and implementation. Chuck attained his Project Management Professional (PMP) certification through the Project Management Institute in 2016.

**Pete Eggimann**

Since September 2000, Pete Eggimann has been employed as the Director of 911 Services for the Metropolitan Emergency Services Board (MESB) which represents the 19 public safety answering points (PSAPs), or 9-1-1 centers, operating in the ten counties in the Minneapolis / St. Paul metropolitan area. The Board is responsible for the regional administration of the 911 system up to the point where the 911 call is delivered to the appropriate local PSAP.

Prior to going to work for the MESB, Pete worked in law enforcement for over 18 years, including being elected to two four-year terms as Jackson Co. Sheriff. Pete then got involved directly in 911 administration as the Director of the Grand Forks Co. PSAP in Grand Forks, ND for four years before taking the job with the MESB. Pete currently serves as one of the Co-Chairs of the NENA Development Steering Council.

**Mike Fischel**

Mike Fischel is an executive public safety communications/911 consultant and SME experienced in Public Safety communications operations, IT project management, planning and policy development, and law enforcement research and analysis. Mike is an independent contractor providing public safety communications consulting services on a part-time basis since he retired after 15 years as a Vice President and Senior Consultant with L.R. Kimball. He joined Kimball after retiring from public service with Fairfax County, Virginia, where he served for 19 years as the Public Safety Communications Center Director and eight years as the Fairfax County Police Department's Director of the Planning and Research Division. The Fairfax County Public Safety consolidated communications center serves a population of nearly 1.3M in the Washington, D.C., metropolitan area and is the largest PSAP/dispatch center in Virginia. Mike led the County's police and fire communications consolidation and then directed all emergency communications operational activities for the County and managed more than \$120M of complex IT projects. Mike has extensive experience in 9-1-1 funding, facilities, legislative, policy, operational, and technology issues at both the state and local levels. Prior to his employment in Fairfax County, Mike served in public safety policy and analytic positions with the Governor's Office in Pennsylvania, the MITRE Corporation. Mike is a former U.S. Naval Officer and was awarded a Bronze Star for his combat riverine service in the Republic of Vietnam.

**Bob Cobb**

Since joining NENA in 1992, Dr. Cobb has developed and managed NENA's Education & Training Program, the NG9-1-1 Partner Program and the Emergency Number Professional (ENP) Certification Program. He also served as NENA's Interim Executive Director on two separate occasions. He has supported the USDOT's National 911 Office programs for many years related to NG911, the National Resource Center, and state

assessments. He was one of the team members to develop the State 911 Assessment Program and guidelines and has participated in two assessments prior to Iowa.

### Barry Ritter

Barry Ritter, ENP has thirty-years of experience in public safety having served at the municipal, county and state level. Barry began his public safety career as a police officer in Richmond, Indiana serving through the rank of Deputy Chief of Police. During his career in Richmond he served as the accreditation manger, developing and writing agency policy and procedures as well as commission rules and regulations. After retiring, Barry served for five years as the Director of the Wayne County Emergency Communications Department, a consolidated 911 center. In that time, the county built a new 911 center, purchased new radios and migrated to the State's trunked 800 system. Barry was instrumental in leading nine Indiana counties to the very first multi-county ESinet for 911 services in Indiana. In 2010, Barry was appointed as the executive director for the Indiana Statewide 911 Board and served in that role until June 2017. As the state director, Barry was instrumental in the modernization of state law which stabilized PSAP funding and began the migration to dual IP-enabled networks for 911 services in all 92 counties. Barry is recognized as a subject matter expert and has had the opportunity to work with officials in adjoining states, federal agencies and has testified before congressional committees. In 2017 was presented the "Sagamore of the Wabash" by Governor Holcomb for his service to the citizens of Indiana in public safety/911.

### Strengths

The Assessment team identified these areas of strength in the Iowa 911 Program. They are detailed further in the body of this report.

- Iowa Code 34A is comprehensive and establishes the framework for the Iowa State 911 program to operate the Iowa NG911 system on behalf of Iowa PSAPs.
- The 911 office has several excellent tools to affect positive change throughout the state by offering an effective incentive program, having the ability to withhold funding under specific circumstances and administering a change management process to manage the 911 program.
- Specific authority granted to the Iowa 911 program manager in code is commendable.
- The Iowa State 911 Program is built upon strong public-private partnerships between HSEMD and the various agencies involved in the delivery of 911 calls and data via the Iowa NG911 system.
- The Iowa program has done an excellent job of tying data collection and reporting from the PSAPs to the distribution of allocated 911 funding.
- The 911 Program Manager understands the necessity of developing closer and more comprehensive working and collaborative relationships with stakeholders as a requirement for the improvement and substance to the state 911 Program.
- The 911 Program Office should continue to support and encourage participation in the Shared Services Programs like that in place with Zetron to drive and host remote CPE adoption focusing on small to medium PSAPs.
- The Program Manager has an excellent grasp of needed areas for improvement of 911 in the state and the effort and importance of coordination with all stakeholders to gain support for their consideration and implementation.
- The Program Office should continue and increase the focus on change management in close coordination with ICN and the NG911 provider.
- The shared services program facilitates uniform data backup procedures.
- The State Program is commended for establishing nationally recognized technical standards as the foundation for the statewide 911 system.

- The State Program is commended for their work in incenting PSAPs to utilize emergency medical dispatch (EMD) protocols through their shared/hosted 911 answering application.
- The State of Iowa is commended for implementing a governance structure that appears to provide the State 911 Program with the authority and autonomy to do the planning and coordination to move the 911 system toward a fully i3 standard compliant NG911 system.
- There is a 911 system funding stream in place.
- ICN is an integral part of the 911 network, and they are proactively implementing strong cyber security practices.
- Emergency managers' involvement with the Joint 911 service boards allows for 911 issues to be front and center in disaster recovery.
- Iowa provides a 40-hour basic telecommunicator course required by state statute.
- ILEA ensures that the 40-hour course is updated with APCO
- Advanced training and education are provided to course attendance at conferences and in-state courses funded by the 911 Office.
- The 911 Communications Council receives \$100,000 in support of public education. Activities include a program for state legislators at the Capitol, support for National Telecommunicator Week and 911 Telecommunicator Month (April), and the development of printed educational materials for general information about 911 and in support of specific issues such as text-to-911.
- The State Program is commended for establishing nationally recognized technical standards as the foundation for the statewide 911 system.
- Iowa has significant advantages over other states in the statewide coordination of 911 as well as the extensive ICN network. It appears that the resources exist to create the political environment necessary to enable statewide interoperability in 911, CAD, and radio resources (including FirstNet). Creating this vision for elected officials and policy makers will make it easier to secure the funding for the individual projects that will be necessary to make this vision a reality.

## Priority Areas for Growth

The Assessment team identified these areas for growth as having the highest priority. The full list of recommendations can be found in the body of the report.

- Obtain the authority to audit the surcharge collection.
- The state should add adequate staffing resources to the 911 program.
- The Iowa 911 Program Office and Program Manager needs sufficient time and resources to develop a Strategic 911 Plan.
- In conjunction with the 911 Communications Council, establish minimum performance guidelines for PSAP call handling statewide.
- Improve future training programs to respond to changes in 911, to improve telecommunicator performance, and to increase professional certification.
- Develop or adopt nationally accepted standards for QA and create guidelines for the Joint 911 service boards to implement QA data collection to the 911 Program by a certain date (2-3 years down the road).
- Prepare a statewide Public Education Plan - activities, costs, responsibilities.
- State Program should conduct a comprehensive evaluation of the resources required to complete the transition from the current 911 system to a fully compliant i3-based NG911 system by a specified date certain (e.g. 2023).

## Important Note to Readers

This assessment process should not be confused with a performance evaluation. The assessment was developed to assist states in determining how "well positioned states may be, to facilitate specific advancements in technology and operations." It should not – and really cannot – be used to judge how effective a state has been, or will be, in delivering 911 services. Rather, it aims to acknowledge accomplishments to date, and help states to identify areas where changes could (based on national benchmarks) improve their ability to respond to the multitude of changes facing the 911 sector of public safety. The benchmarks involved are necessarily generic and may not always fully align with how a state chooses to approach their 911 service environment, based upon specific state and local priorities and factors. A state's specific circumstances may limit how benchmarks apply in some instances.

Another important note is that these are strictly guidelines and meeting a minimum criterion may be all that certain states should strive for. The states undergoing this assessment have asked to be evaluated against an ideal, not against what their specific statutes and authorities allow them to do. We want to emphasize that these guidelines are primarily meant to point states towards an ideal direction to move toward, not to evaluate their performance. The fact that any state has not achieved a specific criterion for any particular guidelines should in no way be interpreted as a failure of any kind.



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## STATUTORY AND REGULATORY ENVIRONMENT

The statutory and regulatory environment outlines the items that a state should have codified to enhance 911 system performance. This does not have to be within the 911 statutes but can be from another area of statute. For example, privacy issues may be in a right-to-know statute. Examining these against a state's current statutory and regulatory environment will enhance the service provided to the citizens and visitors to the state.

This category has 27 guidelines.

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<b>Guideline SR1: The statutory environment provides for comprehensive statewide 911 coordination.</b>		
<b>Guidance</b>		
Statewide coordination should include all 911 stakeholders, all 911 accessible services (e.g., wireline, wireless, Voice over Internet Protocol [VoIP] and emerging technologies) and governmental and non-governmental entities. Comprehensive coordination includes statewide planning, funding support, stakeholder involvement, uniform statewide adherence to established technical and operational standards, influencing policy creation to the benefit of the stakeholders, public education, training, enforcement, rulemaking, procurement authority, grant writing assistance, grant management, dispute resolution, and program evaluation.		
<b>Guideline Cross-reference(s)</b>	GV1, GV2, GV3, GV4, GV5, GV6, GV7	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute(s) provides for the roles and responsibilities of statewide 911 coordination.	Statute(s) provides authority for statewide planning, with a mechanism for input from stakeholders statewide.	Statute(s) provides authority and sustainable funding.
<b>Rationale</b>		
Statewide 911 coordination helps improve uniform quality service across the state. Lack of comprehensive coordination can increase costs and decrease desirable outcomes.		

<b>Current Environment</b>
<p>The 911 Program in Iowa is governed by Iowa Code Chapter 34A. Iowa Code 34A breaks down wireline and wireless responsibilities into two different sections within the code section, as well as provides for Next Generation 911. Iowa Administrative Rule Section 605 Chapter 10 (Administrative Rule) further defines 911.</p> <p>The Administrative Rule provides for PSAP technical standards (605-10.14). It also directs further governance be provided through a NG911 Network Implementation and Operations Plan (605-10.7). In Iowa, 911 falls under the authority of Iowa Homeland Security and Emergency Management, but also provides for local 911 authority, through local 911 service boards.</p> <p>Chapter 34A provides for a funding mechanism, as well as stakeholder involvement through the 911 Communications Council (34A.15). Specifically, Chapter 34A.7A 2.f(1)(b), establishes a training and public education fund established.</p> <p>That training fund is separate from basic telecommunicator training, which falls under the authority of the Iowa Law Enforcement Academy, Iowa Code Chapter 80B.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Code 34A</a> (Iowa Statute)</p> <p><a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)</p> <p><a href="#">NG911 Implementation and Operations Plan</a></p> <p><a href="#">80B.11C</a> (Telecommunicator Training Standards)</p>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the advanced criteria.

**Assessor Recommendations**

The statutory environment in Iowa is comprehensive and establishes the framework for the operation of the Iowa NG911 system at both the state and local level. The statute itself speaks specifically to service definitions, roles and responsibilities at the state and local level, creates stakeholder input mechanisms through the creation of the Local Services Boards and the 911 Communications Council and establishes rule making authority for the Iowa Program Manager.

The statute in its current state is sufficient for the current operation of the Iowa NG911 system, but there are areas that are not addressed by the statute that should be considered when future legislative changes are made to the code.

The one area that the statutory environment does not specifically address by code or rule is the ability of the Iowa State 911 Program or some other state agency to audit the 911 surcharge collections from the local LSB/PSAP level and the originating service providers/carriers.

Current code allows for the audit of the distribution of 911 funds from the program, but not the collection of 911 funds to the program, thus inhibiting the ability of the program to plan, forecast and operate the Iowa NG911 system.

The assessment team does not recommend changing any Iowa code for this reason alone, but 911 surcharge fee collection audit authority should be granted to the Iowa State 911 Program to ensure proper and consistent remittance of 911 funds to the program over time, which will lead to a more sustainable, consistent and reliable 911 funding source.

**Assessor Notes/Comments**

Iowa Code 34A is comprehensive and establishes the framework for the Iowa State 911 program to operate the Iowa NG911 system on behalf of Iowa PSAPs. The code is current in that it has been updated to reflect NG911 and NG911 related technologies.

As an example, with no ability to audit fee collections at the local and carrier level, the ability to forecast a sustainable 911 fund is diminished. If the program cannot verify what local government pays for related services at a PSAP from funds other than 911 fees, then it is difficult to project a sustainable 911 fee amount.

Adherence to technical and operational standards are voluntary under AC 10.14 (4) and only recommends adherence to best practices.



**Guideline SR2: The state has a designated State 911 coordinator.**

**Guidance**

The comprehensive authority of the State coordinator includes review and enforcement of 911 regulations and laws. Having a designated coordinator for the 911 system is imperative with the migration to next generation on the horizon. If this function is not the responsibility of a State agency, the State should designate a responsible party, which could ultimately be the State 911 coordinator. Whether a person or an entity, the 911 coordinator needs to be a recognized authority. Effectively and efficiently performing the requirements of this role requires authority and staff. The 911 coordinator operates and acts as a facilitator for the 911 system across the state. "System," in this case, refers to the 911 function as a whole and/or the technology, depending on how the responsibilities are defined. A State coordinator is viewed differently than statewide coordination. The responsibilities may or may not overlap.

<b>Guideline Cross-reference</b>	GV2, GV4	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has an appointed 911 coordinator.	The appointed 911 coordinator's role and responsibilities are defined and mandated by law.	The appointed 911 coordinator has comprehensive authority and adequate staffing to support all aspects of the state's role and functions.

**Rationale**

Having a designated State 911 coordinator allows for focused direction of the state 911 system as well as communication planning and execution of 911 goals.

**Current Environment**

Iowa Code specifies the position, and duties, and the authority of the 911 Program Manager within Iowa Code Chapter 34A.2A and throughout the code section. The director of Iowa Homeland Security and Emergency Management Department appoints the 911 Program Manager. The Program Manager is the recognized authority under Iowa Code and ensures the successful implementation, adherence to, and enforcement of Iowa Code. HSEMD does have an FTE dedicated as the 911 Program Planner for support staff to the 911 Program Manager.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)
- [NG911 Implementation and Operations Plan](#)

**Rating**

At this time, the Iowa State 911 Program meets the advanced criteria.

**Assessor Recommendations**

Iowa code 34A establishes the role and the responsibilities of the designated State 911 Coordinator. In order to achieve superior criteria, the state should add adequate staffing to the 911 program.

**Assessor Notes/Comments**

Compared to other states, Iowa code 34A provides for comprehensive program management especially supporting the transition to NG911. Additional resources/staff are needed to effectively manage the Iowa 911 program. As the program continues to mature and evolve and more systems and services are brought online, the administrative and management requirements of the program will increase.

**Guideline SR3: The statutory environment defines jurisdictional roles and responsibilities.**

**Guidance**

Jurisdictional roles and responsibilities should be set forth in a statewide 911 plan and in any governance agreements that are established between jurisdictions. There should also be a mechanism in place to ensure roles and responsibilities are fulfilled. “Mechanisms” can include auditing, funding, or penalties.

<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute(s) defines jurisdictional roles and responsibilities.	Statute(s) mandates jurisdictional roles and responsibilities.	The state has a mechanism to ensure roles and responsibilities are fulfilled.

**Rationale**

Defining jurisdictional roles and responsibilities enables State and local stakeholders to understand what is expected of them in terms of their mutual obligations to one another in the delivery of 911 service to the public.

**Current Environment**

Every county board of supervisors in the State of Iowa is responsible for creating and maintaining a local 911 Service Board (Service Board). The Service Boards duties are contained in Chapter 34A.3. Local 911 service boards are required to produce and maintain a local 911 service plan, which is approved by the 911 program manager. Chapter 34A.3 specifies the information provided in the plan. Currently, every local 911 service board has an approved plan.

Auditing of the 911 fund occurs as is prescribed throughout Chapter 34A, and specifically referenced in Chapter 34A.7A 2a.

Jurisdictional agreements are governed by Iowa Code Chapter 28E. There are currently many variations of local 28E agreements that helping govern local 911 authorities. Other cross-jurisdictional agreements are in place through memorandums of understanding (MOUs). These generally help guide primary PSAPs providing back up answering and dispatch for other primary PSAPs.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [Iowa Code 28E](#) (Joint Exercise of Governmental Powers)
- Appendix A-1: Sample Local 28E Agreement
- Appendix A-2: Sample Back up PSAP Agreement

**Rating**

At this time, the Iowa State 911 Program meets the advanced criteria

**Assessor Recommendations**

Iowa 34A establishes the roles and responsibilities of the Local 911 Service Boards and the Iowa State 911 Program. It does not extend to a consistent mechanism for enforcement of roles and responsibilities beyond some reporting requirements tied to reimbursements.

The 911 Office should expand the authority of the 911 Program manager by rule or statute to include the ability to enforce jurisdictional roles and responsibilities within the context of the NG911 system. A specific recommendation would be to expand the audit authority of the program to include the wireline 911 fee collected by the Local 911 Service Boards.

**Assessor Notes/Comments**

The 911 office has several excellent tools to affect positive change throughout the state by offering an effective incentive program, having the ability to withhold funding under specific circumstances and administering a change management process to manage the 911 program.

<b>Guideline SR4: The statutory environment provides for dedicated and sustainable 911 funding.</b>		
<b>Guidance</b>		
The funding mechanism should be technology-neutral, allow for capital and operational expenditures, and address capital replacement needs. Surcharge money dedicated to 911 should only be used for 911 purposes. Review may look at the dedicated revenue in relation to the uses established by the State. The statute protects and has mechanism for adjustment of revenue stream as conditions change. There should be an annual audit conducted by the State with all service providers to ensure they are receiving all the revenues to which they are entitled; service providers need to be made to "certify" their subscribers.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Funding is needed to sustain service.		

<b>Current Environment</b>
<p>Funding within Iowa is broken into three distinctly different section of Iowa Code 34A.</p> <p><u>Wireline</u> Is remitted directly to local 911 service boards, based on \$1.00 per access line, per month. Local 911 service boards are able to request extracts from telcos once per quarter for the purposes of auditing the remittance amounts.</p> <p><u>Wireless</u> Is remitted to HSEMD quarterly, based on \$1.00 per service number. HSEMD retains 40% of the surcharge to maintain the network and for Next Generation advances. The remaining 60% is distributed to the local 911 service boards based on a formula of call counts and square area</p> <p><u>Prepaid</u> Is remitted to the Iowa Department of Revenue (DOR), which passes the surcharge to HSEMD. This amount is set by DOR and is currently \$.51. The amount remitted to HSEMD is part of the overall surcharge revenue that is further remitted to the local 911 service boards.</p> <p>Iowa Code Chapter 34A does not provide HSEMD or DOR a method to audit remittance amounts.</p> <p>Regardless of type of remittance, surcharge funding must be used for "the receipt and disposition of a 911 call," which is broadly defined in Iowa Code and Administrative Rule. Greater clarification was provided to the broad definition in the NG911 Implementation and Operations Plan. As previously mentioned, audits are conducted of the fund to include expenditures by local PSAPs/service boards (Iowa Code Chapter 34A.7A 5b).</p>
<b>Reference Material</b>
<p><a href="#">Iowa Code 34A</a> (Iowa Statute)</p> <p><a href="#">NG911 Implementation and Operations Plan</a></p>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.



**Assessor Recommendations**

Iowa code 34A established the 911 surcharge amounts for wireline, wireless and prepaid telephony services and meets the intent of SR4. However, there are no audit provisions within the statute to ensure remittances from the carriers are accurate and expected.

Recommendations include adding and expanding the current authority of the 911 Program manager to include the ability to audit 911 fee remittances from carriers and PSAPs to ensure a consistent and reliable 911 funding source.

**Assessor Notes/Comments**

Funding broken out by wireline, wireless and pre-paid while effective, may be limiting in the future as 911 calls may originate on other technology platforms.

<b>Guideline SR5: The statutory environment prohibits the use of 911 funds for purposes other than those defined in the state's 911 statute.</b>		
<b>Guidance</b>		
<p><b>The funding mechanism should be protected from diversion.</b> 911 funding is often used for purposes not related to 911, such as to cover a budget short-fall or large capital purchases. The guideline is measured in accordance with the NET 911 Improvement Act. One purpose is to ensure that funds collected on telecommunications bills for enhancing 911 are used only for the purposes for which the funds are being collected.</p>		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The State has specifically defined eligible use of funds. There is no diversion of 911 funds.	State statute mandates the eligible use of funds.	The State audits and enforces the eligible use of funds.
<b>Rationale</b>		
911 funds should only be used for the provisioning of 911 services and for eligible 911 expenditures.		

<b>Current Environment</b>
<p>Iowa Code Chapter 34A mandates surcharge funds be used only for the “receipt and disposition of the 911 call.” HSEMD determined this to include radio equipment and Computer Aided Dispatch equipment. Iowa Code does specify items attributable to other emergency services or expenditures for building or personnel are not eligible expenses (34A.25d). As mentioned in the previous answers, both the State and local jurisdictions undergo disparate audits to ensure the eligible use of funds.</p>
<b>Reference Material</b>
<p><u>State 911 Audits:</u>  <a href="https://www.auditor.iowa.gov/reports/file/14115/embed">https://www.auditor.iowa.gov/reports/file/14115/embed</a>  <a href="https://www.auditor.iowa.gov/reports/file/26133/embed">https://www.auditor.iowa.gov/reports/file/26133/embed</a>  <a href="https://www.auditor.iowa.gov/reports/file/26127/embed">https://www.auditor.iowa.gov/reports/file/26127/embed</a>  <a href="https://www.auditor.iowa.gov/reports/file/26130/embed">https://www.auditor.iowa.gov/reports/file/26130/embed</a>  <a href="https://www.auditor.iowa.gov/reports/file/22710/embed">https://www.auditor.iowa.gov/reports/file/22710/embed</a>  <a href="https://www.auditor.iowa.gov/reports/file/18501/embed">https://www.auditor.iowa.gov/reports/file/18501/embed</a>  <a href="#">Iowa Code 34A</a> (Iowa Statute)</p>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the superior criteria.
<b>Assessor Recommendations</b>
None at this time.
<b>Assessor Notes/Comments</b>
<p>The 911 Office prohibits the unauthorized use of 911 funds and auditing the use of 911 funds at the local and state level by an outside agency. The Iowa State 911 Program is encouraged to add additional eligibility criteria that contemplates whether costs incurred at the local level would be more efficiently managed at the state level. For example, advanced location services which market applications to individual PSAPs with added costs. The same capabilities would benefit all PSAPs and if delivered as a shared service via the NG911 system, it could be done at a cost savings.</p>

<b>Guideline SR6: The statutory environment authorizes the operation of a 911 system.</b>		
<b>Guidance</b>		
A 911 system must have the authority to operate within the state. There need to be responsible organizations within the state responsible for the planning, implementation, operation, and maintenance of 911 services. It is important to note that authorization could exist in non-911 sections of statute. State-level coordination should exist.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
There is no assurance that 911 will occur statewide, as such, a statutory requirement is necessary.		

