



**Report to the Iowa Legislature on the Status of the  
Iowa Statewide Interoperable Communications System Board (ISICSB)  
Calendar Year 2019**



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## I. Overview

During the first session of the 82nd General Assembly, the Iowa Legislature established the Iowa Statewide Interoperability Communications System Board (ISICSB)<sup>1</sup>. 2007 Iowa Acts, House File 353, created Iowa Code Section 80.28, which addresses the membership of the Board, with Section 80.29 identifying its duties, as follows:

“A statewide interoperable communications system board is established, under the joint purview of the department and the state department of transportation. The board shall develop, implement, and oversee policy, operations, and fiscal components of communications interoperability efforts at the state and local level, and coordinate with similar efforts at the federal level, with the ultimate objective of developing and overseeing the operation of a statewide integrated public safety communications interoperability system. For the purposes of this section and section 80.29, “interoperability” means the ability of public safety and public services personnel to communicate and to share data on an immediate basis, on demand, when needed, and when authorized.”

The Iowa Statewide Interoperable Communications System (ISICS), Iowa’s new P25 Phase II 700/800 MHz interoperable radio network, is live and nearly completed. Final system acceptance testing is underway.

The ISICSB has been in existence for twelve years, progressively improving policy and procedures for Iowa interoperability and advancing stakeholder involvement in decision making. 2020 - 2022 Chair and Vice-Chair are as follows:

Chair: Bureau Chief Thomas Lampe, Department of Public Safety  
(515) 725-6113, [lampe@dps.state.ia.us](mailto:lampe@dps.state.ia.us)

Vice-Chair: Captain David Ness, Des Moines Police Department  
(515)-283-4824, [DMNess@dmgov.org](mailto:DMNess@dmgov.org)

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<sup>1</sup> ISICSB web site: <https://isicsb.iowa.gov/>

## II. Notable Events for 2019

- Maintenance of 61 standards regarding ISICS Access
- Continued outreach to interoperability stakeholders regarding ISICS and FirstNet through
- Regional and state-wide courses offered for ISICS training and COMT and COML
- Milestone of more than 100 agencies using ISICS
  - All agencies of US Department of Justice signed up for ISICS access
    - Bureau of Alcohol Tobacco and Firearms (ATF)
    - Drug Enforcement Administration (DEA)
    - Federal Bureau of Investigation (FBI)
    - US Marshal Service (USMS)
  - State agencies using ISICS
    - Department of Correction (DOC)
    - Department of Natural Resources (DNR)
    - Department of Public Health (IDPH)
    - Department of Public Safety (DPS)
    - Department of Transportation (DOT)
    - Homeland Security and Emergency Management Department (HSEMD)
    - Iowa State University
    - University of Iowa
    - University of Northern Iowa
- Numerous events using ISICS for interoperability in 2019<sup>2</sup>
- Approximately 100 consolettes/control stations distributed to Public Safety Answering Points (PSAPs) that did not already have access to ISICS for interoperability
- Consolettes/control stations distributed to Iowa Regents Schools that did not previously have ISICS access
  - Iowa School for the Deaf
  - Iowa State University
  - University of Iowa
- Hosted FirstNet Regional Meeting
- Continued contribution with P25 standards development with TIA/TR-8
- Forged interstate Interoperability agreements with Illinois, Minnesota, Missouri and South Dakota.

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<sup>2</sup> Iowa State Football, University of Iowa Football, RAGBRAI and Iowa State Fair

### III. Key Definitions and Acronyms

#### Definitions

**Interoperability:** two or more agencies—independent of discipline—that must work with and communicate with each other during a collaborative response. An example would a local police department working with a local fire department during an emergency.

**Operability:** single agency handling day-to-day communications and associated activities such as emergency response without assistance from another agency or entity.

#### Acronyms

CIO	State of Iowa Chief Information Officer
CISA	Cybersecurity and Infrastructure Security Agency
COML	Communications Leader
COMT	Communications Technician
COMU	Communications Unit
DHS	Department of Homeland Security
DPS	Department of Public Safety
DNR	Department of Natural Resources
DOC	Department of Corrections
DOT	Department of Transportation
DSWIC	Deputy Statewide Interoperability Coordinator
ECD	Emergency Communications Division
FCC	Federal Communications Commission
FFY	Federal Fiscal Year
FPIC	Federal Partnership for Interoperable Communications
ICN	Iowa Communications Network
INTD	Incident Tactical Dispatch
ISICS	Iowa Statewide Interoperable Communications System
ISICSB	Iowa Statewide Interoperable Communications System Board
ISP	Iowa State Patrol
ISSI	Inter-Sub System Interface
LMR	Land Mobile Radio
NCSWIC	National Council of Statewide Interoperability Coordinators
NECP	National Emergency Communications Plan
NENA	National Emergency Number Association
NG9-1-1	Next Generation 9-1-1
NPSBN	National Public Safety Broadband Network
OEC	Office of Emergency Communications

P25	Project 25
PSAP	Public Safety Answering Point
RFP	Request for Proposal
RIC	Regional Interoperability Committee
SCIP	Statewide Communications Interoperability Plan
SFY	State Fiscal Year
SLIGP	State and Local Implementation Grant Program
SME	Subject Matter Expert
SPOC	State Point of Contact
SWG	Standards Working Group
SWIC	Statewide Interoperability Coordinator
TA	Technical Assistance
TIA	Telecommunications Industry Association
TR-8	Project 25 Steering Group
UGC	User Group Committee
VHF	Very High Frequency
WISE	Wi-Fi Internet for School Emergencies

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#### IV. Membership

##### December 2019 ISICSB Members

###### Local Representatives

<u>Name</u>	<u>Position</u>	<u>City/Locale</u>
David Ness	Municipal Police Department	Des Moines P.D.
Jason Leonard	Municipal Police Department	Waverly P.D.
Ellen Hagen	Fire Department (Volunteer)	Jewell F.D.
Michele Bischof	Fire Department (Career)	Des Moines F.D.
Vacant	Communication Center Manager	
Andy Buffington	Communication Center Manager	Winnebago Co.
Robert Rotter	County Sheriff	Iowa County
Vacant	County Sheriff	
Angela Clouser	Member-at-Large	Panorama Community Schools
Larry Smith	Emergency Management	Keokuk County
Vacant	Emergency Medical Services	

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###### State Agency Representatives

John Benson	Department of Homeland Security and Emergency Management
Vacant	Department of Public Health
Thomas Lampe	Department of Public Safety
Carole Lund-Smith	Iowa Law Enforcement Academy
Jeffrey Swearngin	Department of Natural Resources
Patrick Updike	Department of Corrections
Annette Dunn	Chief Information Officer
Peter Huffman	Department of Transportation

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###### Legislative Ex-Officio Members

Senator Tim L. Kapucian  
Senator Jim Lykam  
Representative Bob Kressig  
Representative Jarad Klein

## **V. 2019 Communications Interoperability Efforts**

The ISICSB holds monthly public meetings, on the second Thursday of the month. The meetings are streamed live for public viewing in addition to a conference line being available for remote attendance. The ISICSB posts information such as meeting agendas, minutes, policies, standards and a calendar of events on a web site at [www.isicsb.iowa.gov](http://www.isicsb.iowa.gov).

Since its inception, ISICSB has addressed legislative mandates, as contained in Iowa Code 80.29. The following sections outline the accomplishments of the ISICSB in operating under Iowa Code 80.29.

Activities for calendar year 2019 are outlined in the following subsections. A complete history of ISICSB activities dating back to its inception are covered in [Section VII. Historical Communications Interoperability Efforts by the ISICSB](#).

### **1. Implement and maintain organizational and operational elements of the board, including staffing and program activity.**

#### **A. ISICSB Members, Staff, Funding and Activities**

Activity for 2019 focused around maintaining staff levels, recruiting and on-boarding new members and a wide array of program activity development management.

Chris Maiers continues to serve as the statewide interoperability coordinator (SWIC). A deputy SWIC (DSWIC) was added as a non-paid position in 2019. Cedar Rapids Fire District Chief Curtis Walser assumed this position in spring of 2019 to assist with the deployment of ISICS-connected consolettes to local public safety answering points (PSAP) and Iowa Regents Schools that did not have a previous connection to ISICS for interoperability.

In 2019, the ISICSB continues to rely on a \$115,661 appropriation in state funding and State and Local Implementation Grant Program (SLIGP) 2.0 funds. The appropriations and SLIGP 2.0 funds are used to sustain ISICSB activities, salaries and benefits for the SWIC and ISICSB administrative assistant.

Each ISICSB member maintains a full-time professional position and performs ISICSB duties on a volunteer and part-time basis. Mileage continues to be a reimbursable expense.

#### **B. Committees**

The primary committees under the ISICSB all have goals, metrics, objectives and action plans that are outlined in the *2017 Statewide Communications Interoperability Plan (SCIP)*. Since the adoption of this plan each committee has made progress towards achieving the goals laid out in the SCIP. Following SWIC Maiers's request to the Emergency Communications Division (ECD) of the Cybersecurity and Infrastructure Security Agency (CISA) to help refresh the SCIP in 2019, work was undertaken by all ISICSB committees to

evaluate the 2017 SCIP and provide updates to reflect an updated communications ecosystem in Iowa that includes ISICS and FirstNet. The updated *2020 Statewide Communications Interoperability Plan* is expected to be adopted in December of 2019 or the first quarter of 2020.

**i. Governance Committee**

The Governance Committee, in conjunction with other Board committees, continues to steer activities with local public safety community partners in a collaborative way to establish regional governance presence throughout Iowa.

The Governance Committee anticipates it will continue leveraging local public safety community partners for knowledge and advice in 2020 and beyond as the Board continues the task of completing the deployment of a new statewide interoperable Project 25 (P25), Phase 2, 700/800 MHz land mobile radio (LMR) platform in Iowa. This platform is known as the Iowa Statewide Interoperable Communications System (ISICS).

The Governance Committee continues to work with local public safety community partners to establish effective and appropriate governance practices and relationships creating a foundation for successful operation of both ISICS and Iowa's portion of a NPSBN.

**ii. Finance Committee**

The Finance Committee continues to meet routinely to evaluate the financials of the ISICSB and approve expenditures. Any grant funding that is leveraged by the ISICSB to support programs is thoroughly vetted in compliance with all requirements.

If more funding becomes available for the ISICSB to support local programs with interoperable solutions via ISICS, processes will be developed accordingly. The Finance Committee developed a long-term, ten-year financial plan this year to help facilitate more ISICSB activities and staff development.

**iii. Operations Committee**

The Operations Committee has worked throughout 2019 to find effective ways to leverage ISICS for interoperable communications via coordination with the Standards Working Group and other committees as necessary.

The Operations Committee has also continued work to ensure that all PSAPs in Iowa will have access to ISICS for interoperability ahead of the goal outlined in the 2017 SCIP of 95% of all PSAPs having access by the end of calendar year 2020.

Additional Operations Committee work included coordinating with the Technology Committee on the use of air-to-ground simplex channels for additional communication and coordination with public safety aircraft.

**iv. Outreach Committee**

The Outreach Committee continues to send out a regular newsletter to interoperability stakeholders in Iowa. Regional outreach events were also scheduled for ISICS and FirstNet. At these outreach events, presentations were given on ISICS and FirstNet. Attendees had an opportunity to witness demonstrations of the networks and ask questions to program managers.

The updated meetings also now include training on the ISICS consoles/control stations that were given to PSAPs.

**v. Technology Committee**

The Technology Committee has continued its work in evaluating technological opportunities for the ISICSB to enhance interoperability via ISICS and NPSBN. Work in 2019 covered several technological solutions for interoperability stakeholders in Iowa. It included work towards licensing of three 800 MHz Scene of Action simplex channels for public safety use in areas with limited radio system coverage, frequency coordination with air-to-ground channels and developing requirements that outline how local agencies can hang VHF equipment on ISICS sites.

**vi. Training and Exercise Committee**

The Training and Exercise Committee work in 2019 included the start of publishing guidance and training modules for the various ISICS standards. Initial work included taking in feedback from stakeholders on how the training modules and sessions should be done.

The Training and Exercise Committee also requested technical assistance from CISA ECD to update policies related to the Communications Unit (COMU) program in Iowa. This work produced an updated document that will likely be before the ISICSB for approval in early 2020. Work to expand the cadre of credentialed Communications Unit personnel continued with the credentialing of Iowa's first Incident Tactical Dispatcher and two Communication Unit Leaders (COML).

**vii. User Group Committee**

The User Group Committee (UGC) work in 2019 continued to further the development on the ISICS application process. This included a new accountability form for tracking of applications. Discussions for strategies to strengthen the Regional Interoperability Committees (RICs) continues.

**viii. FirstNet Broadband Subcommittee**

The FirstNet Broadband Subcommittee reconvened in 2019 to begin the process of exploring and developing policies and standards on NPSBN. The Committee had active involvement from public safety, public service and military Subcommittee members based

in Iowa. In addition, the federal FirstNet Authority and AT&T actively participated in meetings and presented on network buildout updates, user interfaces and local management of FirstNet resources.

**ix. LEA Committee**

An ad-hoc committee tasked with evaluating the future of the VHF Law Enforcement Assistance (LEA) network was commissioned by the ISICSB to evaluate the current status of LEA and the best course of action. The LEA Committee was comprised of communication center managers, law enforcement at the state, county and municipal level, ISICSB Operations Committee Chair, ISICS Assistant System Administrator, SWIC and DSWIC. After reviewing the facts bearing on the problem, the LEA Committee concluded that support for LEA should be discontinued on October 31, 2020.

**x. Complete History**

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 1](#).

**2. Review and monitor communications interoperability performance and service levels on behalf of Agencies.**

The ISICSB and 911 Communications Council continue to coordinate their activities and scheduled meetings on the same dates and at the same locations. This has continued to promote information sharing between the ISICSB and the Council in public forums.

During 2019 SWIC Maiers and 911 Program Manager Blake DeRouchey continued to meet weekly when no travel conflicts were present to ensure alignment of objectives and coordination of efforts between ISICSB and the Council. Those meetings will continue to be held routinely in 2020 and beyond.

