State of 911
Webinar Series

NATIONAL 911 PROGRAM
March 8, 2022
State of 911 Webinar Series

• Designed to provide useful information about federal and state participation in the planning, design, and implementation of Next Generation 911 (NG911) coupled with real experiences from leaders overseeing these transitions throughout the country

• Webinars are typically held every other month and include presentations from a federal-level 911 stakeholder and state-level 911 stakeholder, each followed by a 10-minute Q&A period

• **For closed captioning**, hover at the bottom of the Zoom screen for meeting controls, then click **cc** to start viewing closed captioning

• For more information on future webinars, to access archived recordings and to learn more about the National 911 Program, please visit [911.gov](http://911.gov)

• Feedback or questions can be sent to: [National911Team@MissionCriticalPartners.com](mailto:National911Team@MissionCriticalPartners.com)
To review the featured documents and tools, first select a category. Then, you can view the resources and their descriptions, and download them for later use.

2015 Emergency Communications Governance Guide for State, Local, Tribal, and Territorial Officials
September 29, 2015

In 2014, the Department of Homeland Security (DHS) Office of Emergency Communications (OEC) released the National Emergency Communications Plan (NECP) with the emphasis on enhancing decision-making, coordination, and planning for emergency communications through strong governance structures. The 2015 Emergency Communications Governance Guide for State, Local, Tribal, and Territorial Officials (Governance Guide) was developed to address Goal One in the NECP, governance and leadership.

49 CFR 18.24
December 14, 2009

FCC rules on optimizing the delivery and processing of enhanced wireless Phase II features and functions to PSAPs

911 and Emergency Management Best Practices for Coordination and Collaboration
This document has been developed to address the growing need for 911 and emergency management agencies to improve their ability to collaborate and cooperate before, during, and after disasters or widespread emergencies.
Celebrating 911 Telecommunicators
and Honoring the Impact They Make in Our Lives Every Day

32
Number of Telecommunicators Honored

The Tree of Life "grows" with every story told! Share how a 911 telecommunicator made a difference to your community.

Share a Story, Sprout a Leaf

This Tree of Life has been "planted" here with the support of national 911 organizations to recognize remarkable 911 telecommunicators and the difference they make every day in our communities. Each leaf on the tree represents telecommunicators that have been honored by someone in their community.

Check back often to submit stories recognizing your telecommunicator colleagues and to view featured stories.
Questions

The “Q&A” feature is in the meeting controls that will display when hovering at the bottom of the Zoom screen.

Once clicked, a new pop-up window/chat box will open to navigate the Q&A functions.

Or, to ask your question “live,” use the “Raise Hand” feature to request your phone line to be unmuted and you will be called upon to ask your question.
Federal Communications Commission
Public Safety and Homeland Security Bureau

FCC Update

911.gov “State of 911” Webinar
March 8, 2022

Public Safety and Homeland Security Bureau, FCC
Jill Coogan, Attorney Advisor
Jill.Coogan@fcc.gov
Outline

• 911 Fee Diversion Legislation and Rulemaking
• 911 Fee Diversion Strike Force Report
• 13\textsuperscript{th} Annual 911 Fee Report to Congress
• E911 Wireless Location Accuracy
• RAY BAUM’S Act – 911 Location Requirements for VoIP, MLTS, Relay Services, and Mobile Text
• NASNA Petition on Facilitating Implementation of NG911 Services
2020 Legislation on 911 Fee Diversion


• Section 902 included new congressional mandates related to preventing 911 fee diversion.

• **New FCC Regulations**: Section 902(c) required the FCC, within 180 days of enactment of the Act (i.e., by June 25, 2021), to issue final rules defining “acceptable” expenditures of 911 fees by states and taxing jurisdictions.
FCC Rulemaking on 911 Fee Diversion

• June 2021: Report and Order defines “acceptable” 911 fee expenditures as well as expenditures that constitute 911 fee diversion (R&O is available at [https://www.fcc.gov/document/fcc-adopts-order-address-911-fee-diversion](https://www.fcc.gov/document/fcc-adopts-order-address-911-fee-diversion)).

• Acceptable expenditures include PSAP operating, personnel, and administrative costs, pre-arrival instructions, emergency notification systems, Next Generation 911, and cybersecurity.

• Unacceptable expenditures include:
  — Transfer of 911 fees to a general fund or other fund for non-911 purposes.
  — Using 911 fees to construct non-public safety communications networks (e.g., commercial cellular networks).
  — Using 911 fees to pay for public safety equipment or infrastructure that does not “directly support providing 911 services.”

