

The Mission of the 911 Coordinating Council is to serve Kansas PSAPs by implementing a coordinated, sustainable, and comprehensive NG911 service that responds anytime, anywhere, from any device in order to realize the full potential for 9-1-1 to provide public access to emergency services.

Audit of the Kansas 911 System

On Behalf of the Legislative
Division of Post Audit

Brevitz Consulting Services

Executive Summary

The Kansas 911 Act (“the Act”) established the Kansas 911 Coordinating Council to ensure the implementation and operation of the Kansas NG911 system. K.S.A. 12-5377 requires the Legislative Post Audit Division to conduct a Kansas NG911 System Audit every five years to determine:

1. What is the status on NG911 service implementation;
2. Whether the moneys received by PSAPs pursuant to [the Kansas 911 Act] are being used appropriately; and
3. Whether the amount of moneys collected pursuant to [the Kansas 911 Act] is adequate.

In performing this audit, we conducted approximately 30 interviews with the primary stakeholders (Coordinating Council members, Staff and PSAPs and other stakeholders), to obtain a full 360-degree view of current NG911 services in Kansas. We also developed a survey which was sent to all Kansas PSAPs to gain additional insights into their views of the effectiveness of Kansas NG911 policies, NG911 system support, and NG911 system technology infrastructure. We are grateful for the PSAP administrators taking time to provide this survey information, recognizing that they often feel “over-surveyed”. Finally, we monitored the most recent Coordinating Council meetings to capture the essence of the Council’s current activities, projects, issues and direction.

Federal Matters and the Current Status of the Kansas NG911 System

The Act defines “Next Generation 911” as “911 service that conforms with National Emergency Number Association (NENA) i3 standards¹ and enables PSAPs to receive Enhanced 911 service calls and emergency calls from Internet Protocol (IP) based technologies and applications that may include text messaging, image, video and data information from callers. “

These platforms are expensive – while the Act provides funding through 911 fees, Congress is working on grant funding to implement a comprehensive NG911 system across the country,

¹ The NG911 i3 standard is the “keystone” in NENA’s family of NG911 standards and facilitates end-to-end IP connectivity.

based on cost estimates from a 2018 study² for nationwide NG911 deployment of between \$9.5 billion and \$12.7 billion. Last year the Public Safety Next Generation 911 Coalition updated that estimate to \$15 billion to account for cost increases and increased spending on cybersecurity.³ The House Energy and Commerce Committee passed legislation to reauthorize the FCC's authority to conduct spectrum auctions⁴ with \$14.8 billion in auction proceeds to fund grants to states for NG911. However, these grant funds would not be available to states identified by the FCC as "fee diverters". This is not an issue for Kansas since the Act places Council funds outside the state treasury, not subject to being swept or redirected.

The FCC is finalizing rules to expedite NG911 nationwide deployment as well as require Telecommunications Relay Services be integrated into NG911. While Kansas is well positioned to comply with these requirements, the Coordinating Council is planning now for these new rules and will maintain its national leadership position by doing so.

The Americans with Disabilities Act (ADA) required among other things that 911 become accessible for individuals unable to use the telephone. Since that time Real Time Text (RTT) has become a modern alternative to outdated TTY technology. NENA has been proactive in integrating RTT into its i3 architecture for Next Generation 911. RTT is planned to be added to the Kansas NG911 system in the first half of 2024.

In 2020 the FCC established the 988 prefix for the national Suicide and Crisis lifeline. This number does not run through the 911 system and is routed in the network differently. The Council is providing its expertise to the Kansas Department for Aging and Disability Services to support 988 deployment in Kansas.

The migration in Kansas from legacy circuit switched networks and Time Division Multiplexing (TDM) transmission technology to the newer Internet Protocol (IP)-based

