State of 911 Webinar

NATIONAL 911 PROGRAM

AUGUST 11, 2015

911.gov

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 held every other month and typically include presentations from a Federal-level 911 stakeholder and State-level 911 stakeholder, each followed by a 10-minute Q&A period

For more information on future webinars, access to archived recordings and to learn more about the National 911 Program, please visit 911.gov

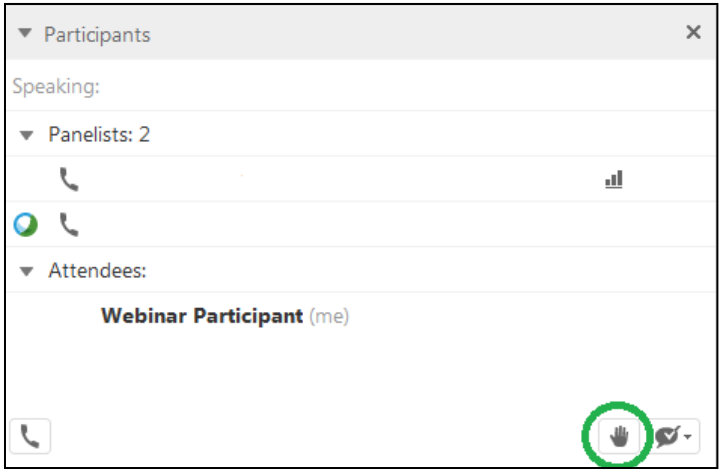
Feedback or questions can be sent to: National911Team@mcp911.com

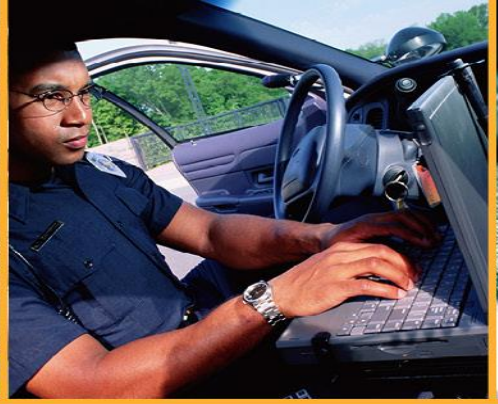
Questions?

For WebEx Technical Assistance, please call: (866) 229-3239, Option 1

To ask a question, please use WebEx's "Chat" feature located on the right-hand side of your screen.

During the Q&A portion of the webinar, please click on "Raise Hand" and your phone will be unmuted.





NPSTC

FirstNet and Next Generation 9-1-1

High Level Overview of Systems and Functionality

August 11, 2015

Barry H. Luke
Deputy Executive Director

The member organizations of the National Public Safety Telecommunications Council are grateful to the Department of Homeland Security's Science and Technology Directorate, Office for Interoperability and Compatibility (OIC) and the National Protection and Programs Directorate, Office of Emergency Communications (OEC) Points of view or opinions expressed are those of the originators and do not necessarily represent the official position or policies of the U.S. Department of Homeland Security.

NPSTC Mission Statement

NPSTC is a federation of organizations whose mission is to improve
public safety communications
and interoperability through collaborative leadership.

NPSTC Governing Board Organizations

NPSTC

International Association of Chiefs of Police – Police – Since 1893

National Sheriffs' Association

NATIONAL SHERIFFS' ASSOCIATION

International Association of Fire Chiefs – International Fire Chiefs Association

NASEMSO

APCO International – Leaders in Public Safety Communications

NENA THE 9-1-1 ASSOCIATION – The only organization solely focused on 9-1-1 policy, technology, operations, and education issues.