• The final rules became effective on October 18, 2021.

• The Commission received two petitions for reconsideration of the Report and Order, which were placed on Public Notice in December 2021. The comment cycle concluded on January 18, 2022.
“Strike Force” Report on 911 Fee Diversion

• Pursuant to Section 902(d), the FCC established an advisory committee called the “Ending 9-1-1 Fee Diversion Now Strike Force.”

• The statute directed the Strike Force to study and report to Congress by September 23, 2021, on “how the Federal Government can most expeditiously end diversion by a State or taxing jurisdiction of 9-1-1 fees or charges.”

• The Strike Force was comprised of state and federal officials, 911 administrators, public safety organizations, groups representing the public and consumers, and groups representing 911 professionals.

• The Strike Force held its first meeting on June 3, 2021, and its final meeting on September 17, 2021.

The New and Emerging Technologies 911 Improvement Act of 2008 (NET 911 Act) requires the Commission to submit an annual report to Congress on the collection and distribution of 911 and E911 fees and charges by the states, the District of Columbia, and U.S. territories. 47 U.S.C. 615a-1(f)(2).

The annual report provides state-by-state data on collection and expenditure of 911 fees, including state-by-state information on specific elements of 911 and NG911 service that are supported by 911 fees.

The annual report also identifies those states that have diverted 911 fees to pay for non-911 programs.

The Commission submitted the 13th Fee Report to Congress on December 31, 2021. The report identified five states (NY, NJ, WV, NV, and NM) as diverting 911 funds in calendar year 2020.

The thirteen annual fee reports and the related annual state questionnaire submissions may be accessed at: https://www.fcc.gov/general/911-fee-reports.
Wireless E911
Horizontal Accuracy Requirements

Wireless carriers must provide:
  • x/y location within 50 meters, OR
  • Dispatchable Location (civic address, floor level, room/office/apartment number) for the following percentages of wireless 911 calls:

<table>
<thead>
<tr>
<th>Date</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>50 percent of all wireless 911 calls</td>
</tr>
<tr>
<td>2020</td>
<td>70 percent of all wireless 911 calls</td>
</tr>
<tr>
<td>2021</td>
<td>80 percent of all wireless 911 calls</td>
</tr>
</tbody>
</table>

Summary of Wireless E911 Location Accuracy Requirements:
# Wireless E911 Vertical Accuracy Requirements

<table>
<thead>
<tr>
<th>Date</th>
<th>Requirement</th>
</tr>
</thead>
</table>
| **April 2021** | **First vertical accuracy benchmark:**  
Nationwide carriers must deploy either (1) Dispatchable Location or (2) Z-Axis technology validated by testing to support +/-3 meter accuracy for 80% of calls.  
- Deployment required in the top 25 Cellular Market Areas (CMAs) (80% of CMA population or 80% of CMA buildings taller than 3 stories).  
- **June 2021**: AT&T, T-Mobile, and Verizon did not meet the April 2021 deadline and entered into Consent Decrees with new requirements. |
| **April 2023** | **Second vertical accuracy benchmark:**  
Nationwide carriers must meet vertical accuracy requirements (using DL or Z-Axis w/3-meter accuracy) in the top 50 CMAs. |
| **April 2025** | **Nationwide vertical accuracy benchmark:**  
Nationwide carriers must meet vertical accuracy requirements (using DL or Z-Axis w/3-meter accuracy) nationwide. |
| **Non-nationwide carriers** | have one additional year (i.e., until 2022, 2024, 2026) to meet the above requirements  
**January 2022**: All CMRS providers must provide Dispatchable Location if technically feasible. |
Z-Axis Consent Decrees

• Ahead of the April 2021 Z-axis deadline, Verizon, T-Mobile, and AT&T indicated that they could not meet the Z-Axis requirements in time.

• The Commission’s Enforcement Bureau (EB) began an inquiry into the providers’ compliance with the FCC’s deadlines. In June 2021, EB entered into consent decrees with all three providers that resolved these investigations.

• The consent decrees:
  ‒ Required each carrier by June 10, 2021, to start providing PSAPs the Z-Axis location information available to the carrier, on a nationwide basis.
  ‒ Required each carrier to implement a compliance plan with specific testing, reporting, and public interest conditions, and to pay a $100,000 settlement amount.
  ‒ Required each carrier, by April 3, 2022, to meet the vertical location requirements that would have been applicable on April 3, 2021.