ISICSB management continued to monitor public safety interoperability responses in Iowa in 2019. In the past, there were incidents in Iowa where the response involved a number of agencies responding and interoperability issues identified. ISICS management contacted those involved in the response, examined interoperability issues, and offered solutions that could solve interoperability communication issues that evolved from the incident. Some of the findings were:

- Lack of training field personnel on how interoperability channels work.
- Improperly labeled radio channels.
- Other available options to achieve interoperability with the equipment they use on a day-to-day basis.
- Local or county policies in some instances were prohibiting responders from using interoperability channels because of their lack of updating the policy to reflect newer technology and the availability of more channels.

- In some cases, public safety communication centers were only broadcasting on certain channels that other agencies could not monitor.
- In other cases, there was significant interference created by other states in interoperability channels.

In many instances these findings continue to be relevant today. However, with the introduction ISICS and FirstNet, several successes were noted in 2019. Work will continue in 2020 to address these persistent challenges.

As mentioned in the previous section, the LEA Committee evaluated how best to address shortcomings and failures of LEA. Ultimately the LEA Committee concluded that LEA support should end October 31, 2020.

New work projects for 2019 included working with neighboring states to facilitate interoperability between the agencies along the border. Agreements have been laid out with Minnesota, South Dakota, Missouri and Illinois that will help guide further interoperable policy development with those states. Work with Wisconsin and Nebraska continues to be done to develop similar agreements.

The ISICSB Technology and Operations Committees continues to work collaboratively with several local communities to identify solutions and implement resolution to the communication problems. Those challenges continue to hinder Iowa from having coordinated communications much of the time in the incidents examined.

During 2019, ISICSB conducted a series of regional training workshops designed to improve interoperability, including a focus on delivery of the U.S. Department of Homeland Security's (DHS) Communications Leader (COML) and Communications Technician (COMT) courses.

- ISICS Regional PSAP Training (two classes) in Ottumwa and Mason City
  - More are expected for 2020.
- COMT in Clarinda, IA
- COML in Burlington, IA
- PSAP Cybersecurity Webinar
- Communications Unit (COMU) Evaluation and Update

The ISICSB continues to use technology to advance information sharing with the public through use of conference lines, which are open for all board meetings with the intent of gaining more one-on-one local input from a broader range of local users on interoperability issues. Virtual meeting rooms were again utilized in 2019 to allow for public viewing of documents that are up for review and for notetaking.

ISICSB continued its role as a voting member of the Telecommunications Industry Association (TIA) and Project 25 (P25) Steering Group known as TR-8 industry-wide standards setting group. SWIC Maier has voted on several P25 standards that facilitate and

expand interoperability on radio networks such as ISICS. ISICSB Chair Thomas Lampe and SWIC Maiers are also a members of the P25 Steering Committee.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 2](#).

**3. Establish, monitor, and maintain appropriate policies and protocols to ensure that interoperable communications systems function properly.**

The ISICSB continues to promote the national policy of using plain language in radio communications throughout Iowa. This is in addition to several dozen other standards to help guide users of the ISICS Platform. Those current standards are available at: <https://isicbsb.iowa.gov/resources/policies/isics-standards>.

The ISICSB developed, published and maintains ‘quick’ one page templates and instructions for ease of use and programming channels into radio equipment. This is posted publicly on the ISICSB web site as an official ICS-217A form<sup>3</sup>.

Because ISICSB lacks enforcement authority of any policy, this limits achievement of interoperability as some county and local governments continue past practices using legacy channel naming conventions like “Mutual Aid” which continues to be inconsistent with new federal guidance. This non-compliance with ISICSB Policy and other federal directives, contributes to creating user confusion within Iowa regarding communications assets and hindering radio interoperability best practices. SWIC Maiers continues to meet with local agency stakeholders to stress the importance of standardization of channel nomenclature.

With Iowa’s local control focus and county patchwork of “silo” radio systems operating in different radio frequencies, statewide interoperability policies and protocols are challenging to establish. With disparate systems, what works for one county may not work for another. However a statewide platform like ISICS reduces this confusion since all users can be on a platform with a statewide system. Several successes with interoperability using the distributed consolettes/control stations to PSAPs were noted in 2019. The PSAPs that have received or will receive a consolette are:

**PSAP or Regent’s School That Received or Will Receive Consolette/Control Station**

- Adair County Sheriff's Office
- Adams County Sheriff's Office
- Algona Police Dept
- Allamakee County Sheriff's Office
- Ames Police Department
- Appanoose County Sheriff
- Audubon County 911 Communications

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<sup>3</sup> ISICSB ICS-217A: [https://isicbsb.iowa.gov/sites/default/files/copy\\_of\\_2012-05\\_aka\\_isicsmc12-b\\_revised1\\_ics\\_217a\\_v2017\\_01\\_1.pdf](https://isicbsb.iowa.gov/sites/default/files/copy_of_2012-05_aka_isicsmc12-b_revised1_ics_217a_v2017_01_1.pdf)

**PSAP or Regent's School That Received or Will Receive Console/Control Station**

- Benton Co Sheriffs Office
- Black Hawk Consolidated Communications Center
- Bremer Co- Waverly Law Center
- Buchanan County Sheriff
- Buena Vista County 9-1-1 Communications Center-Storm Lake
- Butler County Sheriffs Office
- Calhoun County Sheriffs Office
- Carroll County Communications
- Cass County Public Safety Communications Center
- Cedar County Sheriff's Office
- Cedar Rapids Joint Communications Agency
- Cerro Gordo County Sheriff
- Cherokee County Sheriff
- Chickasaw County
- Clarke County Sheriff's Office
- Clay County PSAP
- Clayton County Sheriffs Office
- Clear Lake Police Department
- Clinton County Communications
- Crawford County Communications Center
- Davis County Law Center
- Decatur County Sheriff's Office
- Decorah PD
- Delaware County Communication Center
- Des Moines Police Department
- DESCOM - Des Moines County
- Dickinson County Sheriff's Office
- Dubuque County Communications Center
- Emmet County E911
- Fayette County Sheriff's Office
- Floyd County Communications Center
- Franklin Co. Emergency Management Communications
- Fremont County Sheriff's Office
- Greene Co Sheriff's Office
- Grundy Co Sheriff's Office
- Guthrie County Sheriff's Office
- Hamilton County Sheriff's Office
- Hardin County Sheriff
- Henry County Sheriff's Office
- Howard Co Sheriff Office
- Humboldt Co Law Enforcement Center
- Ida Co Sheriff's Office
- Iowa County Sheriff's Office

**PSAP or Regent's School That Received or Will Receive Console/Control Station**

- Iowa Falls Police Department
- Iowa School for the Deaf
- Iowa State University PD
- Jasper County
- Jefferson County Law Center
- Johnson County Joint Emergency Communications Services Association
- Jones County Sheriff
- Keokuk County Sheriff's Office
- Lee County PSAP (LeeComm)
- Linn County Sheriff's Office
- LOUISA COUNTY SHERIFFS OFFICE
- Lucas County Sheriff's Office
- Lyon County Sheriff
- Madison County Sheriff's Office
- Mahaska County 911 Center
- Maquoketa Police Department
- Marion County Sheriff's Office
- Marion Police Department
- Marshalltown Police Department
- Mills County Communications Center
- Mitchell County Communications Center
- Monona County Sheriff's Office
- Monroe County Sheriff Office
- Montgomery Co Sheriffs Office
- MUSCOM
- O'Brien County Sheriff
- Oelwein Police Department
- Osceola County Sheriff's Office
- Ottumwa Police Department
- Page County Communications Center
- Palo Alto Communications Center
- Pella Police Department
- Plymouth County Sheriff Office
- Pocahontas Sheriff's Office
- Polk County Sheriff's Office
- Pottawattamie County Law Enforcement 911 Center
- Poweshiek County
- Ringgold County Sheriff Office
- Sac Co Sheriff's Office
- Scott Emergency Communications Center (SECC)
- Shelby County Communications
- Sioux County Sheriff's Office
- Story County Sheriff's Office

## **PSAP or Regent's School That Received or Will Receive Console/Control Station**

- Tama County 911 Communication Center
- Taylor County Sheriff's Office
- Union County Sheriff's Office
- University of Iowa PD
- Van Buren County
- Wapello County Sheriff's Office
- Washington County 911
- Wayne County
- Webster County Telecommunications
- Winnebago Co Sheriff's Office

As local agencies connect to ISICS for interoperability, it is expected that more of the hurdles relating to interoperable communications will be mitigated. Other challenges relating to training and equipment procurement may persist for years.

ISICSB has passed a number of policy statements. All policy statements and standards are posted on ISICSB web site in order of chronological order. All policy statements, standards, technical recommendations and documents adopted in 2019 are listed below for reference. A complete list of all past policy statements, standards, technical recommendations and documents is available in [Section VII. Historical Communications Interoperability Efforts by the ISICSB.](#)

- **ISICS Platform Requires a complex set of standards, processes and procedures to this end ISICSB established a subcommittee to focus exclusively on policy and procedures for ISICS users as guidance for all users. The following standards were adopted by ISICSB in 2019:**
  - **1.3.0** – *Statewide Interoperable Plain Language Policy (Update)*
  - **1.5.0** – *ISICS Regional and Statewide Interoperable Talkgroups (Update)*
  - **1.5.3** – *Travel Communications*
  - **1.12.0** – *Announcements*
  - **1.13.0** – *Public Safety Communication Center (PSCC) Interoperability*
  - **1.15.0** – *Emergency Management Talkgroups*
  - **2.8.0** – *Requesting Access and Participation*
  - **2.14.0** – *Security Equipment Sites*
  - **2.15.0** – *Change Management*
  - **3.12.0** – *CAD and ATIA Connectivity (Update)*
  - **3.15.0** – *Regional CALL Audio*
  - **4.7.0** – *Equipment Configuration Information*
  - **4.8.0** – *Notification for System Changes and Outages*
  - **4.9.0** – *Software Location*
  - **7.1.0** – *Standards Compliance Process*

- **7.3.0 – The Appeal Process for Decisions on Non-Compliance**

ISICSB will continue to promote interoperability policies and other documents to assist agencies comply with state and federal standards.

Additional policy statements, standards and technical recommendation documents are in various degrees of completion in committee work and posing for interested stakeholders.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 3](#).

#### **4. Allocate and oversee state appropriations or other funding received for interoperable Communications.**

The ISICSB continues to operate on a budget comprised of a General Fund allocation of \$115,661 in addition to SLIGP2.0 funds for salaries, benefits and ISICSB activities. The ISICSB recognizes that in the long-term the General Fund allocation will become insufficient to sustain ISICSB staff and activities. The ISICSB plans to request increased General Fund appropriations for future fiscal years in order to help sustain and expand interoperable efforts in Iowa.

SLIGP2.0 was initially scheduled to close in 2020. However, many agencies that were granted SLIGP 2.0 monies were allowed to apply for an extension to use those funds for more FirstNet-related activities. The ISICSB applied for an extension that would extend the SLIGP2.0 grant closure to March 31, 2021.

This grant continues to fund approximately 50% of the SWIC position, and administrative assistant and FirstNet Outreach Specialist. SLIGP 2.0 activities<sup>4</sup> include:

- *Single officer (or governmental body) and staff to, at a minimum, provide for ongoing coordination with NTIA and implementation of grant funds.*
- *Existing governance body to provide input to the single officer and to contribute towards planning activities to further identify potential public safety users of the NPSBN and prepare for data sharing.*
- *Data collection in specific areas identified to be helpful as requested by FirstNet.*
- *Development of policies and agreements to increase sharing of data between existing public safety systems across various agencies within the State or territory using the NPSBN.*
- *Individuals, such as the single officer and governing body members, to perform planning activities to help FirstNet and its partner further identify potential public safety users of the NPSBN.*

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<sup>4</sup> [SLIGP 2.0 Frequently Asked Questions](#)

- *Planning efforts to help FirstNet gain inclusion on applicable statewide contract vehicles.*
- *Planning activities to prepare for emergency communications technology transitions.*
- *Activities to identify and plan for the transition of public safety applications, software, and databases.*
- *Identifying and documenting on-going coverage needs/gaps within the State.*
- *Activities to convene stakeholder outreach events to continue planning for NPSBN implementation, as requested by FirstNet.*

Historically the ISICSB has been highly reliant upon grant funding to sustain activities. To strive towards fiscal solvency, SWIC Maier continues to work in collaboration with ISICSB members and interoperability stakeholders to identify potential long term funding mechanisms to enhance interoperability in Iowa. A defined ten-year financial plan was drawn up this year by the ISICSB Finance Committee and may be ready for implementation within the next few calendar years.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 4](#).

- 5. Identify sources for ongoing, sustainable, longer-term funding for communications interoperability projects, including available and future assets that will leverage resources and provide incentives for communications interoperability participation, and develop and obtain adequate funding in accordance with a communications interoperability sustainability plan.**

Many of these activities are also covered in Part 4 above. They include the previously listed grants.

With the passage of the Federal Nationwide Public Safety Broadband Network (NPSBN) legislation, Iowa will continue participating in planning for Iowa's portion of build-out of FirstNet, a nationwide broadband data network to supplement public safety's land mobile-radio communications networks with interoperable wireless data capabilities.

ISICSB continues to seek ways to identify sustainable, long-term funding and cost containment measures for communications interoperability. Continued state funding for ISICSB allows this board to continue to seek federal grant opportunities. Without this funding, ISICSB will be denied many grant opportunities due to inability to meet grant requirements specifying a local match. The Finance Committee has put together a long-term financial plan that includes possible revenue sources and projects that would utilize new funding.

Local, county and state funding is essential for sustainability of any interoperable communications system. State funds will continue to be used to train, educate, and where possible build and maintain infrastructure.

ISICSB will continue to seek grants and outside funding; however, federal grants specifically for interoperable communications are diminishing making state support all the more crucial in receiving such funding.