iAEM International Association of Emergency Managers

IMSA – Your Partner in PUBLIC SAFETY

Association of Fish & Wildlife Agencies

FCCA

National Association of State Foresters – Founded 1920

AASHTO

ARRL

NCSWIC

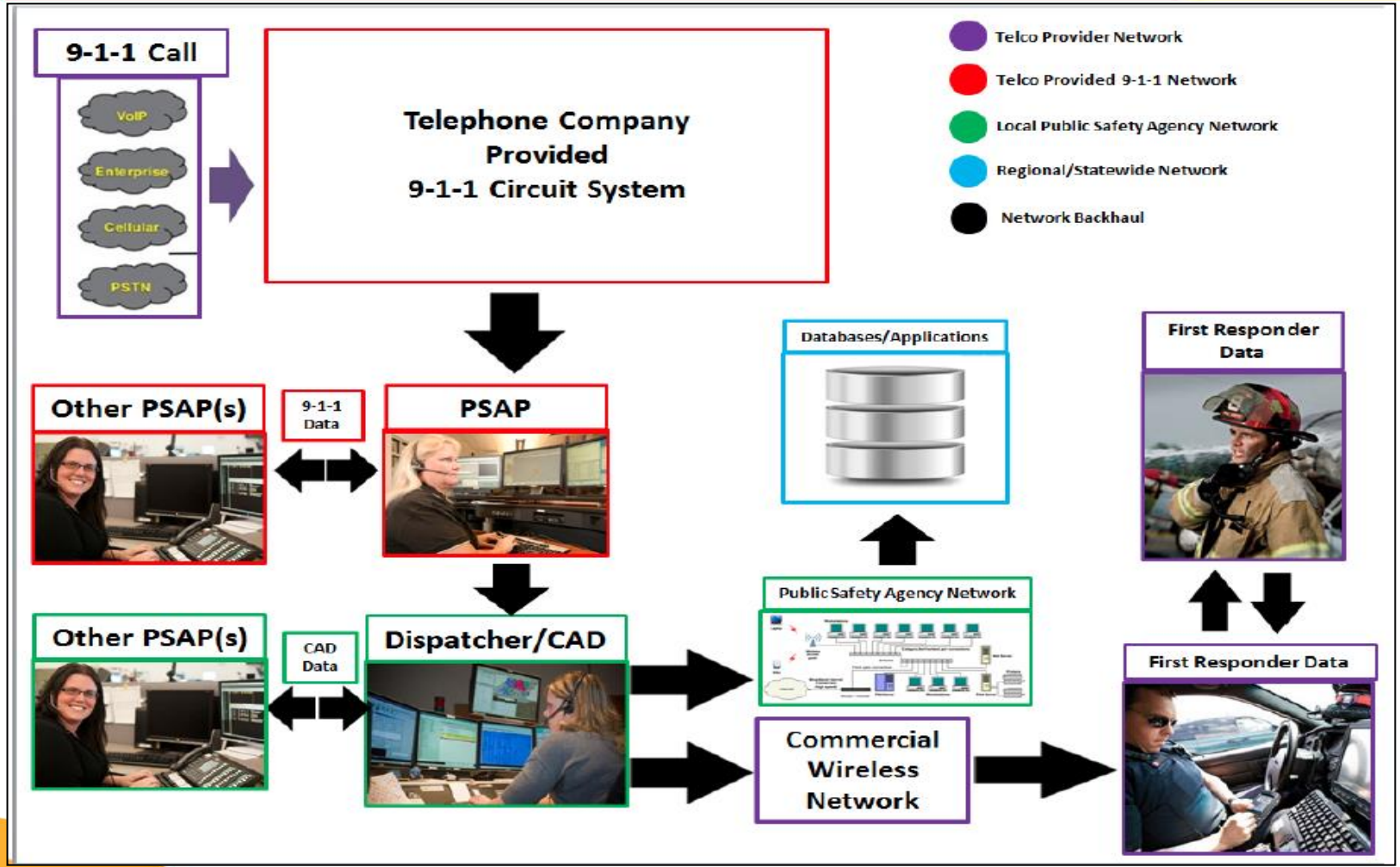
NASTD – National Association of State Technology Directors – Technology Professionals Serving State Government