RAY BAUM’S Act – Section 506
FCC Dispatchable Location Requirements

• In August 2019, FCC implemented Section 506 of RAY BAUM’S Act by adopting dispatchable location requirements for 911 calls from the following services:
  – MLTS systems
  – Fixed Telephony
  – Interconnected Voice over Internet Protocol (VoIP)
  – Internet-based Telecommunications Relay Services (TRS)
  – Mobile Text

RAY BAUM’S Act – Section 506
FCC Dispatchable Location Requirements

• 911 Calls From Fixed Devices
  – Must provide automated dispatchable location for all 911 calls.
  – Compliance deadline: January 6, 2021 (one year from rule’s effective date).

• 911 Calls From Non-fixed (Mobile or Nomadic) Devices
  – Must provide automated dispatchable location for individual 911 calls if technically feasible.
  – If not technically feasible, must provide other actionable location information, e.g., coordinate-based information, with the call.
  – Compliance deadline: January 6, 2022 (two years from rule’s effective date).
  – Note: July 2020 Z-Axis Order applies same requirements and January 6, 2022, deadline to wireless carriers.
NASNA Petition on Facilitating Implementation of NG911 Services

• On October 19, 2021, the National Association of State 911 Administrators (NASNA) filed a petition for rulemaking or, alternatively, notice of inquiry to facilitate the transition to NG911.

• The Petition asks the Commission to initiate a proceeding that would:
  – Establish FCC authority over the delivery of 911 services by originating service providers (OSPs) via IP-based emergency services networks (ESInets);
  – Set a default demarcation point for the allocation of costs between OSPs and 911 authorities in the NG911 environment; and
  – Establish an NG911 readiness framework for state/local 911 authorities to initiate a timeframe for OSPs to begin delivering NG911 calls.

• On December 20, 2021, the Bureau issued a Public Notice seeking comment on the petition. Comments were filed on January 19, 2022, and reply comments were filed on February 3, 2022.
Contacting the FCC

- **Public Safety Support Center**
  - Available for PSAP questions, problems, notifications (see downloadable tip sheet)

- **FCC Operations Center**
  - Available 24/7/365 for time-sensitive emergencies
  - (202) 418-1122
  - Email: [FCCOPCenter@fcc.gov](mailto:FCCOPCenter@fcc.gov)
Thank you!
Questions?
Questions

The “Q&A” feature is in the meeting controls that will display when hovering at the bottom of the Zoom screen.

Once clicked, a new pop-up window/chat box will open to navigate the Q&A functions.

Or, to ask your question “live,” use the “Raise Hand” feature to request your phone line to be unmuted and you will be called upon to ask your question.
March 2022
State of 911 Webinar

NG911 and ECC/PSAP Statewide Cybersecurity

L.V. Pokey Harris
Executive Director
North Carolina 911 Board

March 8, 2022
Next Generation 911 in North Carolina

127 (115 Primary/12 Secondary) PSAPs Funded by NC 911 Board

G.S. 143B-1400(27a) Definitions.
State Emergency Services IP (ESIInet) Network. – A NG911 network contracted by the 911 Board to one or more communications service providers for the purpose of securely receiving 911 calls, transferring 911 calls and all associated data, providing centralized network management and security monitoring, and enabling GIS call routing.

G.S. 143B-1406(e1)(1) Fund Distribution.
No later than July 1, 2021, the Board and local governments operating primary PSAPs shall develop and fully implement NG911 transition plans to migrate PSAPs to the State ESIInet. To the extent practicable, the migration of PSAPs will be implemented on a sequential region-by-region basis for those PSAPs served by each legacy 911 selective router. The Board may extend the implementation date for a primary PSAP for good cause. For purposes of this section, "good cause" means an event or events reasonably beyond the ability of the Board to anticipate or control.

G.S. 143B-1402(14) Powers and Duties.
To coordinate, adopt, and communicate all necessary technical and operational standards and requirements to ensure an effective statewide interconnected NG911 network, the State ESIInet, including the following:
   a. NG911 network design specifications;
   b. 911 call processing standards and requirements including system networks, PSAP equipment, GIS caller location routing, and database requirements;
   c. Performance measures for data services necessary for the purposes of this Part.
Identifying the Need for Cybersecurity Assessments

- 2017 to Current Focus on PSAP Cybersecurity and Cyber Health
  - Addressed in Annual Board Goals and two State 911 Plans
- Not Part of NG 911 AT&T Managed Service Contract
- Board’s Focus is Security of the ESInet
- Initial Fund Appropriation by the Board in December 2018
  - Following Issuance of SOW (STC 918A)
    - $1.1 M - $6.7 M
    - Board Opted to Approve Funding for Internal Efforts with DIT Partnership
- Reevaluated Resources and the Scope
  - Issuance of Second SOW (STC 918A) in August 2019
  - Received Multiple Responses
  - More Aligned with Realistic Expectations of the Project
  - Vendor Reviews, Assessments, and Selection
Cybersecurity Assessments and Outcomes