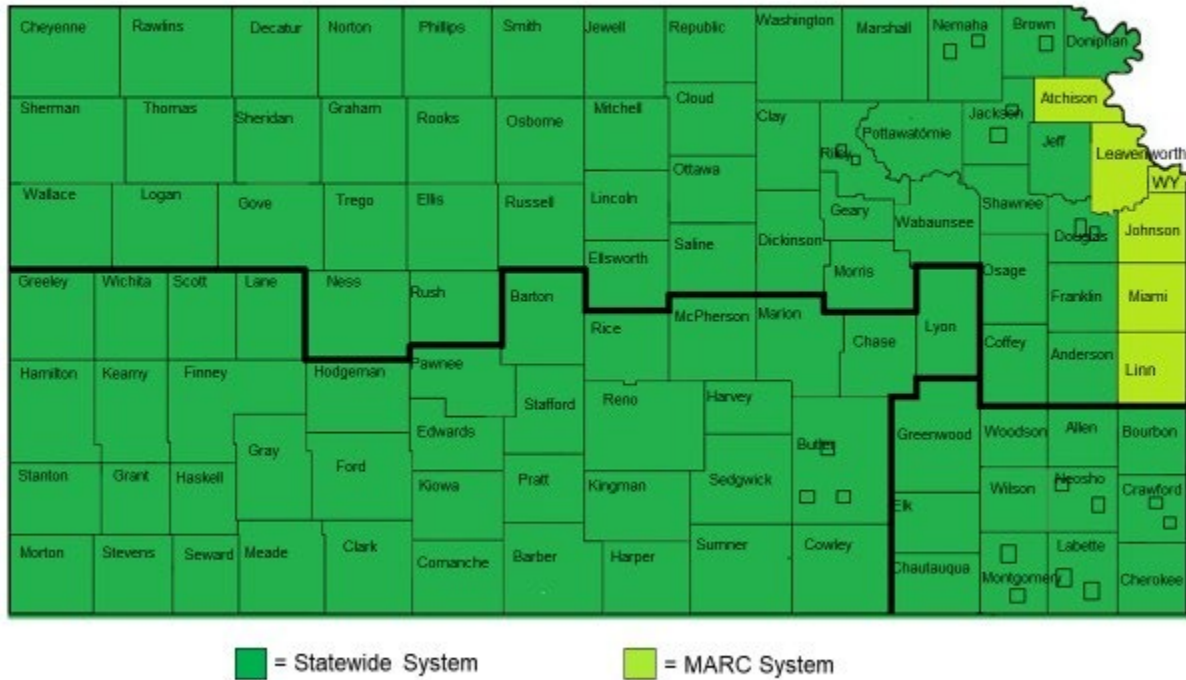
² Next Generation 911 Cost Estimate: A Report to Congress, October 2018, submitted by the National Highway Traffic Safety Administration and the National Telecommunications and Information Administration.

³ "Next Generation 9-1-1 Fact Sheet", <https://ng-911coalition.org/next-generation-9-1-1-fact-or-fiction/>

⁴ The Federal Communications Commission administers and manages the country's electromagnetic radio spectrum which is used for wireless and broadcast services. Since 1994 the FCC has conducted spectrum auctions to grant licenses and permits for its use. These auctions have numerous benefits including earning substantial funds from qualified bidders who win the auction for various slices of the spectrum. Congress allocates the auction proceeds in the budget such as in the recent House Energy and Commerce Committee legislation which allocates \$14.8 billion in auction proceeds to fund grants to states for NG911.

format and routing is now complete. Furthermore, all Kansas PSAPs (outside the MARC region) have connected to the Kansas NG911 IP platform as of October 2023.

Statewide Hosted Call Handling System



Kansas contracted with a single prime contractor (AT&T) as its provider for the Statewide Hosted Call Handling system. PSAPs connect using an IP-based network known as “ESInet”. Today in Kansas, using this IP-based NG911 system PSAPs are poised to receive and process any type of emergency 911 communication that is digital (e.g., texts, photos, video, multimedia).

Current and accurate GIS data is mandatory for the geospatial call routing that is inherent to NG911. Kansas is fortunate to have a national leader in collecting, organizing, maintaining and updating Geographic Information System data – the Data Access and Support Center (DASC) at the University of Kansas. DASC relationships with GIS data stewards statewide ensure that the NG911 GIS data remains 100% up to date.

Other vendors are included in the AT&T contract as subcontractors to provide additional features and services supporting Kansas NG911 such as RapidDeploy for enhanced mapping and situational awareness and ECaTS for real time reporting analytics.

Migration of the ESInet from Virtual Private Networking to a faster, more reliable switched ethernet platform known as AT&T ASE is nearly complete. Since ASE circuits are more economical the Council has been able to add a commercial broadband connection at every PSAP as a redundant means of connectivity to the Statewide Hosted Call Handling System. The additional commercial connection provides another level of redundancy to keep PSAPs connected in the event that their primary circuit goes down. FirstNet LTE is now a tertiary backup for this purpose. An Emergency Mobile Dispatch and Training Center (EMDTC) is being constructed for the Council to provide additional network survivability and mobile disaster response and mobile training capacity.