NASCIO – Representing Chief Information Officers of the States

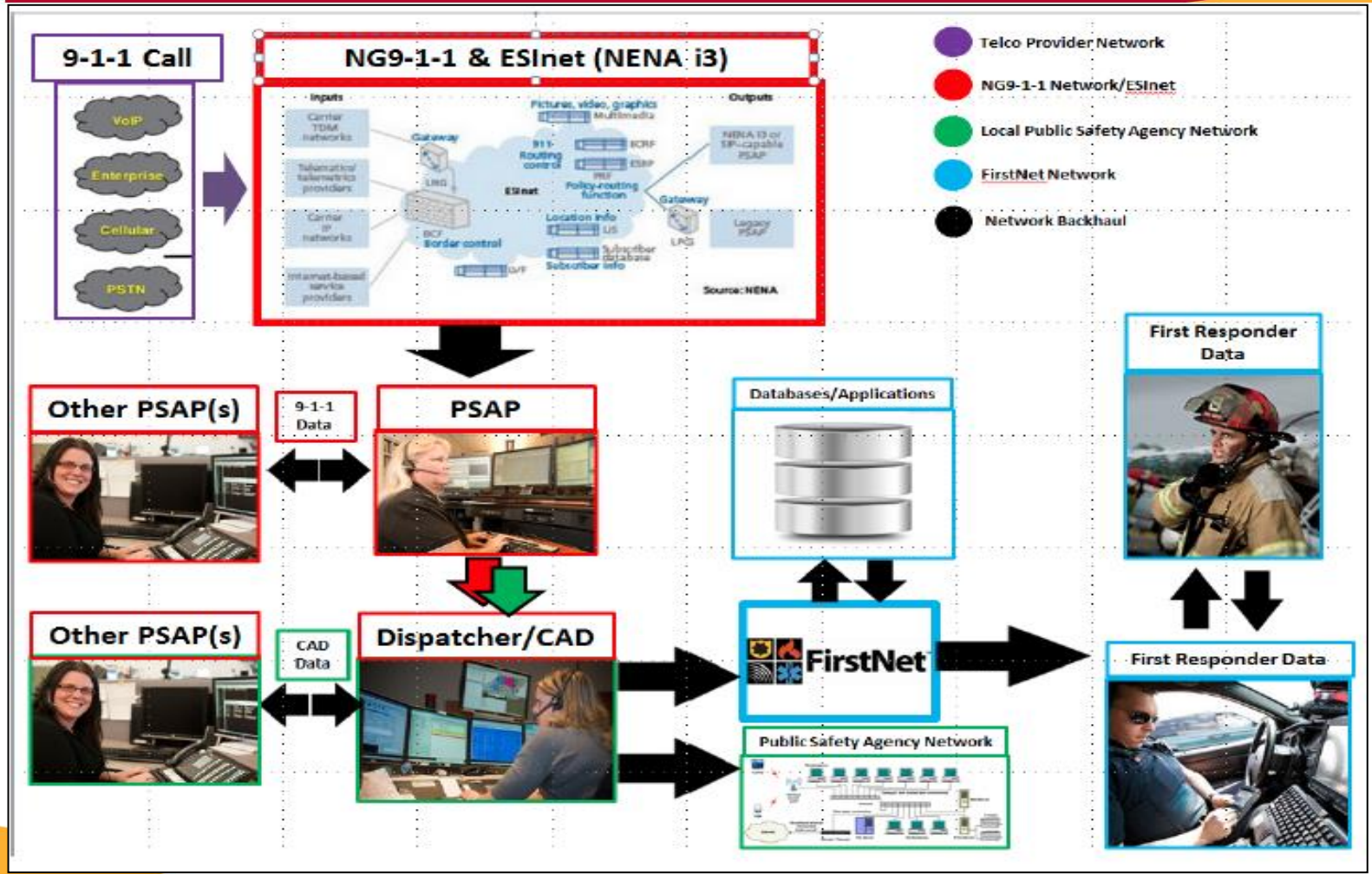
FirstNet and NG9-1-1 Presentation

- Purpose
  - This document has been prepared by the National Public Safety Telecommunications Council (NPSTC) to provide an overview of the similarities and differences, and interconnectivity between the Nationwide Public Safety Broadband Network (FirstNet) and Next Generation 9-1-1 networks (NG9-1-1).
- Today's Presentation
  - Overview of current 9-1-1 and Commercial Wireless Network Design
  - Vision of tomorrow's NG9-1-1 and FirstNet Network Design
  - Review public safety call flow, from 9-1-1 call through dispatch
  - Discuss key points of similarity and synergy

Current Emergency Services Flow



Future Emergency Services Flow



What Happens Today?

- Call Flow
  - Citizen discovers event
  - Citizen activates the 9-1-1 system (voice, text, video from caller, or sensor M2M)
  - Call routes to PSAP
  - Telecommunicator processes call
  - Telecommunicator dispatches call
  - Public Safety units respond to scene
- Issues
  - Limited PSAP to PSAP data sharing (beyond ALI/ANI)
  - Limited CAD to CAD data sharing between PSAPs
  - Limited contingency features (PSAP overload, evacuation)
  - Congested commercial wireless networks
  - Lack of interoperability between agency devices and systems

Emergency Services IP Network

- Emergency Services IP Network (ESInet)
  - Can support NG9-1-1 services and other public safety applications.
  - Is not specific to NG9-1-1, but is a network with backhaul capability connecting call and data originators and various PSAPS, as well as other entities that need to receive calls or data about calls (examples could be EOCs, trauma centers, Coast Guard, etc.). The ESInet requires network connectivity to wireless, wireline, and Voice over Internet Protocol (VoIP) telecommunications provider networks, behind which are the cellular service tower itself, Wi-Fi, Bluetooth, and other originating service devices.
  - Provides network route and interface for 9-1-1 caller voice and data (metadata, images, and video) to the appropriate PSAP
  - Is not intended to provide wireless connectivity to public safety first responder units.