ISICSB has completed the final year of SLIGP Grants for the rollout of FirstNet, a nationwide broadband data network. ISICSB was awarded SLIGP 2.0 grants as Iowa was the fifth state to “Opt-In” to FirstNet. The SLIGP 2.0 grant was originally scheduled run from 2018 through 2020, but the ISICSB requested an extension of the grant through March 31, 2021.

ISICSB will continue to develop ideas for potential funding streams that could be ready for legislative consideration in the 2019 or 2020 session. If enacted, the funding streams would allow the ISICSB to maintain and expand ISICS infrastructure, and administer grants to local municipal and county public safety agencies to promote and expand interoperability. These grant monies could include allocations for training and educational opportunities, procurement of subscriber units and/or expansion of local LMR infrastructure.

Any new funding mechanisms and resulting programs would be structured to be consistent with all state and federal laws regarding grant awards, accounting and distribution of funds.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 5](#)

**6. Develop and evaluate potential legislative solutions to address the funding and resource challenges of implementing statewide communications interoperability initiatives.**

Potential legislative items noted in Section 5 regarding the restoration of the appropriations and development of future funding streams would address costs associated with funding interoperability in Iowa by supporting ISICSB. New funding could be used to fund grants that local agencies could use to expand interoperable capabilities. These grants could be used by volunteer fire departments and emergency medical services, municipal police departments, schools and other interoperability stakeholders. In addition, partnerships with local agencies could be facilitated and developed to further expand the ISICS coverage footprint. This agreement could include joint efforts on ISICS site construction, additional channel capacity and maintenance.

Work continues on further developing and maintaining a five and ten year financial plan for the ISICSB. Implementation of those plans would require legislation to be put in to effect. The ISICSB is working towards getting this plan to the point that it can be presented to the Legislature.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 6](#).

**7. Develop a statewide integrated public safety communications interoperability system that allows for shared communications systems and costs, takes into account infrastructure needs and requirements, improves reliability, and addresses liability concerns of the shared network.**

Work on the buildout of ISICS continued in 2019 as the final towers were constructed, coverage and audio quality were tested and verified by the system vendor and features were proven to work. The process of Final System Acceptance will likely conclude in 2020. The final steps include inspection of all sites to verify build quality and contract specifications were met.

ISICSB has worked to expand and engage county and local membership on all seven committees, Finance, Governance, Operations, Outreach, Technology, Training and Exercise, and User Group, to make sure the Board's on-going process to gather input from local users on a continuous basis is maintained and to ensure that the actual state-wide system operational protocols remain up to date. To date, ISICSB has over 100 county and local committee member representatives. Various sub committees have aided in investigation and expansion of interoperability in Iowa for LMR and broadband and will address future needs of the ISICSB and stakeholders across Iowa.

A list of the 100+ agencies that have completed the process to use ISICS as of December 2019 is below. Some counties have opted to build out infrastructure on the ISICS system but have not yet gone through the official approval process. As such, those counties are not listed here but are shown in Figure 1 if site locations have been identified. It is the expectation of the ISICSB and those agencies that their applications will be approved given the amount of time and effort expended to develop those local subsystems.

- 5th Judicial District
- 10th District Reserve Law Enforcement
- 185th Iowa Air National Guard
- Adair Guthrie EMA
- Adams County EMA
- Air Methods
- Altoona FD
- Altoona PD
- Altoona PW
- Ankeny FD
- Ankeny PD
- Alcohol, Tobacco, Firearms and Explosives, Bureau of
- Atkins, City of
- Audubon County SO
- Aurelia Fire
- Benton County
- Blakesburg Fire & Rescue

- Bondurant FD
- Boone County
- Buchanan County
- Buena Vista County SO
- Buena Vista EMA
- Camp Township FD
- Carlisle Fire Department
- Carroll County
- Cass County
- Cerro Gordo County Sheriff's Office
- Cherokee County
- Chickasaw County 911
- Chickasaw County EMA
- City of Cedar Rapids
- Coulter Fire Department
- Crawford County
- Dallas County
- Delaware Township Fire Department
- Des Moines International Airport
- Des Moines Police Department
- DHS OEC (Jim Lundsted)
- Dickinson County Emergency Management
- Drug Enforcement Administration
- Elkhart FD
- Fayette County SO
- Federal Bureau of Investigation (FBI)
- FEMA Region 7
- Freeborn County Minnesota
- Fremont County
- Fonda PD
- Granger FD
- Greene County
- Grundy County
- Hamilton County
- Hancock County
- Harrison County
- Henry County
- Humboldt County
- Ida County
- Iowa Association of Municipal Utilities
- Iowa County Sheriff's Office
- Iowa Department of Corrections - Clarinda
- Iowa Department of Corrections - Fort Madison
- Iowa Department of Natural Resources

- Iowa Department of Public Health
- Iowa Department of Public Safety
- Iowa Department of Transportation
- Iowa Department of Homeland Security and Emergency Mgmt.
- Jackson County EMA
- Jasper County
- Jewell Fire Rescue
- Johnson County JECC
- Johnston Grimes Metro Fire Department
- Johnston PD
- Jones County
- Keokuk County EMA
- Kossuth County
- Lee County EMA
- Linn County Sheriff's Office
- Madison County
- Mahaska County
- Marion County Sheriff
- Mercy Ambulance Des Moines
- MICRN
- Mills County
- Mitchellville FD
- Mitchellville PD
- Monona County
- Montgomery County EMA
- Muscatine County
- Northern Warren Fire
- Osceola, City of
- US OIG HHS
- Page County
- Palo Alto EMA
- Pella PD
- Pleasant Hill FD
- Pleasant Hill PD
- Polk City FD
- Polk City PD
- Polk County
- Region 6 LEPC
- Ringgold County
- Saylor Township FD
- Scott County Health Dept.
- Shelby County
- Taylor County
- Tipton Ambulance Service

- Urbandale Schools
- Union County LEC
- United States Marshal's Service
- Unity Point Des Moines
- University of Iowa Public Safety
- University of Northern Iowa
- USACE Red Rock
- US Probation Office (USPO) Southern Iowa
- Van Buren County 911
- Virginia Township Fire Rescue
- Warren County
- Waukee Schools
- Windsor Heights, City of
- Worth County
- Wright County
- Wings Air Rescue
- Winnebago County
- US Capitol Police

A map of the current ISICS buildout as of December 2019 (Figure 1).

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 7](#).

#### **8. Investigate data and video interoperability systems.**

The FirstNet Broadband Subcommittee reconvened in 2019. This Subcommittee was able to achieve participation with stakeholders from the municipal, county, state and military factions of government. Work focused on data and video interoperability systems centered around FirstNet and capabilities brought by it. Discussions of how to leverage public safety broadband data networks that are now or will be available to address current operability and interoperability issues were also covered. This activity will help assist agencies in planning necessary for successfully adopting new technology.

Specific topics included work on improving the communication and relationship with FirstNet and the vendor, AT&T, along with the agency user portal that allows FirstNet subscribers the ability to access the status of the network for event planning and other operations.

Iowa agencies were also able to submit network feedback to both AT&T and FirstNet. Some of this feedback included identifying a problem with how phones behaved on the network when switching tower sites during a phone call. With coordination with the AT&T network team and FirstNet, ISICSB members were able to assist in the identification of the problem and test out solutions.

A FirstNet Multi-State Regional Forum was hosted by the ISICSB at Prairie Meadows on May 29-30, 2019. Over 100 attendees from Iowa and surrounding states were able to obtain information on the status of the FirstNet buildout, coverage expectations and how FirstNet can fit into their operating pictures. Other state-level regional forums were also held in Mason City and Ottumwa.

A complete history of data and video interoperability systems and the associated work in Iowa is covered in [Section VII, Part 8](#).

**9. Expand, maintain, and fund consistent, periodic training programs for current communications systems and for the statewide integrated public safety communications interoperability system as it is implemented.**

The ISICSB has established and maintained a periodic training program for Iowa's public safety officials through a series of regional workshops annually funded by the Department of Homeland Security (DHS) Emergency Communications Division (ECD). These Technical Assistance grants can be presented throughout the state. The ISICSB has acquired several national DHS/ECD interoperability tools for these efforts.

In 2019, the ISICSB utilized these resources from DHS/ECD to hold sessions to update their Communications Unit Policy and SCIP. Courses for public safety entities in Iowa included:

- PSAP Cybersecurity Webinar
- Communications Unit Leader (COML)
- Communications Unit Technician (COMT)

The above efforts are those training initiatives which can help Iowa public safety improve interoperability in pre-planned or emergency situations where public safety uses many disparate radio systems to communicate. ISICSB has credentialed nearly 20 COMLs and COMTs since 2013. In 2019, ISICSB also credentialed its first Incident Tactical Dispatcher (INTD).

ISICSB also assisted with the planning and deployment of ISICS training centered around use of ISICS and the consolettes/control stations given to PSAPs that did not have a previous connection to ISICS in 2019. Those ISICS Regional PSAP Training classes were held in Ottumwa and Mason City. More are being scheduled for 2020. PSAPs have also requested individual, one-on-one training, and those requests have been granted.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 9](#).

**10. Expand, maintain, and fund stakeholder education, public education, and public official education programs to demonstrate the value of short-term communications interoperability solutions, and to emphasize the importance of developing and funding long-term solutions, including implementation of the statewide integrated public safety communications interoperability system.**

Many of these activities are also covered in Part 9 above.

Besides the ISICSB's efforts regarding improving interoperability with traditional land-mobile radio (LMR) systems, the ISICSB has initiated stakeholder education regarding the Nationwide Public Safety Broadband Network (NPSBN) system called FirstNet being built in every state as part of a single nationwide high-speed wireless broadband network designed to supplement and complement public safety's LMR systems.

Iowa's SWIC and ISICSB Chair maintain contact with several industry and federal groups that focus on technical aspects of interoperability. These include subject matter experts from the Telecommunications Industry Association (TIA) and its P25 committees in TR-8 along with the Federal Partnership for Interoperable Communications (FPIC)<sup>5</sup> and P25 Steering Committee. These connections have allowed the ISICSB to remain at the forefront of interoperable technology with respect to P25 Standards, the Inter-RF Sub System Interface (ISSI) and encryption. Several past work products from the ISICSB have been included in recent standards and product development work related to the ISSI and encryption.

A SCIP refresh was undertaken in 2019 that updated the goals of the various committees to reflect the current interoperable status in Iowa. It also revisited the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis conducted in 2017. This refresh will also aid in aligning Iowa's SCIP with the 2019 update to the NECP which was also adopted at the national level in 2019. The work was conducted through committee meetings via webinar with ECD personnel and ISICSB committee members. A SCIP workshop was held in May of 2019 to review the work of the committees and adjudicate comments and suggested changes. The revised SCIP is expected to be adopted in early 2020.

SWIC Maiers routinely visits counties to listen to local needs and discuss interoperability challenges and explain the benefits of an interoperable radio network like ISICS provides. He plans to visit all 99 counties and primary dispatch centers by the conclusion of calendar year 2021.

SWIC Maiers has also attended numerous county 911 service board meetings, several county level meetings and various state-level organizations comprised of local public safety

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<sup>5</sup> FPIC serves as a coordination and advisory body to address technical and operational wireless issues relative to interoperability within the public safety emergency communications community, interfacing with voluntary representatives from federal, state, local, territorial and tribal organizations. FPIC is a technical advisory resource to Emergency Communications Preparedness Center (ECPC) Steering Committee, NCSWIC and National Public Safety Telecommunications Council (NPSTC) and a collaborative partner with SAFECOM and NCSWIC. (taken from <https://www.dhs.gov/safecom/fpic/>)

personnel to discuss interoperable communications and answer questions regarding ISICS and FirstNet. In addition, SWIC Maiers provided technical assistance to counties regarding interoperability.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 10](#).

**11. Identify, promote, and provide incentives for appropriate collaborations and partnerships among government entities, agencies, businesses, organizations, and associations, both public and private, relating to communications interoperability.**

Part 10 above regarding a single unified SCIP (strategic plan) for Iowa between the ISICSB, 911 Program, and 911 Communications Council addresses this requirement.

Part 7 covers the collaboration and issuance of a statewide multi-state agency RFP for a land-mobile radio (LMR) system. The ISICS Platform will be completed in 2019 and completely fulfill this requirement.

Board Management and the SWIC presented at several events in 2019. The goal of the presentations was to update stakeholders on the ISICS Platform and the FirstNet initiative and create new potential partnerships for the FirstNet network in Iowa.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 11](#).

**12. Provide incentives to support maintenance and expansion of regional efforts to promote implementation of the statewide integrated public safety communications interoperability system.**

Part 7 touches on the multi-state agency land-mobile radio RFP.

The ISICSB is examining ways to expand the ISICS Platform to support regional efforts and bring to fruition the implementation of a statewide integrated public safety interoperable communications system. This may include work being done to identify long-term funding mechanisms outlined in previous sections.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 12](#).

**13. In performing its duties, consult with representatives of private businesses, organizations, and associations on technical matters relating to data, video, and communications interoperability; technological developments in private industry; and potential collaboration and partnership opportunities.**

ISICSB members and the SWIC continue to meet with all six Homeland Security regions that make up the six Regional Interoperability Committees (RICs) to advise ISICSB on issues of local concern, in addition to many county and city public safety groups regarding a statewide LMR system. The SWIC also made presentations to various organizations across Iowa on ISICSB activities and the FirstNet NPSBN initiatives.

These outreach efforts continue as non-traditional stakeholders are engaged to discuss interoperability needs and ISICS access. These entities include for-profit ambulatory services, hospital groups, utility companies and other non-traditional public safety and public service stakeholders.

The expanded ISICSB meeting model utilizing conference lines for all meetings continues to be standard practice. Both ISICSB and Committee information such as meetings times, dates and locations are posted on the ISICSB website such that any interested party can listen into the meetings and comment under public comment periods. A virtual meeting room is used when necessary for document review and note-taking. The virtual meeting room ensures that all stakeholders that have signed into the meeting can see exactly how documents are being edited.