Through the efforts of the Council, its staff and stakeholders including PSAPs, the State of Kansas has set a high national standard in modernizing emergency response systems and created an exemplary model for other jurisdictions to follow. The Kansas NG911 system is a world class NG911 system implementation and is nationally recognized in the public safety community as leader in NG911. However, as technology evolves, so will the need to continue to upgrade the NG911 system and incorporate ever-developing new features and capabilities.

Appropriate Use of 911 Fees by PSAPs

Annual PSAP expenditure reporting to the Council and Expenditure Review Committee (ERC) review of same in 2021 and 2022 have greatly improved over prior years. This is the result of PSAPs honing their own processes for expenditure reporting, and improvements on the Council side in the 911 Portal used for submission of expenditures, focused training provided by Council staff on allowable expenditures and the expenditure reporting, and the Committee's provision of updated FAQ answers regarding the process and a list of approved expenditures which is expanded and updated in "real time" with newly approved types of expenditures. In 2022 the ERC began meeting in the first week of March and closed the PSAP expenditure reviews much more promptly than in previous years (the 2022 review was largely concluded by June 2023). This is a very significant improvement over years past and is attributable to big staff

effort particularly from the North and South PSAP Liaisons to clear the backlog for prior years and stay on top of accomplishing the current year review, plus the payoff from education and communication efforts with the PSAPs regarding expenditure review and documentation.

The Council continues to seek to improve the expenditure review process with new members on the Expenditure Review Committee with budgetary decision-making authority in their regular position, to bring the perspective of persons that are responsible for administering budgets and expenditures to the review process. The ERC's role is being honed to strictly interpret allowable expenditures under the Act, analyze the processes to make sure the Committee is compliant with Act, while remaining supportive of the PSAPs.

We find the actions of the PSAPs, Council and the ERC have ensured 911 fee moneys are being spent on only allowable items under the Act.

Adequacy of 911 Fee Funding

In Kansas responsibility for funding PSAPs and 911 is divided between the State of Kansas and local government (cities and counties). On average, PSAPs get 16% of their funding from the state 911 fee and the remaining 84% from local government general funds. City and county government units are presently covering five-sixths of the cost of the 911 system in Kansas. As in many environments personnel costs are by far the largest category of expense. Since staffing costs are an unallowable expense under the Act local government general funds cover all PSAP staffing costs. Furthermore, PSAPs indicate they are funding some allowable expenditures locally to conserve 911 funds for larger projects.

The current state fee is \$0.90 per wireline account per month and 2.06% of prepaid wireless services. The FCC's Fourteenth Annual 911 Fee Report shows that Kansas fees are at the low end of the range of fees and below the average of states reporting their fees.

The Council performs Business Case projections to address adequacy of funding assuming required upgrades of continued NG911 system operations and roll out of further i3 NG911

capabilities. Since 2012 the Council has saved cash and investments⁵ to fund planned system upgrades and investments in i3 future technology and capabilities as well as other costs. The list of i3 features is extensive and includes enhancements to the ECaTS system, PSAP to PSAP chat, pilot and proof of concept for 3D and indoor mapping, Automated Automatic Callback, RAVE panic buttons for schools, PSAP access to third party databases, geospatial search capabilities, integration of KDOT cameras, roll out of RapidDeploy’s “Lightning app” (which provides NG911 call and mapping data and critical information directly to a first responder’s smart phone or tablet), TRAINFO, real time transcription of calls, integration of drones, and more.

The i3 projects fall into one of three categories – mandatory, essential, and beneficial. The total cost of i3 projects in all three categories is estimated to range from \$12 - \$14 million annually through the projection period 2023 - 2030. **Based on the projections provided in the Business Case and the Council’s ability to defer certain projects, if necessary, it appears funding is adequate through the projection period to 2030.** If necessary “beneficial” projects could be deferred but at the cost of loss of important functionality.

However, many PSAPs indicate funding is inadequate from their perspective. While revenue from the 911 fee has stayed flat, most if not all PSAP costs have increased. PSAPs state they are seeing decreased ability to plan for future maintenance and equipment upgrades. Local jurisdictions are strongly constrained from increasing taxes to provide greater funding to PSAPs.

Findings and Issues to Consider

The Council and its Chairman are taking a more hands-on approach to managing the continuous evolution of NG911 for Kansas. The Council is driving for greater transparency among all stakeholders for critical NG911 platform and operating decisions.