NG9-1-1 Core Services

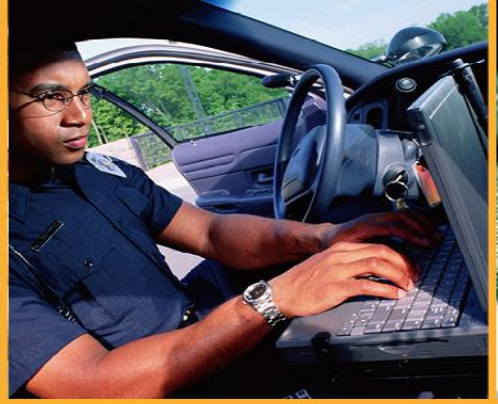
- NG9-1-1 Core Services
  - Performs the actual 9-1-1 call routing control process.
  - Provides ability to share 9-1-1 caller voice and data between multiple PSAPs.
  - Provides ability to control 9-1-1 call flows and to dynamically rearrange NG9-1-1 call routing zones.
  - Other additional data sources can be connected to the NG9-1-1 system, such as call, caller, or data providers needed for access by PSAPs or other entities.

FirstNet Network Features

- FirstNet Network Features
  - Provides public safety grade connectivity from PSAPs to and between first responder's resources.
  - Provides secure network access for first responders to public safety agency systems and interfaces and other databases and resources, including CAD and RMS.
  - Provides network connectivity between public safety agencies (wired and wireless network access to systems, interfaces, and databases).
  - Provides support for voice, data, and video services to public safety agencies and first responders.
  - Uses a wireless IP network which also has the same technical features of the aforementioned ESInets thus facilitating interoperability and redundancy between public safety agencies.

Additional Background and Technical Reading

- Recommended Reading
  - *"Detailed Functional and Interface Standards for the NENA i3 Solution".* The National Emergency Number Association (www.NENA.org)
  - *"Next Generation 911 (NG911) Standards Identification and Review".* The National 911 Program Office (www.911.gov)
  - *"FirstNet Statement of Objectives Document".* First Responder Network Authority (www.FirstNet.gov)



NPSTC

Thank you!

Questions?

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Q&A Period

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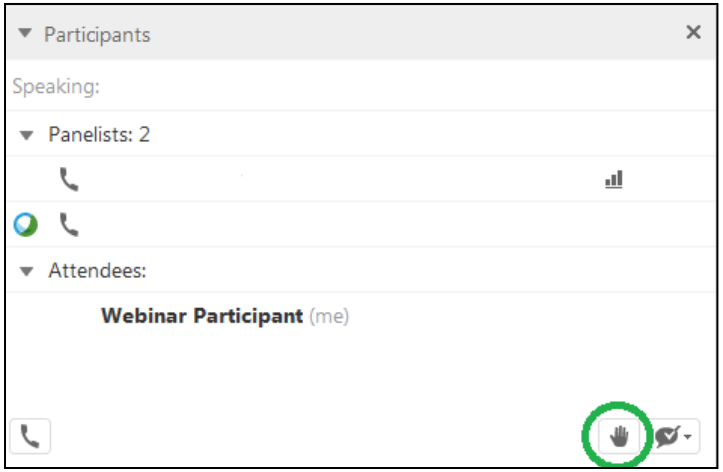


text messaging for 9▪1▪1

Barry Ritter, ENP | Executive Director - Indiana 911 Board

Mark Grady, ENP | INdigital telecom

IN911
Statewide 911 Board

state program background

- updated in 2015 legislation
  - $ 1 per device / line / transaction surcharge (wireline or wireless or pay-as-you go)
- the State Treasurer is the 911 Board chairman
  - 13 member statewide board (all stakeholder groups, voting and observing)
- 3 ½ staff member program office
- A statewide IP ESiNet, adding a second ESiNet

legislative and regulatory framework

- legislation is a ‘light touch’ focused on audits for:
  - fiscal integrity of the program
  - use of funds by local (county) units of government
- legislated not more than 2 PSAPs per county (by 2014), almost there…
- 911 services are de-tariffed, and competitive
- there are state level service quality standards

IN911 by the numbers:

- 91 counties served by the IN911 network
- 84 counties online with text service
- 74 counties supporting text-TO-911
- 513 texTTY call taker workstations
- 1,539 call takers trained (and growing)