<b>Current Environment</b>
Currently Iowa Code Chapter 34A gives HSEMD the authority to operate a Next Generation 911 system. This historically included the wireless network, but most recently, HSEMD was given the authority to migrate the legacy landline network onto the existing ESInet. This migration plan is detailed in the consolidation report, found below in the reference materials.
<b>Reference Material</b>
<a href="#">Iowa Code 34A</a> (Iowa Statute) <a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule) <a href="#">NG911 Implementation and Operations Plan</a> <a href="#">2018 Consolidation Plan</a> (Includes details for plan for Shared Services and Network Migration)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the criteria of this guideline.
<b>Assessor Recommendations</b>
The 911 Office meets this requirement specifically by being giving the authority to operate and grant access to the NG911 system in Iowa code 34A.
<b>Assessor Notes/Comments</b>
The fact that specific authority is granted to the Iowa 911 program manager in code is excellent.

<b>Guideline SR7: The statutory environment provides for interlocal cooperation.</b>		
<b>Guidance</b>		
Interlocal cooperation can be less formal or more formal using a legally binding agreement such as a Memorandum of Understanding (MOU). The substance of the agreements is not being evaluated, just the ability to enter into them.		
<b>Guideline Cross-reference(s)</b>	GV6, GV7	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Interlocal agreements are allowed by statute.	Interlocal agreements exist.	The capability to share costs and resources exists.
<b>Rationale</b>		
Interlocal cooperation has many advantages, including cost and resource sharing. Interlocal agreements are one avenue to accomplish this and provide a degree of protection for the involved parties.		

<b>Current Environment</b>
<p>There are provisions within Iowa Code to allow for interlocal agreements and cooperation. One area where this needs to be strengthened in Iowa is agreements between PSAPs and local 911 service boards. Local 911 service boards maintain a service plan that identifies how 911 calls are answered within their jurisdictions. As a critical component of the plan, PSAPs are identified in the service plan. However, there is often nothing in writing regarding the authorities and responsibilities or any sort of relationship established in writing between service boards and PSAPs.</p> <p>To a point, this extends to HSEMD and its relationships with the 13 PSAPs that make up the secondary ESInet. There, HSEMD has added additional network redundancy for the largest PSAPs to help ensure they continue to receive calls if the primary ESInet goes down. While agreements are in the works, at this point, there is nothing signed.</p> <p>A handful of PSAPs do have written agreements to serve as each other's backups in case of an outage or maintenance. However, these are few and far between. As part of our NGCS contract, Comtech does provide four policy routing options for every PSAP, which would reroute calls in case of an outage or maintenance.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Code 34A</a> (Iowa Statute)  <a href="#">Iowa Code 28E</a> (Joint Exercise of Governmental Powers)            Appendix A-1: Sample Local 28E Agreement            Appendix A-2: Sample Back up PSAP Agreement</p>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the superior criteria.
<b>Assessor Recommendations</b>
The Program cites numerous program-sponsored initiatives, like system shared services that require cost and resource sharing across jurisdictions, interlocal agreements and MOUs. In addition, the specification of and reference to Iowa code 28E pushes the assessment of this criteria into the superior category.



**Assessor Notes/Comments**

This is an area of strength for the program and one that can continue to be leveraged for the benefit of all.

**Guideline SR8: The statutory environment enables and allows public and private cooperation in providing 911 services required by statute.**

**Guidance**

Collaborative activities can include inter- and intrastate to consortiums supporting Emergency Service Internet Protocol networks (ESInets), joint service arrangements, and public and private partnerships. Examples may include consortia of regional operations, state planning, public groups organized by an entity, and the ability of those governments to collaborate. Funding may also be available.

**Guideline Cross-reference(s)** GV3, GV5, GV6

<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute(s) enables joint service arrangements and/or other collaborative activities.	Statute(s) provides full support for joint service arrangements and/or collaborative activities.	The state has implemented joint service arrangements and/or collaborative activities.

**Rationale**

Quality of service and efficiency improve through access to resources and cooperation/collaboration with other states, federal agencies, tribal, international and private entities. As NG911 moves into the forefront, the ability for public and private entities to work together to achieve a common goal will be increasingly important. Working cooperatively is cost effective and efficient for the deployment of 911 service. States are able to leverage industry expertise.

**Current Environment**

Iowa has implemented a number of contracts with service level agreements to foster the proliferation of NG911. This includes a NGCS contract, statewide GIS contract, and a shared services contract. We also have an SLA with the Iowa Communications Network, which provides the ESInet. Part of the 911 Council is also comprised of telephone providers/private entities. A number of these arrangements are fully explained in the NG911 Implementation and Operations Plan, as well as our annual legislative report.

Also, unique within the state of Iowa, a seven-county group (South Central Iowa-SCI) implemented a regional 911 service board, rather than individual 911 service boards. This was accomplished through a 28E agreement. They also share technology as well as governance.

**Reference Material**

- Contracts available for review upon request
- [Iowa Code 34A](#) (Iowa Statute)
- [NG911 Implementation and Operations Plan](#)
- [2018 Annual Legislative Report](#)
- [Iowa Code 28E](#) (Joint Exercise of Governmental Powers)

**Rating**

At this time, the Iowa State 911 Program meets the superior criteria.

**Assessor Recommendations**

The Iowa State 911 Program is built upon a public-private partnership between HSEMD and the various service providers involved in the delivery of 911 calls and data via the Iowa NG911 system, specifically Comtech and ICN. The role that ICN plays in the overall operation of the system is a direct example of the adherence to this guideline.

**Assessor Notes/Comments**

Continue to leverage the positive public-private partnerships necessary to operate and maintain the Iowa NG911 system.

**Guideline SR9: The statutory environment provides contractual authority to procure and/or operate statewide 911 components.**

**Guidance**

For the majority of states, 911 is operated on a local level. NG911 is an entirely different concept than what currently exists. There is a difference between operating a statewide system and 911 components. NENA's Next Generation Partner Program (NGPP) Transition Policy Implementation Handbook can be used as a reference.

Due to the required interconnectivity among local, regional and interstate systems, the State's role is expected to increase in an NG911 environment. The need for accuracy and system functionality will drive this increased role, as well as the need to minimize duplication of efforts and use of public funds. Planning is a key element whether operating a statewide 911 system or addressing system components including but not limited to GIS.

This guideline refers to accuracy and the ability to effectively use public funds, such as eliminating duplication of functions for carriers in statewide operations. It is important to note that authorization could exist in non-911 sections of statute, which could also authorize non-traditional 911 service providers to operate. State-level coordination should exist. Components of the 911 system are also included in this guideline.

<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The statutory environment provides the necessary authority to procure state-level functional components of a 911 system.		The statutory environment provides the necessary authority to operate state-level functional components of a 911 system.

**Rationale**

With NG911, there will be a more pronounced role for the State in procuring and operating components of a statewide system.

**Current Environment**

Iowa Code Chapter 34A.7A 2d(1) specifies and authorizes HSEMD to manage and maintain a Next Generation 911 network. We have contracts in place for ESInet, NGCS, and GIS.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)
- [NG911 Implementation and Operations Plan](#)
- ESInet Contract available upon request
- NGCS contract available upon request
- GIS contract available upon request

**Rating**

At this time, the Iowa State 911 Program meets the superior criteria.



<b>Assessor Recommendations</b>
The Iowa State 911 program is given specific authority to operate and manage the NG911 system by Iowa code 34A.
<b>Assessor Notes/Comments</b>
The paragraph in 34A that gives specific authority to HSEMD is excellent and what propels this into the superior rating.

<b>Guideline SR10: The state fosters an open and competitive procurement of 911 services.</b>		
<b>Guidance</b>		
Some aspects of 911 service are regulated. This applies when services are not required. Examples include bundling versus unbundling and contract versus tariff, and certification requirements. There should be clear evidence that the state uses a competitive procurement process to procure system elements.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Restrictive practices and other rules limit the procurement process, leading to extra costs and limited choices. Competitive services allow states to strive to attain the best value.		

<b>Current Environment</b>
HSEMD follows all Iowa Department of Administrative Services (DAS) rules and policies for procurement. This includes a competitive bid process.
<b>Reference Material</b>
<a href="#">DAS Procurement Website</a> (Includes links to policies and procedures as well as administrative rules) RFPs available upon request

<b>Rating</b>
At this time, the Iowa State 911 Program meets the criteria of this guideline.
<b>Assessor Recommendations</b>
An open and transparent procurement process is paramount to continued operation of the Iowa NG911 system. Continue to rely on the established procurement processes as established by DAS.
<b>Assessor Notes/Comments</b>
Given the requirements of the current procurement process, the 911 Office should be mindful of the length of the procurement process, the remaining period of performance on existing contracts and required coordination with outside agencies.

<b>Guideline SR11: The statutory environment provides liability protection.</b>		
<b>Guidance</b>		
<p>Statutory provisions should be technology-neutral and extend to emergency responders. It is important to be aware that liability protection is not only found in statutes but is frequently included in telephone company tariffs.</p> <p>NENA's Next Generation Partners Program (NGPP) transition policy handbook has a section on liability that could be of assistance to states. The handbook speaks to the impact of federal liability protection and how it affects states. The policy handbook details what states should explicitly cover, while providing generalized federal information.</p>		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute includes full liability protection for 911 personnel and originating service and system component providers from the point of call to dispatch.	Statute includes current technologies, and situational protection.	Statute includes emerging technologies.
<b>Rationale</b>		
Individuals, PSAPs and companies need liability protection to perform their services. Liability protection is essential for those performing and providing 911 services and should be as inclusive as possible.		

<b>Current Environment</b>
<p>Telecommunicators and PSAP's are covered more by the behaviors of the agency and individual than by statute or code. The protection begins with current policies, effective training programs for new Telecommunicators and their CTO's. Continuous in-service training for all. Continuous equipment inspections and updates. Proper staffing for call and radio volume etc.</p> <p>Some locations attempt to build in immunity to liability within statutes or codes, but the courts have regularly found that this immunity is no longer valid for an individual or agency if there is negligence involved at either level.</p>
<b>Reference Material</b>
<a href="#">Iowa Code 34A</a> (Iowa Statute)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
Iowa code 34A provides liability protection to "Providers" and is traditional in the language used. There are no provisions in the liability section that extend liability protection to any other entities besides originating service providers.

While the lack of protection beyond originating service providers could be problematic, it would not cause a rewrite or amendment of Iowa Code 34A at this time but would be a candidate for revision when the statute is amended in the future.

**Assessor Notes/Comments**

This is typical liability protection extended to the carriers under the enabling legislation.



**Guideline SR12: The statutory environment fosters the adoption of technical and operational consensus standards for the statewide system.**

**Guidance**

There is no standardized network in the current 911 environment, although some system components are regarded as standard. Standardization will become increasingly more important to enable the seamless interconnectivity between local, regional and state 911 systems that will be required for NG911. The same level of service should be provided in rural areas as in metropolitan areas. The state should have criteria on how 911 should be delivered. It is not necessary for the statute to establish the standards or mandate the adoption of specific standards as technology and operations are ever evolving; however, states should have the ability to adopt and promote the use of such standards. This guideline references interoperability and consistency of service throughout the state.

<b>Guideline Cross-reference(s)</b>	ST1, ST2, ST3, ST4, ST5, ST6	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The rule making authority exists to establish standards.	The state has adopted and maintains current comprehensive standards.	The state oversees and enforces current standards and has a mechanism for periodic review.

**Rationale**

The public expects to receive a uniform service level that meets minimum requirements necessary to process a 911 call. Consensus standards also foster interoperability.

**Current Environment**

An amendment to Iowa Code chapter 34A was completed nearly every year for the last four to five years. This has often been in a somewhat haphazard, nonorganized fashion based on the issue du jour. To address this, the Iowa 911 Communications Council stood up a “Chapter 34A Committee,” to organize meetings, and holistically look at needed changes to Iowa Code Chapter 34A. Admittedly, this committee did have more of a governance and policy focus rather than enough technical expertise to effectively make recommendations to update code language related to technical components.

Additionally, since the NG911 Operations Plan is adopted by administrative rule, the plan does list NENA i3 as THE standard for Iowa 911. I3 Standards are part of every RFP/contract related to 911 at the State level.

As previously stated, Iowa Code Chapter 34A does authorize a Next Generation Network.

**Reference Material**

- [NG911 Implementation and Operations Plan](#)
- [Iowa Code 34A](#) (Iowa Statute)
- Minutes of Chapter 34A committee available upon request

**Rating**

At this time, the Iowa State 911 Program meets the minimum criteria.

**Assessor Recommendations**

Current Administrative Rule provides minimum operational and technical standards for PSAPs; however, it does not include “Performance” standards or specifically call out industry standards like the NENA i3. Administrative Rule does provide for voluntary standards for PSAPs which includes NENA

best practices. Future consideration may need to be given to this area as the Iowa NG911 system continues to evolve and mature.

It is recommended that HSEMD adopt additional rules that would further specify operation and technical standards as applicable to the Iowa NG911 system. Specifically, rules related to the NENA i3 technical standard and subsequent NG911 operational standards as they develop.

**Assessor Notes/Comments**

The fact that there is some definition in rule is excellent, Iowa needs to consider covering more areas though.

<b>Guideline SR13: A mechanism is in place for periodic reviews of statutes and regulations.</b>		
<b>Guidance</b>		
At a minimum, there needs to be a process for reviewing existing legislation and determining what, if any, barriers are in place for emerging technologies or other aspects of the 911 system. Regardless of the process or group, individuals involved need to be knowledgeable in relevant technological fields and/or 911 as a whole. The processes need to be open to stakeholder input and review. NENA's Next Generation Partner Program (NGPP) has developed a handbook designed to help stakeholders review their state statutes and rules to identify potential barriers to NG911.		
<b>Guideline Cross-reference(s)</b>		Not Applicable
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The ability and documented process exist for reviewing and recommending legislation.	A formally appointed group or documented process exists to review and recommend legislation.	The formally appointed group or process receives input from stakeholders, meets and drafts legislation, when appropriate.
<b>Rationale</b>		
Statutory rules may impede technological advances. A process to determine and develop options should be in place.		

<b>Current Environment</b>
The aforementioned Chapter 34A Committee of the 911 Council strongly examined barriers or necessary changes to existing code. While many individuals and organizations were keeping abreast of the committee meetings and minutes, broad participation was difficult to achieve. The same individuals who participated in the committee meetings, which was less than ideal; because the goal was to have broad, varying participation, ensuring many different opinions and ideas were exchanged amongst the group. Despite a narrower range of participants, the committee is still working on a best practices document to help assist local jurisdictions and PSAPs and did settle on a small handful of legislative recommendations.
<b>Reference Material</b>
Minutes of Chapter 34A committee available upon request

<b>Rating</b>
At this time, the Iowa State 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
By establishing the Chapter 34A committee as a working group under the 911 Communications Council a formal group has been appointed to monitor and provided recommendations on legislative changes in Iowa.
With the additional assignment of legislative liaison responsibilities granted to the 911 Program Manager, we would recommend that the program establish a more formalized process to monitor, provide input to and lead legislative changes related to the 911 system. This additional responsibility gives a direct voice to the Iowa State 911 Program Office.
The 911 Program Manager may need additional resources as legislative activity increases.

**Assessor Notes/Comments**

A legislative committee or working group could be created and formalized via rule or statute.



<b>Guideline SR14: The statutory environment provides for stakeholder involvement.</b>		
<b>Guidance</b>		
Stakeholders should be identified, to include State, local and tribal representing varying jurisdictions; the public safety community and the service provider community. There should be interaction among state agencies. "Balanced" means that stakeholders are equally represented.		
<b>Guideline Cross-reference(s)</b>	GV3, GV4, GV5	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The statutory environment allows for balanced stakeholder involvement.	The statutory environment requires balanced stakeholder involvement.	The state has fully implemented balanced stakeholder involvement.
<b>Rationale</b>		
Stakeholder involvement helps to ensure the coordination of the 911 system statewide. Stakeholder involvement also leads to buy-in and increased cooperation. Stakeholder input removes barriers and brings expertise to the process.		

<b>Current Environment</b>
Currently, Iowa Code Chapter 34A requires a 911 Communications Council (34A.15), which is advisory in nature, to the 911 program manager and 911 program. The Council has, on occasion, penned letters in support or in opposition of varying issues within the state or nationally. The 911 Council meets monthly and is an open public meeting per Iowa Code Chapter 21. Formal minutes and agendas are posted on the HSEMD website. The meetings are livestreamed, posted to YouTube, and have a conference call capability for broader participation. Formal membership is prescribed by Iowa Code 34A. Changes were recently made to include a representative from the Iowa Geographic Information Council (IGIC) in order to modernize the makeup of the Council and include the very important GIS component.
<b>Reference Material</b>
<a href="#">HSEMD 911 Website</a> (with minutes and agendas) <a href="#">Iowa Code 21</a> (Open Meetings) <a href="#">Iowa Code 34A</a> (Iowa Statute) Appendix A-3: 911 Council Bylaws

<b>Rating</b>
At this time, the Iowa State 911 Program meets the superior criteria.
<b>Assessor Recommendations</b>
Iowa code 34A establishes the Joint Service Boards representing PSAPs, the 911 Communications Council which advises HSEMA on 911 related issues. The Iowa Statewide Interoperable Communications Systems Board also has a cooperative relationship with HSEMD and provides input and feedback on an ongoing basis.
It is highly recommended that a designated PSAP representation from a "standalone" PSAP(s) be added to the 911 Communications Council.
<b>Assessor Notes/Comments</b>
This is a strength of the program.

**Guideline SR15: Service providers that deliver and/or enable telecommunications services to the public are involved in the 911 system.**

**Guidance**

The intent is for the state to develop parameters for providers, including network/access providers and customer providers for wireline, wireless, and Voice over Internet Protocol (VoIP). Broadband providers are included as the NG911 environment will be IP-based.

The statutory/regulatory environment should require all service providers in a respective state that provide service to general users of telecommunications services to coordinate and cooperate with the State in the provision of 911 service. There should be a registration process. This includes originating service providers and access providers.

The state needs to understand various service providers and the capabilities of those providers to help integrate these services into the 911 system, and to educate the public on the capabilities of these services.

<b>Guideline Cross-reference(s)</b>	GV3, GV4	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state maintains contact information for all user service providers.	The state maintains regular and routine communications with user service providers.	The state statutory or regulatory environment requires service providers to be actively involved in the 911 system through registration or participation at the state level.

**Rationale**

The 911 system is designed to take information from general users and get that information to the correct entity. This is best accomplished in an environment that involves cooperation and communication between all parties.

**Current Environment**

Per Iowa Code Chapter 34A, there are a number of providers serving on the 911 Council. These include small and large telcos, and two members representing the Iowa wireless industry. Iowa APCO and Iowa NENA are also represented (Iowa Code Chapter 34A.15).

Through the 911 surcharge remittance process, HSEMD maintains a database of names and contact information for the wireless providers. At this time, this is the closest thing to a registration process for wireless providers within the 911 program. HSEMD does not have the authority or method of auditing the wireless providers or the appropriate remittance to ensure compliance with Iowa Code 34A. Iowa does control access of wireless providers into Next Generation Call Logic Centers (CLCs/Data Centers).

While HSEMD does not maintain or have oversight authority on wireline providers, we are able to work closely with the Iowa Utilities Board for existing contact information regarding wireline providers. Recently, IUB deregulated landline telephone service.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [IUB Press Release on Deregulation](#)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
At this time, the 911 Program office does not have statutory authority for wireline service providers. While this has not resulted in any challenges to the authority of HSEMD related to landline 911 service, a clarification by rule or a change to Iowa code 34A would be necessary and recommended in order to provide full authority over all 911 services in Iowa.
<b>Assessor Notes/Comments</b>

<b>Guideline SR16: The statutory environment provides for a comprehensive quality assurance (QA) program for the 911 system.</b>		
<b>Guidance</b>		
<p>QA is not meant to be punitive but provides a constructive critique of work processes. This guideline is intended to measure the effectiveness of the 911 system. This QA program applies to originating service providers and 911 system service providers. The 911 system service provider includes both hosted and non-hosted solutions. The QA program for a 911 system should include all components of the call from call origination through dispatch support systems, regardless of provisioning. QA should look at the level of customer service, network functions and services, records management, and service level agreements (SLAs). The environment should provide for comprehensive quality assurance requirements for the originating service providers and 911 system service providers.</p> <p>SR17 references QA for call handling.</p>		
<b>Guideline Cross-reference(s)</b>	EV1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The statutory environment requires a QA program for the 911 system.	The state audits the 911 system QA program.	The state audits the QA program against minimum standards. Staffing and funding for the QA program are provided.
<b>Rationale</b>		
<p>Having a QA program ensures that all entities that touch the system meet their obligations and provide consistent service. The QA program can identify if the system is working as intended and can identify issues before they become more serious.</p>		

<b>Current Environment</b>
<p>The statewide 911 program does have SLAs in place with the statewide contracts we oversee (NGCS, network transport, shared services). Our network transport provider does have SLAs in place when they utilize third party connectivity and for the wireline aggregation and migration project.</p> <p>Iowa Administrative Code (605-14) does provide minimum operational and technical standards for PSAPs.</p> <p>Nothing within Iowa Code, rule, or even the NG911 Operations Plan, mandates the use of SLAs or quality assurance planning or monitoring. In its current form, the Iowa 911 Program would not have the capacity to manage this type of function.</p>
<b>Reference Material</b>
Contracts available upon request

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
A QA function is not defined in the current version of Iowa code 34A. Originating service providers and 911 system service providers should be required to provide statistical data related to 911 system performance on a monthly, quarterly, bi-annual, or annual basis that documents system performance.

This should include contractual Service Level Agreements (SLAs), that formalize and codify the QA process with the vendors. This change could be adopted either by administrative rule or by amendment of Iowa Code 34A.

IHSEMD should have procedures in place to review these QA reports. Any issues with system performance should be addressed as quickly as possible.

**Assessor Notes/Comments**

The Iowa 911 Program has SLAs in place that defines acceptable levels of the 911 system performance. However, there needs to be a QA process to ensure that 911 system performance is within those SLAs.



<b>Guideline SR17: The statutory environment provides comprehensive quality assurance (QA) for call handling.</b>		
<b>Guidance</b>		
Regardless of the aspects of the process subjected to QA, the QA program should meet or exceed nationally recognized and accepted consensus standards. For example, call handling could include a call answering standard of 90 percent of all 911 calls within 10 seconds during the busy hour of the day; call overload, call overflow, and abandoned calls. This guideline is not limited to call answering, but encompasses the entire call handling process, which can include customer feedback.		
<b>Guideline Cross-reference(s)</b>	EV2	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The statutory environment requires a QA program for call handling.	The QA program for call handling is audited.	The QA program is audited against minimum standards. Staffing and funding for the QA program are provided.
<b>Rationale</b>		
QA can provide for improvements to the 911 process. Providing QA can aid in the provision of consistent customer service statewide and can limit liability. The QA process can identify issues before they become more serious.		

<b>Current Environment</b>
This type of QA program does not exist at the state level. In its current form, the Iowa 911 Program would not have the capacity to manage this type of function. Individual PSAPs may have such local programs, but that would vary greatly from PSAP to PSAP.
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
A PSAP QA function is not defined in the current version of Iowa code 34A. Iowa should amend 605-10.14 to utilize nationally recognized standards for call handling performance. In that amendment, require joint 911 service boards to report data to the 911 Program on a regular basis, and define mitigation procedures for agencies falling below those standards.
<b>Assessor Notes/Comments</b>
This is often a function performed at the local level. With the adoption of shared services CPE, the program will be involved with and could implement a QA program affiliated with the shared services offering.
Iowa Code 605-10.14(4) only recommends voluntary standards, i.e. "American Society for Testing and Materials Standard Guide for Planning and Developing 911 Enhanced Telephone Systems" and in publications issued by the National Emergency Number Association. There is no requirement that PSAPs adhere to any standards.