The Council currently has **voting and non-voting members** under the Act. The structure has largely worked but one could wonder why statewide representatives of elected officials with budget authority over local PSAPs and public safety – the Kansas Association of Counties and

⁵ Cash and investments totaled \$42.8 million in the most recent Council financial report. This balance fluctuates month to month and is planned to be expended on i3 projects and system upgrades over time under the Business Case.

the League of Kansas Municipalities – are non-voting Council members. A similar point could be made for the two currently non-voting representatives of “non-traditional PSAPs” (currently served by University of Kansas Public Safety and Potawatomi Tribal Police). However, this would require legislative change.

Council staff’s knowledge, talent and dedication is a tremendous positive for the Council, the public safety community in Kansas and the state as a whole. This relatively small, contracted Council staff team deserves a great deal of credit for deployment of the NG911 system in Kansas that is highly regarded among its peers in the public safety community. But this raises a critical concern: **succession planning**. Each staff member has their own specialized knowledge and there is not an obvious successor for any staff member to which this knowledge has begun being transferred. The Council could consider hiring additional more junior or assistant level staff as part of the approach to succession planning.

There are some **concerns over the present structure** under which the Local Collection Point Administrator (LCPA) manages Council staff. There are views that the Council is to manage and direct staff under the Act, not the LCPA, with other concerns that the term of the LCPA contract is not coterminous with the independent contractor contracts⁶ and also concern regarding the Council, who are all volunteers, having the capacity for any day-to-day management of staff which may be necessary. This may necessitate a change in the management structure for the current NG911 staff and might warrant legislative change. The Council has recognized this and is forming a working group to assess these issues. Regardless of any changes it is essential not to disrupt the current momentum and excellence that the existing contractor staff has created.

A **single prime contract provider** offers many benefits to the State. However, AT&T’s position as the single prime contractor for the statewide NG911 system introduces a need to discuss and manage cost controls for future upgrades, enhancements and additional features since moving the platform to a different vendor upon expiration of AT&T’s current contract would be extremely complex. When the contract term expires, or existing staff have turned over

⁶ It should be noted that Staff contracts are, by contractual provision within the LCPA contract, transferrable assets. If a new LCPA is chosen by the Council, staff contracts along with motor vehicles would be transferred to the new LCPA. There is requirement in the RFP issued for LCPA services that any bidder is willing to accept those transfers.

or retired, it may become very difficult to move away from the incumbent provider, even if that is the desire of the Council. For all the reasons that made a sole provider the best solution for Kansas NG911, it also introduces complexities for how to best manage future costs or switch to another provider.

Council/Staff discussions on these matters should focus on AT&T cost control and staff succession planning. The existing relationships appear to be working well today. That can always change quickly and having an action plan on these matters now is highly recommended. We see an urgent need to begin transferring knowledge and planning for future staff transitions since the intricacies of the Council's relationship with AT&T are in the hands of three dedicated individuals – two of which are contractors to the LCPA.

There are also concerns regarding **PSAP staffing**. As technology changes, so does the workforce needed to support NG911. Pay for PSAP telecommunicators in many places is too low to attract and retain qualified staff, especially given the long hours and high stress associated with the position. According to the PSAP Survey less than half the PSAPs consider they are “fully staffed”. This is one factor driving examination of consolidation of PSAPs or other alternatives. It may be feasible to examine a work from home model through a pilot study to help augment these staff shortages.

Training

The evolution of the NG911 system and addition of new features and capabilities drives the need for and importance of continued training for PSAP administrators and telecommunicators. Numerous new i3 features and capabilities are available for deployment on a continuous basis. PSAPs requested a wide range of training for their PSAP telecommunicators via the PSAP Survey.

New FCC rules will result in new and increased volumes of emergency calls from the Deaf and hard of hearing community against a backdrop of preexisting unfamiliarity at PSAPs with use of TTY and similar devices. Integrating TRS services into NG911 may require specialized training to be developed outside of the normal operational training requirements.

The Council should conduct self-evaluation to assess the current level of service provided to people with disabilities, identify gaps, implement solutions, and ensure that its emergency

response system meets ADA requirements. The Commission for the Deaf and Hard of Hearing could assist the Council in setting priorities for training and feature implementation to provide direct access for the deaf and hard of hearing community.

The Kansas Hosted Call Handling System is ideally suited to support consolidation of PSAPs which would be transparent to the 911 caller. However, consolidation momentum has slowed since there is some uncertainty regarding future Council disbursements for 911 to consolidating jurisdictions. The Council has recognized the impact of these uncertainties and is forming a working group to assess potential solutions. This may be an area the Legislature could clarify in the Act.