911 is a local service – with a statewide network

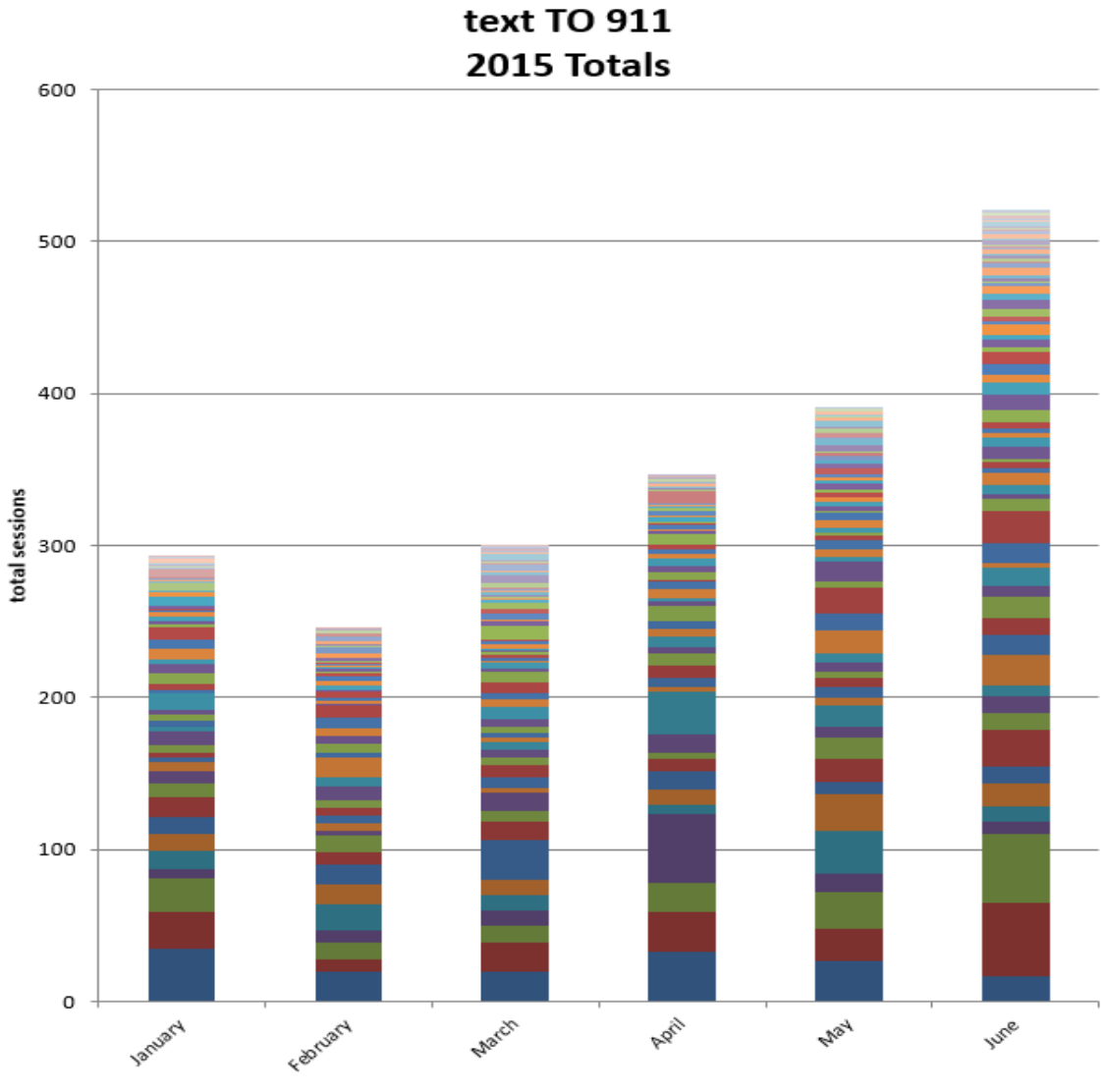
- full technical interoperability – any PSAP can transfer voice to any other PSAP with call data
- adding text transfer with conference and call taker to call taker instant messaging in 2015

has text-TO-911 been a success?

- Yes! An effective public awareness campaign…
  - at launch – in all media markets
  - as part of the “college Samaritan” law
- There have been many ‘saves’ just google: text to 911 Indiana for examples
- Every use case has occurred – deaf use, speaking impaired, medical, domestic, covert…

Is it used ?