SWIC Maiers maintains membership and actively participates in TIA/TR-8, the Federal Partnership for Interoperable Communications (FPIC) and the National Council of Statewide Interoperability Coordinators (NCSWIC). FPIC is a federal group that is under the Emergency Communications Division (ECD) that meets regularly to investigate and solve problems pertaining to interoperability on a national level.

Participation in and feedback from FPIC has been vital in committee research into complex issues such as whether to use the ISSI on the ISICS Platform. Members of FPIC have also offered assistance and guidance regarding encryption on interoperable talk groups on ISICS and associated subscriber unit features via conference calls and meetings.

NCSWIC is a partnership with SWICs from all 50 states and six territories that evaluate interoperability challenges and coordinate with stakeholders to solve problems. These can range from establishing training opportunities to approving grants. NCSWIC also was vital in providing a pathway towards the Enhanced SCIP process that Iowa completed in 2017. The Enhanced SCIP process was viewed as an improvement over the previous methodology in developing a SCIP.

In 2019, SWIC Maiers was elected to the chair position of Region 7 NCSWIC. He also was appointed to a co-chair position for the Joint NCSWIC/SAFECOM Technology Policy Committee.

A complete history of the work done by the ISICSB in this area is covered in [Section VII, Part 13](#).

- 14. Submit a report by January 1, annually, to the members of the general assembly regarding communications interoperability efforts, activities, and effectiveness at the local and regional level, and shall include a status report regarding the development of a statewide integrated public safety communications interoperability system, and funding requirements relating thereto.**

This report satisfies this requirement.

DRAFT

## **VI. ISICS Deployment**

### **1. Request for Proposal, Construction and System Acceptance**

The request for proposal (RFP) for the ISICS Platform was released in 2013. Three companies bid on the RFP. Motorola Solutions was awarded the bid in 2015.

The contract for the deployment of the ISICS Platform was finalized and went into effect on August 13, 2015. Within the contract language, specific deadlines were established for the buildout of the system and final system acceptance is expected in 2020.

Other stipulations of the contract included a 50% discount on all equipment using a statewide master purchasing contract. That same discount is accessible to local agencies that wish to purchase subscriber units or other LMR equipment.

The initial regulatory approval seeking process and construction commenced in spring of 2016. All regulatory processes were completed in the summer of 2018. The status of the construction as of December 13, 2018 is shown in Figure 1 (larger map in Attachment 2). All state-built sites are radiating signal except for Rock Rapids which is under construction. The lines connecting the sites represent the microwave backhaul paths that connect all the tower sites to the individual cores. The microwave backhaul paths make it possible for communications on talkgroups to carry across the state.

The ISICSB has commissioned a subcommittee to evaluate the effects of wind farms on the microwave backhaul paths. The subcommittee will develop a plan and policy to present to the Legislature regarding the protection of those paths to prevent interference on LMR networks in Iowa.

Legislation was introduced in 2019 to help prevent unintended obstruction of the microwave paths, but that bill did not make it out of committee. There is continued concern of microwave paths being obstructed by new wind farm deployments if coordination is not started early in the planning process of wind farms.

As the ISICS Platform sites were constructed and activated, the State of Iowa, local and federal agencies and stakeholders have been able to use the ISICS Platform as a result of a beneficial use clause in the contract since 2016. This has allowed state agencies like DPS, DOT, DNR and IPDH and other local users such as Dallas County, Page County, Woodbury County, Worth County, Westcom and other agencies to use the ISICS Platform before final system acceptance. The use of the ISICS Platform under the beneficial use clause has already produced several operational successes, and many agencies have already cut over to using the ISICS Platform for daily operability and interoperability.

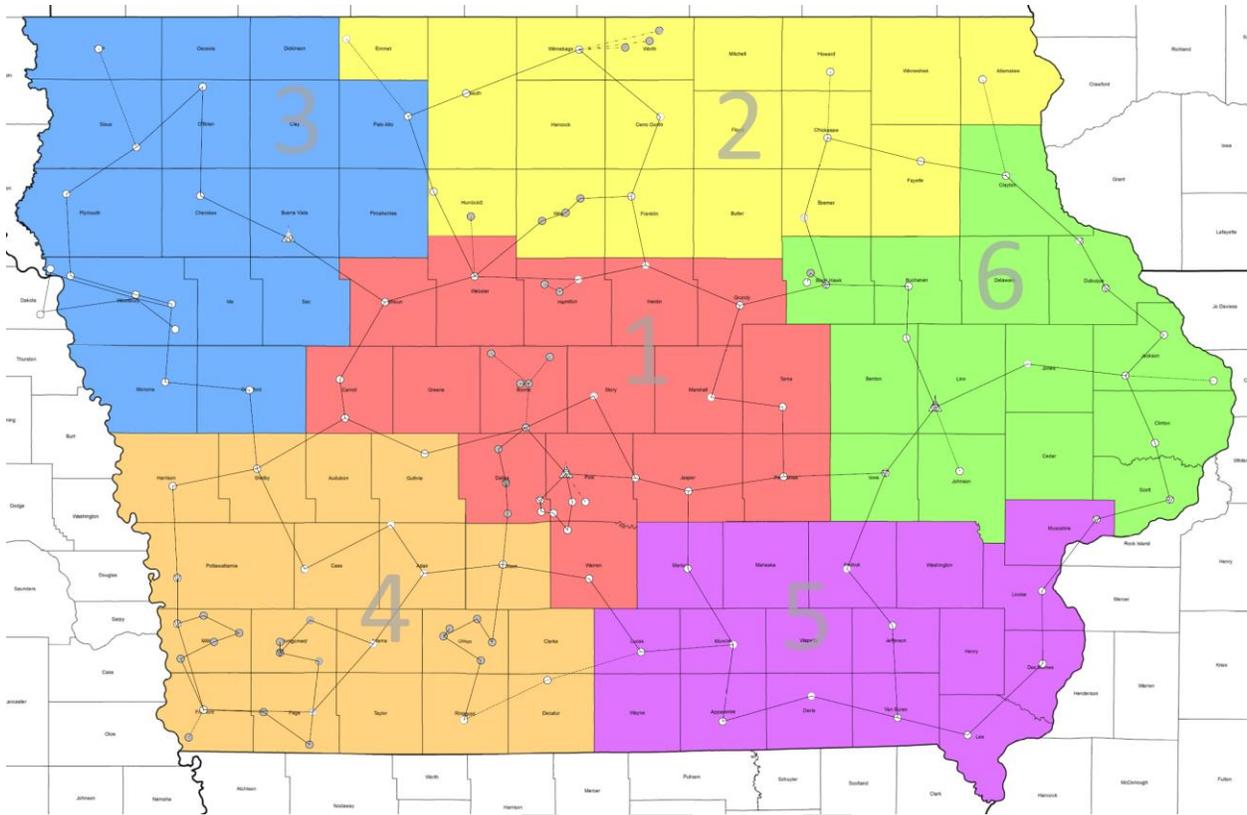


Figure 1. Current map of the ISICS Platform as of December 3, 2019. The white dots denote ISICS sites that were part of the default buildout. Gray dots denote local enhancements that have been sited and built or will be built. Black lines connecting sites are microwave connections that network all the sites together.

Work to optimize the ISICS Platform along with various elements of acceptance testing commenced in 2019. With the completion of the Rock Rapids site, coverage testing of Sioux and Lyon Counties will be conducted. This work is expected to be completed in late-2019, weather permitting. Maps outlining the two elements of coverage testing, bit error rate (BER) and delivered audio quality (DAQ), are included in [Attachments 4 and 5](#).

The rest of final acceptance testing is on-going and expected to be completed in 2020. At that point, the ISICS Platform will officially be accepted as a completed project.

## 2. Governance, Standards and User Approval

ISICSB and its committees are tasked with defining the governance structure and operation aspect of ISICS. In 2019 the discussion of several aspects commenced.

### a. Governance

- i. The ISICS Platform Requires a complex set of standards, processes and procedures. To this end, ISICSB maintained a working group to focus exclusively on policy and procedures for ISICS users as guidance for all users.

While this working group continued to draft and push new standards through the approval process, a long-term process is being developed for the evaluation and maintenance of those standards. Robust evaluation cycles will ensure that the standards continue to be effective for end users.

b. Approval of Users

- i. The User Group Committee (UGC) is tasked with reviewing an agency that applies for access to the ISICS Platform. The UGC reviews the agency's letter of intent, completed memorandum of agreement and Applicant Participation Plan documentation. Once those documents are reviewed, the UGC votes to recommend the approval of the agency's application to access ISICS. The ISICSB will review the UGC's recommendation and vote on application approval.

c. Operations

- i. The Operations Committee is tasked with evaluating how the ISICS Platform should operate. The Operations Committee will pass policies to ensure that expected functionality is achieved.

### **3. Agency Use of the ISICS Platform**

State agencies such as Iowa Department of Transportation (DOT), Iowa Department of Natural Resources (DNR), Iowa State Patrol (ISP), Iowa Department of Public Safety (DPS), Iowa Department of Corrections (DOC), Iowa Department of Public Health (DPH) and others are expected to use ISICS for operability as well as interoperability. Local entities such as Westcom in West Des Moines and the City of Des Moines along with counties of Adair, Boone, Carroll, Dallas, Fremont, Hamilton, Humboldt, Mills, Montgomery, Page, Union, Warren, Worth, Woodbury and Wright along with the University of Northern Iowa and Iowa Department of Corrections in Fort Madison have also chosen to use ISICS for operability and add tower sites to locally enhance the network. Numerous other agencies at a local, county and federal level have opted to use the ISICS infrastructure for some level of operability that does not include the addition of infrastructure. Several other counties have opted to join at increased levels for operability.

Local entities such as counties, sheriff offices and others have free access to ISICS and many have signed on to use ISICS for interoperability. Basic use of ISICS for interoperability comprises a Level 1 User. This is exemplified by a local agency that may have their own LMR network, but still needs to have radio communications with an outside entity like a neighboring county or state agencies.

In the summer of 2018, all Public Safety Answering Points (PSAPs) were pre-approved as Level 1 Users of ISICS. This allows for and helps facilitate the deployment of control stations

to get them connected to ISICS for interoperability. In addition, in 2019, all PSAPs that border Iowa in neighboring states have also been approved for Level 1 access to ISICS. This will help facilitate the expansion of interstate interoperability.

A Level 2 User of ISICS consists of a local agency using basic free access and ability to interoperate with other agencies, but also wants an enhancement of features of ISICS system which would include custom talk groups for their local operations (operability). Several local public safety entities and federal agencies have joined ISICS as a Level 2 user.

A Level 3 User brings all the features of Level 1 and Level 2, but adds in direct connection to the ISICS core computers via a hardline or hardwire connection to the system. This direct connection to the system requires significant engineering and coordination and allows for extra features for use by this local agency. In some cases additional capacity may be added by the local user to a site to support their additional traffic. Agencies that have opted to join as a Level 3 or higher user include: Adair County, Adams County, Boone County, Cerro Gordo County, City of Des Moines, Dallas County, Department of Public Safety, Fremont County, Greene County, Hamilton County, Humboldt County, Hancock County, Harrison County, Iowa Dept. of Corrections – Fort Madison Correctional Facility, Monona County, Mills County, Montgomery County, Page County, Union County, University of Northern Iowa, Warren County, Webster County, Westcom, Winnebago County, Woodbury County, Worth County and Wright County.

Level 4 Users have chosen to add infrastructure to the network such as additional towers, at the local agency cost to enhance performance and/or expand the coverage offered by ISICS in their community. Enhancements may be needed to guarantee a feature like in-building coverage. Agencies or counties that have opted to use ISICS as Level 4 Users are Adair County, Boone County, Carroll County, City of Des Moines, Dallas County, Fremont County, Hamilton County, Humboldt County, Iowa Dept. of Corrections – Fort Madison Correctional Facility, Iowa Dept of Public Safety, Iowa Dept. of Transportation, Mills County, Montgomery County, Page County, Union County, University of Northern Iowa, Warren County, Westcom, Woodbury County, Worth County and Wright County.

#### **4. Local Cost Savings**

The ISICS Platform can present significant cost-saving opportunities to local counties if they currently need to update or replace their existing LMR infrastructure or improve interoperability. Many counties are still using very high frequency (VHF) networks that have been narrow banded by the FCC. Narrow banding greatly reduced the capability and coverage of VHF networks and caused most Iowa communities to reevaluate their public safety communications systems. Since ISICS provides an average mobile coverage of 95%

across the state, ISICS could serve as a starting point for local agencies when considering options in replacing their current radio systems and improve statewide interoperability. As just one example, if an ISICS tower is located within their county, that existing tower has the potential to cut local costs of a local LMR project by \$500,000 to \$1,000,000 in many cases in addition to savings on long-term maintenance cost on those structures. Using ISICS for many communities could eliminate this need for additional communication towers and therefore reduces community tax burden.

The additional capabilities of the ISICS Platform may also save local agencies money with respect to establishing pathways for interoperability with their in- and out-of-state neighbors and encryption key management and updating.

Letters were sent to all public safety answering points (PSAP) in early 2018 that outlined preparatory steps that can be taken for ISICS access. This was intended to allow for long-term planning strategies that local entities can use for their interoperable communications plans. A follow-up letter was sent in the summer of 2018 with a survey. In the fall of 2018, a grant program that was run with partners from HSEMD and DPS to help provide equipment to PSAPs that did not already have a connection to ISICS for interoperability. That equipment was deployed in 2019. PSAPs are currently working on installing the equipment and verifying functionality.

There is a potential role for the Iowa Legislature to further promote interoperability in Iowa by financially empowering the ISICSB to assist counties, PSAPs and other dispatch centers in identifying a pathway to ISICS access. This would align well with the long-term financial needs of the ISICSB.

## **VII. Historical Communications Interoperability Efforts by the ISICSB**

The ISICSB holds monthly public meetings, on the second Thursday of the month. The meetings are streamed live for public viewing in addition to a conference line being available for remote attendance. The ISICSB posts information such as meeting agendas, minutes, policies, standards and a calendar of events on a web site at [www.isicsb.iowa.gov](http://www.isicsb.iowa.gov).

