Before the United States House of Representatives
Committee on Energy and Commerce

STRENGTHENING COMMUNICATIONS NETWORKS TO HELP AMERICANS IN CRISIS
February 27, 2020

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Testimony

Chairman Pallone, Ranking Member Walden, and Members of the Committee:

Thank you for giving me the opportunity to testify before you today. It is an honor to represent the 9-1-1 community at this hearing and to be a part of this bipartisan process. My name is Daniel Henry; I am Regulatory Counsel and Director of Government Affairs for NENA: The 9-1-1 Association. With over 16,000 members across the United States, NENA is the leading professional association in the 9-1-1 space. We improve public safety by developing standards and resources for 9-1-1 systems and operations; providing education, training, and certifications for 9-1-1 professionals; informing policymakers about issues facing 9-1-1; and educating the public about 9-1-1 systems, their importance, and their proper uses.

I would also like to thank all the members of the Congressional NextGen 9-1-1 Caucus for their support, including its co-chairs, Reps. Eshoo and Shimkus, as well as many other members of this committee, including Chairman Pallone and Chairman Doyle.

All too frequently, we hear "public safety" described only in terms of field responders like law enforcement, fire, and EMS; we appreciate that many of you recognize that 9-1-1 is another critically important component of the public safety community.

Since the first 9-1-1 call was placed more than 50 years ago, America's three-digit "short code" for emergency services has become ubiquitous across the United States, and has served as a model for other countries and regions that seek to provide universal access to lifesaving emergency care, as quickly as possible. On any given day, 9-1-1 professionals are called upon to fill a variety of heroic roles. They provide emergency medical instructions that help victims of choking and heart-attacks to survive. They help people on the verge of suicide get the help they need. They ask questions and analyze voices and background noises to assess situations they cannot see. They alert and coordinate the response of police, fire, and emergency-medical personnel dealing with everything from active shooters to natural disasters, fires, and car crashes.

In recent decades, 9-1-1 has had to evolve to keep up with advances in telecommunications. Built in the days of copper landline trunks, 9-1-1 now answers around 80% of its calls for help from mobile phones – most of them smartphones that have advanced location and data transmission capabilities. With these advances in technology have come consumer expectations that public safety should deliver the same speed and convenience as the device you hold in your hand.

Unfortunately, America's 9-1-1 system is still years behind the smartphone revolution, facing four perennial challenges: decentralized governance; inadequate and inconsistent funding; human resource challenges; and the dynamic pace of evolving technology.

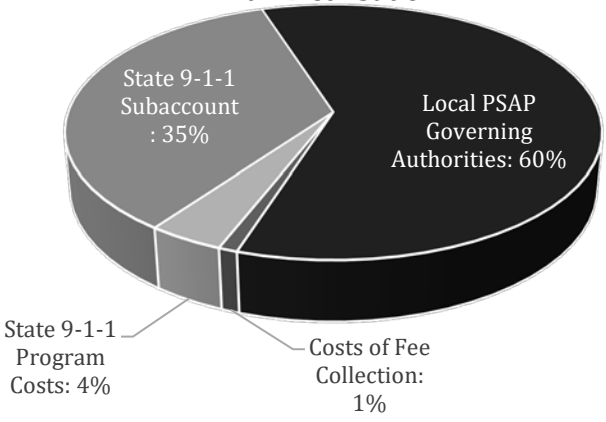
Paying for The PSAP

There's a saying in the 9-1-1 community: "If you've seen one PSAP, you've seen one PSAP." Public Safety Answering Points, or PSAPs, vary widely from state to state and community to community. In a given locale, the responsibility for operating 9-1-1 systems and answering 9-1-1 calls may rest with the elected county sheriff; with civilian staff at a police or fire department; with the state government; or in some cases with the military. Each of these settings has its own unique needs, conventions, technology and funding models. Some must specialize in wildfires, some in hurricanes, some in urban crime fighting, and others in covering huge rural territories. Accordingly, it would be impossible to impose a uniform vision of a single 9-1-1 system for the United States. The system must allow for a high degree of local variation.

With varied governance comes varied funding means. While 9-1-1 fees are traditionally levied as line items on subscriber phone bills, the means by which state and localities collect distribute the fees has diversified widely in recent years. Most areas now impose a separate 9-1-1 fee on mobile subscribers (although this rate need not correlate with the area's wireline 9-1-1 fee). In some cases, there is no statewide 9-1-1 fee; counties levy the fees. In other cases, state law prohibits localities from imposing 9-1-1 fees, and a state official collects and distributes the money. Regardless, Funding streams are needed for both improvements to the 9-1-1 system and day-to-day operations. The state of Oregon is a good illustration of this diversity: the state collects an Emergency Communications Tax of $1 per phone line per device, distributing the majority of those funds to local PSAP governing authorities

What constitutes an "allowable" 9-1-1 expenditure also varies from one state to the next. While one state may define anything within the walls of the PSAP as "9-1-1 spending," another may extend that definition to police cruisers, firefighter protective equipment, or even office supplies. This patchwork creates challenges for federal public safety representatives, vendors, and policymakers.