<b>Guideline SR18: The statutory environment provides for training.</b>		
<b>Guidance</b>		
Some state statutes already address training standards, although only a few statutes detail specifics. Training standards should be set at the state level and should be consistent with existing industry standards, such as APCO and others. The state should regularly evaluate the effectiveness and completeness of the program. Continuing education should also be evaluated. Furthermore, the state should provide adequate and sustainable funding for training; it is important that it not be an unfunded mandate.		
<b>Guideline Cross-reference(s)</b>	HR1, HR7	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The statutory environment requires minimum training standards.	The statutory environment provides a funding source(s) for mandated training.	The statutory environment audits the funded mandated training and provides certification.
<b>Rationale</b>		
Training promotes a consistent service level to be delivered to the public and a consistent level of competency of 911 staff. Training can also decrease liability.		

<b>Current Environment</b>
Iowa Code Chapter 80B.11C and Iowa Administrative Rule Section 501 Chapter 13 governs telecommunicator training, including a 40-hour initial training as well as in-service requirements. Industry-based standards are referenced in administrative rule and used in the development of the 40-hour basic course. Administrative Rule also prescribes a Telecommunicator Training Board, which advises the ILEA director regarding telecommunicator training. The training developed and prescribed in Iowa Code used APCO standards for guidance and supplemented with local information.
<b>Reference Material</b>
<a href="#">Iowa Code 80B.11C</a> (Telecommunicator Training Standards) <a href="#">Iowa Administrative Code Section 501 Chapter 13</a> (ILEA Administrative Rules)

<b>Rating</b>
At this time, the Iowa 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
Iowa has minimum telecommunicator training requirements established by statute with dedicated funding allocated to training annually. This is excellent and recommendations include continuing and expanding the training support from the Iowa State 911 Program office targeting skills and abilities necessary for the NG911 environment. Iowa code does not expressly mandate an “audit” but it does require that training records be made available for inspection upon request by the director of the Iowa law enforcement academy or the director's designee. To achieve a superior rating, a more formal mechanism for auditing of training needs to be established and performed. We acknowledge ILEA has the ability to monitor, request, and track training records and this is a very good start. However, our recommendation focuses on a more standardized (perhaps automated) methodology.
<b>Assessor Notes/Comments</b>
While not addressed in Iowa Code 80B.11C, in practice ILEA has an audit provision for the 40-hour basic telecommunicator training course.



<b>Guideline SR19: The statutory environment provides for professional certification and accreditation.</b>		
<b>Guidance</b>		
This type of certification or accreditation may be issued by a State agency or a national organization. Personnel may include call takers, dispatchers, and technical staff. The statute should include continuing education and recertification.		
<b>Guideline Cross-reference(s)</b>	HR6	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute(s) requires a certification or accreditation process for personnel/PSAPs that are part of the 911 system.	Statute(s) requires and enforces an evaluation of personnel/PSAPs that are part of the 911 system.	Statute(s) requires an assessment/certification process for personnel/PSAPs that are part of the 911 system. This process is fully implemented and demonstrated.
<b>Rationale</b>		
Certifications and accreditation illustrate a measure of competence and can decrease liability. Having certifications and/or accreditation standards fosters a consistent service level across the state.		

<b>Current Environment</b>
<p>The only state certifications required are the basic 40-hour telecommunicator training with associated in-service training requirements.</p> <p>The State does require certification on IOWA/NCIC systems to have full access into those systems, which is generally required/expected as a telecommunicator in Iowa. The requirements are as follows:</p> <ul style="list-style-type: none"> <li>Two-hour NCIC certification (Good for two years)</li> <li>Basic Iowa System Training (BIST) Online Workbook or BIST in person training</li> </ul> <p>These are required within six months of employment and passage of an exam above 76%.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Code 80B.11C</a> (Telecommunicator Training Standards)</p> <p><a href="#">Iowa Administrative Code Section 501 Chapter 13</a> (ILEA Administrative Rules)</p>

<b>Rating</b>
At this time, the Iowa 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
Having and requiring 40-hour basic telecommunicator training in Iowa is excellent. While state statute requires adherence to minimum telecommunicator standards, it does not require advanced or professional certification either by the state or by a professional organization. The 911 Office should prioritize and encourage professional certification and accreditation by offering supportive training and funding. The program should continue to invest in minimum training standards via the fund and consider expanding training requirements for telecommunicators relevant to NG911.
<b>Assessor Notes/Comments</b>

<b>Guideline SR20: Statute exists for the provision of emergency medical dispatch (EMD).</b>		
<b>Guidance</b>		
<p>EMD is the term for providing medical information and instructions over the phone, prior to the arrival of emergency medical assistance in the form of first responders or paramedics. Twenty-five states and territories have legislation regarding emergency dispatch, ranging from certification and training to use of protocols to a full emergency medical dispatch program. Providing medical instructions before the arrival of first responders and/or paramedics requires a comprehensive program with medical protocols, appropriate and ongoing training, quality assurance, and medical oversight.</p> <p>EMD protocols, should meet the American Society for Testing Materials (ASTM) Standard Practice for Emergency Medical Dispatch (F1258-95). This guideline applies to state, regional and local 911 systems. This guideline is not meant to mandate any specific protocols.</p>		
<b>Guideline Cross-reference(s)</b>	OP2	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute(s) requires use of EMD.	Statute(s) addresses the enforcement of EMD usage.	The state enforces, audits, and fully funds EMD.
<b>Rationale</b>		
Providing early medical instruction, or pre-arrival instructions, often times can save a life or prevent further injury.		

<b>Current Environment</b>
<p>PSAPs are able to choose to adopt an EMD program and 911 surcharge can fund the program. However, there is no requirement to do so. In order to help foster adoption, HSEMD has offered two different protocols of EMD as part of the shared service offering. In this case, HSEMD cost shares with the local PSAP the cost of EMD.</p>
<b>Reference Material</b>
<p><a href="#">NG911 Implementation and Operations Plan</a> <a href="#">Shared Service Implementation Webinar</a></p>

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
<p>While informally encouraged and optioned as part of the voluntary shared services CPE system, EMD is not required in Iowa. The assessment team would recommend that the program explore additional ways to incentivize the PSAPs to adopt EMD protocols and or adopt a statewide program which encourages EMD at the PSAPs.</p> <p>The assessment team would recommend the state adopt an EMD program accessible to all PSAPs.</p>
<b>Assessor Notes/Comments</b>



<b>Guideline SR21: Statutory environment provides for medical oversight of the policies and procedures governing the use emergency medical protocols.</b>		
<b>Guidance</b>		
This guideline applies to state, regional and local 911 systems. Most state statutes that mandate emergency medical dispatch (EMD) also provide for medical authority/direction. The organization publishing the protocols is responsible for keeping them up-to-date. Medical oversight is provided by a licensed physician with the appropriate qualifications in emergency medicine. Changes in protocol are allowed based on medical direction. Medical oversight should meet National Highway Traffic Safety Administration (NHTSA) requirements and standards.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Oversight is necessary to ensure adopted protocols are being followed.		

<b>Current Environment</b>
The HSEMD shared services offers both Priority Dispatch (ProQA) and PowerPhone, both of which are accredited. Because there is no State mandate, anything local jurisdictions choose to use would be at their discretion. There is no statewide EMD regulation. Local EMD programs are required by the protocols to have a medical director/system administrator to help manage their local program.
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the criteria.
<b>Assessor Recommendations</b>
The assessment team would recommend the state adopt an EMD program accessible to all PSAPs.
<b>Assessor Notes/Comments</b>

<b>Guideline SR22: The statutory environment provides for public education.</b>		
<b>Guidance</b>		
Educating the public, including elected officials, special needs communities, and schools/campus environments, on the abilities and limitations of 911 is imperative, especially moving forward into NG911.		
<b>Guideline Cross-reference(s)</b>	PE1, PE2, PE3, PE4, PE5	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Funding public education provides for greater tools to educate the public on 911 as a whole.		

<b>Current Environment</b>
Within Iowa Code Chapter 34A.7A 2.f(1)(b), there is funding designated for public education. This fund is shared with 911 Council travel and training for 911 “operators.” Since the creation of this fund, we have used it for radio PSAs for Text-to-911, as well as a Text-to-911 social media campaign.
<b>Reference Material</b>
Text-to-911 public education materials available upon request <a href="#">Iowa Code 34A</a> (Iowa Statute)

<b>Rating</b>
At this time, the Iowa 911 Program meets the criteria of this guideline.
<b>Assessor Recommendations</b>
The assessment team recommends that the state program continue to invest in and lead public education initiatives related to NG911 services.
<b>Assessor Notes/Comments</b>
Currently the amount of funding for public education is \$100,000 per year, distributed through the 911 Council.

**Guideline SR23: The statutory environment provides for the collection of 911 system data.**

**Guidance**

This guideline addresses a state’s authority to aggregate, collect and publish local data (consistent with established confidentiality rules and regulations) in order to meet these federal requirements. 911 data collection may include financial, system, service descriptions, technology, and progress measurement information. National reporting requirements exist: 1) The National 911 Program has provided a mechanism and a database for states to upload data that could be used to measure the progress of 911 service at state and national levels; 2) The Federal Communications Commission (FCC) requires states to report annually on the status of their respective 911 surcharges, including local surcharge usage. Data sharing can be enabled on a national level.

<b>Guideline Cross-reference(s)</b>	EV3, EV4	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute(s) allows for the collection of 911 system data and facilitates data sharing.	Statute(s) requires the uniform collection of 911 system data statewide, and data sharing.	The state ties performance metrics to funding and utilizes collected data to assess system performance.

**Rationale**

System data can improve planning and decision-making. Development and consistent reporting of system and performance data is both a tool for establishing transparency and also a mechanism for demonstrating effective operations, including reports to legislative and interested party groups.

**Current Environment**

Th Iowa has a very robust data collection process mandated under Iowa Code Chapter 34A.7A 3. Failure for a PSAP to submit the data annually result in a penalization of surcharge being withheld until the data collection form is submitted to the Program Manager. While the focus of the data collection is PSAP expenditures, the report has been expanded to include revenues as well as call data information.

Local reports are subject to audit by the Auditor of the State whose findings are reported biennially.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [Data Collection Form](#)
- [Data Collection Instructions](#)

**Rating**

At this time, the Iowa State 911 Program meets the advanced criteria.

**Assessor Recommendations**

The Iowa program has done an excellent job of tying data collection and reporting from the PSAPs to the distribution of allocated 911 funding. The assessment team recommends continuing to tie fund distribution to PSAP reporting and data collection that furthers the performance objectives of the program.

Include PSAP metrics in the Joint 911 Service Board's annual report. At a minimum, these metrics should include time to call answer, and time to call processed (from call answer to when emergency response units are notified). This will help the 911 Program achieve superior criteria.

**Assessor Notes/Comments**

Iowa Code Chapter 34A.7A 3 relates to financial reporting, which is a component of the advanced criteria. There does not appear to be anything in the Iowa Code requiring the reporting of system and PSAP performance metrics.

**Guideline SR24: The statutory environment has rules for retention of 911 call records and 911 related data.**

**Guidance**

In the current 911 environment, a record is limited to call logs. In NG911, a record will include other information transmitted, acquired and recorded in the context of a call, such as video, text, medical data, or accident information. Some data will be stored in locations off-site from the PSAP that handled the call. Emerging technologies will need to be considered under this guideline as communication technology changes over time.

The state should set specific 911 record retention requirements as a matter of law and regulation. Who retains and how data is retained is not the issue. Any entity with a responsibility for 911 records and related data would be subject to the legal provisions.

<b>Guideline Cross-reference(s)</b>	OP4
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<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
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Binary		
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**Rationale**

Retention of 911 records and related data is imperative for legal and investigative purposes and reporting statistics.

**Current Environment**

Iowa Code Chapter 22 mandates record retention.

911 call logging records are required by Administrative Rule (605-14 (2)e).

**Reference Material**

[Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

[Iowa Code 22](#) (Examination of Public Records)

[Iowa League of Cities Retention Manual for Iowa Cities](#)

**Rating**

At this time, the Iowa State 911 Program meets the criteria of this guideline.

**Assessor Recommendations**

The program director will need to consider revised reporting and record retention needs as the operation of the NG911 system evolves and matures. The data collection and reporting requirements for the State will diverge from the PSAPs and may be subject to other HSEMD retention requirements.

**Assessor Notes/Comments**



<b>Guideline SR25: The statutory environment defines confidentiality and disclosure of 911 records.</b>		
<b>Guidance</b>		
<p>While some portions of 911 data should be confidential in all states to avoid re-victimization, states should have leeway to establish their own rules. At a minimum, personally identifiable information should be protected, although more comprehensive protection of 911 records is desirable.</p> <p>The statutory environment should provide for the confidentiality and disclosure of automatic number identification/automatic location identification (ANI/ALI) data, 911 voice calls, and multimedia. Regulatory provisions, tariffs, confidentiality agreements, vendor non-disclosure agreements (NDAs), access to public records laws, and Health Insurance Portability and Accountability Act (HIPAA) may also be considered in this guideline. Different types of data and their use should be reviewed, such as information provided to the first responders that could be misused. In an NG911 environment, more personal data, such as medical or accident information, may be relayed to a PSAP. Therefore, issues relating to confidentiality and disclosure will become more important.</p> <p>Aggregated anonymous data can be provided in real-time to governmental, non-governmental and private entities for legitimate purposes. NENA's Next Generation Partner Program (NGPP) transition policy handbook addresses confidentiality and disclosure in terms of the concept of pieces of 911 call data sent to off-site locations, such as a central database. Data can be sent and archived anywhere in a NG911 environment.</p>		
<b>Guideline Cross-reference(s)</b>	SC4	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Confidentiality and disclosure rules directly affect how effective 911 services are within a state. Rules allow for the protection of callers, encourage people to report crimes, and protect callers/victims from retribution. It also serves to protect infrastructure and staff.		

<b>Current Environment</b>
Iowa Code 22 governs Examination of Public Records//Open Records. Confidentiality is also included in Iowa Code 22, starting in section 22.5. Many local jurisdictions may have their own policies as influenced by County Attorney's and locally elected Sheriffs. Also, many 911 records must be requested through the County records offices.
<b>Reference Material</b>
<a href="#">Iowa Code 22</a> (Examination of Public Records)

<b>Rating</b>
At this time, the Iowa 911 Program meets the criteria of this guideline.
<b>Assessor Recommendations</b>
The assessment team recommends that the office investigate any additional confidentiality requirements needed for the program office related to system level data confidentiality. The kind of information the state will maintain will diverge from the information maintained by the PSAPs.
The state should add to Iowa Code 22 to specifically identify 911 calls and what information can be released. i.e. redactions for addresses, names and any other personal information. New types of data

will emerge as NG911 capabilities increase throughout the state. This will increase the importance of data confidentiality e.g. streaming video and text messages.

**Assessor Notes/Comments**

<b>Guideline SR26: A statute/regulation exists that addresses multi-line telephone systems (MLTS) statewide for 911.</b>		
<b>Guidance</b>		
States may have different requirements in their statutes. Some state statutes only address MLTS in residential and school environments. All MLTS should interface to 911 with call back and location information, regardless of the number of stations or square footage involved. The statute should be examined for improvements based on the stated criteria.		
Reference NENA E911 for Multiline Telephone System requirements, 06-750 v3.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Statute contains provisions for nonbusiness MLTS systems in the state for 911.		Statute requires all MLTS systems to interface to 911 and provide specific call back and location information.
<b>Rationale</b>		
MLTS is an important issue in 911. The ability must exist to accurately locate calls coming from an MLTS.		

<b>Current Environment</b>
Th Iowa Code does not address multi-line telephone systems (MLTS) directly, but rather references it as it related to a cap on the surcharge for wireline remittance. (34A.7 3).
<b>Reference Material</b>
<a href="#">Iowa Code 34A</a> (Iowa Statute)

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
The assessment team recommends the program office take the steps necessary to address MLTS on a statewide basis. This effort will likely require a legislative change and should be considered when Iowa code 34A is amended.
<b>Assessor Notes/Comments</b>

<b>Guideline SR27: The statutory environment identifies 911 as an essential government service for states that are able to make the distinction.</b>		
<b>Guidance</b>		
In general, government services that are defined as “essential government services” are those that are required to be provided, and which are included in continuity of operations policies, procedures and plans.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The statutory environment defines 911 as an essential service.		The statutory environment provides for the protection of funds specifically dedicated to 911 and protects resources.
<b>Rationale</b>		
When 911 is defined as an essential service, funds dedicated to the provision of 911 should not be diverted elsewhere.		

<b>Current Environment</b>
911 is not defined as an essential government service in those terms. However, Iowa Code 34A.3 <i>mandates</i> that county boards of supervisors maintain a local 911 service board and the service board is responsible for identifying how 911 calls will be answered within its jurisdiction. This is further described in Administrative Rule 605-10.4
<b>Reference Material</b>
<a href="#">Iowa Code 34A</a> (Iowa Statute) <a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
The current statutory environment does not identify 911 services as an essential government service. The assessment team would recommend that the program investigate the steps necessary to identify 911 services as an essential government service in Iowa. It should be recognized that emergency responder services cannot function without 911.
The assessment team recommends that the ICN network be recognized as mission critical infrastructure and as an essential government service.
<b>Assessor Notes/Comments</b>

## GOVERNANCE

The governance environment outlines areas of stakeholder involvement with the 911 system. History has shown that cooperation enhances a 911 system, and with the diversity of stakeholders and user needs, the governance of the 911 system is critical.

This category has seven guidelines.

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<b>Guideline GV1: The State has a comprehensive statewide 911 plan.</b>		
<b>Guidance</b>		
<p>A comprehensive statewide 911 plan is fundamental to the success of any 911 program and should be an integral part of a larger state plan. A comprehensive plan ensures all 911 stakeholders are working towards the same end goal. Having the plan in statute formalizes it and allows it to have a standing in the state. The plan cannot stand alone, but must integrate with other plans within the state, which requires coordination with other entities.</p> <p>The plan acknowledges and is consistent with other plans in place in the state (emergency preparedness, interoperability, emergency evacuation, emergency operations, security, and training and exercises). The process for developing and reviewing the plan must include stakeholder participation.</p>		
<b>Guideline Cross-reference(s)</b>		SR1, OP5, OP8, SC1, SC2, SC5, SC6
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The 911 plan is documented and updated consistently according to an established timeline. The plan is implemented and followed.	The 911 plan is consistent with and reviewed against other related plans within the state.	The 911 plan has authority through statute or regulation to be consistent and integrated with other related plans within the state and plans for sustainable funding. The 911 plan is integrated with such plans.
<b>Rationale</b>		
A comprehensive statewide 911 plan is fundamental to the success of any 911 program. A plan will foster consistent goals and advancement throughout the state.		

<b>Current Environment</b>
<p>The State has a Next Generation Implementation and Operations Plan as required by Iowa administrative rule. The NG911 Implementation and Operations plan is updated and reviewed by the 911 Council as necessary.</p> <p>The 911 program manager also participated in the development of the Iowa Statewide Interoperable Communications Plan.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)</p> <p><a href="#">NG911 Implementation and Operations Plan</a></p> <p><a href="#">Iowa SCIP</a></p>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
While Iowa does have a NG911 Implementation and Operations Plan that is required to be updated, the State does not have a comprehensive statewide 911 Plan that addresses all aspects of 911 providing all PSAPs to a complete set of common goals endorsed by impacted stakeholders.

**Assessor Notes/Comments**

The Iowa 911 Program Office and Program Manager lack sufficient time and resources to develop this type of plan but have a firm grasp of the requirements of such a plan and the areas it needs to address.

Iowa can utilize existing resource such as ICTAP, NASNA or the Model State Plan as a template.

Guideline GV2: An entity has authority and responsibility for statewide 911 coordination.		
Guidance		
<p>Coordination is the end point. If two or three organizations are doing the same thing, there needs to be coordination. The focus should be on the function – one entity whose primary responsibility is to support and promote optimal 911 services. The entity could be a coordinator, an agency, or a board/council with a primary responsibility to support and promote optimal and cost effective 911 service. The entity provides governmental services to ensure the existence of 911 currently and into the future. There is a need for an entity that can coordinate the efforts of all appropriate agencies/entities that support the vision and mission for delivery of statewide 911 services. See the relationship between this guideline and SR1 and SR2, which state that the coordination function and the coordinator should be funded.</p>		
Guideline Cross-reference(s)	SR1, SR2	
Minimum Criteria	Advanced Criteria	Superior Criteria
Binary		
Rationale		
<p>911 is a complex system that necessitates leadership among the diverse and potentially competing stakeholder community.</p>		

Current Environment
<p>The 911 Program in Iowa is governed by Iowa Code Chapter 34A. Iowa Code Chapter 34A breaks down wireline and wireless responsibilities into two different sections within the chapter, as well as provides for Next Generation 911. 911 is further defined by Administrative Code Section 605 Chapter 10.</p> <p>In Iowa, 911 falls under the authority of the Iowa Department of Homeland Security and Emergency Management. The director of the department appoints a statewide 911 program manager. Those functions are specified in Iowa Code Chapter 34A.2</p> <p>The position is funded using a portion of the wireless 911 surcharge. HSEMD currently receives \$250,000 annually for program administration.</p>
Reference Material
<p><a href="#">Iowa Code 34A</a> (Iowa Statute)  <a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)  <a href="#">NG911 Implementation and Operations Plan</a></p>

Rating
<p>At this time, the Iowa State 911 Program meets the criteria of this guideline.</p>
Assessor Recommendations
<p>Provide the 911 Program manager the time and resources to continue and to increase coordination with all required state entities and stakeholders to maximize statewide efforts to improve all aspects of 911 and related public safety communications in the state.</p>

**Assessor Notes/Comments**

The Program Manager has an excellent grasp of needed areas for improvement of 911 in the state and the effort and importance of coordination with all stakeholders to gain support for their consideration and implementation.

Guideline GV3: Stakeholder groups participate in 911 planning, implementation, and changes.		
Guidance		
<p>911 stakeholders should be adequately represented at every stage of 911, including planning, implementation, updates, and modification. It is recognized that there may not be much involvement in the planning and implementation, however. While statute may vest final decision-making on key investments and timeframes with specific State and/or local governmental entities, structures should be in place to ensure that relevant State agencies, responsible local governing boards, traditional and non-traditional responder groups, and communications providers have meaningful input into this decision-making.</p>		
Guideline Cross-reference(s)		SR8, SR15, OP8
Minimum Criteria	Advanced Criteria	Superior Criteria
Stakeholders participate informally in development and implementation of a statewide 911 program for consensus building.	Documented organized change control processes involve stakeholder participation.	Documented organized change control processes are set in statute. There is an evaluation of the processes to manage change.
Rationale		
Strong 911 programs incorporate stakeholder contributions. Decision-making, absent broad-based stakeholder input, can increase costs, decrease desirable outcomes, and delay necessary changes.		