Since its inception, ISICSB has addressed legislative mandates, as contained in Iowa Code 80.29. The following sections outline the accomplishments of the ISICSB in operating under Iowa Code 80.29.

### **1. Historical actions to implement and maintain organizational and operational elements of the board, including staffing and program activity.**

#### **A. ISICSB Members, Staff, Funding and Activities**

From its inception in 2007 to present day, ISICSB has relied on Federal Interoperability Grants and State appropriations to support Board activities. In State Fiscal Year (SFY) 2018 and 2019, \$115,661 in state funding was appropriated to ISICSB.

Each Board and committee member has a full-time professional position and performs Board duties on volunteer and part-time basis. Mileage is a reimbursable expense.

As part of a national interoperability initiative, from 2008 each state was to establish a Statewide Interoperability Coordinator (SWIC) position. This position is also consistent with this Iowa Code mandated element. This SWIC position has been critical to improving interoperability in Iowa, addressing these legislative mandates, and the resulting accomplishments of the Board. Chris Maiers serves as the Iowa SWIC.

Until 2014, SWIC salary was paid for by Federal Interoperability grants. Starting in Federal Fiscal Year (FFY) 2015 and continuing through FFY 2017, State and Local Implementation Grant Program (SLIGP) pays half the SWIC's salary and expenses. This grant program creates a national public safety broadband network (NPSBN). In 2018 SLIGP 2.0 was implemented and covers approximately half of the SWIC's salary. It is essential that legislative funding continue to be appropriated to pay half of the SWIC's salary to continue to meet Iowa's various non-broadband radio interoperability needs.

In 2014 the Board hired an administrative assistant. This position is funded by State and Local Implementation Grant Program (SLIGP) grant funds. The position is limited to duties to support FirstNet Broadband. In 2019 the ISICSB hired a new administrative assistant.

During 2016 through a partnership with Iowa Communication Network (ICN), Helen Troyanovich, an electrical engineer, became Deputy SWIC. DSWIC Troyanovich was fully funded through SLIGP grant and focuses on broadband outreach, engineering,

interoperability, and regional interoperability committee (RIC) participation within ISICSB. Deputy SWIC Troyanovich returned to her ICN position in July 2017.

In 2012, Congress passed the Middle Class Relief Act which included NPSBN creating FirstNet Authority. A state and local broadband planning grant program known as SLIGP was included.

In 2013, SLIGP grant became available. Iowa applied for this grant in that year and in August was awarded funds for a three year period with the restriction that this grant can only be used for broadband planning activities, and not the SWIC's overall interoperability duties. NPSBN funds are used specifically to educate Iowa's public safety community about this new national broadband network, and solicit feedback from our public safety community about their broadband communications needs.

While these efforts parallel many efforts related to improving interoperability, they are limited to broadband. NPSBNs like FirstNet are intended to supplement interoperable capabilities offered by public safety LMR networks like ISICS by providing information that may not be simple to communicate via voice communications.

In 2017, SLIGP 2.0 was announced as a means to continue to fund public safety broadband initiatives across the nation. Iowa applied for and was awarded this grant. The funds continue to support ISICSB efforts to expand broadband interoperability in Iowa in addition to funding the SWIC's activities.

SLIGP 2.0 has allowed the ISICSB and SWIC to devote time to engage with stakeholders and provide input to the State Point of Contact (SPOC), Thomas Lampe, and to identify potential public safety, public service and other extended users of NPSBN and prepare for data sharing. The SPOC served as the primary information source for FirstNet related matters during the decision making process of opting-in or opting-out of the FirstNet buildout. Work continues on the development of policies and agreements to increase data sharing among agencies.

As a part of those efforts, planning is on-going to help agencies transition to incorporating more data into operations for daily activities and special events. This has been accomplished with individual stakeholder meetings and outreach events.

The ISICSB expanded their FirstNet Broadband Sub-Committee to address planning, technology and public private partnership issues of NPSBN in Iowa. This FirstNet Broadband Sub Committee was co-chaired by Ric Lumbard, Executive Director of the ICN, and State of Iowa Chief Information Officer (CIO) Bob von Wolffrad. SWICs Allen and Maiers, DSWIC Troyanovich, along with two ISICSB Board members, and other state and local subject matter experts rounded out this committee. The Sub Committee met monthly to become more informed about broadband technology, Iowa public safety needs, NPSBN public safety grade requirements, and identify potential private companies willing to engage in a public safety wireless broadband network.

NPSBN directed each state to identify a state point of contact (SPOC) for NPSBN interactions. Then Governor Branstad appointed ISICSB Chair Thomas Lampe as the SPOC for NPSBN planning and implementation in Iowa. During 2017 SPOC Lampe and other ISICSB members attended national and regional meetings advancing FirstNet's understanding of Iowa public safety needs for a NPSBN.

On November 18, 2014, Iowa became the 8<sup>th</sup> state to hold an Initial Consultation with seven senior representatives of FirstNet. Over 50 Iowa state and local representatives met with FirstNet to begin the multiphase process of determining if Iowa wishes to opt-in, building NPSBN in conjunction with FirstNet, or opt-out, requiring Iowa to shoulder the total expense to build out their portion of a NPSBN.

FirstNet met with Governor Branstad on December 3, 2015, to explain legal interpretations of enabling legislation regarding states options in selecting whether to opt in or opt out of partnering with FirstNet to build out Iowa's portion of the National Public Safety Broadband Network. SPOC Lampe and SWIC Allen also attended.

On July 18, 2017, Governor Reynolds made the decision for Iowa to become the fifth state to opt-in with FirstNet. Following the "Opt-In" decision, Governor Reynolds reappointed Thomas Lampe as SPOC for Iowa On November 17, 2017.

ISICSB member positions of the career fire department representative and at-large were added in November of 2018. Those two members were on-boarded during calendar year 2019.

## **B. Committees**

The primary committees under the ISICSB all have had goals, metrics, objectives and action plans that were outlined in the *2017 Statewide Communications Interoperability Plan (SCIP)*. Since the adoption of this plan each committee has made progress towards achieving the goals laid out in the SCIP.

The Governance Committee, in conjunction with other Board committees, has steered activities with local public safety community partners in a collaborative way to establish regional governance presence throughout Iowa.

The Governance Committee continued leveraging local public safety community partners for knowledge and advice as the Board continued the task of completing the deployment of a new statewide interoperable Project 25 (P25), Phase 2, 700 MHz land mobile radio (LMR) platform in Iowa. This platform is known as the Iowa Statewide Interoperable Communications System (ISICS).

The Governance Committee worked with local public safety community partners to establish effective and appropriate governance practices and relationships creating a foundation for successful operation of both ISICS and Iowa's portion of a NPSBN.

The Finance Committee continued to meet routinely to evaluate the financials of the ISICSB and approve expenditures. Any grant funding that is leveraged by the ISICSB to support programs is thoroughly vetted in compliance with all requirements.

If more funding becomes available for the ISICSB to support local programs with interoperable solutions via ISICS, processes will be developed accordingly.

The Operations Committee has worked through the past several years to find effective ways to leverage ISICS for interoperable communications via coordination with the Standards Working Group and other committees as necessary.

The Operations Committee has also worked to ensure that all PSAPs in Iowa will have access to ISICS for interoperability by the end of calendar year 2020.

The Outreach Committee has worked to send out a regular newsletter to interoperability stakeholders in Iowa. Regional outreach events were also scheduled for ISICS and FirstNet. At these outreach events, presentations were given on ISICS and FirstNet. Attendees had an opportunity to witness demonstrations of the networks and ask questions to program managers.

The Technology Committee has continued its work in evaluating technological opportunities for the ISICSB to enhance interoperability via ISICS and NPSBN. Work in 2018 included developing a program guide for agencies joining ISICS (*ISICSB TR-2018-001 – Programming Guide Technical Recommendation*), collaborating with the Encryption Subcommittee to publish a technical recommendation pertaining to multi-key subscriber radios (*ISICSB TR-2018-002 – Multi-Key Equipped Subscriber Units*) and a white paper (*Encryption Needs in Iowa*) that was presented at a recent national meeting of the P25 User Needs Subcommittee, and collaborating with the Standards Working Group (SWG) on standards that require more technical expertise.

The Training and Exercise Committee developed and deployed several training sessions for interoperability training in 2018 that are outlined later in this report. These activities also align with SCIP goals.

The User Group Committee (UGC) has strived to develop and enhance processes to get agencies connected to ISICS. New forms were developed in 2018 that greatly streamlined the process as well. Feedback from the UGC was also built into the ISICSB web site that applicants can use to join the system. Work in 2019 is expected to include further development on the ISICS application process and to strengthen the Regional Interoperability Committees (RICs).

The FirstNet Broadband Subcommittee reconvened in January 2019 to begin the process of exploring and developing policies and standards on NPSBN.

## **2. Historical actions to review and monitor communications interoperability performance and service levels on behalf of Agencies.**

The ISICSB and 911 Communications Council have coordinated their activities and scheduled meetings on the same dates and at the same locations for several years. This has helped promote information sharing between the ISICSB and the Council in public forums.

During 2018 SWIC Maiers and 911 Program Manager Blake DeRouche continued to meet weekly to ensure alignment of objectives and coordination of efforts between ISICSB and the Council. Those meetings will continue to be held routinely in 2019 and beyond.

Since 2014, ISICSB has released a series of Policy Statements consistent with the National Emergency Communications Plan (NECP) and made efforts to provide clarity to the naming or re-naming of all public safety interoperability radio channels within all radio bands. SWIC Maiers and 911 Program Manager Blake DeRouche were active participants in the 2019 revision to the NECP.

ISICSB management has monitored public safety interoperability responses in Iowa. There were incidents in Iowa where the response involved a number of agencies responding and interoperability issues identified. ISICS management contacted those involved in the response, examined interoperability issues, and offered solutions that could solve interoperability communication issues that evolved from the incident. Some of the findings were:

- Lack of training field personnel on how interoperability channels work.
- Improperly labeled radio channels.
- Other available options to achieve interoperability with the equipment they use on a day-to-day basis.
- Local or county policies in some instances were prohibiting responders from using interoperability channels because of their lack of updating the policy to reflect newer technology and the availability of more channels.
- In some cases, communication centers were only broadcasting on certain channels that other agencies could not monitor.
- In other cases, there was significant interference created by other states in interoperability channels.

ISICSB Technology Committee continues to work collaboratively with several local communities to identify solutions and implement resolution to the communication problems.

Those challenges continue to prevent Iowa from having coordinated communications much of the time in the incidents examined.

Iowa's statewide communication platform called the Iowa Statewide Interoperable Communications System (ISICS) was awarded for construction in 2015 and scheduled to be

fully operational in 2019, will go a long way in solving Iowa's public safety interoperability challenges. It is one of the fastest deployments of any statewide LMR system.

Absent a completed statewide interoperable system like ISICS, it is very difficult to solve communication issues that counties and cities have in Iowa. The ISICSB will continue to explore viable options and additional initiatives to improve interoperability in the coming year.

During 2018, ISICSB conducted a series of regional training workshops designed to improve interoperability, including a focus on delivery of the U.S. Department of Homeland Security's (DHS) Communications Leader (COML) and Communications Technician (COMT) courses.

- ISICS Regional Training (12 classes) in six cities across Iowa.
- ICS 300 in Cedar Rapids and Mason City
- Incident Tactical Dispatch (INTD) in Monticello
- Audio Gateway Training in Council Bluffs and Des Moines

The ISICSB also sent Cedar Rapids Fire District Chief Curtis Walser, a credentialed COML and COMT, to a COML Bootcamp in Tennessee. COML Boot Camps are used to test and re-credential COMLs. Iowa currently does not have a re-credentialing process. By sending Chief Walser, the ISICSB was able to gain an insight on what may be best practices used by other states to keep their COMLs and COMTs up-to-date on training and credentialing. Further work on this is expected in 2019.

The ISICSB continues to use technology to advance information sharing with the public through use of conference lines, which are open for all board meetings with the intent of gaining more one-on-one local input from a broader range of local users on interoperability issues. Virtual meeting rooms were utilized in 2018 to allow for public viewing of documents that are up for review and for notetaking.

ISICSB continued its role as a voting member of the Telecommunications Industry Association (TIA) and Project 25 (P25) Steering Group known as TR-8 industry-wide standards setting group. SWIC Maiers has voted on several P25 standards that facilitate and expand interoperability on radio networks such as ISICS. ISICSB Chair Thomas Lampe and SWIC Maiers are also a members of the P25 Steering Committee.

### **3. Historical actions to establish, monitor, and maintain appropriate policies and protocols to ensure that interoperable communications systems function properly.**

The ISICSB promoted the national policy of using plain language in radio communications throughout Iowa. A standard for plain language use on ISICS was adopted in 2018.

The ISICSB approved a policy in 2014 adopting the use of a minimum number of national interoperable channels in each radio as a statewide standard on January 1, 2014, and adopted the use of the national standard channel nomenclature. During 2016 this policy

was revised to reflect contemporary changes occurring with new technologies and operational plans across Iowa. In 2018 an all-encompassing minimum program requirements standard was adopted for all ISICS users that includes the statewide and regional interoperability talkgroups and national interoperability channels. This helps ensure that regardless of where public safety personnel travel, they will have a means and method for interoperable communications.

The ISICSB developed and published 'quick' one page templates and instructions for ease of use and programming channels into radio equipment. This is posted publicly on the ISICSB web site as an official ICS-217A form<sup>6</sup>.

Because ISICSB has historically lacked enforcement authority of any policy, this limits achievement of interoperability as some county and local governments continue past practices using legacy channel naming conventions like "Mutual Aid" which is inconsistent with new federal guidance. This non-compliance with ISICSB Policy and other federal directives, contributes to creating user confusion within Iowa regarding communications assets and hindering radio interoperability best practices. SWIC Maier continues to meet with local agency stakeholders to stress the importance of standardization of channel nomenclature.