- Vendor Commenced in April 2020 with Contracted March 2021 Completion
- Initial Meeting with Entire PSAP Community per Region
- Video to Introduce the Initiative
- Rules of Engagement Provided to Each PSAP
- Assessment – Security Campaigns
  - Recognized Standards
    - NIST 800-53
    - CJIS
    - FIPS
  - Security Campaign 1 – Security Question Collection
  - Security Campaign 2 – Internal Analysis
    - Policies and Procedures
  - Security Campaign 3 – Vulnerability Scanning
    - Private Network with AT&T Firewall as the Boundary
  - Security Campaign 4 – Physical Assessment
Cybersecurity Assessments and Outcomes

- Secure Portal Managed by the Deputy Chief (now Chief) State Risk Officer

- Weekly Meetings as Entire Project Team – Status, Address Issues and Concerns

- Weekly Meetings with the PSAPs Completed that Week
  - General Overview of the Report Sections/Outline/Format
  - Individual Private Meetings Provided on Request for Detailed Review

- Covid Impact to the Project
  - Extension of Contract

- PSAP Findings
  - Risk Rating
    - External (Environment from Outside In) Risk Rating (L/M/H)
    - Internal Rating (L/M/H)
North Carolina 911 Board
NG911 and PSAP Cybersecurity Assessments

Cybersecurity Assessments and Outcomes

- Report to the Board Executive Staff and Legal Counsel – General, Non PSAP Specific
  - Cybersecurity Training
  - Cybersecurity Policy Development, Testing, and Refreshment
  - Cybersecurity Funding
  - Managed Security Service Overseen by the Board and Accessed by PSAPs
  - Coordination with Responsible Parties for Remediation
  - Top Ten Vulnerabilities Among Small, Medium, and Large PSAPs

- Final Report to PSAPs and General Report to the 911 Board June 2021
  - Closed Session of Board August 2021
    - Three PSAPs Invited to Present

- Discussions for Development of Ongoing Program and Assessments and Remediation

- KEY TAKEAWAYS!!!
  - To Determine if the PSAP Has Controls to Identify, Protect, Detect, Respond, and Recover from Threats
  - Locality is the Owner of the Deliverable, No Access to Reports by Others
  - Appreciative to the National 911 Program for the Grant Opportunity that Assisted with the Initiative
Let’s Connect!

@NCDIT
@BroadbandIO
@ncicenter

NC Department of Information Technology

NCDIT

@NCDIT

NC DIT

it.nc.gov
STATE OF 911 WEBINAR
NG911 AND ECC/PSAP STATEWIDE CYBERSECURITY

COMMONWEALTH OF MASSACHUSETTS

FRANK POZNIAK, EXECUTIVE DIRECTOR
MASSACHUSETTS STATE 911 DEPARTMENT
508-821-7215 FRANK.POZNIAK@MASS.GOV

MARCH 8, 2022
ABOUT MASSACHUSETTS

- 7 Million Population (2020).
- Statewide NG 911 System.
- NG9-1-1 service provider; Formerly General Dynamics; Currently COMTECH.
- NG9-1-1 System, completed December 2017.
- Text to 911, implemented December 2018.
- 3,241,132 calls/year (2021); 80% wireless.
- 215 PSAPs.
MASS CYBER SECURITY AUDIT OVERVIEW

- QED Secure Solutions (QED) Selected to Conduct the Audit Through NG9-1-1 Contract.

- 8.11.6 Intrusion Prevention and Detection

The contractor shall provide active intrusion detection services to inspect general network traffic. The system shall, if a pattern of communications associated with network intrusion is detected, create a log and an alert shall be issued to the network service provider and to the State 911 Department. The intrusion detection system shall initiate specific responses to certain perceived threats, such as blocking traffic or disabling an account after repeated attempts to log in using an incorrect password. In addition, the contractor shall work cooperatively with the State 911 Department and an independent third party, to be selected by the State 911 Department, for intrusion testing throughout the term of the contract and any renewal thereof.