Current Environment
<p>Currently, Iowa Code Chapter 34A requires a 911 Communications Council (34A.15), which is advisory in nature, to the 911 program manager and 911 program. The purpose of the Council is to advise the 911 program manager as well as the 911 program itself. There are parts of Chapter 34A that prescribe mandatory joint participation. As described earlier, Chapter 34A dictates the membership of the 911 Council and its very nature is to encourage stakeholder participation.</p> <p>As a general practice, the 911 program manager also involves regional, informal PSAP supervisor groups to develop consensus regarding changes to the program and 911 planning. It is common to use both the 911 Council as well as the PSAP supervisor groups to provide open dialogue regarding future improvements and enhancements, or other program initiatives.</p> <p>The program manager also utilizes statewide webinars to convey significant program changes. These are open to all stakeholder involvement. Significant program developments usually involve vendors under state contract. As such, these vendors are made available during meetings and webinars for two-way discussion with PSAPs and other stakeholders. Webinars are recorded and posted on the HSEMD 911 website.</p>
Reference Material
<p><a href="#">Iowa Code 34A</a> (Iowa Statute)            911 Council Bylaws available upon request  <a href="#">HSEMD 911 Website</a> (Iowa 911 Program Update Webinars)</p>

Rating
At this time, the Iowa State 911 Program meets the minimum criteria.

**Assessor Recommendations**

Iowa Code should require a statewide 911 Plan to be developed and updated on a prescribed basis. The Plan should require input and approval of the 911 Communications Council and representation from local 911 Service Boards and other key stakeholder groups directly impacted by the plan. The Change Control process is limited to the 911 System. It could be expanded to cover PSAP operational changes that impact service delivery.

**Assessor Notes/Comments**

While the Communications Council is required by statute, their authority to promote and interact with the 911 Program Office and other state entities appears unclear and often informal without a comprehensive 911 plan covering many issues to be addressed.



**Guideline GV4: A statewide board or advisory council provides input and oversight for statewide 911 system coordination.**

**Guidance**

Coordination at the state level is essential. While a designated 911 coordinator and statewide coordination are paramount to the effective and efficient operation of 911, it is important to have input and involvement from the 911 community as a whole. This facilitates the process to broaden the authority of the 911 coordinator, as in a next generation environment, the authority to regulate is more important.

Oversight can be provided through a board or advisory council and can include representatives from public safety affiliations, as well as other stakeholder groups, such as service providers. The board or advisory council should work with the statewide coordinator where applicable. There needs to be a separation of duties from the coordinator that should be defined and delegated. States need to have some flexibility; coordination may be staff augmentation for example.

**Guideline Cross-reference(s)** SR1, SR2, SR14, SR15

Minimum Criteria	Advanced Criteria	Superior Criteria
The state has a board, agency, or council with defined responsibilities.	The board/agency/council holds regularly scheduled meetings. Recommendations are public and actively distributed. There is a mechanism for receiving input from 911 users/agencies/stakeholders.	This board/agency/council is established and funded by legislation.

**Rationale**

Statewide coordination provides a structured process for stakeholder involvement and input.

**Current Environment**

Currently, Iowa Code Chapter 34A requires a 911 Communications Council (34A.15), which is advisory in nature, to the 911 program manager and 911 program. The Council has, on occasion, penned letters in support or in opposition of varying issues within the state or nationally. The 911 Council meets monthly and is an open public meeting per Iowa Code 21. Formal minutes and agendas are posted on the HSEMD website. The meetings are livestreamed, posted to YouTube, and have a conference call capability for broader participation. Formal membership is prescribed by Iowa Code 34A. Council members are allowed reimbursement of travel costs.

**Reference Material**

- [HSEMD 911 Website](#) (with 911 Council Information)
- [Iowa Code 21](#) (Open Meetings)
- [Iowa Code 34A](#) (Iowa Statute)
- Appendix A-3: 911 Council Bylaws

**Rating**

At this time, the Iowa State 911 Program meets the superior criteria.

**Assessor Recommendations**

Iowa Code should require a statewide 911 Plan to be developed and updated on a prescribed basis. The Plan should require input and approval of the 911 Communications Council and representation from local 911 Service Boards and other key stakeholder groups directly impacted by the plan. The Change Control process is limited to the 911 System. It could be expanded to cover PSAP operational changes that impact service delivery. It is recommended that additional PSAP representation be added to the advisory council including “standalone” PSAPs.

**Assessor Notes/Comments**

While authorized and funded the 911 Communications Council is underutilized without a more formal role in the statewide 911 planning process in support of the 911 Program Office.

<b>Guideline GV5: The state facilitates working relationships between 911 and groups within the state that interact with 911.</b>		
<b>Guidance</b>		
Communications are necessary between 911 and emergency management and other agencies or entities related to 911, such as law enforcement, fire, emergency medical services (EMS), information technology (IT), and statewide Department of Homeland Security (DHS) organizations. Working relationships include communication, cooperation, stakeholder management and collaboration. This not only relates to what happens at the state level, but also what happens at the regional and local levels.		
<b>Guideline Cross-reference(s)</b>	SR8, SR14, SR15	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state provides for working relationships between 911 and other entities within the state.	The state provides for a structured and comprehensive working relationship between 911 and specified entities within the state. Working relationships are demonstrated at the state level.	State, regional and local representation exists in the working relationships demonstrated at the state level.
<b>Rationale</b>		
911 needs to work with other agencies for coordination, cooperation, responsiveness and effectiveness in the provision of emergency services.		

<b>Current Environment</b>
The 911 program manager meets weekly with the Statewide Interoperability Coordinator (SWIC). The SWIC briefs the 911 Council, and the 911 Program Manager briefs the Iowa Statewide Interoperability Communications Systems Board. The 911 Council is made up of various groups that interact with 911. The 911 Council meeting agendas include a briefing from FEMA Emergency Communications Division. Also, as previously mentioned, the 911 program manager participates in the three regional PSAP supervisor group meetings. The meetings are invaluable as they provide a broader audience for better coordination. The 911 program manager also has a working relationship with Iowa APCO and Iowa NENA leadership, who participate in the regional PSAP supervisor group meetings.
<b>Reference Material</b>
<a href="#">HSEMD 911 Website</a> (with 911 Council Information)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
The 911 Program Office should be provided a level of staff and other resources to to work more closely with other agencies, groups, and service providers that currently and potentially interact with 911. Closer and more intensive relationships will support a more comprehensive and focused plan and program agenda for 911 growth, improvement, and effectiveness.
<b>Assessor Notes/Comments</b>
The 911 Program Manager clearly understands the necessity of developing closer and more comprehensive working and collaborative relationships with stakeholders as a requirement for the improvement and substance to the State 911 Program.

**Guideline GV6: The ability exists within the state to facilitate essential partnerships statewide, across state lines, and for specific strategic purposes.**

**Guidance**

Agencies at a state level that relate to 911 need to be able to enter into agreements. There are two concerns: 1) if something is not prohibited in writing, then it is allowed, and 2) if something is not in writing, it is not allowed. It is not the intent to impose statutory requirements. One can only do what legislation allows. As such, agreements and partnerships do not necessarily have to be addressed in statutes.

Conformance with this guideline could be demonstrated by statutory permission to enter into such agreements and through the successful implementation of agreements for past developments. State-level agencies (State police, emergency management, environmental conservation) and local agencies, such as 911 authorities and first responders, are examples of potential partnerships. Working relationships could include executed interlocal agreements, Memoranda of Understanding (MOUs), EMAC services and contracts, which could be tracked in a central repository.

**Guideline Cross-reference(s)** SR7, SR8

Minimum Criteria	Advanced Criteria	Superior Criteria
The state permits regional or sub-state and statewide agreements, and allows State agencies and local governments to enter into agreements across state lines.	The statutory ability and structure is in place for agreements to be successfully implemented. A statewide plan is in place to complete all working relationship agreements.	All agreements are successfully implemented and reviewed when necessary.

**Rationale**

To work effectively, all entities involved in the delivery of emergency services must have pre-defined working relationships, supported where necessary by agreements.

**Current Environment**

Partnerships within the state are common using MOU's and 28E agreements as discussed previously. Iowa was part of the Interstate Playbook initiative that sought to cross-connect state ESInets. In this case, we would have needed memorandums of understanding.

We are also well versed in EMAC. In case of a disaster causing the need for interstate mutual aid, we could seek to fill the need via EMAC.

**Reference Material**

- [Iowa Code 28E](#) (Joint Exercise of Governmental Powers)
- [Iowa Code 29C.21](#) (EMAC)

**Rating**

At this time, the Iowa State 911 Program meets the minimum criteria.

**Assessor Recommendations**

A comprehensive state 911 plan does not exist to complete all working relationship agreements. The 911 Office has the tools but there are not sufficient resources within the 911 Program Office to effectively foster working relationships.

**Assessor Notes/Comments**

The authority currently exists to establish partnerships via MOUs both intrastate and across state lines. There is no state plan in place to complete all working relationship agreements.

**Guideline GV7: The State provides a statewide governance model for resource sharing and agreements between jurisdictions.**

**Guidance**

The "depth" of agreements will likely vary greatly - with the better agreements addressing governance, cost allocation, modification and/or termination of same, addition of partners, disaster recovery responsibilities, and liability. Agreements could exist for joint dispatch or equipment sharing, for example.

**Guideline Cross-reference(s)** SR7

Minimum Criteria	Advanced Criteria	Superior Criteria
A statewide governance model is in place.	Successful multi-jurisdictional agreements, based on the statewide model, can be referenced as examples.	Multi-jurisdictional agreements, based on the statewide model, are in practice. Resources are available to assist jurisdictions in developing agreements.

**Rationale**

Technology has made it more cost-effective to share resources (e.g., staff, equipment, contracts) among 911 jurisdictions. The ability to easily form, amend, and discontinue these multi-jurisdictional agreements as needs dictate is critical to the effective use of limited resources. Resource sharing increases efficiency, effectiveness, and cost control among jurisdictions.

**Current Environment**

In addition to 28E agreements and memorandums of understanding, Iowa implemented the Iowa Mutual Aid Compact or IMAC. It mirrors EMAC but is for intrastate mutual aid.

**Reference Material**

[Iowa Code 29C.22](#) (IMAC)

**Rating**

At this time, the Iowa State 911 Program meets the advanced criteria.

**Assessor Recommendations**

The 911 Program Office should continue to support and encourage participation in the shared services programs like that in place with Zetron to drive and host remote CPE adoption focusing on small to medium PSAPs. Increase emphasis and funding for virtual consolidation should occur with 911 Program resources available to support the development of the required MOU's and governance agreements between jurisdictional participants. Additional resources are needed in the 911 Program Office to increase support and expansion of these activities.

**Assessor Notes/Comments**

These activities can promote cost efficiencies and improve services to the public and first responders.



## FUNCTIONAL AND OPERATIONAL PLANNING

The functional and operational planning environment outlines the areas of service delivery that should be addressed in a 911 system. This environment includes areas such as record retention, call handling protocols, continuity of operations plans, and exercises.

This category has nine guidelines.

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<b>Guideline OP1: All traditional wireline and wireless calls within the state route to a PSAP enabled to receive Enhanced 911 (E911) data and route to an appropriate dispatcher.</b>		
<b>Guidance</b>		
<p>Currently, varying levels of service may exist across a state. While it is not feasible for every jurisdiction to have its own 911 system or PSAP; every citizen should have access to 911.</p> <p>E911 provides automatic location identification (ALI) data, selective routing, selective transfer, fixed transfer and a call back number. Phase II provides delivery of a wireless 911 call with call back number, the location of the caller within current FCC requirements, and selective routing based on those coordinates. These data parameters provide a greater certainty that callers can be located in emergency situations. If a PSAP is able to receive E911 data and wireless Phase II data, Voice over Internet Protocol (VoIP) calls are also able to be processed.</p> <p>The assessment is designed for the state and PSAP, not the service providers and carriers. This guideline refers to system capabilities and customer premise equipment (CPE) capabilities; processing the calls is a capability issue. Technical failures are an exception.</p>		
<b>Guideline Cross-reference(s)</b>	ST1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Having caller location improves the chances of saving lives.		

<b>Current Environment</b>
Per Administrative Rule: "Each 911 system, supplemented with 911 surcharge moneys, shall at a minimum, employ the following features...ALI" (Administrative Code Section 605, Chapter 10.14(1)).
<b>Reference Material</b>
<a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the criteria of the guideline.
<b>Assessor Recommendations</b>
The 911 Program Office needs to fully support, promote, and implement all available improvements and advancements in location technologies associated with wireline and wireless 911 calls with the evolution of the state's NG911 system.
<b>Assessor Notes/Comments</b>

<b>Guideline OP2: The state is pursuing full implementation of emergency medical dispatch (EMD).</b>		
<b>Guidance</b>		
<p>While the statutory environment provides for EMD and requires the use of EMD if it is in statute, there should be something in place for states where it is not in statute, but is being pursued or actively done. This recognizes efforts of the state and is not inconsistent with the statutory environment.</p> <p>EMD protocols, if used, should meet the American Society for Testing Materials (ASTM) Standard Practice for Emergency Medical Dispatch (F1258-95) and ASTM Standard Practice for Emergency Medical Dispatch Management (F1560-94). This guideline applies to regional and local 911 systems. This guideline is not meant to mandate any specific protocols. Medical oversight is a licensed physician with the appropriate qualifications in emergency medicine. Funding should not include operational costs of staff in the PSAP. Maintenance includes software updates, licenses, and staff training.</p>		
<b>Guideline Cross-reference(s)</b>	SR20	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The State provides models for EMD implementation.	Measurable steps have been taken to implement EMD statewide. The state has a plan for completion and an identified funding source.	EMD is implemented statewide. Maintenance and support of the EMD program is fully funded by an identified source.
<b>Rationale</b>		
Protocols should exist for EMD. These protocols should be used and there should be oversight to ensure the protocols are being followed. Changes in protocol are allowed based on medical direction.		

<b>Current Environment</b>
EMD is an allowable use of surcharge per the NG911 Implementation and Operations Plan. To further encourage EMD adoption, it is included as one of the shared services offerings the State makes available at a cost share to local jurisdictions. The State pays the installation/nonrecurring costs, while the local jurisdiction is responsible for the annual cost. There are two vendors available for local jurisdictions to choose from under the shared services model.
<b>Reference Material</b>
<p><a href="#">NG911 Implementation and Operations Plan</a></p> <p>Shared Services contract available upon request</p> <p><a href="#">2018 Consolidation Report to Legislature</a> (Shared Services Plan)</p>

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
The state should pursue, assess, and endorse acceptable EMD models and include them in a state 911 Plan. Assuming stakeholder support can be obtained, the 911 Program Office should work within the existing advisory framework to endorse and pursue necessary statutory or rule changes to require EMD statewide. In the meantime, additional funding incentives could be considered to encourage EMD adoption by additional PSAPs.

**Assessor Notes/Comments**

While EMD is an allowable use of the 911 surcharge, Iowa does not promote or require any EMD program for PSAPs leaving it a local choice for PSAPs and 911 Services Boards. Currently 26 PSAPs are providing EMD.

<b>Guideline OP3: Provisions exist for language interpretation capabilities statewide.</b>		
<b>Guidance</b>		
Equal service should be available for the deaf and hard-of-hearing community, as well as those for whom English is not a primary language. NENA and other organizations recognize the term non-English speaking, which includes American Sign Language users. This guideline recognizes that some territories may have a non-English primary language.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The State recommends that PSAPs have an interpretation capability or access to similar services.	The State requires that PSAPs have an interpretation capability or access to similar services. There is an identified funding source.	Required interpretation capabilities or access to similar services are fully funded by an identified source.
<b>Rationale</b>		
This ensures equal service for non-English/non-native language speaking callers requesting assistance of any kind.		

<b>Current Environment</b>
The State NGCS provider allows for 10-digit transfers. Many PSAPs program language translation services into a star code. We receive transfer reports monthly. In the most recent quarter, Iowa PSAPs totaled 268 conference transfers to language services. Per Administrative Rule Section 605 Chapter 10 (10.14(2) I.) Iowa also requires TTY capability in every PSAP and 97 out of 99 counties are capable of Text-to-911.
<b>Reference Material</b>
<a href="#">Iowa Transfer Report</a> <a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule) <a href="#">HSEMD 911 Website</a> (Text to 911)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
Iowa should require that all PSAPs have access to and utilize an approved language interpretation resource for non-English speakers. It should be a requirement for participation in the shared services program with Zetron if it is not already. Admin Code Section 605 should be amended to include this requirement for all PSAPs.
<b>Assessor Notes/Comments</b>
21 PSAPs currently have language interpretation capabilities. Providing language interpretation access is an allowable use of the 911 surcharge.

<b>Guideline OP4: The state provides guidelines for the retention of 911 call records and 911 related data.</b>		
<b>Guidance</b>		
The role of the State is to perhaps be an advocate for PSAPs and/or set standards. The State should define what is considered a “record.” The creator of the record is the custodian of the record (or whoever is specified in statute if applicable). Local, state and federal laws may affect the retention of data and not all data will have the same retention period. The retention laws may not be in the 911 statute, but in other provisions of law.		
<b>Guideline Cross-reference(s)</b>	SR24	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
The retention of 911 records and data ensures consistency across the state and ensures data is available when needed.		

<b>Current Environment</b>
Administrative rule addresses the definition of emergency call as well as retention requirements. (605-10.2) (605-10.14(2) e) (605-10.16)
<b>Reference Material</b>
<a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the criteria for the guideline.
<b>Assessor Recommendations</b>
Review the Code Section addressing retention requirements of all programmatic data. Review should be conducted with stakeholders and the Communications Council in light of increased scrutiny of PSAP public safety communication services and new types of data. Changes should be sought in the Code if there is a consensus that changes are needed.
<b>Assessor Notes/Comments</b>
Iowa should review what a record is and if there is additional data relative to the 911 program that should be maintained.



**Guideline OP5: The state requires a data backup plan.**

**Guidance**

All data essential to the operation of a PSAP should have a backup available. Examples of data essential to the operation of the PSAP are Master Street Address Guide (MSAG), automatic location identification (ALI), computer aided dispatch (CAD), and customer premise equipment (CPE) data. Periodic backups are executed and logged. At least one backup should be stored off-site. Any off-site storage should comply with all security requirements.

<b>Guideline Cross-reference(s)</b>	GV1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
PSAPs implement a local data backup and recovery procedure and plan. This plan is documented.	PSAPs' backup and recovery procedures and plans are documented and maintained. Data backup is offsite.	Implemented data backup and recovery procedures and plans are documented and maintained, and the backups are audited.

**Rationale**

This is one method to ensure continuity of data should there be any type of component failure.

**Current Environment**

Local ALI, MSAG and GIS data would be stored both locally on premise as well as in the state GIS database through the statewide GIS project. While a handful of PSAPs do operate a standalone ALI database, the vast majority contract for ALI services off premise.

Local PSAPs systems are often maintained by local IT departments or through vendor service contracts. Logically, local systems would be backed up though standard IT best practices in either case.

Administrative Rule Section 605 Chapter 10.14(4) does provide for voluntary standards for PSAPs which include NENA technical standards for best practices.

**Reference Material**

[Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

**Rating**

At this time, the Iowa State 911 Program meets the minimum criteria.

**Assessor Recommendations**

Specific data backup should be required for all PSAPs. The parameters of local backup and recovery should be documented in the local 911 Service Plans required by statute. Requirements should also be documented in a state 911 Plan.

**Assessor Notes/Comments**

The shared services program facilitates uniform data backup procedures, which is excellent. Most PSAPs appear to have local backup and recovery provisions but it is not clear if they are documented and/or included in a local COOP plan.

<b>Guideline OP6: State-level guidance exists for public safety's use of social media.</b>		
<b>Guidance</b>		
Public safety includes PSAPs. Leveraging the capabilities of social media (incoming and outgoing) and the use of social media can enhance the image of public safety agencies. This should be part of an organization's public information plan. Guidance may also cover future uses of this technology.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Social media is being used by the public to talk about emergencies. Social media can be a tool to give the public accurate information before and during emergencies.		

<b>Current Environment</b>
HSEMD has and uses social media for 911-related issues as appropriate. ILEA discusses social media as part of its 40-hour basic telecommunicator course. As PSAPs are individually managed entities of local government, they would be governed by their own agency, county, or city policy. Nothing the State could provide to local PSAPs would have any authority. At the local level, 911 issues could be sent out by a vast number of "official" accounts. These account types would include: emergency management, sheriff's office, police department, communication centers, or local government just to name a few. An example of a local social media policy is included.
<b>Reference Material</b>
Appendix A-4: Cedar Rapids JCA Social Media Policy

<b>Rating</b>
At this time, the Iowa State 911 Program meets the criteria for the guideline.
<b>Assessor Recommendations</b>
It is recommended that the 911 Office pursue increased guidance, coordination and usage of social media to complement the roll out of NG911 capabilities.
<b>Assessor Notes/Comments</b>
There may not be enough resources in State 911 Program office to make this a top priority.

**Guideline OP7: Statewide support and coordination exist for managing/operating emergency notification systems (ENS).**

**Guidance**

This service may be housed in other areas besides 911. Notification examples include ENS alerts, warnings, sirens, and broadcast intercepts. Many warnings are sent out at varying levels (state-level alerts, local alerts, interstate alerts). There should be a determination of who is responsible for specific alerts. Agreements should be in place between agencies within the state that utilize this service. The use of alerts and warnings could also be part of the state plan.

<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Guidelines and policies at the state level clearly document 911 jurisdictional roles. The statewide plan defines the agency responsible for specific alerts. There is communication between the party who issues the alert and the appropriate PSAP(s).	The state defines the proper use of ENS and other protocols, regardless of who has responsibility for alert generation.	A statewide body assists in unifying and coordinating the consistent use of alerts and warnings throughout the state.

**Rationale**

Alert/warning resources and technologies are of critical importance to the public and have a very direct relationship to 911. Managing and operating these resources are, however, somewhat ancillary to the 911 function and careful integration into the overall emergency communications operation is critical.

**Current Environment**

The Statewide mass notification program, Alert Iowa, is managed within the Iowa Department of Homeland Security and Emergency Management Communications and Infrastructure Bureau. The Alert Iowa program is defined in Iowa Code Chapter 29C.17A. Currently 87 counties within Iowa utilize the system for mass notification. Additionally, 31 State agencies are using the system for internal emergency notification. Alert Iowa is certified as an IPAWS-compliant CAP alert origination tool, allowing local and State alerting authorities to issue Wireless Emergency Alerts through the system. Currently 65 counties have completed the IPAWS application process. The Iowa Department of Public Safety, along with the Iowa Department of Homeland Security and Emergency Management, have the ability to issue statewide Wireless Emergency Alerts.

**Reference Material**

- [Iowa Code 29C.17A](#)
- [Alert Iowa Website](#)

**Rating**

At this time, the Iowa State 911 Program meets the Superior criteria.

**Assessor Recommendations**

Continue to promote training on the existing program.

**Assessor Notes/Comments**

<b>Guideline OP8: The state has a formalized process and communication plan for change management.</b>		
<b>Guidance</b>		
<p>Change management is becoming increasingly more important in the technological age. This guideline involves changes that impact others – state down, local up – and any area in between where someone else is impacted or affected. A local level change could be just as catastrophic as a state change. Communications is a significant component; changes must be communicated.</p> <p>The communications plan should address the process and how any state, regional or local level changes are communicated throughout the state and, where appropriate, to the employees. Change management processes should be included for software and hardware, changes in technology, changes to the staff, and changes in operational/technical functions, changes in regulations, changes by vendor community – such as changes in technologies that should be communicated to 911 authorities. Advance notice of changes should also be a consideration. The change management process may be included in an operational plan. This change management process should include a test plan, where appropriate.</p>		
<b>Guideline Cross-reference(s)</b>	GV1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Changes to any component or area of a 911 system can affect many aspects of the system and need to be controlled and communicated properly.		