With Iowa's local control focus and county patchwork of "silo" radio systems operating in different radio frequencies, statewide interoperability policies and protocols have been challenging to establish. With disparate systems, what works for one county may not work for another. However a statewide platform like ISICS reduces this confusion since all users can be on a platform with a statewide system.

As local agencies connect to ISICS for interoperability, it is expected that some of the hurdles relating to interoperable communications will be mitigated. Other challenges relating to training and equipment procurement may persist for years.

ISICSB passed a number of policy statements beginning in July 2014. After working closely with Attorney General Staff on a process for developing, prominently posting for on ISICSB website to incentivize public comment, Board discussion and, if appropriate, voting by the Board to determine if a policy statement represented a best practice for Iowa public safety stakeholders. Lastly all policy statements are posted on ISICSB web site in order of chronological order. All policy statements, standards, technical recommendations and documents are listed below for reference.

- ***Policy statements passed in 2014:***
  - **2014-1** *Support of Project 25 Standard.*
  - **2014-2** *Endorsement of Strategic Technology Reserve (STR) Trailers.*
  - **2014-3** *Support of No Encryption on Interoperability Channels.*
  - **2014-4** *Endorsement of Credentialing Process of COML/COMT.*
- ***Policy statements passed in 2015:***

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<sup>6</sup> ISICSB ICS-217A: [https://isicsb.iowa.gov/sites/default/files/copy\\_of\\_2012-05\\_aka\\_isicsmc12-b\\_revised1\\_ics\\_217a\\_v2017\\_01\\_1.pdf](https://isicsb.iowa.gov/sites/default/files/copy_of_2012-05_aka_isicsmc12-b_revised1_ics_217a_v2017_01_1.pdf)

- **2015-01** *Endorsement for support for procurement and state funding of P-25 700 MHz LMR platform (which also created a standing committee User Group Committee (UGC) charged with managing collaboration on platform usage).*
- **2015-02** *Supporting government control of interoperability frequencies and channels.*
- **2015-03** *Defining Public Safety Grade.*
- **2015-04** *Iowa Statewide Interoperability Channels.*
- **2015-05** *AES 256 Encryption SLN TEK KID*
- **Policy statements passed in 2016:**
  - **2016-01** *Supporting Funding of Local Procurement of Public Safety Grade Land Mobile Radio (LMR) Equipment Used on Statewide Interoperable Networks, and Platforms*
- **Policy statements passed in 2017:**
  - **2012-05** *Policy (aka ISICSMC12-B) Revised - Minimum Interoperable Radio Channels & Nomenclature*
  - **2017-07** *Policy Statement supporting the National Emergency Number Association (NENA) i3 Standard for Next Generation 9-1-1 (NG9-1-1)*
- **ISICS Platform Requires a complex set of standards, processes and procedures to this end ISICSB established a subcommittee to focus exclusively on policy and procedures for ISICS users as guidance for all users. The following standards were adopted by ISICSB in 2017:**
  - **1.1.0** - *Subscriber Security*
  - **2.1.0** - *Variance and Waivers*
  - **2.2.0** - *Maintenance of Alias List*
  - **2.3.0** - *System Login Naming Maintenance*
- **Documents published in 2017:**
  - **ICS Form 217A** - *Communications Resource Availability Worksheet*
  - **Staff Study** - *ISSI Committee Recommendation for Iowa Statewide Interoperable Communication System (ISICS) use of ISSI connection*
- **ISICSB's established a subcommittee focusing exclusively on policy and procedures for ISICS users as guidance for all users successfully drafted the following standards that were adopted by ISICSB in 2018:**
  - **1.2.0** - *Talkgroup and Multigroup Ownership*
  - **1.3.0** - *Statewide Interoperable Plain Language Policy*
  - **1.4.0** - *Statewide Pursuit Communications*
  - **1.5.0** - *ISICS Regional & Statewide Interoperability Talkgroups*
  - **1.5.1** - *Transport Interoperability*
  - **1.5.2** - *Use of Statewide and-or Reg Interop Talkgroups-Air*
  - **1.6.0** - *Talkgroup and Multigroup Ownership*
  - **1.7.0** - *Minimum Programing Requirements*
  - **1.8.0** - *Event and Exercise Communications Planning*
  - **1.10.0** - *Cross Spectrum Interoperability*

- **1.11.0** - *Use of 700-800 MHz Scene of Action (SOA) Channel*
- **2.4.0** - *Operational Management*
- **2.5.0** - *Network Management*
- **2.6.0** - *Database Management*
- **2.7.0** - *Training Radio Telecommunicators*
- **2.8.0** - *Requesting Access and Participation Plan Revisions*
- **2.9.0** - *Requesting Participation by Non-Public Safety/Non-Public Service Organizations*
- **2.10.0** - *Training Technical Staff*
- **2.11.0** - *Training ISICS End Users*
- **2.12.1** - *System Security Groups*
- **2.12.2** - *Security System Keys*
- **2.12.3** - *Encryption Key Security*
- **2.13.0** - *Subscriber Radio Standards*
- **2.13.1** - *Subscriber Surplus Radio Disposal*
- **3.1.0** - *Radio Aliases*
- **3.2.0** - *Talkgroup and Multigroup Names*
- **3.3.0** - *Radio ID Talkgroup Allocation*
- **3.4.0** - *Fleetmap Standards*
- **3.5.0** - *Statewide Wide Area Talkgroup Access and Management*
- **3.6.0** - *Radio Site Access Permission - Subsystem Roaming*
- **3.7.0** - *Scanning*
- **3.8.0** - *Emergency Button*
- **3.9.0** - *Multigroup Announcement*
- **3.10.0** - *Talkgroup and radio user priority*
- **3.11.0** - *Talkgroup Site Access and Roaming*
- **3.12.0** - *CAD and ATIA Connectivity*
- **4.1.0** - *Outage Responsibility*
- **4.2.0** - *Agency Maintenance*
- **4.3.0** - *Preventative Maintenance*
- **4.4.0** - *Record Keeping Requirements*
- **4.5.0** - *Contact Information Procedures*
- **4.6.0** - *System Maintenance Programming and Qualifications*
- **5.1.0** - *Hospital Access*
- **7.1.0** - *Standards Compliance Process*
- **Documents published and/or adopted in 2018:**
  - **ISICSB TR-2018-001** – *Programming Guide Technical Recommendation*
  - **ISICSB TR-2018-002** – *Multi-Key Equipped Subscriber Units*
  - **Whitepaper** – *Encryption Needs in Iowa*

ISICSB will continue to promote interoperability policies and other documents to assist agencies comply with state and federal standards.

Additional policy statements, standards and technical recommendation documents are in various degrees of completion in committee work and posing for interested stakeholders.

#### **4. Historical actions to allocate and oversee state appropriations or other funding received for interoperable Communications.**

In August, 2013, the ISICSB, on behalf of the State of Iowa, received a \$1.67 Million federal grant to plan future build-out of the Nationwide Public Safety Broadband Network (NPSBN) in Iowa called SLIGP. NPSBN is being undertaken by a federal agency, FirstNet. NPSBN will be a national public safety grade, wireless broadband data network. This grant was restricted to specifically this initiative and includes planning, outreach, education of public safety and elected officials, inventory of existing assets that could be leveraged for this broadband data network, and funding for any personnel costs directly related to this initiative, e.g., a percentage of the SWIC's salary directly attributable to his work on broadband. This grant expired on March 1, 2018.

In state fiscal years 2014 through 2017, ISICSB received \$154,661 annually in state appropriations to conduct State of Iowa interoperability matters not covered by federal grants.

For state fiscal year 2018 and 2019, ISICSB's appropriation was reduced to \$115,661 to conduct State of Iowa interoperability matters not covered by federal grants. The ISICSB plans to request increased appropriations for future fiscal years in order to help sustain and expand interoperable efforts in Iowa.

SWIC Maiers has worked in collaboration with ISICSB members and interoperability stakeholders to identify potential long term funding mechanisms to enhance interoperability in Iowa.

In 2018 SLIGP 2.0 was rolled out, awarded to Iowa and will run through 2020. Iowa was awarded funding to help sustain the SWIC and administrative assistant positions. This grant continues to fund approximately 50% of the SWIC position, and administrative assistant and FirstNet Outreach Specialist. SLIGP 2.0 activities<sup>7</sup> include:

- *Single officer (or governmental body) and staff to, at a minimum, provide for ongoing coordination with NTIA and implementation of grant funds.*
- *Existing governance body to provide input to the single officer and to contribute towards planning activities to further identify potential public safety users of the NPSBN and prepare for data sharing.*
- *Data collection in specific areas identified to be helpful as requested by FirstNet.*
- *Development of policies and agreements to increase sharing of data between existing public safety systems across various agencies within the State or territory using the NPSBN.*

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<sup>7</sup> [SLIGP 2.0 Frequently Asked Questions](#)

- *Individuals, such as the single officer and governing body members, to perform planning activities to help FirstNet and its partner further identify potential public safety users of the NPSBN.*
- *Planning efforts to help FirstNet gain inclusion on applicable statewide contract vehicles.*
- *Planning activities to prepare for emergency communications technology transitions.*
- *Activities to identify and plan for the transition of public safety applications, software, and databases.*
- *Identifying and documenting on-going coverage needs/gaps within the State.*
- *Activities to convene stakeholder outreach events to continue planning for NPSBN implementation, as requested by FirstNet.*

**5. Historical actions to identify sources for ongoing, sustainable, longer-term funding for communications interoperability projects, including available and future assets that will leverage resources and provide incentives for communications interoperability participation, and develop and obtain adequate funding in accordance with a communications interoperability sustainability plan.**

Many of these activities are also covered in Part 4 above. They include the previously listed grants.

With the passage of the Federal Nationwide Public Safety Broadband Network (NPSBN) legislation, Iowa will continue participating in planning for Iowa's portion of build-out of FirstNet, a nationwide broadband data network to supplement public safety's land mobile-radio communications networks with interoperable wireless data capabilities.

ISICSB continues to seek ways to identify sustainable, long-term funding and cost containment measures for communications interoperability. Continued state funding for ISICSB allows this board to continue to seek federal grant opportunities. Without this funding, ISICSB will be denied many grant opportunities due to inability to meet grant requirements specifying a local match.

Local, county and state funding is essential for sustainability of any interoperable communications system. State funds will continue to be used to train, educate, and where possible build and maintain infrastructure.

ISICSB will continue to seek grants and outside funding; however, federal grants specifically for interoperable communications are diminishing making state support all the more crucial in receiving such funding.

ISICSB has completed the final year of SLIGP Grants for the rollout of FirstNet, a nationwide broadband data network. ISICSB was awarded SLIGP 2.0 grants as Iowa was the fifth state to "Opt-In" to FirstNet. The SLIGP 2.0 grant will run from 2018 through 2020. (See more on SLIGP in section 6 below.)

ISICSB developed ideas for potential funding streams that could be ready for legislative consideration in future legislative sessions. If enacted, the funding streams would allow the ISICSB to maintain and expand ISICS infrastructure, and administer grants to local municipal and county public safety agencies to promote and expand interoperability. These grant monies could include allocations for training and educational opportunities, procurement of subscriber units and/or expansion of local LMR infrastructure.

Any new funding mechanisms and resulting programs would be structured to be consistent with all state and federal laws regarding grant awards, accounting and distribution of funds.

**6. Historical actions to develop and evaluate potential legislative solutions to address the funding and resource challenges of implementing statewide communications interoperability initiatives.**

Potential legislative items noted in Part 5 above regarding the restoration of the appropriations and development of future funding streams would address costs associated with funding interoperability in Iowa by supporting ISICSB. New funding could be used to fund grants that local agencies could use to expand interoperable capabilities. These grants could be used by volunteer fire departments and emergency medical services, municipal police departments, schools and other interoperability stakeholders.

Work continues on developing a five and ten year financial plan for the ISICSB. Implementation of those plans would require legislation to be put in to effect.

**7. Historical actions to develop a statewide integrated public safety communications interoperability system that allows for shared communications systems and costs, takes into account infrastructure needs and requirements, improves reliability, and addresses liability concerns of the shared network.**

In 2012, the Department of Public Safety (DPS), Department of Transportation (DOT), and Department of Corrections (DOC), began working together with ISICSB to develop a plan and issue a Request for Proposal (RFP) for using state infrastructure and leveraging any other state resource that could be used to develop a communications interoperability radio system.

In 2013, ISICSB management monitored and assisted with an RFP for a statewide Project 25 700 MHz Phase 2 land-mobile radio (LMR) statewide platform tying together the seven existing countywide LMR systems. The winning vendor chose two of those county based systems as the basis for initial coverage. Those two systems selected were WESTCOM in the West Des Moines Metro which spans Polk, Warren and Dallas counties, and STARCOM, a multi-state communications system based in Woodbury County.

During 2016 a contract was signed and construction began of the Iowa Statewide Interoperable Communications System (ISICS) platform. ISICS is scheduled to be completed

in early 2019. ISICSB members believe by working with state and local agencies to create a “shared interoperable” Project 25 (P25), 700 MHz, Phase 2 LMR statewide platform, both interoperability and a very significant cost savings for state and local governments can occur.

ISICSB has worked to expand and engage county and local membership on all seven committees, Finance, Governance, Operations, Outreach, Technology, Training and Exercise, and User Group, to make sure the Board’s on-going process to gather input from local users on a continuous basis is maintained and to ensure that the actual state-wide system operational protocols remain up to date. To date, ISICSB has over 100 county and local committee member representatives. Various sub committees have aided in investigation and expansion of interoperability in Iowa for LMR and broadband and will address future needs of the ISICSB and stakeholders across Iowa.

A list of agencies that have completed the process to use ISICS is in Attachment 6. Some counties have opted to build out infrastructure on the ISICS system but have not yet gone through the official approval process. As such, those counties are not listed here but are shown in Figure 1 if site locations have been identified.

## **8. Historical actions to investigate data and video interoperability systems.**

In 2010, Iowa was one of twenty-one jurisdictions (one of seven states) to be granted an FCC license to build a public safety high speed wireless network for data and video interoperability, the precursor to the NPSBN. The ISICSB applied for, but did not receive a federal grant to initiate construction of this network. The grant was denied because the ISICSB lacked the 20% matching fund requirement and had no sustainable state appropriations.