- First Audit Conducted in 2016; Second Audit Conducted in February 2022.
MASS CYBER SECURITY AUDIT – GENERAL SCOPE OF WORK

- One-week on-site vulnerability assessment.
- Evaluated system configuration and implementation details and performed architectural review to identify security concerns that could compromise NG911 mission.
- Architecture Review.
- Application of Sufficient Security Measures.
- Security Practices.
- Compliance with Directives and Policies.
MASS CYBER SECURITY AUDIT – REMEDIATION – FIRST AUDIT

- Pivoting - the ability of one PSAP network to "see" another. Pivoting restricted where possible.
- No workstation BIOS (input/output system) password. By changing the BIOS, you can change the boot order and boot a rogue operation system on the workstation. BIOS passwords enabled on all workstations.
- Arbitrary code execution. Policy set to restrict only needed programs and disallow all others.
- Remediation was implemented.
Nebraska’s NG 911 Physical and Cybersecurity Assessment Project

State of 911 Webinar
March 8, 2022

David Sankey
State 911 Director
Nebraska Public Service Commission (PSC)
Cyber and Physical Security Assessment

• As Nebraska transitions from Legacy 911 to NG911, it was necessary to consider two important facts:
  – PSAPs are moving from a siloed environment to being part of an interconnected network
  – Cybersecurity attacks are on the rise and targeting public safety infrastructure

• Contracted with Mission Critical Partners – August 2021
  – MCP Netinform Secure Service
  – Project completion by March 31, 2022 (Grant Funds)

• Cost of the assessment covered by the PSC
  – Federal NG 911 Grant Funds (60%)
  – 911 Service System Funds (40%)

• Voluntary Program
Standards Based Approach

• NENA/APCO IT architecture and support standards

• National Institute of Standards Technology (NIST) IT architecture and cybersecurity standards

• TASK Force for Optimal PSAP Architecture (TFOPA) cybersecurity standards and readiness scorecard

• Information Technology International Library (ITIL)/ International Organization for Standards (ISO) IT architecture support
The Assessment Process

• Statewide webinars were held to explain the program to the PSAPs and offer an opportunity for questions

• Registration and information gathering

• A “kickoff” call was held with each PSAP to prepare for their individual assessment

• An on-site physical assessment is conducted

• Data is analyzed

• Final assessment report is delivered
  – PSAP receives a detailed report of findings and recommendations, a remediation workbook, and an executive summary report. The PSC and the 911 Service System Advisory Committee only receive a summary report
Areas Assessed

- Physical Security of the facility
- Network Management and Monitoring
- Firewall
- Authentication – Access control mechanisms
- Remote Access/VPN
- Network Security
- Antivirus, Malicious Code, Spyware
- Host Security, Servers, and Workstations
- File System Security
- Policy and Procedures
- Intrusion detection and prevention
- Wireless Networks
- Content Inspection
Primary Concerns

• Initial concerns by state CJIS authority
  – Resolved by MCP staff submitting to background checks

• Data security, storage, and disposal

• Liability concerns regarding data breach/loss
  – Provided insurance certificates

• Who is responsible for the cost of remediation?
Project Status

• Project will be complete at the end of March, so information continues to be evaluated

• Even though it was a voluntary program, all PSAPs participated in the assessment

• Recommendations:
  – Some recommendations are procedural in nature and can be implemented without additional funding
  – PSAPs prioritize their needs and budget for future security enhancements

• The 911 SSAC and the PSC will evaluate a summary report of common issues to identify priorities and funding to improve the security posture across the state
Thank you!

- Nebraska 911 PSAP community for their engagement on this project!
- National 911 Office for their support!
- Mission Critical Partners for their commitment and efforts to get this project completed prior to the expiration of the grant period!
Questions

The “Q&A” feature is in the meeting controls that will display when hovering at the bottom of the Zoom screen.

Once clicked, a new pop-up window/chat box will open to navigate the Q&A functions.

Or, to ask your question “live,” use the “Raise Hand” feature to request your phone line to be unmuted and you will be called upon to ask your question.
Future Webinars

- May 10, 2022 - https://us06web.zoom.us/webinar/register/WN_b6CoAmK4StKtOPh5Ufq67Q
- July 12, 2022 - https://us06web.zoom.us/webinar/register/WN_24vN78hMRAqv0ZyD9mzBSw
- September 13, 2022 -
  https://us06web.zoom.us/webinar/register/WN_Jw7O5GAVQwCOyw6cnOegSw
- November 8, 2022 -
  https://us06web.zoom.us/webinar/register/WN_1vH21ZUYQlGi8L1aDr5m4Q

- Previous State of 911 webinars are available at:
  www.911.gov/webinars.html
National 911 Program

• Kate Elkins
  Acting Coordinator
  202-366-8812
  Katherine.Elkins@dot.gov

• Feedback or questions can be sent to:
  National911Team@MissionCriticalPartners.com