Yes, this method of communication was used **3,158** times January to June 30

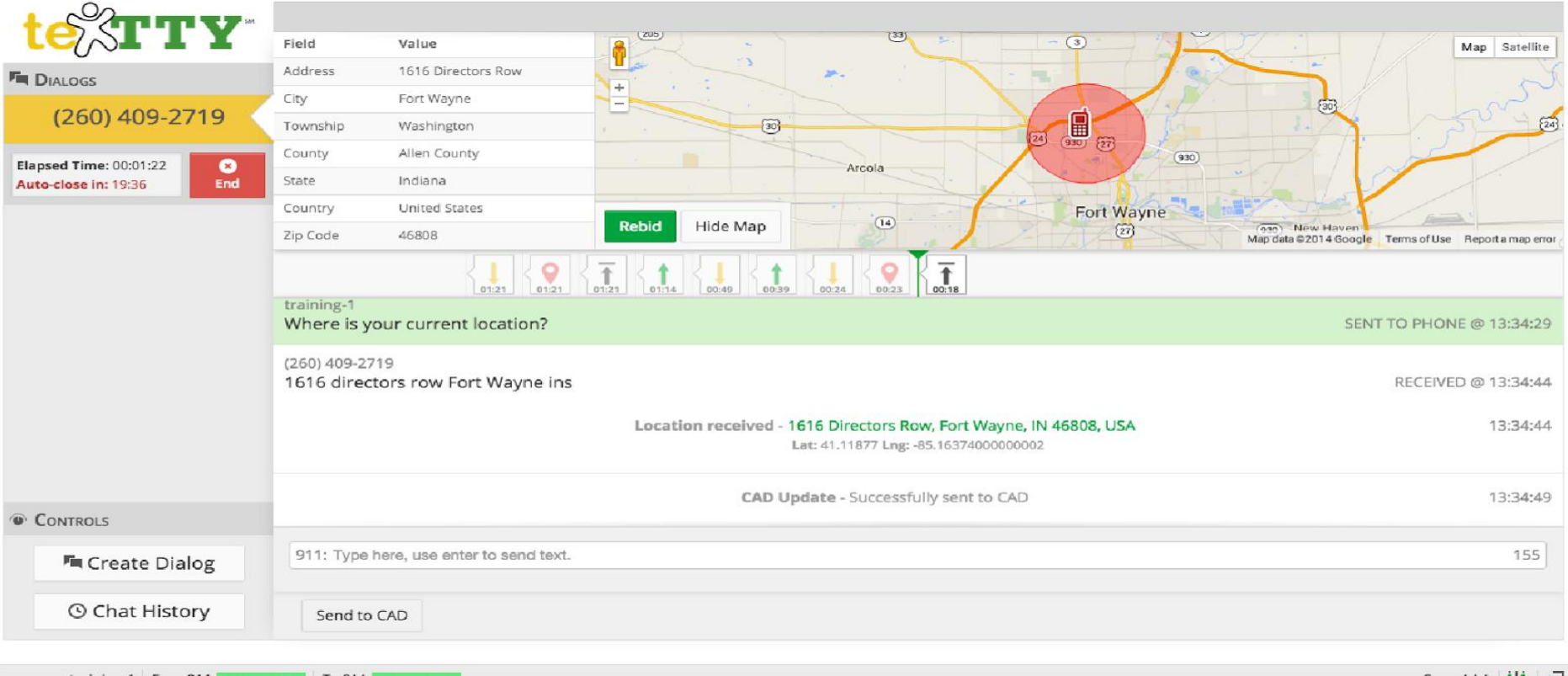


Are there trends ?

Yes, the top ten counties have easily adopted the technology, and their residents responded by using text

50+	
PSAP	COUNT
Elkhart County	152
Allen County	146
Tippecanoe	132
Kosciusko County	90
Monroe County	84
Vigo County	84
Bartholomew County	81
Porter County	81
LaPorte County	57
Madison County	53

PSAP user interface



how long does text take ?

- average text dialog lengths are nearly identical to a comparable voice call
- some dialogs do run long, but the text platform has reminder timers and session end timers
- our assessment is that this is just a different communication method

- But I heard it takes a long time for text…

analyzing 918 dialog longest lengths

category	longest length (min:sec)
• Pocket dial/PSAP test	06:45
• Non emergency	09:12
• Unable to speak	16:45
• Anonymity desired	13:32
• "other"	17:32
• overall longest length	11:55