<b>Current Environment</b>
The State utilizes a change request form. Incorporated in the form is the policy. It is also part of the governance within the NG 911 Implementation and Operations Plan
<b>Reference Material</b>
<a href="#">Change Request Form and Policy</a> <a href="#">NG911 Implementation and Operations Plan</a>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the criteria for this guideline.
<b>Assessor Recommendations</b>
The Program Office should continue and increase the focus on change management in close coordination with ICN and the NG911 provider. It is recommended that staff resources in the 911 Program Office be increased to review and coordinate notification/requests for changes by all components of the NG911 System. Consider periodic training for relevant stakeholders to help understand what changes need to be included in this process as well as the need for and the importance of the process. Ensure the NG911 Implementation and Operations Plan accurately reflects the process.
<b>Assessor Notes/Comments</b>
The Change Management process in place is excellent and well documented.

<b>Guideline OP9: The State monitors and enforces compliance of 911 related provisions of the Americans with Disabilities Act (ADA).</b>		
<b>Guidance</b>		
Statewide 911 system compliance should include Americans with Disabilities Act (ADA) and its 911 related provisions.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Compliance with ADA's 911 related provisions is important to ensure equal access to 911 services.		

<b>Current Environment</b>
As referenced in OP3, the State and PSAPs take measures to provide access to 911 services for the deaf and hard of hearing. The 911 program manager also presents annually at the Iowa Utilities Board Dual Party Relay Council. As an active member of NASNA, we keep up to date on any other ADA developments as it relates to 911. Last year, Iowa processed 952 unique text sessions and 1,714 total texts to 911.
<b>Reference Material</b>
<a href="#">Iowa Transfer Report</a> <a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule) <a href="#">HSEMD 911 Website</a> (Text to 911) <a href="#">Iowa Code 477C</a> (Dual Party Relay Service)

<b>Rating</b>
At this time, the Iowa State 911 Program meets guideline.
<b>Assessor Recommendations</b>
It is recommended that the state continue with text to 911 deployment including real time text to include every PSAP in the state.
<b>Assessor Notes/Comments</b>
Every PSAP is required to have TTY/TDD capabilities.

## STANDARDS

The standards environment outlines the areas for which a state should develop or adopt standards. This includes technology and performance standards.

This category has six guidelines.

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<b>Guideline ST1: Standards and best practices have been identified and implemented at the state level.</b>		
<b>Guidance</b>		
<p>A review of the existing standards and best practices from a technical and operational level should be conducted to ensure that those standards have been identified, evaluated and implemented (as appropriate). Examples of standards and best practices include technical interface, data, performance, and operations from the American National Standards Institute (ANSI), Internet Engineering Task Force (IETF), National Fire Protection Association (NFPA), APCO, and NENA.</p> <p>Once a set of standards has been adopted, there needs to be a regular review (by a statewide coordinating body, such as a State agency, association of counties, or other state public safety associations) of existing and proposed design and performance standards to determine the changes needed (if any).</p>		
<b>Guideline Cross-reference(s)</b>	SR12	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Standards have been identified and implemented at the state level.	A state-level entity regularly reviews adopted and proposed design and performance standards to determine what changes, if any, are needed.	Proposed changes from the state-level entity are implemented. The implementations are adequately funded.
<b>Rationale</b>		
Standards and best practices ensure consistency of 911 service across the state.		

<b>Current Environment</b>
<p>The Iowa NG 911 Implementation and Operations Plan identifies NENA i3 as the identified standard for call delivery. All of our RFPs also make references to the most up-to-date standards by other standards-making bodies.</p> <p>Administrative Rule Section 605 Chapter 10.14(4) does provide for voluntary standards for PSAPs which include NENA technical standards for best practices.</p> <p>Our statewide GIS standard is based on the NENA draft version. Since it has become finalized, we are in the process of updating our state GIS standard.</p>
<b>Reference Material</b>
<p><a href="#">NG911 Implementation and Operations Plan</a> RFP's available upon request</p> <p><a href="#">NG911 GIS Standards</a> <a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)</p>

<b>Rating</b>
At this time, State of Iowa 911 Program meets the advanced criteria.

**Assessor Recommendations**

It is recommended that the State Program consider additional methods of obtaining more comprehensive system and call metrics in order to measure standard compliance or if additional standards need to be adopted.

**Assessor Notes/Comments**

The State Program is commended for establishing nationally recognized technical standards as the foundation for the statewide 911 system. This will allow for the integration of the wireline 911 service into the NG911 core services in an orderly and predictable manner. NG911 systems are complicated and involve more entities in the 911 call delivery, routing and provision of caller location. Vendor compliance with SLAs, standards and data error correction processes are difficult to manage without comprehensive system metrics. Integrated metrics systems that capture data from multiple sources in the system and present the data in a standardized fashion can make analysis much easier and could be a requirement in future RFPs.

**Guideline ST2: The State requires specific operational standards for PSAPs to ensure a minimum level of service delivery.**

**Guidance**

A minimum level of 911 service is required regardless of the type of service. It includes E911, wireless Phase I, wireless Phase II, Voice over Internet Protocol (VoIP) and NG911 (emerging technologies).

With Basic 911, a caller is automatically connected to a PSAP based on the central office that originates the call; automatic number identification (ANI) and/or automatic location identification (ALI) may not be supported. This means that the PSAP may not have the location or call back number of the caller.

With wireline E911, the PSAP has capabilities for ALI, ANI, selective routing, and selective transfer. For E911, the PSAP receives the caller's location and call back number, and other identifying information. The call is routed to the correct PSAP based on the caller's location, not the central office.

For wireless E911 Phase I, the PSAP receives the call back number of the caller and the identification of the cell tower from which the call originated. The call is usually routed based on the PSAP assigned to a particular cell tower sector.

For wireless E911 Phase II, the wireless call is delivered with the call back number as well as the location of the caller within 125 meters 67 percent of the time.

**Guideline Cross-reference(s)** SR12

Minimum Criteria	Advanced Criteria	Superior Criteria
The State has defined a minimum level of service, which is at least Enhanced 911 (E911). The minimum level of service is specific, consistent and implemented at all PSAPs across the state.	The service level is regularly reviewed and updated based on evolving operational and technical capabilities at a national level.	The State-defined service level is enforced and adequately and sustainably funded.

**Rationale**

A minimum level of service for all PSAPs ensures a consistent delivery of 911 service to all callers regardless of the caller's location or method of accessing 911.

**Current Environment**

Previous versions of Iowa Code Chapter 34A did include references to Enhanced 911. As we have entered a transitional phase toward NG911, we've eliminated most of the references to E911. However, in Administrative Rule, the previous minimum technical requirements achieved through E911 still exist during the transition. The 911 program does not have a compliance section to ensure PSAPs and OSPs are adhering to these rules.

**Reference Material**

- [SF500](#) (Bill modernizing 911 terminology)
- [Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

**Rating**

At this time, the State of Iowa 911 Program meets the advanced criteria.

**Assessor Recommendations**

The State Program, in conjunction with the 911 Communications Council, should consider establishing implementation deadlines for PSAPs when new call processing capabilities are implemented. (e.g. All PSAPs must be capable of receiving and processing text-to-911 calls by January 1, 2021)

**Assessor Notes/Comments**

Based on the information provided, all of the PSAPs in Iowa can receive and process enhanced 911 calls originating from wireline, wireless, and VoIP telecommunications services. 97 of 99 primary PSAPs are able to process text-to-911 calls (which is outstanding). Establishing implementation deadlines will help move PSAPs to upgrade or replace 911 answering applications that are not capable of handling new types of calls or call data (e.g. streaming video with 911 calls or the ability to send an outbound text message). Deadlines can also incent PSAPs to consider joining shared/hosted 911 applications that provide upgrades to all of the connected PSAPs at the same time.

<b>Guideline ST3: The state has defined PSAP performance standards.</b>		
<b>Guidance</b>		
<p>Defined performance standards allow for consistent delivery of service across the state. It also allows for the identification of issues that need to be addressed, such as the need for additional trunks or additional call takers within a specific PSAP.</p> <p>Performance standards include technical and operational standards such as call answering (timeliness, call overflow and call overload), call protocols or interrogation, reliability, redundancy, congestion control, quality of service, and Teletypewriter (TTY) testing. For example, these standards could include a call answering standard of 90 percent of all 911 calls within 10 seconds during the busy hour of the day.</p>		
<b>Guideline Cross-reference(s)</b>	SR12	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has defined PSAP performance standards.	The defined performance standards are implemented.	The defined performance standards are enforced and funded. Funding is not dependent on call answering standards being met.
<b>Rationale</b>		
Consistent performance standards enable evaluation and maximize consistent and effective service.		

<b>Current Environment</b>
<p>Iowa Administrative Rule (605-10.14) provides minimum operational and technical standards for PSAPs. Many of these operational and technical standards do not necessarily include performance standards. Currently, HSEMD does not have an enforcement or compliance section.</p> <p>Administrative Rule Section 605 Chapter 10.14(4) does provide for voluntary standards for PSAPs which include NENA technical standards for best practices.</p>
<b>Reference Material</b>
<a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)

<b>Rating</b>
At this time, the State of Iowa 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
It is recommended that the State program, in conjunction with the 911 Communications Council, establish minimum performance guidelines for PSAP call handling statewide. In addition, the State Program should identify what call processing metrics are needed to measure compliance with the established minimum performance guidelines.
<b>Assessor Notes/Comments</b>
This is an area of concern that should be addressed. Under the current administrative rules, PSAPs are encouraged to adopt call processing standards defined by NENA, NFPA, and other public safety standard development organizations, but PSAPs are not required to adopt standards. Adopting the public safety SDO standards as statewide PSAP operational “guidelines” would give the PSAPs benchmarks to gauge their call handling performance against. This will also allow PSAP managers to

have statistical evidence for elected officials or policy makers that they need more telecommunicators or resources if they are unable to consistently meet the established guidelines. Again, good call handling metrics are required to measure whether a PSAP is meeting the guidelines or not. It is important for PSAP managers to be able to quantify how their PSAP operations measure up against nationally recognized benchmarks.



**Guideline ST4: The state requires specific interface standards for the exchange of 911 related data between functional entities.**

**Guidance**

It is often not possible for one PSAP to transfer data to another PSAP, which can result in delayed responses. If data exchange is a capability, the data may be in a different format or layout. Standards development organizations have identified interfaces for the exchange of 911 data, which, if enabled statewide, allows all call takers/dispatchers to have the same understanding and ability to interpret the received data.

Interface standards describe the definition, format, layout, and other characteristics of 911 related data shared across disparate systems, ensuring the seamless exchange of data, and permitting a common understanding to interpret and use 911 related data consistently. Examples of industry-accepted standard organizations include APCO, the Internet Engineering task Force (IETF), and the National Information Exchange Model (NIEM).

<b>Guideline Cross-reference(s)</b>	SR12	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state encourages the exchange of 911 related data at the local and regional level using industry-accepted interface standards.	At a state level, industry-accepted interface standards have been adopted for 911 related data exchange and applied to statewide procurement efforts and funding priority.	The state is compliant with national industry-accepted interface standards for 911 related data exchange, which is applied to statewide procurement efforts and funding priority.

**Rationale**

Interface standards that permit data exchange are necessary when data is being shared across functional entities.

**Current Environment**

Iowa Administrative Rule (605-10.14) provides minimum operational and technical standards for PSAPs. Currently, HSEMD does not have an enforcement or compliance section.

Administrative Rule Section 605 Chapter 10.14(4) does provide for voluntary standards for PSAPs which include NENA technical standards for best practices.

All call-taking equipment (CPE) within the state must undergo interoperability testing with the NGCS provider to ensure standard NENA call intake and transfer information is included and compatible.

**Reference Material**

[Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

NGCS Contract available upon request

**Rating**

At this time, the State of Iowa 911 Program meets the advanced criteria.

**Assessor Recommendations**

**Assessor Notes/Comments**

Based on the information provided, all of the PSAPs in Iowa can transfer a 911 call to any other PSAP in the state with ANI/ALI. The Program Office also requires CPE integration testing with the system provider which is excellent. Future projects the State Program may wish to consider include the implementation of a statewide CAD-to-CAD interoperability system that would allow for the transfer of additional call and response data to be shared between PSAPs during large scale events involving multiple response agencies. That level of data interoperability would meet the superior criteria.

**Guideline ST5: The state has minimum standards for emergency call processing protocols.**

**Guidance**

Call processing starts at call receipt and ends at call disconnect. Protocols are a set of rules or conventions that govern how a call is handled internally. The state could choose to recommend or encourage specific commercially available protocols or develop their own.

Minimum standards for call processing may include items such as questions, procedures, minimum service level, consistency, and integration procedures. Protocols could include law enforcement, emergency medical, fire, hearing impaired, and missing children. “Emerging” means that the criterion provides for flexibility and adjustment as new standards emerge.

<b>Guideline Cross-reference(s)</b>	SR12	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
A minimum set of call processing protocols exist in the state.	The call processing protocols are adjusted as necessary to remain consistent with emerging national call processing standards.	There is an audit to ensure compliance with the call processing protocols/standards.

**Rationale**

These standards will support a minimum level of consistency in call processing.

**Current Environment**

The State has adopted NENA standards per reference within the NG911 Implementation and Operations Plan. Administrative Rule Section 605 Chapter 10.14(4) does provide for voluntary standards for PSAPs which include NENA technical standards for best practices.

NENA addressed the question of Emergency Call Processing Protocol Standards in 2008 through NENA 56-006, dated June 7, 2008. The document was later updated on May 25, 2015, NENA 56-006.1.

In short, the committee found that standards should be implemented, but no set times were specified. Because of the broad number of variables involved with call taking and dispatching, there was not a “one size fits all” numerical value for the receipt and disposition of a call.

Although the NFPA 1221 standard, which sets two benchmark times with specific compliance criteria for call handling, states 90% of all emergency calls must be processed within 64 seconds or less (from the time a 911 call is answered until you are alerted) and 95% of all emergency calls must be processed within 106 seconds or less, this is not always realistic for 911 centers.

Many factors could come into play, including staffing levels, equipment standards, time of day, call load, availability of resources, etc. Another consideration is the type of call and the discipline being dispatched (police, fire, or EMS). Clearly a “pick up item” is not going to be dispatched with the same urgency as a “robbery in progress.”

**Reference Material**

- [NG911 Implementation and Operations Plan](#)
- [NENA Emergency Call Processing Protocol Standard](#)
- [Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

<b>Rating</b>
At this time, the State of Iowa 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
It is recommended that the State Program, in conjunction with the 911 Communication Council, establish an implementation plan that would ensure that all PSAPs in the state either provide or have access to another PSAP that can provide pre-arrival medical instructions to callers reporting a medical emergency by an identified future date.
<b>Assessor Notes/Comments</b>
<p>The State Program is commended for their work in incenting PSAPs to utilize EMD protocols through their shared/hosted 911 answering application.</p> <p>NENA recommends the use of call processing protocols for all of the response disciplines (law enforcement, fire, and EMS). This recommendation has been implemented slowly across the country with the highest focus on the use of protocols to provide pre-arrival medical instruction or EMD. A statewide implementation plan for EMD would be a good first step in introducing PSAPs to the use of protocols. It may not be practical for all PSAPs to implement an EMD program, but those PSAPs could meet the recommendation by entering into a cooperative agreement with a PSAP that is willing to provide EMD to their 911 callers on their behalf.</p> <p>Consideration should be given to implementing protocols for law enforcement and fire calls once the EMD program is in place. It is recommended that representatives from the State 911 Program and 911 Communications Council visit PSAPs that have implemented these protocols and learn from their experience before developing an implementation plan or guidelines for Iowa PSAPs.</p>

**Guideline ST6: The state program fosters the adoption of technical and/or operational consensus standards and requirements.**

**Guidance**

The public expects to receive a uniform level of 911 service, regardless of their location. With current 911, there is no standardized network, although some components are regarded as standard. The same level of service should be provided in rural areas as in a metropolitan area. This will become increasingly more important with NG911 and the advent of operational and technical standards for seamless interconnections. Interoperability between local, regional, and state 911 systems is essential.

This is the operational policy or rule that standards adoption should be encouraged. This guideline includes state systems and any statewide procurement. Aspects of technical and operational standards include security, redundancy, reliability and interdependencies between the systems. NENA's Next Generation Security (NG-SEC) document can be referenced.

**Guideline Cross-reference(s)** SR12

Minimum Criteria	Advanced Criteria	Superior Criteria
The state program encourages the adoption of technical and operational standards.	Leading industry standards and best practices have been reviewed and adopted at a statewide level and applied to statewide procurement efforts.	A state-level entity identifies, then implements and maintains statewide standards and recommended best practices. Funding priority is given to agencies that adopt these standards.

**Rationale**

The adoption of technical and/or operational consensus standards and requirements improves consistency and effectiveness of the state 911 system.

**Current Environment**

Statewide, 911 has the same capabilities. HSEMD manages the wireless ESInet, and is in the process of migrating the legacy wireline network onto the ESInet. All of this will be delivered by our NGCS provider in a standard, NENA i3 call delivery method. All 113 PSAPs are on the ESInet. Technical and operational standards are spelled out in Administrative Rule and the NG 911 Implementation and Operation Plan.

In an effort to encourage adoption of EMD, we have developed the shared services plan to help fund that program statewide. The State often uses the model to incentivize behavior when jurisdictional authority does not exist to mandate behavior.

Also, in an effort to foster greater interoperability and the adherence to standards, ISICSB also adopted a policy that endorses and supports the NENA i3 standard.

**Reference Material**

[Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

[NENA Emergency Call Processing Protocol Standard](#)

[ISICSB Policy on NENA i3](#)

<b>Rating</b>
At this time, the State of Iowa 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
As the wireline 911 service is rolled into the existing NG911 wireless core services, it is recommended that the State Program review the technical and security standard compliance of the combined system.
<b>Assessor Notes/Comments</b>
The State Program has established a nationally recognized industry standards-based foundation for the 911 system. As wireline service is integrated into the existing statewide NG911 system, standards compliance should be reviewed because of the number of changes in the system involved. These changes may also introduce new security concerns that will need to be addressed.



## SECURITY AND CONTINUITY OF OPERATIONS

The Security environment outlines areas that should be addressed to secure the facility and data associated with 911. These guidelines outline plans and actions that a state should facilitate or coordinate to enhance the 911 system.

This category has seven guidelines.

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**Guideline SC1: The state has business continuity of operations plans (COOP) for 911 to ensure continuous operations.**

**Guidance**

A backup site is in operations to take over full load of 911 calls at any time. Interagency agreements will provide for other PSAPs to take over call handling during a disaster or as a business continuity plan or backup. There are best practices and standards in place including: NENA Operations Standards for Contingency Planning, 53-001 through 53507, National Fire Protection Association (NFPA) Standard on Disaster/Emergency Management and Business Continuity Programs (NFPA 1600), recovery point objective (RPO) and recovery time objective (RTO).

"Operational impact analyses should be conducted to identify scenarios where facilities, systems, equipment, or operations are interrupted or disrupted, and any opportunities for hazard mitigation. As part of the research, the organization should determine continuity requirements and develop strategies based on the requirements, so that a more general continuity plan can be formulated with training, testing, and exercise. Focus on the impact of interruptions to critical business functions will help define thresholds for minimum/maximum down time." (From Next Generation Procurement Tool Kit)

**Guideline Cross-reference(s)** GV1

Minimum Criteria	Advanced Criteria	Superior Criteria
A plan and procedures exist that describe business continuity.	The state's plan defines and meets business owner expectations, needs and priorities to respond to and recover from a disaster.	The state's continuity plan is used, maintained, exercised and audited. The COOP is coordinated with the critical infrastructure plan statewide.

**Rationale**

A business COOP is established to assure that service delivery will continue uninterrupted when faced with a threatening situation that may hinder operations.

**Current Environment**

The state does not manage or oversee local COOP plans. However, there are instances where local jurisdictions do have COOP plans under their own authorities. For example, Cedar Rapids Joint Communication Center has a Backup PSAP Agreement in place with the Joint Emergency Communications Center (JECC) in Johnson County.

Additionally, Cedar Rapids JCA supports Black Hawk County should its operations require maintenance or fail.

**Reference Material**

Appendix A-2: Sample Backup PSAP Agreement

**Rating**

At this time, the Iowa 911 Program meets the minimum criteria.

**Assessor Recommendations**

Joint 911 service boards should be required to submit a COOP annually to the Iowa 911 Program. There should be a statewide 911 Program COOP that should be incorporated into a Statewide 911 Plan.

**Assessor Notes/Comments**

The Iowa 911 Program has a COOP for the network. There are 13 sites that have dual connections to the ESInet, and the system is set up to route calls to one of these 13 sites if there is a local failure. It appears there are COOP agreements between some Joint 911 service boards, but those agreements or plans are not shared with the Iowa 911 Program Director.

**Guideline SC2: Plans are in place statewide that define and meet needs and priorities to respond to and recover from a disaster.**

**Guidance**

A disaster can mean loss of data, equipment, facility or people, or all of the above. Disaster recovery plans should encompass the smallest “disaster” to largest.

The State should manage expectations for disaster recovery. Components of a disaster recovery plan should include, at a minimum: level of recovery (what you get), time to recovery (when you get it) for equipment, software, facilities and people. Stakeholders (depending on what level of services the State is providing), including the 911 authorities who will participate in disaster recovery, should provide input into the plan.

<b>Guideline Cross-reference(s)</b>	GV1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Plans and procedures exist for disaster recovery, to include critical infrastructure.	The disaster plan(s) is used, maintained and exercised.	The disaster plan(s) is audited, and is coordinated with the critical infrastructure plan statewide and is reviewed on a regular basis and amended as appropriate.

**Rationale**

Disaster recovery plans ensure continuity of service.

**Current Environment**

Disaster plans come very easily to 911 planning in Iowa. Close coordination is available as the 911 program manager’s position is within HSEMD. Iowa Code Chapter 29C governs emergency management in Iowa and mandates a local emergency management commission. Local emergency managers represent approximately one-third to one-half of all local 911 coordinators and all local emergency managers have a seat on local 911 service boards (34A.3). Operationally, we have disaster redundancies through our policy routing function, secondary ESInet, and shared services (same CPE offering throughout the state). We are also working toward building disaster recovery PSAPs with the shared CPE powering the mobile PSAPs. The 911 fund also maintains a catastrophic reserve, allowing for large capital purchases in the case of a disaster or catastrophic failure (34A.7A 2.e).

**Reference Material**

- [Iowa Code 29C](#) (Emergency Management Statute)
- [Iowa Code 34A](#) (Iowa Statute)
- Appendix A-5: Secondary ESInet Map

**Rating**

At this time, the Iowa 911 Program meets the Superior criteria.

**Assessor Recommendations**

It is recommended that the 911 Program continue work on developing mobile PSAPs. All new construction or remodels for PSAPs should follow nationally accepted best practices for hardening PSAPs.

**Assessor Notes/Comments**

Having emergency managers involved with the Joint 911 Service Boards allows for 911 issues to be front and center in disaster recovery. The disaster plan should be separate and distinct from the COOP.

**Guideline SC3: The state has a plan and procedures to safeguard information from unauthorized use, disclosure or modification, damage or loss.**

**Guidance**

System security must be in place to ensure internal and external users cannot access unauthorized areas. System security should mitigate business risks to an acceptable level and has legal, regulatory and policy implications.