Oregon Emergency Communications Tax Distribution



More challenging still is some states' practice of diverting funds collected through 9-1-1 fees to unrelated uses. According to data collected by the Federal Communications Commission, in 2018, five states admitted to diverting 9-1-1 fees, with New York and New Jersey being the greatest offenders. Fundamental to this issue is the expectation that, when a person pays a "9-1-1 fee," that money should go to 9-1-1. Any diversion of 9-1-1 fees not only puts the maintenance and development of one of the nation's most critical infrastructure systems in jeopardy, but also breaks a promise made by the government to the public.

At a time when so many 9-1-1 program budgets are in crisis, NENA is disappointed to see that funds in the nine-figure range are still being diverted from their intended purpose every year. It is imperative that 9-1-1 fund raids cease, both to maintain today's level of service and to ensure a timely deployment of Next Generation 9-1-1 — a critical infrastructure upgrade necessary to provide the best possible public safety services to all Americans in need of emergency assistance.

Ironically, 9-1-1 is often least able to affect change at the state level. State 9-1-1 boards and administrators generally serve at the pleasure of the governor, and are often either procedurally or practically prevented from lobbying on their own behalf.

Maintaining 9-1-1 Service and Addressing Outages

As the primary flow of information into public safety during a natural disaster, 9-1-1 plays a critical role in response and recovery. During Hurricane Harvey, for instance, Houston 9-1-1 processed 75,000 calls during the course of a weekend — four-and-a-half times their normal call volume.[1] These calls in the aggregate become hyperlocal, crowd-sourced intelligence for public safety: details relating to the extent of flooding, downed power lines, hazardous materials situations all flow into the PSAP in real-time. 9-1-1 uses this information to issue bulletins, direct appropriate response and keep the public and field responders out of harm's way.

During "blue-sky" outages, 9-1-1 also often finds itself the proverbial canary in the coal mine, as in December 2018's CenturyLink outage, where a series of outages in the telephone network were only brought to light once reports of sharply dropping 9-1-1 call volumes began to appear in numerous parts of the country. This anecdote is not uncommon in the 9-1-1 community.

9-1-1 is not immune to outages of its own. 9-1-1 relies not only on telecommunications providers to supply both PSTN[2] connections for 9-1-1 calls and for PSAP broadband internet service, but also on numerous database providers to validate caller street addresses and route calls. Threats to connectivity are exacerbated in the legacy 9-1-1 environment, where specialized 9-1-1 trunks and selective routers are often prohibitively expensive, leaving public safety with a key single point of failure. It is thus imperative that these facilities are supported by reliable, frequently-tested sources of backup power and connectivity.

It is also crucial that telecommunications providers and 9-1-1 work hand-in-hand to tackle outage reporting and analysis so that they may both address current outages and prevent future ones. To do this, public safety needs access to the most up-to-date, granular network data available, so that it may corroborate this information with its own data and collaborate with carriers to better understand the what, when, where, how, and why of an outage. Public safety is exceptional at preparing for contingencies, but its preparations are only as good as the data on which they are based.

Making the Transition to Next Generation 9-1-1

Lastly, many of these challenges will be alleviated after the transition to Next Generation 9-1-1. NG9-1-1 will allow for seamless rollover when a PSAP suffers and outage or is overwhelmed with 9-1-1 calls; will allow PSAPs to connect to 9-1-1 networks through multiple, fully-diverse, cost-effective pathways; and will allow for modern engineering and technical solutions to problems as they arise.

The transition to NG9-1-1 — a standards-based, IP[3] infrastructure — will also allow callers to communicate with 9-1-1 using the full range of multimedia features available on our smartphones. It will employ modern security conventions to make our 9-1-1 systems more secure and resilient to cyberattack. It will improve location accuracy and call routing so that first responders can reach callers more quickly and efficiently. And it will improve interoperability between neighboring jurisdictions by standardizing the way PSAP software communicates.

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[1] CBS THIS MORNING, *Houston Emergency officials tell 911 Callers Not to Hang. Up,* August 29, 2017, https://www.cbsnews.com/news/houston-flooding-911-calls-after-harvey/

[2] Public Switched Telephone Network

[3] Internet Protocol

However, the fiscal burden of this transition — fee diversion or not — cannot be borne solely by states and localities alone. The estimate provided to Congress by the National 9-1-1 Office pins the NG transition at around $12 billion dollars, above and beyond the day-to-day operating costs of our current 9-1-1 systems. That is why the most important thing Congress can do is to give 9-1-1 an immediate injection of capital. 9-1-1 is ready for this injection: industry and public safety have worked together for over a decade to develop the technical and operational standards, governance models, and best practices for Next Generation 9-1-1.

I am deeply grateful, Mr. Chairman, that you and your Committee have called this hearing and allowed me to testify on behalf of our membership and the greater public safety community. I believe that significant improvements to 9-1-1 can be made in the near future, and that Congress's investment in public safety will deliver lifesaving returns. I look forward to working with you and with my counterparts in the telecommunications community to ensure the continued success of 9-1-1 and its eventual transition to Next Generation 9-1-1.

Respectfully submitted,

/s/_____

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