but wait, that’s only half the story

text-FROM-911

status report: text for 911

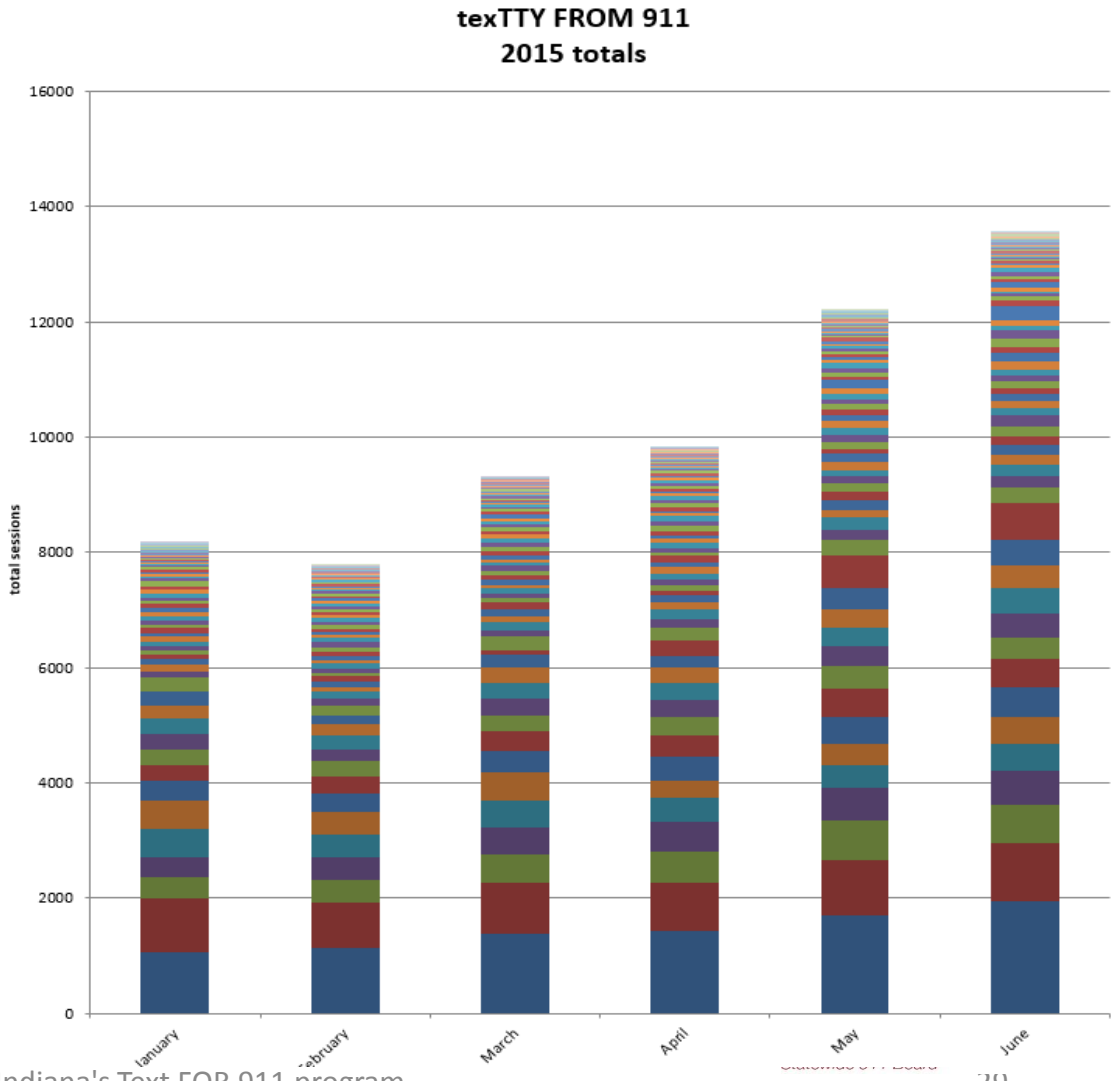
- the state program launched text FROM 911 in January, 2013
- what is text FROM 911?

“a PSAP originated text dialog to a member of the public”

- how are these used?
  - PSAP response to pocket dialed 911 calls
  - “silent” 911 voice calls from the public
  - inter-modal 911 (voice and text to the same handset, like CapTel - closed captioning for the hard of hearing)