A data loss prevention solution, network protection, and access control issues can be examples. The plan should be consistent with the NENA security standard and international standards, where appropriate. This plan needs to reflect appropriate interstate coordination and national interconnection as appropriate.

**Guideline Cross-reference(s)** SR25

Minimum Criteria	Advanced Criteria	Superior Criteria
A plan and procedures exist that describe the minimum network and data protection measures to be in place for each facility, locally at the PSAP and under State responsibility, and the connectivity between the two.	A plan exists that describes the minimum logical security, features, and specific escalation procedures to be in place for statewide emergency communications systems. This plan is used and maintained.	A data and network plan is coordinated with agencies responsible for critical infrastructure protection within the state. This plan is used, maintained and audited.

**Rationale**

Network and data protection measures must be in place to prevent unauthorized access and/or damage to security. These measures can minimize negative and unintended consequences.

**Current Environment**

ICN provides standard network security to all network assets and provides for 911 COOP/CoG for Iowa core network facilities. ICN does not have jurisdictional authority over individual PSAPs or call processing data centers that allow for our plan to reach within scope to these locations.

Comtech SST maintains business continuity and disaster recovery plans which are reviewed, updated and tested annually. NG 911 is included in the scope of our plans to ensure: 1) Timely service restoration and business continuity in the event of a disaster, 2) Personnel and resources are trained and available for disaster preparation, response, and recovery.

**Reference Material**

- Appendix A-6: ICN COOP/CoG document
- Appendix A-7: ICN Standard Practice – HSEMD Activation

**Rating**

At this time, the Iowa 911 Program meets the Superior criteria.

**Assessor Recommendations**

Annual tests should be documented and available for review.

**Assessor Notes/Comments**

Continue with the good work!



<b>Guideline SC4: The state has a procedure that ensures confidentiality of information to the extent permitted and/or required by law.</b>		
<b>Guidance</b>		
In some cases, 911 incident data and recordings are only given by subpoenas. A formal contract and nondisclosure agreement should be defined and agreed upon prior to rendering services. A non-disclosure agreement may be necessary for State and local employees where it is not addressed in the employment contract. Specific areas which may require specific levels of protection include the Health Insurance Portability and Accountability Act (HIPAA). Data may be required to be released by law in some instances.		
<b>Guideline Cross-reference(s)</b>	SR25	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
A plan and procedures exist that describe confidentiality policies for incident data protection measures.	The confidentiality plan/policies is used and maintained.	The confidentiality plan/policies is used, maintained and audited.
<b>Rationale</b>		
Confidentiality is imperative to safeguard victim and witness information, as well as data. Confidentiality and security of information policies help ensure proper use, handling and exchange and storage of incident data and system records.		

<b>Current Environment</b>
Iowa Code 22 governs Examination of Public Records//Open Records. Confidentiality is also included in Iowa Code 22, starting in section 22.5. Many local jurisdictions may have their own policies as influenced by County Attorney's and locally elected Sheriffs. Also, many 911 records must be requested through the County records offices.
<b>Reference Material</b>
<a href="#">Iowa Code 22</a> (Examination of Public Records)

<b>Rating</b>
At this time, the Iowa 911 Program meets the Advanced criteria.
<b>Assessor Recommendations</b>
Add to Iowa Code 22 to specifically identify 911 calls and what information can be released. i.e. redactions for addresses, names and any other personal information. All releases of 911 information should be audited to ensure compliance. Consideration should be given to new data types such as streaming video.
<b>Assessor Notes/Comments</b>
Iowa Code 22 does not address 911 records specifically.

<b>Guideline SC5: The state has a plan and procedures that address the logical security of the system and network.</b>		
<b>Guidance</b>		
<p>Logical security consists of software safeguards for an organization's systems, including user identification and password access, authentication, access rights and authority levels. Systems (network, data, hardware and users) preventative monitoring will safeguard the information and equipment from unauthorized use, disclosure, damage or loss. The idea is to monitor to prevent and detect holes or security breaches in the system. Network and systems configuration data must be protected from hackers and cyber terrorism. This plan must address data rights management and identity and access management. In an NG911 environment, more consistency in security becomes necessary.</p>		
<b>Guideline Cross-reference(s)</b>	GV1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
A plan exists that describes the minimum logical security and features to be in place for each system under the State's control. An alert system exists to notify individuals when problems arise.	The plan describes the specific escalation procedures to be in place for statewide emergency communications systems. This plan is used and maintained.	The plan is coordinated with agencies responsible for critical infrastructure protection within the state. This plan is used, maintained, audited and integrated with statewide escalation procedures.
<b>Rationale</b>		
Network and data must be proactively monitored to protect it from unauthorized users and cyber terrorists. An alert system should notify administrators when an intrusion occurs in order to respond appropriately.		

<b>Current Environment</b>
<p>ICN has a plan and escalation procedure in place to notify HSEMD and DPS of cyber security events that pertain to the network. ICN does not monitor stored or accessed data, only network connectivity and attempted access of network.</p> <p>Comtech SST maintains preventative and detective logical security solutions to protect our systems from unauthorized access, these solutions include vulnerability management, security monitoring, and denial of service protections. Comtech also maintains processes to ensure that access to systems and information is enforced at minimal privilege levels in areas such as access control and asset management.</p>
<b>Reference Material</b>
Appendix A-8: Iowa Incident Response Plan- 911

<b>Rating</b>
At this time, the Iowa 911 Program meets the Superior criteria.
<b>Assessor Recommendations</b>
Cyber Security plans should be reviewed and tested annually, with documentation of those tests kept with the 911 Program.
<b>Assessor Notes/Comments</b>
ICN is an integral part of the 911 network, and they are on top of cyber security.

**Guideline SC6: The state has a plan for physical security and access control.**

**Guidance**

This guideline addresses physical security and access control to all aspects of the 911 system, including PSAPs, data centers, and network service providers. Physical security is the perimeter and access control is the means for the physical security. Higher or multiple control measures must be set for the computer room and telephony room. Has there been a critical infrastructure assessment? Has PSAP site selection criteria been considered? Is this compliant with the NENA site survivability criteria? Ideally the premise or building housing the 911 center should only be accessed or visited by personnel from such center. Visitors must be registered and logged entering and exiting the premises. NENA's Next Generation Security (NG-SEC) document can be referenced. National Reliability and Interoperability Council (NRIC) best practices related to physical security and access control can be used where appropriate.

**Guideline Cross-reference(s)**

GV1

**Minimum Criteria**

A plan exists to describe the minimum physical security and access control features to be in place for each facility under the State's control.

**Advanced Criteria**

The plan describes the minimum physical security and access control features to be in place for primary and secondary PSAPs, system service providers, and originating service providers across the state. This plan is used and maintained.

**Superior Criteria**

The plan for primary and secondary PSAPs, system service providers, and originating service providers is coordinated with agencies responsible for critical infrastructure protection within the state. This plan is used and maintained.

**Rationale**

Physical and access control measures for the 911 system must be in place to guarantee the safety and security of the personnel and the systems.

**Current Environment**

While the State is in charge of 911 and provides baseline technical and operational requirements (within Administrative Rule), local jurisdictions still have the autonomy to select their own physical building for their PSAP. Local PSAPs vary greatly from state of the art, secured and hardened facilities to courthouses that are generally open to the public.

Comtech SST maintains physical and environmental controls which include multiple levels of physical entry controls, visitor pre-scanning, and facility maintenance including frequent testing of components such as battery backup, HVAC, fire, and generator systems. Additionally, there are procedures and solutions in place to ensure secure and responsible destruction of equipment and data that has reached end of life.

**Reference Material**

Data Center facility physical security measures available upon request.

**Rating**

At this time, the Iowa 911 Program meets the minimum criteria.

<b>Assessor Recommendations</b>
Local Joint 911 Service Boards should be required to submit their physical security plans to the 911 Program on an annual basis. A state-wide risk assessment should be conducted to identify PSAPs that do not meet physical security standards.
<b>Assessor Notes/Comments</b>
Service provider physical security should be a part of the SLAs if they are not.

**Guideline SC7: PSAP facilities and system facilities are planned, designed and constructed according to accepted site selection standards and best practices.**

**Guidance**

Properly designed or retro-fitted facilities support operational and technical requirements of the state-level 911 system. It is recognized that there is a need to avoid imposing/funding hardening of other's facilities. However, if a state takes over a network, the state should assume responsibility.

This guideline applies to new PSAP or system facility construction or the renovation of existing PSAP or system facilities. Best practices include NENA best practices for PSAP site selection criteria 56-506 and others. System facilities include offsite data centers, Network Operations Centers (NOCs) under control of the localities or states, and Security Operations Centers (SOCs) under control of the localities or states. This is not intended for vendors.

<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
A plan exists that describes standards and best practices for the planning, design and construction/renovation of PSAP and system facilities.	There are examples of recent construction or renovation of PSAP and system facilities that followed the standards and guidelines.	The State, through adequate assistance and funding, enables PSAPs and system facilities to plan, design or construct/renovate according to standards and best practices.

**Rationale**

Properly designed, planned and implemented facilities support the technical and operational requirements for the safe and secure operation of a PSAP and system facility.

**Current Environment**

While the State is in charge of 911 and provides baseline technical and operational requirements (within administrative rule), local jurisdictions still have the autonomy to select their own physical building for their PSAP. Further, 911 surcharge is specifically prohibited from being used toward buildings within Iowa Code (34A.2 5d(2)). Local jurisdictions are responsible for funding the building that houses the PSAP. Local PSAPs vary greatly from state of the art, secured and hardened facilities to courthouses that are generally open to the public.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)

**Rating**

At this time, the Iowa 911 Program meets the minimum criteria.

**Assessor Recommendations**

Develop requirements in Iowa Code that will require adherence to accepted national standards for PSAPs. While the core network appears to be compliant, no information has been provided to show the PSAPs are complying.

**Assessor Notes/Comments**

Iowa Administrative Code Section 605 Chapter 10.14(2) gives basic requirements for emergency power, and 10.14(4) identifies voluntary standards that can be referenced. Need to ensure future construction and major remodels adhere to national standards and best practices.



## HUMAN RESOURCES/TRAINING

The Human Resources and Training environment outlines the areas where personnel can have an impact on 911. This includes training for staff, establishing standards and certifications, and programs for staff stress management. The people that work in 911 are a critical asset and should be considered in any 911 system.

This category has eight guidelines.

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<b>Guideline HR1: The state has minimum/essential telecommunicator training requirements.</b>		
<b>Guidance</b>		
<p>Training should exist and be the same for all staff who perform telecommunicator duties. Training requirements include specialized training for remote/virtual workers. If the call taking and dispatch functions are separate, the state should require appropriate training for each. Industry-based standards should be met or the state could establish their own standards that meet or exceed APCO/American National Standards Institute (ANSI) Telecommunicator Training, National Fire Protection Association (NFPA) or an equivalent. Areas of focus could include, initial training, continuing and remedial training. Training should include special needs populations. The state should also provide security awareness training and security awareness techniques based on the specific organizational requirements and the information systems to which personnel have authorized access.</p>		
<b>Guideline Cross-reference(s)</b>	SR18, SC5, HR7	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state requires a training program that meets national training standards or equivalent; where applicable, the program is supported by an identified funding source(s).	The state enforces its training requirement, which is supported by an identified funding source(s).	The state provides and enforces advanced telecommunicator training requirements, which maintain consistency with national training standards. The advanced training requirements and subsequent enforcement are supported by an identified funding source(s).
<b>Rationale</b>		
A training program and associated requirements improve job performance and decrease liability.		

<b>Current Environment</b>
Iowa Code Chapter 80B.11C and Iowa Administrative Rule Section 501 Chapter 13 govern telecommunicator training, including a 40-hour initial training as well as in-service requirements. Industry-based standards are referenced in Administrative Rule and used in the development of the 40-hour basic course. Administrative Rule also prescribes a Telecommunicator Training Board, which advises the ILEA director regarding telecommunicator training.
<b>Reference Material</b>
<a href="#">Iowa Code 80B.11C</a> (Telecommunicator Training Standards) <a href="#">Iowa Administrative Code Section 501 Chapter 13</a> (ILEA Administrative Rules) Appendix A-9: 40 Hour Basic Telecommunicator Training Agenda

<b>Rating</b>
At this time, the Iowa State 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
Minimum telecommunicator training standards are mandated by Iowa Administrative Rule. The current 40-hour curriculum should be reviewed by the Telecommunicator Training Board, the 911 Office and ILEA to ensure that it meets national telecommunicator minimum training guidelines. The ILEA

coordinator is responsive to the Telecommunicator Training Board for all aspects of the 40-hour minimum training course, including adherence to the APCO Telecommunicator Training Standard.

A review of frequency of ILEA course offerings and location is recommended, to determine if additional course sessions and locations are needed.

To meet superior criteria, the state would need to set advanced training requirements and fund additional training.

**Assessor Notes/Comments**

A number of advanced telecommunicator, supervisor and center manager courses are offered by professional training organizations, including APCO and NENA. These courses are offered at national and regional conferences, or in-state as scheduled and funded by the 911 Office. Increased training will lead to a greater number of professional certifications in Iowa, with associated significant benefits.

**Guideline HR2: The state recommends PSAPs have a professional code of ethics for telecommunicators.**

**Guidance**

The telecommunicator position should be seen as a profession or career, not just a “job.” Having a code of ethics associated with this position is a first step. It is recognized, however, that having a code of ethics or a statement of professionalism does not make a PSAP better, more efficient or more effective. These are directly related to personnel and performance.

The state could establish a professional code of ethics or adopt an existing industry code of ethics. This helps assure professional conduct. This is a step in professionalizing the telecommunicator position. The code of ethics could be part of a standard operating procedure (SOP) or a training program in a PSAP. An example is APCO’s Telecommunicator Code of Ethics.

<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		

**Rationale**

Telecommunicators should be held to a standard of professional conduct.

**Current Environment**

There are currently no recommendations from the State. There are many employment factors which have made it difficult to create a *Statewide* Code of Ethics. Each PSAP is inherently different and as such, has different employer/employee relationships, which can also involve public employee unions.

State training funds subsidized past courses in which Ethics for Telecommunicators was a significant component of the course material. Also, local PSAPs have enacted their own ethics policies. A local sample is included.

**Reference Material**

Appendix A-10: Cedar Rapids JCA Code of Ethics

**Rating**

At this time, Iowa does not meet the minimum criteria.

**Assessor Recommendations**

The Iowa State 911 Program should recommend that all PSAPs have a Code of Ethics, developed by PSAPs and approved by local Service Boards. Some existing Codes of Ethics, e.g. the Cedar Rapids JCA Code of Ethics could be referenced as examples of Codes of Ethics being used in Iowa. The Iowa State 911 Program may choose to prepare a sample Code of Ethics for PSAPs to adopt or modify, should they not already have a Code of Ethics. This would satisfy the minimum criteria.

**Assessor Notes/Comments**

<b>Guideline HR3: All emergency communications staffing positions have an associated job description.</b>		
<b>Guidance</b>		
911 Authorities/PSAPs should be able to take the models provided by the State and apply them locally.		
Jobs that would benefit from defined job descriptions include, but are not limited to, 911 coordinators, PSAP managers, telecommunicators, and staff working in remote/virtual environments.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The State provides model job descriptions for each emergency communications position.	Job descriptions are detailed and unique to each position.	Job descriptions for emergency communications positions are consistent across the state.
<b>Rationale</b>		
Specific job descriptions assist staff by clearly defining their roles and responsibilities. They also provide the basis for performance evaluations. Further, defined job descriptions that are used statewide can enable PSAPs and 911 authorities to share staff resources.		

<b>Current Environment</b>
Each PSAP is inherently different and, has different needs. Some telecommunicators serve as jailors and have other periphery duties. PSAPs/telecommunicators have different employer/employee relationships throughout the state. For a local example, Cedar Rapids JCA has the following positions, which are APCO P33 compliant and available on the City of Cedar Rapids website for review: 1 – Public Safety Dispatch Manager 1 – Public Safety Operations Manager 25 – Telecommunicators (1, 2, 3's)
<b>Reference Material</b>
<a href="#">City of Cedar Rapids Position Descriptions</a>

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
Local PSAPs are responsible for developing job descriptions for specific PSAP telecommunicator/call taker staffing positions. The Iowa State 911 Program encourages sharing of locally developed job descriptions, which is accomplished at regional supervisor group meetings. The existing local job descriptions can be utilized by the state to develop a model which would meet the minimum criteria.
<b>Assessor Notes/Comments</b>
It should be noted that the State 911 Program does not actively provide model job descriptions for each emergency communications position. They do however encourage sharing of local PSAP model job descriptions for each emergency communications position as they are discussed and have been

presented and shared as part of the regional supervisor group meetings which is routinely attended by the 911 Program Manager.



<b>Guideline HR4: Comprehensive pre-employment screening for telecommunicators exists within the statewide system.</b>		
<b>Guidance</b>		
Pre-employment screening can include evaluation, testing, background checks, hearing tests, vision tests, physical tests, psychological tests, drug tests, and typing tests. NENA has standards for hearing requirements. The State could recommend a process, or a process could exist at a local level. In some instances, assessors may look at whether preemployment testing exists within the state, how widespread it is, and whether the state facilitates it.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The State encourages pre-employment screening at a local level for telecommunicators.	The State requires pre-employment screening for telecommunicators.	An identified funding source provides for the State-required pre-employment screenings.
<b>Rationale</b>		
Pre-employment evaluations and testing will help ensure quality staff.		

<b>Current Environment</b>
Iowa currently does not have standard hiring practices and policy for telecommunicators but should develop them. Currently, local agencies develop their own criteria. For an example, Cedar Rapids JCA provided the following criteria: <ol style="list-style-type: none"> <li>1. Application process</li> <li>2. Written test</li> <li>3. Typing test</li> <li>4. Interview</li> <li>5. Background investigation</li> <li>6. Polygraph</li> <li>7. Medical/drug screening</li> <li>8. Probationary hire (1 year)</li> </ol>
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
The 911 Office should develop model standard hiring practices, including those related to pre-employment screening, for use by PSAPs statewide. PSAPs can adopt or modify the model to fit their hiring environment.
<b>Assessor Notes/Comments</b>

<b>Guideline HR5: The State recommends regular staff performance evaluations are conducted locally.</b>		
<b>Guidance</b>		
Performance evaluations can be used to identify training needs and establish training goals for the upcoming evaluation cycle; identify deficiencies and set expectations for resolving them; identify opportunities for professional development; and determine the level of pay increases. Considerations include if the evaluations are done on a regular basis, whether the State provides any training to help supervisors conduct performance evaluations, whether the evaluations are consistent, and whether the State provides funding.		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Binary		
<b>Rationale</b>		
Performance evaluations are an essential means of providing feedback to an employee and identifying needs and/or deficiencies.		

<b>Current Environment</b>
Iowa does not currently recommend, manage, or require statewide regular staff performance evaluations.
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the criteria.
<b>Assessor Recommendations</b>
The State should confirm that all PSAPs are administering performance evaluations.
<b>Assessor Notes/Comments</b>
Evaluations are developed and administered by local PSAPs.

<b>Guideline HR6: The state has a telecommunicator certification program.</b>		
<b>Guidance</b>		
This guideline is intended to recommend professional certification, which carries more weight than just attending training and receiving a certificate. The certification program should define the minimum job skills required for acceptable performance. There should be a process for those who are not able to meet certification requirements. Varying levels of certification should be commensurate with experience.		
<b>Guideline Cross-reference(s)</b>	SR19	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has taken measurable steps towards a telecommunicator certification program.	The state has implemented a telecommunicator certification program.	The certification program is consistent with emerging national standards. The certification program is funded and enforced.
<b>Rationale</b>		
Certification helps to ensure professional job performance.		

<b>Current Environment</b>
<p>The only required state certification for telecommunicators is the basic 40-hour telecommunicator training which incorporates in-service training requirements.</p> <p>The State does require certification on IOWA/NCIC systems in order to have full access into those systems, which is generally required/expected as a telecommunicator in Iowa. The requirements are as follows:</p> <p>Two-hour NCIC certification (Good for two years)          Basic Iowa System Training (BIST) Online Workbook or BIST in person training          These are required within six months of employment and passage of an exam above 76%.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Code 80B.11C</a> (Telecommunicator Training Standards)  <a href="#">Iowa Administrative Code Section 501 Chapter 13</a> (ILEA Administrative Rules)</p>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
While the state has minimum training standards for new and re-hired employees, and requirements for NCIC Certification, it needs to go beyond those to meet the advanced and superior criteria. Additional courses should be offered or hosted by ILEA to help employees attain professional certification. Funding should be approved or provided to those seeking professional certification.
<b>Assessor Notes/Comments</b>

<b>Guideline HR7: The state has continuing education guidelines for operational staff.</b>		
<b>Guidance</b>		
Operational staff includes call takers, dispatchers, and managers. Continuing education should utilize current standards. The purpose is to increase professionalism and improve skills at a specific position or on a specific topic. There are many options for meeting the continuing education requirement, including, but not limited to, exercises and drills; comprehensive position-specific training, such as information technology (IT), geographic information systems (GIS), communications manager; or Teletypewriter (TTY) testing.		
<b>Guideline Cross-reference(s)</b>	SR18, HR1	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state encourages continuing education for call takers, dispatchers, and managers.	Minimum continuing education requirements have been established. Continuing education is supported by an identified funding source.	The state monitors, enforces, and audits minimum continuing education requirements to ensure they are being met. Comprehensive position-specific training exists.
<b>Rationale</b>		
Continuing education improves job performance and decreases liability.		

<b>Current Environment</b>
Eight hours of continuing education for telecommunicators is required and can be audited by ILEA (Administrative Code Section 501 Chapter 13).
<b>Reference Material</b>
<a href="#">Iowa Code 80B.11C</a> (Telecommunicator Training Standards) <a href="#">Iowa Administrative Code Section 501 Chapter 13</a> (ILEA Administrative Rules)

<b>Rating</b>
At this time, the Iowa State 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
Additional funds will be needed to expand CEU credits through more opportunities to earn CEUs. The 911 Office should propose new courses to earn CEUs, especially courses oriented towards supervisors, administrators and PSAP managers. Additional funds from the ILEA and/or grants will be required. The number and diversity of courses offered by NENA, APCO and others continues to grow. Iowa should schedule and fund these courses to enhance employee performance.
<b>Assessor Notes/Comments</b>
The state requires and provides funding for 8 hours of continuing education for telecommunicators.