With the passage of the Nationwide Public Safety Broadband Network (NPSBN) legislation by Congress in February of 2013, the ISICSB created a FirstNet Broadband Subcommittee to address Iowa’s portion of planning and technology issues of this coming national network. This subcommittee was Co-Chaired by then ICN Executive Director and State of Iowa CIO. Members included SWIC Allen, SWIC Maiers, state and local subject matter experts, Department of Management, 911 Communications Council Chair, Connect Iowa, and representatives of police, fire and emergency management.

The FirstNet Broadband Subcommittee reconvened in January 2019 to begin discussions of how to leverage public safety broadband data networks that are now or will be available to address current operability and interoperability issues. This activity will help assist agencies in planning necessary for successfully adopting new technology.

In November 2015 ISICSB Chair Thomas Lampe, along with ICN staff met with Marshalltown School officials to launch the Wi-Fi Internet for School Emergencies pilot project at Marshalltown High School. Using existing high speed ICN fiber connections at the Marshalltown school and other schools across Iowa will provide public safety responders with a dedicated, secure, private, broadband wireless connection through Wi-Fi for devices

available during day to day operations and emergencies at the school. This pilot project is intended to serve as a model for Iowa demonstrating protection of our schools with existing technology. This also simulates a FirstNet broadband connection in that only public safety has access to it. This pilot project with Marshalltown schools expanded to two additional schools, Norwalk and Martensdale. Overall feedback from the program was positive. The pilot program was marked as complete in 2018.

**9. Historical actions to expand, maintain, and fund consistent, periodic training programs for current communications systems and for the statewide integrated public safety communications interoperability system as it is implemented.**

The ISICSB has established and maintained a periodic training program for Iowa's public safety officials through a series of regional workshops annually funded by the Department of Homeland Security (DHS) Emergency Communications Division (ECD). These Technical Assistance grants can be presented throughout the state. The ISICSB has acquired several national DHS/ECD interoperability tools for these efforts, such as:

- In previous years, ISICSB hosted a Communication Training Session in Des Moines and participated in one National Guard sponsored events where several COML and COMT participants were able to complete their task books to apply for credentialing through ISICSB.
- SWIC Maiers assisted with the planning for the next National Guard communications training events scheduled for 2018.
- ISICSB Training Committee in collaboration with DHS/ECD are actively planning more communication training opportunities scheduled for calendar year 2019. This follows Audio Gateway, ISICS Regional Training, ICS 300 and Incident Tactical Dispatch classes in calendar year 2018. Objectives for 2019 include an expansion of the COML and COMT classes and cybersecurity. These offerings in 2019 are expected to compliment further ISICS interoperability training.
- In May 2013, a multi-state workshop was held in Des Moines to put together a standard recognition and credentialing process for the COML and COMT positions in Iowa, Missouri, and Kansas. This process ensures trainees take the relevant courses and then demonstrate their skills so that they are not only better prepared to use these skills in Iowa, but regionally and nationally, if requested. So far, several individuals have successfully completed this COML or COMT process and received credentials from the ISICSB.

The above efforts are those training initiatives which can help Iowa public safety improve interoperability in pre-planned or emergency situations where public safety uses many disparate radio systems to communicate. ISICSB has credentialed over 17 COMLs and COMTs since 2013.

**10. Historical actions to expand, maintain, and fund stakeholder education, public education, and public official education programs to demonstrate the value of short-term communications interoperability solutions, and to emphasize the importance of developing and funding long-term solutions, including implementation of the statewide integrated public safety communications interoperability system.**

Many of these activities are also covered in Part 9 above.

Besides the ISICSB's efforts regarding improving interoperability with traditional land-mobile radio (LMR) systems, the ISICSB has initiated stakeholder education regarding the new Nationwide Public Safety Broadband Network (NPSBN) system called FirstNet being built in every state as part of a single nationwide high-speed wireless broadband network designed to supplement and complement public safety's LMR systems. A federal grant was obtained in 2013, which will fund stakeholder education and planning for this coming network through 2018. Another grant application for NPSBN has been submitted and accepted that provides additional funding sources through 2020-2021.

The educational opportunities did not just include local subject matter experts (SME). This included the Inter Sub System Interface (ISSI) Summit that was held in March of 2017 in which SMEs from TIA/TR-8, the Federal Partnership for Interoperable Communications (FPIC)<sup>8</sup> and vendors attended. This summit provided extremely valuable information regarding the complexities, required time, expenses and pitfalls associated with an ISSI connection between two LMR systems, and guided the ISICSB in the drafting of the *Staff Study - ISSI Committee Recommendation for Iowa Statewide Interoperable Communication System (ISICS) use of ISSI connection*.

Other projects include the efforts in 2018 to investigate encrypted interoperable communications pathways. These efforts defined current technological and procedural barriers to effectively deploying and managing encrypted interoperable talkgroups. The resulting work products were the ISICSB technical recommendation (TR-2018-002) *Multi-Key Equipped Subscriber Units* and a whitepaper *Encryption Needs in Iowa*. The whitepaper was presented at a recent P25 User Needs Subcommittee in San Antonio, Texas that was attended by LMR system administrators, users from other states along with federal partners and manufacturers. The presentation was well-received and expected to see further action in future meetings and working sessions.

A series of meetings were held in 2017 to develop a new and updated Statewide Communications Interoperability Plan (SCIP) using the Enhanced SCIP Process developed by the Office of Emergency Communication in the U.S. Department of Homeland Security. The

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<sup>8</sup> FPIC serves as a coordination and advisory body to address technical and operational wireless issues relative to interoperability within the public safety emergency communications community, interfacing with voluntary representatives from federal, state, local, territorial and tribal organizations. FPIC is a technical advisory resource to Emergency Communications Preparedness Center (ECPC) Steering Committee, NCSWIC and National Public Safety Telecommunications Council (NPSTC) and a collaborative partner with SAFECOM and NCSWIC. (taken from <https://www.dhs.gov/safecom/fpic/>)

process included representatives from DHS OEC who facilitated the events. Events were attended by members of the ISICSB including board members, committee members and the SWIC. Iowa's 911 program manager, Blake DeRouchey, also attended several of the meetings.

Planning aspects of the Enhanced SCIP included a strengths, weaknesses, opportunities and threats assessment of interoperability in Iowa, several phone calls with OEC personnel and several committee meetings. Some of those meetings were specific such as the Iowa Funding Webinar held in May of 2017. Other meetings included outlining each committee's action plan that fits in with its goals, metrics and objectives.

This new SCIP not only laid out a strategic plan for Iowa interoperable communications that outlines a vision, objectives and goals for the ISICSB, it also contains action plans to drive activities which make results a reality. This SCIP will be updated with DHS annually and monitored and adjusted as necessary to adapt to changing communications environments.

In 2018, various meetings were held with ECD to check on Iowa's progress through its listed goals in the SCIP. Measured progress was observed for each committee, and a couple of the goals are now completed. Several perpetual goals are listed as well to ensure that the ISICSB committees remain active.

A SCIP refresh is being discussed for calendar year 2019 that may update the goals of the various committees to reflect the current interoperable status in Iowa. This refresh will also aid in aligning Iowa's SCIP with the 2019 update to the NECP.

SWIC Maiers routinely visits counties to listen to local needs and discuss interoperability challenges and explain the benefits of an interoperable radio network like ISICS provides. He plans to visit all 99 counties and primary dispatch centers by the conclusion of calendar year 2021.

SWIC Maiers has also attended numerous county 911 service board meetings, several county level meetings and various state-level organizations comprised of local public safety personnel to discuss interoperable communications and answer questions regarding ISICS and FirstNet. In addition, SWIC Maiers provided technical assistance to counties regarding interoperability.

**11. Historical actions to identify, promote, and provide incentives for appropriate collaborations and partnerships among government entities, agencies, businesses, organizations, and associations, both public and private, relating to communications interoperability.**

Part 10 above regarding a single unified SCIP (strategic plan) for Iowa between the ISICSB, 911 Program, and 911 Communications Council addresses this requirement.

Part 7 covers the collaboration and issuance of a statewide multi-state agency RFP for a land-mobile radio (LMR) system. The ISICS Platform will be completed in 2019 and completely fulfill this requirement.

Board Management and the SWIC presented at several events in 2018. The goal of the presentations was to update stakeholders on the ISICS Platform and the FirstNet initiative and create new potential partnerships for the FirstNet network in Iowa.

**12. Historical actions to provide incentives to support maintenance and expansion of regional efforts to promote implementation of the statewide integrated public safety communications interoperability system.**

Part 7 touches on the multi-state agency land-mobile radio RFP.

The ISICSB has examined ways to expand the ISICS Platform to support regional efforts and bring to fruition the implementation of a statewide integrated public safety interoperable communications system. This has included work to identify long-term funding mechanisms.

**13. Historical actions related to performing its duties, consult with representatives of private businesses, organizations, and associations on technical matters relating to data, video, and communications interoperability; technological developments in private industry; and potential collaboration and partnership opportunities.**

In the past, ISICSB members and the SWIC met with all six Homeland Security regions creating six Regional Interoperability Committees (RICs) to advise ISICSB on issues of local concern, in addition to many county and city public safety groups regarding a statewide LMR system. The SWIC also made presentations to various organizations across Iowa on ISICSB activities and the FirstNet NPSBN initiatives.

These outreach efforts continue as non-traditional stakeholders are engaged to discuss interoperability needs and ISICS access. These entities include for-profit ambulatory services, utility companies and other non-traditional public safety and public service stakeholders.

Another past accomplishment included the ISICSB Technology Committee and FirstNet Broadband subcommittee hosting a public private meeting inviting in telecommunications industry stakeholders to discuss options and concerns as FirstNet gets planned for Iowa. One outcome of that meeting was a letter to FirstNet recommending that the Iowa business community have an opportunity to compete for any business FirstNet may do in Iowa.

The ISICSB Operations Committee has maintained a Public/Private subcommittee that meets as necessary to bridge concerns of private businesses providing communication resources to Iowa public safety community. This group did not meet in 2018, but it reconvened in 2019 as the ISICS Platform is completed and FirstNet continues to be deployed at a federal level.

The ISICSB Chair and SWIC expanded the ISICSB meeting model to include use of a conference line for all meetings, both Board and Committee, posting meetings times, dates and locations on the ISICSB website such that any interested party can listen into the meetings and comment under public comment periods. A virtual meeting room is used when necessary for document review and note-taking.

Former SWIC Allen and SWIC Maiers in addition to being part of TIA/TR-8 also participated in and are members of the Federal Partnership for Interoperable Communications (FPIC) and the National Council of Statewide Interoperability Coordinators (NCSWIC). FPIC is a federal group that is under the Emergency Communications Division (ECD) that meets regularly to investigate and solve problems pertaining to interoperability on a national level.

Participation in and feedback from FPIC has been vital in committee research into complex issues such as whether to use the ISSI on the ISICS Platform. Members of FPIC have also offered assistance and guidance regarding encryption on interoperable talk groups on ISICS and associated subscriber unit features via conference calls and meetings.

NCSWIC is a partnership with SWICs from all 50 states and six territories that evaluate interoperability challenges and coordinate with stakeholders to solve problems. These can range from establishing training opportunities to approving grants. NCSWIC also was vital in providing a pathway towards the Enhanced SCIP process that Iowa completed in 2017. The Enhanced SCIP process was viewed as an improvement over the previous methodology in developing a SCIP.

- 14. Submit a report by January 1, annually, to the members of the general assembly regarding communications interoperability efforts, activities, and effectiveness at the local and regional level, and shall include a status report regarding the development of a statewide integrated public safety communications interoperability system, and funding requirements relating thereto.**

The ISICSB has submitted annual reports for several years to satisfy this requirement.