text-from 911 is heavily used

This method of communication was used **60,827** times January to June 30



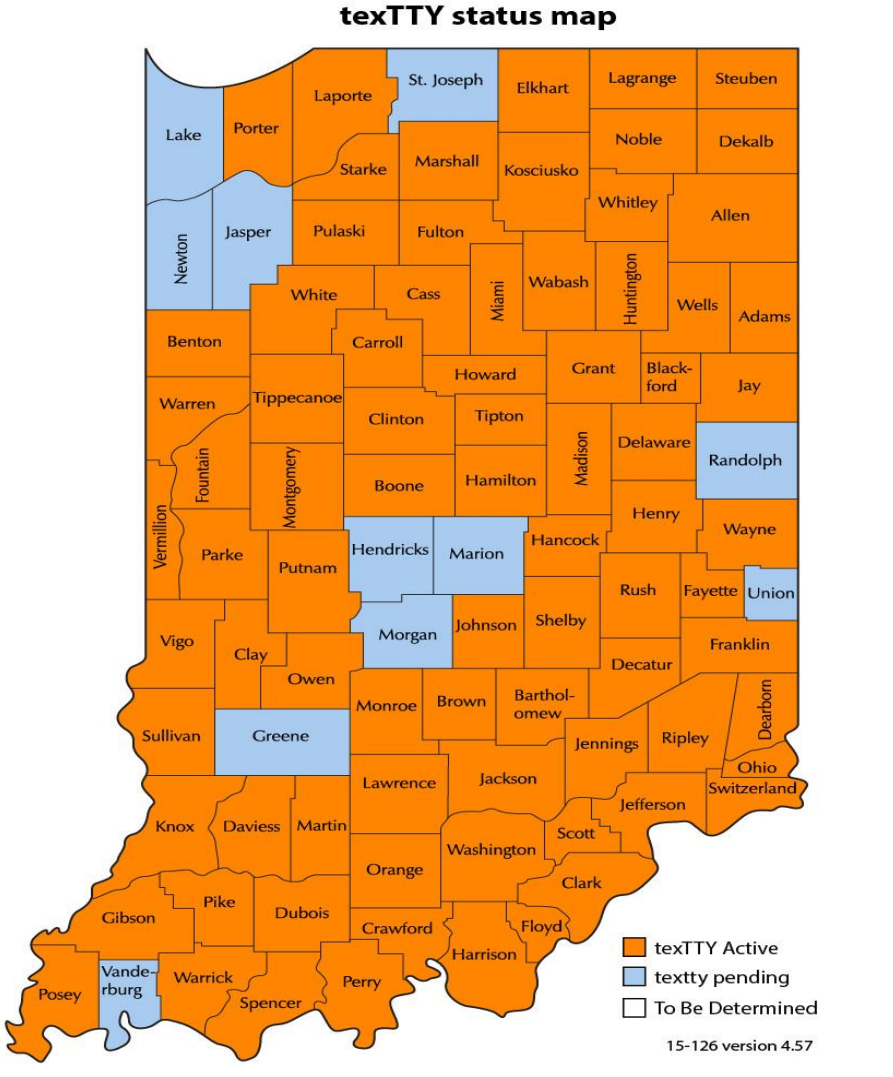
why would a PSAP use text FROM 911 ?

- PSAPs have adopted this as the primary outreach method to wireless devices
- The public is 80% more likely to answer a text dialog than an ‘unknown’ caller ID voice call
- Efficient use of time – dialogs can overlay other concurrent tasks – particularly callbacks

current status

- 84 counties online with text FROM 911
- 74 counties online with text TO 911
- about the remaining counties…

status at in911.net



*Not all carriers provide text-TO-911 service in all counties where PSAPs provide text-TO-911 service.

there will always be outliers

- PSAP consolidation takes time,
  and that delays new technology (3 agencies)
- Some counties are slow to change (5 agencies)
- One county has internal workflow issues
- One county is doing an equipment upgrade
- One county has all of these conditions

Summary

- Text FOR 911 has improved public safety for Indiana
- We continue to:
  - improve the service
  - find new ways to use text
  - increase public awareness

open discussion, Q&A

Barry Ritter – Mark Grady | Indiana’s 911 program

Q&A Period

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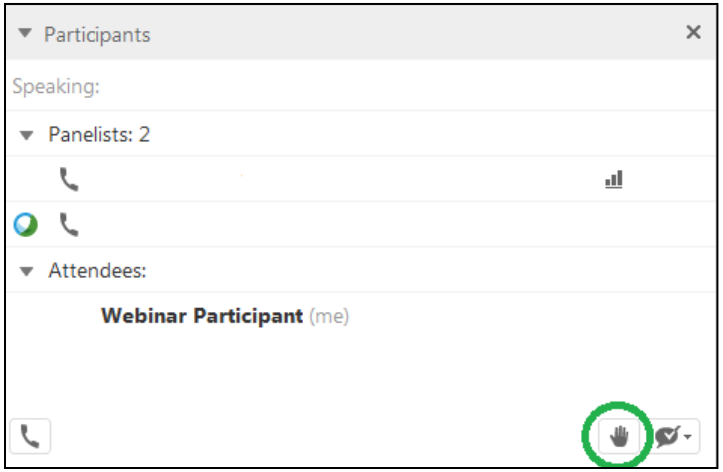

Future Webinars

Next Scheduled Webinar: **Tuesday, October 13, 2015 at 12 noon ET**

Presenters will be announced shortly and registration will be available early next month

In addition, a special webinar on “SWATting” has been scheduled for **Tuesday, September 15, 2015 at 12 noon ET**. More information about this webinar will be available soon.

Visit 911.gov to access archived webinars

National 911 Program

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Feedback or questions can be sent to: National911Team@mcp911.com