<b>Guideline HR8: The state has a comprehensive stress management program accessible statewide.</b>		
<b>Guidance</b>		
<p>PSAP personnel routinely process calls involving life-threatening/traumatic incidents, and in the future will have to “view” them, depending on the technology employed at respective centers.</p> <p>A model plan has been utilized and shown to be effective over time. A model plan can include preventing post-traumatic stress disorder (PTSD), identifying and treating PTSD, critical incident stress, chronic stress management, and family stress programs.</p>		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state encourages having model stress management programs available for staff.	The state has identified stress management programs that can be made available to staff and has identified funding sources.	The state defines and requires stress management programs be available to staff; use of the programs is funded by a dedicated source.
<b>Rationale</b>		
<p>Communications center personnel deal with life-threatening incidents on a daily basis. Preventive stress management and critical incident stress management will help staff deal with these incidents. Such support could reduce turnover and absenteeism.</p>		

<b>Current Environment</b>
<p>Stress management training is part of the 40-hour basic telecommunicator course. However, there is no standard stress management program in Iowa for telecommunicators. Many telecommunicators do routinely participate in critical incident stress management programs, along with badged officers, as part of a local agency policy toward stress management. For example, Cedar Rapids JCA’s local policy has telecommunicators participate in their police department’s Peer Support Team Policy and Health and Wellness standards.</p>
<b>Reference Material</b>
<p>Appendix A-11: Cedar Rapids Peer Support Team Appendix A-12: Cedar Rapids Health and Wellness Standard</p>

<b>Rating</b>
At this time, the Iowa State 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
<p>The 911 Office should encourage PSAPs to develop stress management programs within their respective PSAPs. There are a number of stress management courses and programs available from public safety associations and vendors. PSAPs and local Service Boards should request support for stress management programs and include funding in their budgets to do so. Should additional staff be added to the 911 Office, coordination of stress management programs for PSAPs could be part of staff job responsibilities.</p>
<b>Assessor Notes/Comments</b>
<p>Stress management is included as a topic in the 40-hour basic telecommunicator course, but the amount of information is understandably limited.</p>

## EVALUATION

The Evaluation environment as a whole relates to how states evaluate/assess their 911 systems. This is an ongoing process to use statewide data for evaluation purposes. It also encourages a practice that is not a standard operating procedure across the board. Some states will have quality assurance and quality improvement (QA/QI), while others will not.

This category has five guidelines.

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<b>Guideline EV1: The state fosters the ongoing evaluation of statewide system(s) quality performance.</b>		
<b>Guidance</b>		
<p>This guideline refers to the people. The State does not need to have “state-specific” standards as a 911 Authority/PSAP may use local standards. A typical quality program would include call reviews and performance.</p> <p>Performance standards could be established at a state or local level or use already established standards such as NENA 56006 and others. Another factor for consideration is the level of participation within the state for quality evaluation.</p>		
<b>Guideline Cross-reference(s)</b>	SR16	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state evaluates quality based on a set of industry-accepted quality standards.	Measurable steps have been taken to implement a quality performance program statewide; the state has a plan for completion.	The evaluation process supports quality improvement and quality assurance; the program has been implemented statewide.
<b>Rationale</b>		
A regular review of quality will help to ensure quality of services statewide.		

<b>Current Environment</b>
<p>Currently, there are no statewide standards. These are done by local agencies. For a local example of existing performance reviews, Cedar Rapids JCA conducts employee reviews on an annual basis.</p> <p>Additionally, Cedar Rapids JCA personnel are emergency medical, police, and fire dispatch certified and participate in a quality assurance (QA) program for the review and compliance of employees.</p> <p>Should the State wish to undertake this type of performance review, the program would have to be greatly expanded to include a compliance section.</p>
<b>Reference Material</b>
Appendix A-13: Cedar Rapids JCA Employee review

<b>Rating</b>
At this time, the Iowa 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
The 911 Program should develop or adopt nationally accepted standards for QA and create guidelines for the Joint 911 Service Boards to implement QA data into the 911 Program by a certain date (2-3 years down the road).
<b>Assessor Notes/Comments</b>
While there may be standards and QA programs in place locally, there is no requirement to report QA data to the 911 Program and no established standards on reporting QA data.

<b>Guideline EV2: The state has a comprehensive and standardized quality assurance (QA) process for call processing.</b>		
<b>Guidance</b>		
The QA process needs to take into account day to day operations for call processing and dispatching.		
<b>Guideline Cross-reference(s)</b>	SR17	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state recommends that PSAPs have a QA process.	The state mandates a standardized QA process with specific requirements and appropriate funding.	The state audits the standardized QA process.
<b>Rationale</b>		
A standardized QA process improves call handling within a PSAP by identifying weakness and providing opportunities for improvement.		

<b>Current Environment</b>
<p>Currently, there are no statewide standards. These are done by local agencies. For a local example of existing call process and dispatching review, Cedar Rapids JCA follows the quality assurance protocols as set forth by the International Academies of Emergency Dispatch (IAED).</p> <p>As previously mentioned, the state has incentivized the adoption of ProQA through its shared services offering. Of the 26 PSAPs which currently utilize EMD, the majority do use ProQA. This offering does help provide for lower cost QA at the local level.</p>
<b>Reference Material</b>
<a href="#">IAED Protocols</a>

<b>Rating</b>
At this time, the Iowa 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
It is recommended the 911 Program develop or adopt standardized minimum criteria for QA on handling all calls (fire/law/medical).
<b>Assessor Notes/Comments</b>
ProQA is a medical protocol system, and while it does collect data for QA, it does require a separate software program (AQUA) and a team of trained QA personnel to administer. This program also only does medical calls unless they purchase the law enforcement and fire protocols.

<b>Guideline EV3: The state collects information and data for evaluation and planning purposes.</b>		
<b>Guidance</b>		
The National 911 Profile Database can be referenced for data collection specifics. Examples of data to be collected include call receipt times, call processing times, and down time. Some 911 Authorities/PSAPs may not have an idea of cost or lease out services, but the providers or another entity will have records.		
<b>Guideline Cross-reference(s)</b>	SR23	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Data is collected from all PSAPs in the state, to include all system data at the state level. The State defines the minimum set of criteria based on identified metrics.		The State actively participates in the national data collection process. Data is shared throughout the state with 911 authorities that have provided data.
<b>Rationale</b>		
Data can affect performance metrics, quality and cost effectiveness. Use of this data allows the State to analyze the performance of the state 911 system.		

<b>Current Environment</b>
HSEMD has a multi-source data collection process. Our NGCS provider provides the State with monthly call information. This includes transfers and instances of last route options, as well as total call counts. To ensure compliance, HSEMD codified the data-collection process. Every PSAP who wants to receive wireless surcharge is required to submit a form containing PSAP expenditure data, which includes administrative data. Not included in the PSAP expenditure data collection process is call receipt times, call-processing times, and down time. The data collected is aggregated and used for the National 911 Program Profile Database and the FCC Fee Report. The data collection process was the basis for Iowa PSAP Data Analysis Report as required by legislation and used to determine how the adequacy of the \$1.00 surcharge.
<b>Reference Material</b>
<a href="#">Data Collection Form</a> <a href="#">Data Collection Instructions</a> <a href="#">Iowa PSAP Data Analysis</a> (Cost Study of the Adequacy of the \$1.00 Surcharge) <a href="#">2017 National 911 Progress Report</a> <a href="#">10<sup>th</sup> Annual 911 Fee Report to Congress</a> NGCS Reports available upon request

<b>Rating</b>
At this time, the Iowa 911 Program meets the superior criteria.
<b>Assessor Recommendations</b>
Keep up with the good work!
<b>Assessor Notes/Comments</b>

<b>Guideline EV4: The state utilizes statewide collected data for evaluation purposes.</b>		
<b>Guidance</b>		
This guideline uses technical system data to evaluate performance quality, cost-effectiveness, and basic customer service information. Evaluation should include stakeholders in the 911 community. Performance should meet industry standards, such as National Fire Protection Association (NFPA) 1221.		
<b>Guideline Cross-reference(s)</b>	SR23	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has a process to evaluate collected data.	The state's evaluation of collected data is consistent with nationally-accepted benchmarks.	The evaluation process supports quality improvement and quality assurance statewide.
<b>Rationale</b>		
Utilizing collected data for evaluation ensures the state is able to apply a consistent quality of service statewide.		

<b>Current Environment</b>
The State has the aforementioned collection process, however, we do not use it at the State level for the purposes of technical evaluation.
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
The 911 Program should alter the collection process to include performance data metrics and perform basic analysis on the performance data and report back to the Joint 911 Service Boards.
<b>Assessor Notes/Comments</b>
Information gathered for the National 911 Profile Database does not contain performance data.

<b>Guideline EV5: The state has guidelines, based on specific metrics, for measuring and managing telecommunicator staffing levels.</b>		
<b>Guidance</b>		
<p>This guideline is intended to identify staffing requirements based on call volumes; the focus is on the telecommunicators – not field units, such as law enforcement. Guidelines may exist for call volume, busy times, or number of units handled per dispatcher. The emphasis is on staffing the PSAP/communications center based on these metrics. For most states, this will be a local decision and is often based on budget, but having the state provide guidance/assistance is a step towards assuring appropriate staffing to meet citizens’ needs. Nothing in the guideline suggests that 911 Authorities/PSAPs have to follow the guidelines or that states enforce their guidelines. Some states do not have the statutory authority for this.</p>		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
Guidelines are based on the use of historical data.	Guidelines are based on the use of industry standards and metrics tools.	Guidelines include the use of predictive levels of need/statistical analysis.
<b>Rationale</b>		
Calls that do not get answered, incidents that get delayed in dispatch, and/or units that do not get answered on the radio need to be minimized.		

<b>Current Environment</b>
<p>Currently, the State has no policy/regulation regarding local staffing. This is a local decision. As mentioned above, staffing is often driven by budget and available personnel. For example, Cedar Rapids JCA does have minimum staffing levels for each shift. Once reached, no other time off is allowed unless it is an unscheduled event and approved by a manager. In this event, mandatory overtime will be filled to bring the department back to minimal staffing levels.</p> <p>Additionally, the JCA does have an emergency staffing policy in the event of an emergency or catastrophic event.</p>
<b>Reference Material</b>
Appendix A-14: Cedar Rapids JCA Emergency Staffing Policy

<b>Rating</b>
At this time, the Iowa 911 Program does not meet the minimum criteria.
<b>Assessor Recommendations</b>
The 911 Office should develop policy, procedure and tools to perform staffing calculations.
<b>Assessor Notes/Comments</b>
There are software programs in the market that will perform staffing calculations based on call volumes. This would require the 911 Program to collect performance data from the PSAPs on a regular basis.

## PUBLIC EDUCATION

The Public Education environment outlines areas of education for the general public, appointed/elected officials, and stakeholders. A better-informed user community enhances the 911 system. Target audiences should be identified, and specific messages should be tailored for each of them. For example, informational needs differ depending on whether the audience is the general public, people with special needs, emergency responders, or government officials and policy makers. Messages include the appropriate use of 911, when to call, what to call, the limitations of system capabilities, and national issues.

This category has five guidelines.

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**Guideline PE1: The state has an effective public education program that includes information about the capabilities and appropriate use of 911.**

**Guidance**

The program should be comprehensive; it should identify the target audiences and the message for each of the target audiences, and disseminate the message using different media. Tracking the effectiveness of the program would include a market research strategy. National education programs can include 911 public educator forums. Coordination with organizations that have related public education programs (such as health departments, Federal Emergency Management Agency [FEMA] and other national organizations) should be considered. States may also educate the public on the limitation of certain communication devices or technologies in terms of their ability to contact 911. A description of the issues associated with technology-specific challenges and limitations should be developed (examples include multi-line telephone system [MLTS], Voice over Internet Protocol [VoIP], and wireless location).

**Guideline Cross-reference(s)** SR22

Minimum Criteria	Advanced Criteria	Superior Criteria
The state has a documented public education program and plan that includes dissemination of information to the public using electronic and print media.	There is a coordinated multi-media program between the state, local 911 and other public education organizations. The program and information is reviewed, offered and updated annually.	A mechanism exists to track the effectiveness of the program. The state program leverages national programs. The program and information is reviewed, offered and updated semi-annually.

**Rationale**

A well-educated community will be better prepared when the need to contact 911 arises, and to understand the appropriate use and limitations of the 911 system.

**Current Environment**

Per Iowa Code Chapter 34A.7A 2(1)(b) there is a statewide fund to assist in funding public education throughout the state. In the past, the fund has been used toward statewide public education related to Text-to-911. During National Telecommunicator Week and 911 Education Month, HSEMD sends out press releases and has an increased social media presence to help educate the public regarding 911. There is no standing, comprehensive program with coordination and a strategic plan.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- Appendix A-15: 911 Council Travel, Public Education, and Training Policy
- Radio PSA's and Social Media Campaign materials available upon request
- [Text-to-911 Information Flier #1](#)
- [Text-to-911 Information Flier #2](#)

**Rating**

At this time, the Iowa State 911 Program does not meet the minimum criteria.

**Assessor Recommendations**

The state 911 Office should prepare a Public Education Plan that specifies activities, costs and responsibilities related to public education and coordinate the implementation of the Plan.

**Assessor Notes/Comments**

The current fund of \$100,000 supports public education and training related to selected programs identified above. Continuation and expansion of these activities need to occur, consistent with a Public Education Plan and may require additional resources.

<b>Guideline PE2: The state has a 911 education program for appointed/elected officials and policy makers.</b>		
<b>Guidance</b>		
Officials need to understand the capabilities and limitations of 911 in order to appropriately support it and set appropriate policy. Every state has a different model for public education based upon unique state issues and needs. An education program for appointed/elected officials may include existing forums such as 911 Goes to Washington, statewide conferences, regional association conferences. A description of the issues associated with technology-specific challenges and limitations should be developed (examples include multi-line telephone system [MLTS], Voice over Internet Protocol [VoIP], and wireless location).		
<b>Guideline Cross-reference(s)</b>	SR22	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has a plan and program to reach out to officials to educate them on 911 issues, including governance, technical and operational matters.	Information is updated and offered annually. The state offers a program to local governments.	Information is updated and offered at least semi-annually. A mechanism is in place to track the effectiveness of the program. The state program leverages national programs and outreach.
<b>Rationale</b>		
Individuals in leadership roles and in regulatory and legislative positions need to understand the current and changing environment of public safety communications as it relates to 911. Education can include the capabilities/limitations and appropriate use of 911.		

<b>Current Environment</b>
<p>Iowa APCO and Iowa NENA traditionally have a day at the Iowa State Capitol to visit with and educate legislators about topical issues. This was modeled after 911 Goes to Washington. The organizations set up an information table at the Capitol to discuss important bills and 911 related issues with legislators and the public.</p> <p>Iowa APCO and Iowa NENA share a lobbyist who advocates for 911/PSAP causes. However, there is no organized 911 education program for appointed/elected officials. We also encourage local 911 leaders to educate the appointed members of their local 911 Service Board on relevant issues.</p>
<b>Reference Material</b>
Appendix A-16: Iowa APCO/NENA Day at the Hill

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
The 911 Office should add staff to continue public education efforts for state legislators and to help develop and coordinate public education programs for local governments. There are model public education programs available from NENA and other associations to help facilitate that planning and implementation.

**Assessor Notes/Comments**

Iowa should be commended for its 911 education day focused on state legislators and has been supportive of the NENA i3 standard in written communication to DC lawmakers.

<b>Guideline PE3: The state has identified special needs populations and developed specific educational programs for each.</b>		
<b>Guidance</b>		
The minimum criterion focuses on the ADA; any program beyond that is considered advanced or superior. Special needs communities include but are not limited to: non-English speakers, deaf and hard of hearing, young children, seniors, speech impaired, and vision impaired populations as well as those hesitant to contact 911 for cultural or demographic reasons. Evaluation can be done in the form of questionnaires out to the community. Another consideration is the level of participation within the state that utilizes quality evaluation.		
<b>Guideline Cross-reference(s)</b>	SR22	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has a plan and program to educate stakeholders and advocacy groups in federal Americans with Disabilities (ADA) requirements.	In addition to providing education on ADA requirements, the state has an educational program for special needs communities.	The state evaluates the effectiveness of the educational program and has a documented process to make appropriate updates at least annually.
<b>Rationale</b>		
Special needs communities have unique challenges when contacting 911. PSAPs have unique challenges in being able to respond to callers with special needs. The unique challenges presented in communicating with the special needs community require the highest level of attention.		

<b>Current Environment</b>
Emergency planning for special needs and non-English speaking populations are addressed in the Iowa Emergency Response Plan. However, there is not a statewide 911-specific outreach to this community. Iowa is a home rule state and HSEMD emphasizes the importance of being included to all local communities. Local emergency response plans may incorporate 911-specific outreach to special population communities.
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
The state 911 Office should coordinate with the HSEMD to maintain and expand the educational outreach program for special needs communities, and to evaluate the effectiveness of program activities.
<b>Assessor Notes/Comments</b>
Because this falls within the responsibilities of the HSEMD and the Iowa Emergency Response Plan, the 911 Office should provide support where requested.

<b>Guideline PE4: The state has specific 911 educational programs for children at all grade levels.</b>		
<b>Guidance</b>		
The state can participate in National 911 Education Month and utilize materials provided at a national level to promote 911 education. Other examples of state-level programs could include public service announcements. Messages should be age-appropriate.		
<b>Guideline Cross-reference(s)</b>	SR22	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state prepares and makes available to 911 authorities printed or electronic training materials to educate on the uses and misuses of 911.	The state has a documented working relationship with the state education department to develop minimum curriculum for comprehensive 911 education.	The state monitors and evaluates the working relationship with the state education department for 911 educational programs, and updates the program as necessary.
<b>Rationale</b>		
The educational needs of young children, teens, and young adults differ. The program should include appropriate messages for all grade levels so they understand how to utilize 911 properly.		

<b>Current Environment</b>
The State currently does not have a specific 911 educational program for children; however, past PSAs have focused on topics salient to children. Educating children they can text to 911 if they cannot call as is the case during a domestic violence dispute.
<b>Reference Material</b>
<a href="#">Text-to-911 Information Flier #2</a>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
The 911 Office should continue to provide public education to all age groups, including children, through targeted PSAs and printed materials, using the funds available for public education. As in Guideline PE2, the state should add staff resources to the 911 Office to help coordinate public education efforts to legislators and all demographic groups, including children.
<b>Assessor Notes/Comments</b>



<b>Guideline PE5: The state has an educational program for emergency responders.</b>		
<b>Guidance</b>		
Emergency responders include, but are not limited to, first responders, emergency management agencies (EMAs), and homeland security. Capabilities of the 911 system include call handling, dispatch, data, and incident management.		
<b>Guideline Cross-reference(s)</b>	SR22	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state prepares and makes available to 911 emergency responders printed or electronic training materials to educate them on the capabilities of 911 systems.	The state has a documented working relationship with emergency responders to develop minimum curriculum to educate on 911 capabilities.	The state monitors and evaluates the working relationship with emergency responders, and updates the program as necessary.
<b>Rationale</b>		
Emergency responders should be educated about the capabilities and appropriate use of 911, to guide their own use of 911 and to allow them to assist in educating the public.		

<b>Current Environment</b>
The State does not have an educational program for emergency responders; however, the State educates first responders through the development of PSAs using the 911 Communication Council funds and having first responders serve on the 911 Communications Council. Emergency responders serving on the 911 Communications Council is invaluable because they learn about the 911 system, provide feedback and recommendations, and communicate the information to their respective organizations. Additionally, although the statewide training funds are primarily focused on 911 telecommunicators, a number of funded courses have included traditional first responders in order to facilitate discussion and provide a realistic cross section of emergency response.
<b>Reference Material</b>

<b>Rating</b>
At this time, the Iowa State 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
Beyond having joint membership on respective Councils, state emergency responders through ILEA are already involved with basic training of telecommunicators. The state 911 Office should review the 40-hour course curriculum to ensure current practices are reflected in that curriculum.
The 911 Office should expand efforts to distribute public education materials for all sources (e.g. associations, National 911 Program), especially for 911 related information on new technological developments such as that provided for text-to-911.
The 911 Office should work with ILEA and responder training organizations to include a basic introduction to 911 in first responder training curriculums.
<b>Assessor Notes/Comments</b>

## NEXT GENERATION 911 (NG911) MATURITY MODEL

The Next Generation 911 (NG911) Maturity Model section outlines the items that a state should have implemented to enhance 911 system infrastructure. Examining these against a state's current infrastructure will enhance the efficiency and effectiveness of the 911 system.

This category's guidelines are adapted from the Next Generation 911 (NG911) Maturity Model, which was developed by the Federal Communications Commission's (FCC) Task Force on Optimal Public Safety Answering Point Architecture (TFOPA). TFOPA is a federal advisory committee chartered under the Federal Advisory Committee Act (FACA) to provide recommendations to the FCC regarding actions states, public safety answering points (PSAPs) and 911 Authorities might take to enhance security, operations, and funding as NG911 migration occurs.

The maturity model, otherwise known as the NG911 Readiness Scorecard, identifies essential elements which are necessary to be present within each NG911 Implementation Maturity State as defined later in the document. It should be noted that the NG911 Readiness Scorecard is limited to essential elements and is not meant to be all inclusive.

Further information on TFOPA, including its charter, the final report, and the development of the NG911 Maturity Model can be found online at: [www.fcc.gov/about-fcc/advisory-committees/general/task-force-optimal-public-safety-answering-point](http://www.fcc.gov/about-fcc/advisory-committees/general/task-force-optimal-public-safety-answering-point).

This category has nine guidelines.

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**Guideline NG1: The state has a permanent governing body that provides statewide coordination of NG911, strategic planning, and funding.**

**Guidance**

Governance addresses the structured oversight of the 911 Authorities and identifies whether there is a governing body with documented and tracked planning and implementation efforts. Coordination indicates whether all participating entities within the jurisdictional scope have agreed upon cooperation and going forward strategies and plans. Funding and Resources indicate that the funding and resources necessary to execute the NG911 plan have been identified or a strategy is in place to secure those funds and resources as necessary points during the plan execution. Governance structure is ongoing, providing the coordination and administration of the entire NG911 service system after implementation.

**Guideline Cross-reference(s)** GV1, GV2, GV3, GV4, SR4

Minimum Criteria	Advanced Criteria	Superior Criteria
The state has a governing body for NG911, but its scope of authority does not completely provide for strategic planning, statewide coordination, resources, and funding.	The state has a governing body for NG911 that provides resources and funding.	The state has a governing body for NG911 that provides resources and funding, as well as strategic planning and statewide coordination.

**Rationale**

A mature governance structure helps improve organization and coordination across the state, increasing inefficiency and desirable outcomes.

**Current Environment**

Iowa does not have an all-inclusive NG911 governing body, but does pull resources from a handful of various methods for NG911 planning. The 911 program manager stays in tune with NASNA and NENA NG911 efforts. The 911 Council provides a sounding board and input to direction provided by the 911 program manager. Iowa Code Chapter 34A provides a funding mechanism, and the Iowa Legislature has directed the program to produce a number of different studies driving toward doing 911 better within the state. Those studies were conducted by consultants, which again, helped lead the program down the right path. We are using this peer assessment as a strategic plan as well.

**Reference Material**

- [Iowa Code 34A](#) (Iowa Statute)
- [Iowa Administrative Code Section 605, Chapter 10](#) (Administrative Rule)
- [NG911 Implementation and Operations Plan](#)
- [2014 Efficiencies Study](#)
- [2016 Consolidation Study](#)
- [2018 Consolidation Study](#)

**Rating**

At this time, the State of Iowa 911 Program meets the minimum criteria.

**Assessor Recommendations**

The State 911 Program should grant NG911 planning authority to the 911 Council or a subcommittee of the 911 Council.

**Assessor Notes/Comments**

The State of Iowa is commended for implementing a governance structure that appears to provide the State 911 Program with the authority and autonomy necessary to do the planning and coordination necessary to move the 911 system toward a fully i3 standard compliant NG911 system. There is a 911 system funding stream in place. Meeting this criterion does not assume that the State 911 Program has all of the staffing or funding resources necessary to do the planning and coordination, only that the governance structure meets the criteria.