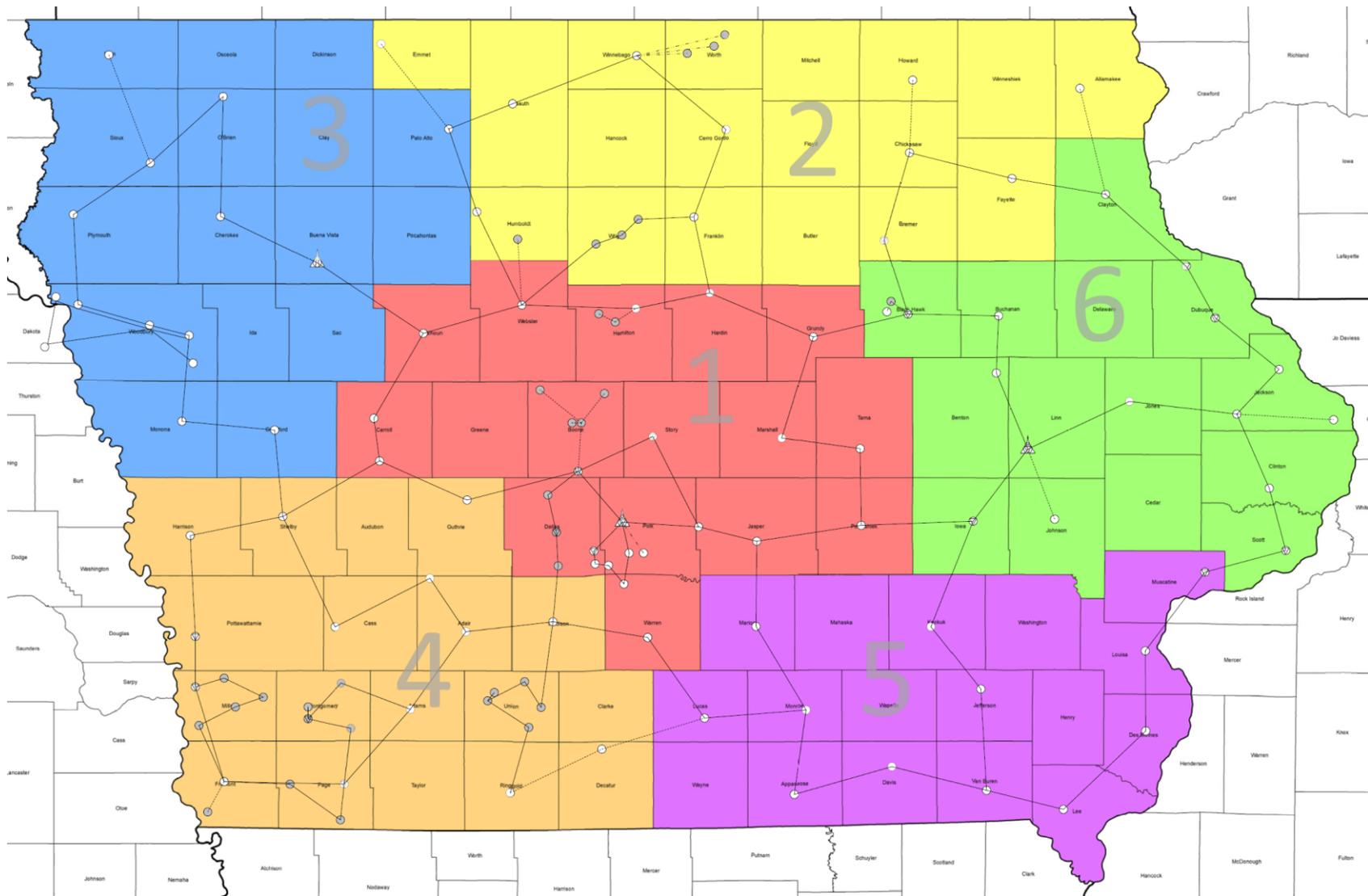
## VIII. Attachments for 2019

1. 2017 SCIP
2. 2019 SCIP *if approved*
3. Map of ISICS Network
4. Map of ISICS Bit Error Rate (BER) Coverage Testing
5. Map of ISICS Delivered Audio Quality (DAQ) Testing
6. List of agencies and counties that have joined ISICS for interoperability and/or operability
7. Interstate Interoperability Agreements
  - a. Minnesota Letter
  - b. Missouri Letter
  - c. South Dakota Letter
  - d. Illinois Approved MOU (unsigned)
8. Standards adopted and/or updated in 2019:
9. Updated COMU Credentialing Policy *if approved*

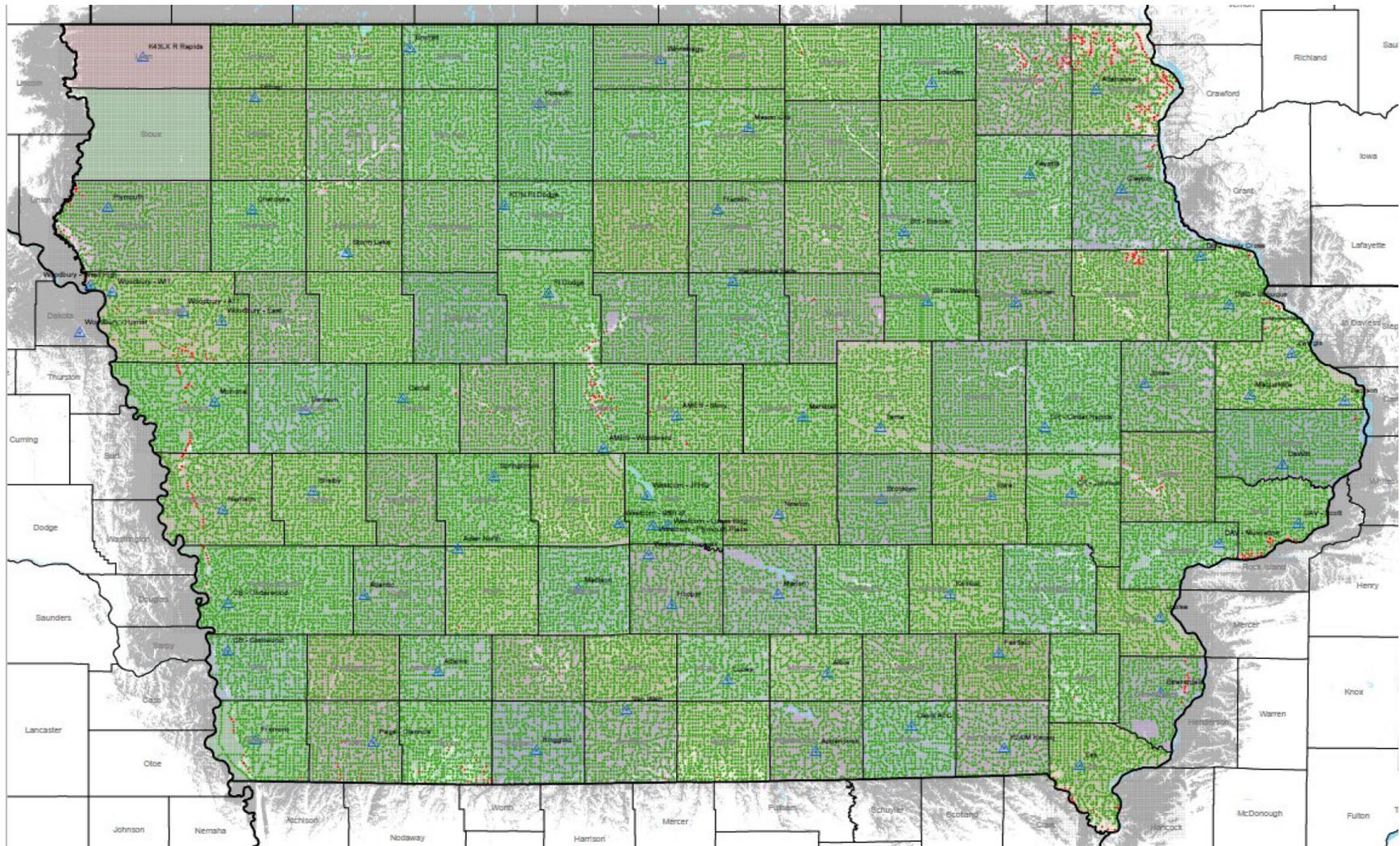
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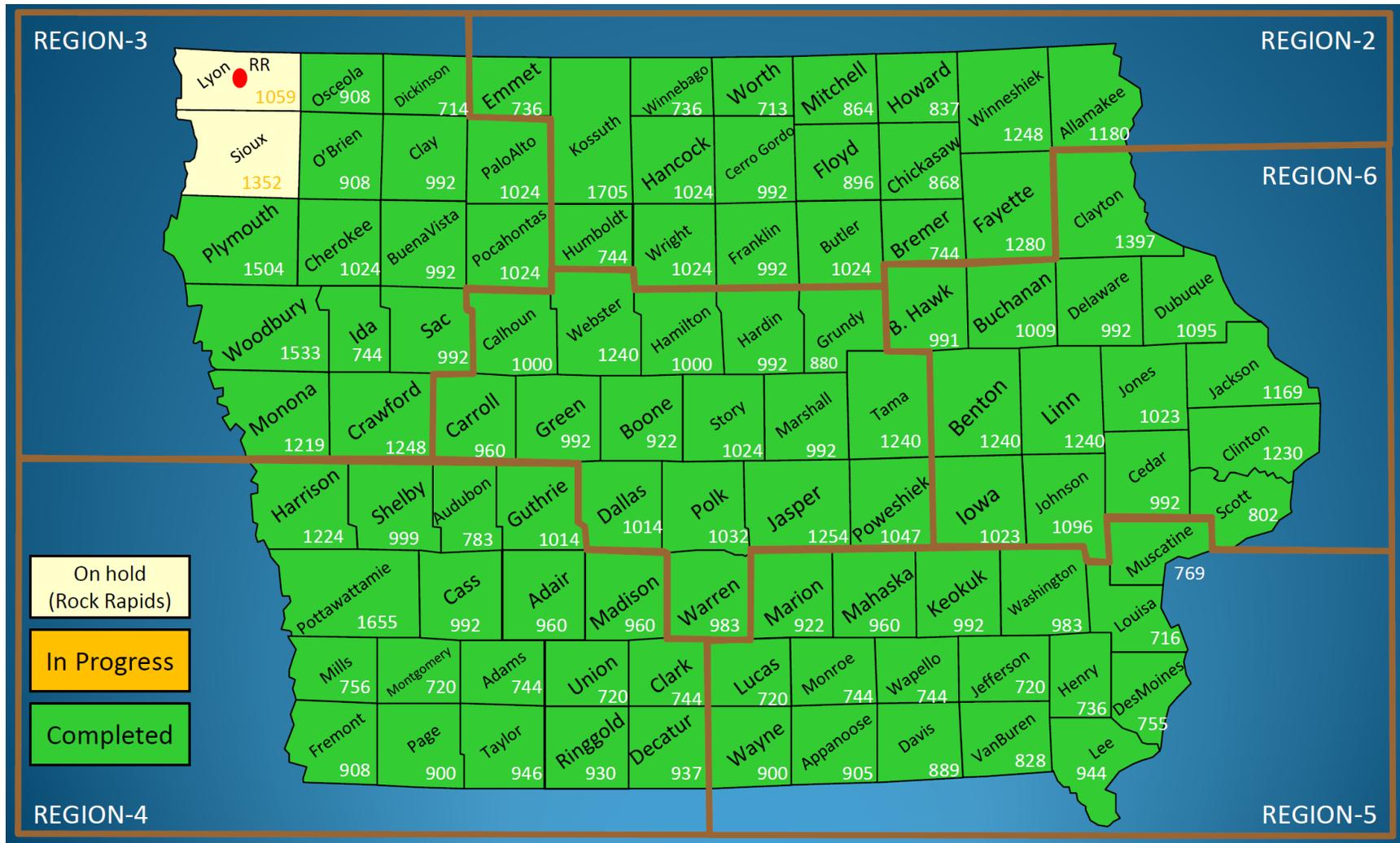
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**Attachment 3.** Current map of the ISICS Platform as of December 3, 2019. The white dots denote ISICS sites that were part of the default buildout. Gray dots denote local enhancements that have been sited and built or will be built. Black lines connecting sites are microwave connections that network all the sites together.



**Attachment 4.** Current status of the ISICS Platform Bit Error Rate (BER) coverage testing as of December 13, 2019. Each dot represents a test tile with spacing of approximately 0.75 mile by 0.75 mile. There are over 100,000 test tiles to test in the State of Iowa. The minimum mobile coverage specification was 95%. To date, the BER testing has over 99% of tested tiles passing the BER specification in coverage testing.



**Attachment 5.** Current status of the ISICS Platform Delivered Audio Quality (DAQ) coverage testing as of December 13, 2019. This test verifies that the audio quality meets the specified DAQ of 3.4 (speech understandable without repetition and minimal distortion). The results of this testing are being scored and verified as of December 13, 2019.

**Attachment 6: List of agencies and counties that have joined ISICS for interoperability and/or operability as of December 13, 2019.**

5th Judicial District	Federal Bureau of Investigation (FBI)
10th District Reserve Law Enforcement	FEMA Region 7
185th Iowa Air National Guard	Freeborn County Minnesota
Adair Guthrie EMA	Fremont County
Adams County EMA	Fonda PD
Air Methods	Granger FD
Altoona FD	Greene County
Altoona PD	Grundy County
Altoona PW	Hamilton County
Ankeny FD	Hancock County
Ankeny PD	Harrison County
Alcohol, Tobacco, Firearms and Explosives, Bureau of	Henry County
Atkins, City of	Humboldt County
Audubon County SO	Ida County
Aurelia Fire	Iowa Association of Municipal Utilities
Benton County	Iowa County Sheriff's Office
Blakesburg Fire & Rescue	Iowa Department of Corrections - Clarinda
Bondurant FD	Iowa Department of Corrections - Fort Madison
Boone County	Iowa Department of Natural Resources
Buchanan County	Iowa Department of Public Health
Buena Vista County SO	Iowa Department of Public Safety
Buena Vista EMA	Iowa Department of Transportation
Camp Township FD	Iowa Homeland Security and Emergency Mgmt.
Carlisle Fire Department	Jackson County EMA
Carroll County	Jasper County
Cass County	Jewell Fire Rescue
Cerro Gordo County Sheriff's Office	Johnson County JECC
Cherokee County	Johnston Grimes Metro Fire Department
Chickasaw County 911	Johnston PD
Chickasaw County EMA	Jones County
City of Cedar Rapids	Keokuk County EMA
Coulter Fire Department	Kossuth County
Crawford County	Lee County EMA
Dallas County	Linn County Sheriff's Office
Delaware Township Fire Department	Madison County
Des Moines International Airport	Mahaska County
Des Moines Police Department	Marion County Sheriff
DHS OEC (Jim Lundsted)	Mercy Ambulance Des Moines
Dickinson County Emergency Management	MICRN
Drug Enforcement Administration	Mills County
Elkhart FD	Mitchellville FD
Fayette County SO	Mitchellville PD
	Monona County

Montgomery County EMA  
Muscatine County  
Northern Warren Fire  
Osceola, City of  
US OIG HHS  
Page County  
Palo Alto EMA  
Pella PD  
Pleasant Hill FD  
Pleasant Hill PD  
Polk City FD  
Polk City PD  
Polk County  
Region 6 LEPC  
Ringgold County  
Saylor Township FD  
Scott County Health Dept.  
Shelby County  
Taylor County

Tipton Ambulance Service  
Urbandale Schools  
Union County LEC  
United States Marshal's Service  
Unity Point Des Moines  
University of Iowa Public Safety  
University of Northern Iowa  
USACE Red Rock  
US Probation Office (USPO) Southern Iowa  
Van Buren County 911  
Virginia Township Fire Rescue  
Warren County  
Waukee Schools  
Windsor Heights, City of  
Worth County  
Wright County  
Wings Air Rescue  
Winnebago County  
US Capitol Police

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***Attachment 7: Interstate Interoperability Agreements and Letters***

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***Attachment 8: Standards adopted in 2019:***

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***Attachment 9: Updated COMU Credentialing Policy:***

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