**Guideline NG2: The State should provide 911 call routing and location using an ALI database, geospatial routing, and Location Information Servers (LIS).**

**Guidance**

Routing and location define the systematic approach that is used to determine 911 call routing and the supporting data functions. Legacy 911 calls are processed by relating the calling telephone number to an Emergency Services Number (ESN) that then defines the primary and secondary PSAPs. NG911 utilizes geospatial routing by using the caller’s location information and a set of PSAP jurisdictional polygons to determine the primary PSAP. A “pure” NG911 implementation assumes OSPs have changed the means by which they deliver 911 calls, but it is not realistic or expected that OSPs will change together or even all complete their changes any time soon. Therefore, the model is complicated by mechanisms to “transition” from legacy methods to NG911 methods. The legacy ALI DBMS provides location information based on the caller’s telephone number and it or its equivalent is required until all OSPs deliver location information with their 911 call setup messages or provide LIS capabilities. The National Forest Guide is a capability necessary when Nationwide OSPs require a capability to determine to which ESInet to direct a given 911 call. “Hierarchical Forest Guides Populated” indicates a provisioning capability for various Forest Guides to share the routing polygon (ESInet or PSAP Jurisdictional boundary) information.

<b>Guideline Cross-reference(s)</b>	OP1, ST2, ST4	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state provides 911 call routing and location using legacy selective routers and legacy ALI database.	The state provides 911 call routing and location using IP Selective (ESN) Routing, an ALI database, and geospatial routing.	The state provides 911 call routing and location using an ALI database, geospatial routing, and LIS.

**Rationale**

Routing and locational capabilities help efficiency and effectiveness of the system. A lack of these capabilities can increase inefficiency and decrease desirable outcomes.

**Current Environment**

The State is in transition between the legacy ALI database and IP selective routing. We have established GIS data standards and a statewide GIS program in order to help facilitate this transition. Our GIS contract is with GeoComm to provide a statewide portal for local jurisdictions to upload their information into DataHub. This portal provides quality control/quality assurance of data, and will be used to feed our geospatial routing capabilities. We are also transitioning to a statewide ALI database. In the past, PSAPs have been able to select their own ALI provider.

**Reference Material**

- [GIS Grant Standards](#)
- [GIS Portal Webinar](#)

**Rating**

At this time, the State of Iowa 911 Program meets the minimum criteria.

**Assessor Recommendations**

It is recommended that the State Program focus on three objectives as the next steps in the transition to an i3-complaint NG911 system:

1. Complete the GIS data creation, and reconciliation with the existing 911 MSAG, to meet the accuracy requirements necessary for NG911 call routing and processing, including the establishment of the on-going data maintenance and error correction processes, by an established date certain.
2. Require 911 service providers to develop implementation plans to support the routing of wireless 911 calls based on the caller location utilizing the state's GIS data by an established date certain (e.g. 18 months or 24 months out). The wireless carriers should be notified of the state's expectations and planned implementation date, with consideration given to copying the FCC on the carrier notification.
3. Integrate the existing local standalone ALI into the NG911 system.

**Assessor Notes/Comments**

Based on the information provided, approximately 80% of all 911 calls in the state are wireless. By focusing on enabling the transition to an i3-based NG911 system for wireless calls, the state will be making the most efficient use of the available funding and staff resources to impact the highest percentage of 911 calls.



<b>Guideline NG3: GIS data practices and capabilities should be established.</b>		
<b>Guidance</b>		
<p>GIS Data is a fundamental element of NG911 but is not utilized for legacy 911 call routing. These selection items define steps to plan, process, and utilize GIS data for NG911. Selection items are included that represent the NENA i3 functional elements that receive and utilize GIS data to complete call routing functions. The exchange of jurisdictional boundaries indicates an automated mechanism where an ESInet ECRF (or Forest Guide function) automatically keeps a neighboring ESInet ECRF (or Forest Guide function) updated with its jurisdictional polygons to allow for 911 call hand-offs and call transfers. GIS data is also utilized with NG911 for the Location Validation Function (LVF) and to support mapping services for the PSAPs.</p>		
<b>Guideline Cross-reference(s)</b>	Not Applicable	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has planned or is in-progress of implementing a NG911 Dataset Creation project.	The state has created a NG911 Dataset, and the data has been formatted for Emergency Call Routing Function (ECRF) and Policy Routing Function (PRF).	The state has met the advanced criteria as well as formatted the data for Location Verification Function (LVF).
<b>Rationale</b>		
<p>GIS Data capabilities help efficiency and versatility of the system. A lack of these capabilities can increase delays and foster confusion.</p>		

<b>Current Environment</b>
<p>The ECRV and LVF are parts of our contract with the NGCS provider. Implementation will occur in the near future (approximately one to two years). ECRV and LVF and geospatial routing requires usable GIS data. In order to increase the amount of usable data, incentive-based grants were created for local jurisdictions. The grant program helps build local GIS data, which feeds into a statewide database and will support ECRF/LVF and geospatial routing.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Code 34A.7A 2.d.(2)</a>  <a href="#">Statewide NG911 GIS Data Standards</a>  <a href="#">GIS Grant Standards</a>  Appendix A-17: QA/QC results</p>

<b>Rating</b>
<p>At this time, the State of Iowa 911 Program meets the minimum criteria.</p>
<b>Assessor Recommendations</b>
<p>It is recommended that the State Program, in conjunction with the 911 Communications Council, establish an NG911 GIS data plan the includes:</p> <ol style="list-style-type: none"> <li>1. Establishing who is responsible for creating and maintaining GIS data within each county – the authoritative source for GIS data in that jurisdiction.</li> <li>2. Establish a deadline or date certain for each authoritative source to provide the GIS data for their jurisdiction to the State 911 Program that meets the accuracy requirements for NG911 call routing and processing, including updates on a predetermined schedule (e.g. weekly or monthly updates).</li> </ol>

3. Establish the error correction process to support the reporting of a data error by a PSAP through to the documentation the error has been corrected by the authoritative source, within a predetermined time parameter (e.g. errors must be corrected within three business days of notification).
4. Establish the process by which the GIS data are incorporated into the 911 service provider's NG911 core services, including updates on a predetermined schedule.
5. Create a geo-based MSAG as part of the wireline migration into the NG911 Core Services.

**Assessor Notes/Comments**

The State Program is commended for being proactive on incenting counties to provide accurate GIS data for the NG911 program implementation. The recommendation is to now formalize the expectations and incorporate them into a statewide requirement by a specified date. The five recommendations listed are not intended to be all-inclusive but meant to stress that the ongoing maintenance and error correction processes need to be included in the management of the GIS data used in 911 call routing. Error correction should be done by the creator of the data to ensure that past errors are not re-introduced into the 911 system when a data creator provides their next update.

**Guideline NG4: NG911 Core Services Elements are incorporated.**

**Guidance**

The state should incorporate the NG911 Core Services Elements –a Legacy Selective Router Gateway (LSRG), Location Verification Function (LVF), Emergency Services Routing Proxy (ESRP), and Emergency Call Routing Function (ECRF) – into its architecture.

The central Core Services functions provide the logical processing interactions between the delivery of calls and data from the OSE, additional data, and delivery to PSAPs, and provide the features to support management of how the NG911 service accomplishes this under normal and abnormal conditions. NG Core Service Element capabilities are an itemized list of the functional capabilities defined by the NENA i3 architecture. As stated in the NENA i3 specification, it is not appropriate to identify a box or component that performs the functional services, but instead just to identify that the infrastructure somehow does accomplish the functional capabilities defined for each item. Except for the “Border Control Function (BCF)”, this area of interest is not applicable to IP Selective Router (IPSR) scenarios. These selection items become relevant when the NG911 transitional architecture is implemented through the time period that the NG911 end-state is achieved, e.g., when all OSPs deliver 911 services via IP protocols and include delivery of location information at call setup time. NG Core Service operations, organizational planning and staffing are discussed in the relevant Important Considerations section below.

<b>Guideline Cross-reference(s)</b>	ST1, ST2, ST6	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has a LSRG, LVF, ESRP, or ECRF.	The state has a LSRG, ESRP, and ECRF.	The state has a LVF, ESRP, and ECRF.

**Rationale**

NG911 Core Service Elements help effectiveness of the system. A lack of these capabilities can increase delays and undesirable outcomes.

**Current Environment**

The state incorporates Transitional Gateways and Core Service Elements. This includes LSRG, Legacy Network Gateway (LNG), ESRP, Policy Rout Function (PRF) and ECRF.

**Reference Material**

NGCS provider assisted in the answer to this self-evaluation guideline

**Rating**

At this time, the State of Iowa 911 Program meets the advanced criteria.

**Assessor Recommendations**

(see recommendations for Guideline NG2)

**Assessor Notes/Comments**

The current 911 service provider is reporting that they are utilizing some of the i3 NG911 core services. In the recommendations and comments for Guideline NG2, the State Program was encouraged to ask the 911 service provider to provide an implementation plan to meet the State’s intent to support i3-based wireless call processing and geospatial routing based on the caller’s location by a date certain.

<b>Guideline NG5: The state maintains network (OSE and ESInet) capabilities.</b>		
<b>Guidance</b>		
<p>The network area capabilities represent the various technology mechanisms for connecting external entities to either a legacy selective router or functions within an ESInet for the purposes of processing 911 calls. Legacy call circuit mechanisms are primarily TDM based technology (e.g., SS7, CAMA) and NG911 moves to IP based technology with application specific protocols such as SIP and RTP. In some cases, IP technology can be deployed as a replacement for a legacy TDM technology before completely embracing the NENA i3 defined functional interface model, such as, an OSP using IP technology call delivery to an ESInet IP Selective Router without including a location object representing the caller's location. E2 Circuits are the legacy Wireless capabilities to retrieve location information and will be required until all OSPs that allow location update transactions deliver caller's location information at call setup time. ESInet to ESInet connections will occur as neighboring jurisdictions implement ESInets and require the ability to exchange 911 calls.</p>		
<b>Guideline Cross-reference(s)</b>	ST2, ST6, SC7	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has an Ingress Network (non-IP), an Egress Network (non-IP), traditional ALI data circuits, and E2 circuits.	The state has an OSP/OSE, an Ingress Network (non-IP), an Ingress – IP (ESInet), an Egress – IP (ESInet), interconnections beyond the ESInet boundary, and E2 circuits.	The state has an OSP/OSE, Ingress – IP (ESInet), Egress – IP (ESInet), and interconnections beyond the ESInet boundary.
<b>Rationale</b>		
Network (OSE and ESInet) capabilities help efficiency of the system. A lack of these capabilities can increase delays and ineffectiveness.		

<b>Current Environment</b>
The State of Iowa currently has an ingress non-IP network with an Egress IP (ESInet) network to all PSAPs. Additionally, ALI circuits from the PSAP CHS to Comtech LP LIF gateway and E2 Circuits from Comtech LNG LIF to Comtech MPS/GMLC aka ALI Link. Wireline traffic needs access to the ALI for call routing and ALI (additional data) delivery.
<b>Reference Material</b>
Appendix A-18: Iowa 911 Design Document NGCS provider assisted in the answer to this self-evaluation guideline

<b>Rating</b>
At this time, the State of Iowa 911 Program meets the advanced criteria.
<b>Assessor Recommendations</b>
It is recommended that the State 911 Program, in conjunction with the Iowa Communications Network (ICN), develop an implementation plan to provide a physically diverse, redundant ESInet connection to all of the Iowa PSAPs.
<b>Assessor Notes/Comments</b>
All but 13 of the PSAPs in Iowa are connected to the 911 system by a single ESInet link. Adding a second physically diverse path will provide a much higher level of system reliability at the individual

PSAP level. Cost was identified as a factor in providing a second path. The State Program and ICN are encouraged to look at lower cost, non-traditional means of providing a secondary IP connection intended to only be used in the event a failure occurs on the primary path. Some options could include a VPN connection using Internet service from the local cable provider or a 4G wireless carrier. FirstNet may also provide a VPN alternative.

The State Program currently has an integration plan for moving the wireline 911 calls into the current NG911 core services supporting wireless calls and has identified the ESInet resources that are necessary.

**Guideline NG6: The state uses a PSAP call handling system and applications.**

**Guidance**

Legacy Call Handling Systems are defined by their use of CAMA trunk interfaces and legacy ALI interfaces. The first step toward NG911 is upgrading call handling equipment to be an IP technology based system and optionally may include replacing the legacy CAMA TDM circuits with the ATIS defined IP technology based transitional RFAI protocol. The NENA i3 defined functional entities interact with PSAP CHS and other applications via the IP based interface protocols referenced within the NENA i3 specification. An i3 PSAP would implement all the NENA i3 defined protocols (including SIP, RTP, HTTPs, LoST and HELD) and the i3 compliant software to allow interaction with NG Core Service functions. An i3 PSAP Multimedia Call Handling System 16, which includes a terminating ESRP, is required to be present in an NG911 end state system.

Mapping is the capability to display caller's location information on a map at the PSAP's 911 Call Handling positions. Interim Text-to-911 (SMS) is the capability of an OSP provided Text Control Center (TCC) to message to a PSAP, but ultimately, the TCC can interface to the NENA i3 functional elements that then deliver Text-to-911 to the PSAP CPE while incorporating NG911 policy rules. Multimedia refers to both Real Time Text (RTT) capabilities and services such as a PSAPs ability to receive video from external sources as a data application. Logging & Recording at the PSAP is per local PSAP functions.

<b>Guideline Cross-reference(s)</b>	ST2	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state uses a legacy call handling system.	The state uses an IP based call handling system as well as mapping and text-to-911 (SMS).	The state uses an i3 PSAP (terminating ESRP) multimedia call handling system and mapping, text-to-911 (SMS), multimedia, as well as logging and recording capabilities.

**Rationale**

A PSAP call handling system and applications help comprehensiveness of the system. A lack of these capabilities can increase undesirable outcomes.

**Current Environment**

The current environment is a hybrid from Comtech LPG CAMA interface through IP enabled ESInet to PSAP CHS (SIP/IP gateway/CAMA or pure IP). Additionally, provides MSRP/text to 911 to 911 services through the IP enabled ESInet to PSAPs

**Reference Material**

NGCS provider assisted in the answer to this self-evaluation guideline

**Rating**

At this time, the State of Iowa 911 Program meets the advanced criteria.

**Assessor Recommendations**

It is recommended that the State Program continue to investigate and incent PSAPs to utilize shared/hosted or cloud-based 911 answering applications with the goal of transitioning all of the PSAPs to the same application.



**Assessor Notes/Comments**

The State Program is to be commended for recognizing the advantages of utilizing a standard 911 answering application at all of the PSAPs and investing in the provision of a shared/hosted system for PSAPs to utilize at little or no cost to the PSAP. Because what used to be known as “PSAP CPE” has now for all intents and purposes evolved into a software program that runs on generic computer hardware, the applications are evolving and being upgraded frequently. This increases the costs for PSAPs to a point where small PSAPs may not be able to afford to acquire and maintain answering applications that are current and support the types of calls and the associated data currently coming into the 911 system (e.g. support for multimedia 911 call content such as streaming video). By sharing a common 911 answering application all of the PSAPs can be kept on current systems and software release levels. Utilizing system or software-as-a-service model also permits a more predictable cost and revenue requirements because these models are based on monthly recurring costs rather than a very large expenditure every four to five years. Additionally, 95% of the PSAPs in Iowa are SIP enabled which is outstanding.

<b>Guideline NG7: The state maintains system security.</b>		
<b>Guidance</b>		
Security includes capabilities, operations, and best practices expected at the ESInet, the NENA i3 functional elements, PSAP, and all external facing interfaces.		
<b>Guideline Cross-reference(s)</b>	SC3, SC4, SC5, SC6, SC7	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has identified the information assets and categorized the information systems and the information processed, stored, and transmitted by that system based on an impact analysis. The state has also established security controls for the information system based on its categorization, assessment of risk, and local conditions.	The state has met the minimum criteria as well as implemented identified and applicable security controls, adhering to all relevant laws, regulations, and customer requirements.	The state has met minimum and advanced criteria as well as implemented procedures to examine and analyze the operational environment and to report on the security state of the organization.
<b>Rationale</b>		
Security protocols help protect the system. A lack of these capabilities can increase breaches of information.		

<b>Current Environment</b>
<p>ICN categorizes all network equipment as critical infrastructure. All locations are identified and assessed for risk against all known conditions.</p> <p>Comtech SST maintains an information security management system (ISMS) certified under ISO 27001 and also incorporates industry and national standards as a part of the overall security program, including: 1) Directives from NIST publications, 2) Compliance with the NENA Next Generation 911 Security (NG-SEC) Audit Checklist, 3) Partnership with DHS and its National Cybersecurity &amp; Communications Integration Center.</p>
<b>Reference Material</b>
<p>Appendix A-6: ICN COOP/CoG document</p> <p>Appendix A-8: ICN Incident Response Plan – 911</p>

<b>Rating</b>
At this time, the State of Iowa 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
It is recommended that the State Program, in conjunction with the 911 service provider and ICN, conduct a security audit of the 911 system, including the ingress network from the OSPs and the egress ESInet access to the PSAPs.

**Assessor Notes/Comments**

Based on the information available, there is currently a high degree of security within the 911 core services and the ICN ESInet. The planned integration of the wireline services into the existing wireless 911 system will create new security concerns that need to be analyzed and addressed. Security within the PSAPs should also be examined, both physical security and network. New statewide security guidelines may need to be developed. The NENA NG911 Security Standard may provide additional guidance.

Currently there is work underway to establish a national 911 system security certificate administration program. This work is predicated on each state identifying an entity who will be accredited by the national certificate vendor to issue security certificates for the local PSAPs and other 911 system users. The State 911 Program should consider whether that program should be part of their responsibility or help identify another entity who could perform the security certificate management function for Iowa.

<b>Guideline NG8: The state had adopted comprehensive operational planning.</b>		
<b>Guidance</b>		
Operations planning addresses aspects of execution; oversight; plan management; and efforts to support on-going evolution with the planning of NG Core Services, ESInet and PSAP operations, and the transition to the NG911 processing model and services.		
<b>Guideline Cross-reference(s)</b>	OP1, OP2, OP3, OP4, OP5, OP6, OP7, OP8, OP9	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has NG911 operational planning in progress, knows the amount of staff needed, and has made a 911 plan update.	In addition to the minimum criteria, the state has trained staff.	In addition to the advanced criteria, NG911 operational procedures have been developed and implemented.
<b>Rationale</b>		
Operational planning helps the preparedness of the system. A lack of these capabilities can increase inefficiency.		

<b>Current Environment</b>
The State does have the NG911 Implementation and Operations Plan. The plan is updated as necessary. The state has NG911 Operational Planning through the 911 Program Manager who is able to gather NG911 planning and execution through best practices gained through participation in NASNA, hiring consultants as needed, and reliance on vendor community. While the state 911 program does not have telcom engineers on staff, they are also able to draw on the knowledge from the ICN to assist in the more technical aspects, as well as private partnerships. To a point, the state 911 program is using this process to further evaluate and guide future NG911 initiatives.
<b>Reference Material</b>
<a href="#">NG911 Implementation and Operations Plan</a>

<b>Rating</b>
At this time, the State of Iowa 911 Program meets the minimum criteria.
<b>Assessor Recommendations</b>
It is recommended that the State Program conduct a comprehensive evaluation of the resources that will be required to complete the transition from the current 911 system to a fully compliant i3-based NG911 system by a specified date certain (e.g. 2023). This evaluation would provide the basis for assigning responsibility for the various tasks identified and securing the funding and other resources necessary to complete the transition within the specified time frame.
<b>Assessor Notes/Comments</b>
The State Program is commended for the planning that has already taken place in the transition to an end-state NG911 system. As the planning and implementation continue additional responsibilities and task will be identified. Putting a time frame in place for the expected completion also forces all involved with the delivery of 911 services to identify what is necessary for their own entity to be able to function in an end-state NG911 system by the specified date. This will determine the staffing and funding needs necessary to meet the timeline.

<b>Guideline NG9: The state maintains optional interfaces.</b>		
<b>Guidance</b>		
<p>The state should maintain optional interfaces that address services and interfaces that interconnect with the ESInet but apply beyond NG Core Services primary functions, although these functions may otherwise appear necessary and prudent. Any and all optional interfaces must comply with all applicable industry interface standards and shall not interfere with or impact the function or security of the NG911 systems.</p>		
<b>Guideline Cross-reference(s)</b>	ST4, SR12	
<b>Minimum Criteria</b>	<b>Advanced Criteria</b>	<b>Superior Criteria</b>
The state has implemented a CAD and Broadband Field Network.	In addition to the minimum criteria, the state has implemented additional data.	In addition to the advanced criteria, the state has implemented personal information data.
<b>Rationale</b>		
<p>Optional interfaces help the comprehensiveness of the system. A lack of these capabilities can impact coordination and communication.</p>		

<b>Current Environment</b>
<p>While 911 surcharge can help fund CAD, LMR, the state's 911 program itself does not mandate usage or interfaces. Currently, those are disparate systems from PSAP to PSAP. Through the Homeland Security Grant Program, managed by HSEMD, ISICSB was able to fund a statewide LMR control station in every PSAP. The state's shared services program attempts to provide an avenue for greater standardized CAD adoption, although there is no requirement to adopt the CAD solution. The shared services program also attempts to standardize the mapping and EMD components and interfaces. Local PSAPs remain in control of optional interfaces. The State 911 program is closely monitoring NENA's Emergency Incident Data Object (EIDO) initiative for greater standards on CAD to CAD interfaces. The 911 Program Manager is the NASNA representative to the Public Safety Advisory Committee for FirstNet. This allows the state to be well positioned for any developments towards ESInet to FirstNet interfaces that may come to fruition.</p> <p>Administrative Rule Section 605 Chapter 10.14(4) does provide for voluntary standards for PSAPs which include NENA technical standards for best practices.</p>
<b>Reference Material</b>
<p><a href="#">Iowa Administrative Code Section 605, Chapter 10</a> (Administrative Rule)</p>

<b>Rating</b>
<p>At this time, the State of Iowa 911 Program does not meet the minimum criteria.</p>
<b>Assessor Recommendations</b>
<p>It is recommended that the State Program continue to work with the 911 Communications Council and the state radio interoperability program to identify needs and methods of supporting statewide interoperability of 911, CAD, and radio resources. The goal should be to enable PSAP operations from anywhere the telecommunicator can access the ESInet from a properly equipped workstation, as well as have access to their CAD resources and the ability to communicate with their response agencies.</p>

**Assessor Notes/Comments**

Iowa has significant advantages over other states in the statewide coordination of 911 as well as the extensive ICN network. It appears that the resources exist to create the political environment necessary to enable statewide interoperability in 911, CAD, and radio resources (including FirstNet). Creating this vision for elected officials and policy makers will make it easier to secure the funding for the individual projects that will be necessary to make this vision a reality.



## Appendix A- State-provided Documentation

Documentation may be found on the following pages

- A-1: Local 28E Agreement
- A-2: Sample Back up PSAP Agreement
- A-3: 911 Council Bylaws
- A-4: Cedar Rapids JCA Social Media Policy
- A-5: Secondary ESInet Map
- A-6: ICN COOP/CoG document
- A-7: ICN Standard Practice – HSEMD Activation
- A-8: ICN Incident Response Plan – 911
- A-9: 40 Hour Basic Telecommunicator Training Agenda
- A-10: Cedar Rapids JCA Code of Ethics
- A-11: Cedar Rapids Peer Support Team
- A-12: Cedar Rapids Health and Wellness Standard
- A-13: Cedar Rapids JCA Employee review
- A-14: Cedar Rapids JCA Emergency Staffing Policy
- A-15: 911 Council Travel, Public Education, and Training Policy
- A-16: Iowa APCO/NENA Day at the Hill
- A-17: GIS QA/QC Results
- A-18: Iowa 911 Design Document

## Appendix B- Public Comments Received

State will attach any public comments received in Appendix B.

## **Appendix C- Presentation Slides**

State will attach any presentation slides in Appendix C.