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Industry Council for Emergency Response Technologies (iCERT)

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Hearing on

Realizing Nationwide Next-Generation 9-1-1

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Madame Chair, Ranking Member Doyle, and Members of the Subcommittee, my name is Mary Boyd, Vice President for Regulatory, Policy and External Affairs for West Safety Services. I thank you for convening this hearing on "Realizing Nationwide Next-Generation 911" and for the opportunity to offer input as you consider federal support and guidance for modernizing 9-1-1 services, and accelerating the implementation of Next Generation 9-1-1 (NG911) throughout the United States.

In my testimony today, I am speaking on behalf of the Industry Council for Emergency Response Technologies (iCERT), in my role as a Board member for the organization that looks to add the voice of industry to issues affecting the emergency calling and response technology ecosystem. While in my current professional role I serve as a commercial sector executive, my more than 35 years of public safety experience also includes service in the state and local government sector, working to deliver crucial 9-1-1 services to the public.

iCERT represents the commercial sector of the emergency response technologies field, and along with its member companies, works with the public safety community and other stakeholders to advance the development and deployment of technologies, systems and services that will improve emergency response. Given the current threats and challenges faced by our nation, iCERT believes that first responders and the public should have access to the most advanced 9-1-1 systems possible. We do not believe this goal will be satisfied without the collaborative leadership of and transition funding from Congress leveraging

the collective efforts of stakeholders at the national, state, and local levels, and the commercial community.

An accelerated deployment of NG911 would yield significant benefits. The manner in which consumers communicate has changed rapidly in recent years, and a principal objective of NG911 is to ensure the compatibility of the nation's 9-1-1 systems as these changes occur. New NG911 systems will allow Americans in need to access 9-1-1 in new, exciting, and more useful ways (e.g., text, data, devices, and video).). This will benefit all consumers, but is especially critical for consumers with disabilities, such as the deaf and hard of hearing, that would otherwise not be able to make a 9-1-1 voice call. As texting to 9-1-1 continues to roll out nationwide, the Limited English Proficiency (LEP) community will benefit as text translation comes into service. Video services aid those who speak American Sign Language (ASL). In short, NG911 significantly upgrades the emergency communications capabilities of these underserved populations.

The benefits of NG911, however, are not limited to improved accessibility for consumers. NG911 will dramatically improve emergency response by providing first responders, who are the first line of defense in local emergencies, with access to more and more useful data in a timely manner. In an era of increased security and situational awareness, NG911's multi-media capabilities offer realtime tangible information that can make the difference in time-sensitive law enforcement situations. What law enforcement agency wouldn't want immediate access to a suspect's picture, for example? NG911 includes

more accurate information about a caller's location, as well as actionable information about the caller and the scene. Imagine, the following scenario:

> *A multi-vehicle crash occurs on a major highway in a dense urban area. A driver involved in the crash is hurt and unconscious. The crash notification system installed in her car automatically alerts the 9-1-1 Center. Information about the crash is automatically provided to the center, including the condition of the driver, the condition of the car, and photographs of the scene. Similar information is provided from the other nine vehicles involved in the crash, including a truck carrying a toxic substance. Highway sensors determine that the substance poses a significant health risk. All of this information is collected and provided to public safety officials and others. As a result, police, fire, and EMS officials arrive on the scene more prepared and with greater assurance of their own safety and their ability to provide assistance to those in need. Local hospitals are notified to prepare for a large influx of severely injured patients. Hazmat officials quickly arrive on the scene to address the toxic spill. And, transportation officials act promptly to divert traffic away from the scene.*

NG911 will provide the enhanced capabilities to make this scenario a reality, and enable the 9-1-1 center of the future to make use of more and better information for a faster and more effective response. NG911 will also allow these centers to operate more

flexibly, while increasing reliability and resiliency so that access to emergency services can be assured even in the face of natural disasters and other crises. It will be an invaluable resource for our increasing security needs.

NG911 technology enables more flexible call routing, so that 9-1-1 calls directed to one Public Safety Answering Point (PSAP) can be redirected to another, if necessary. While this feature of NG911 allows PSAPs to manage workloads more effectively by sharing calls with other PSAPs, it is a critical capability during regional emergencies or severe weather, as demonstrated in one of the few states that have implemented NG911.

> *On August 28, 2011, Hurricane Irene caused extensive damage to Rutland, Vermont and other parts of the state. The Rutland PSAP (second largest in the state) was at risk of flooding and needed to be evacuated. Fortunately for the citizens of Rutland, the state had implemented a statewide NG911 system just months before. As a result, all 9-1-1 calls to Rutland were redirected to other PSAPs in the state. While Vermont experienced the highest 9-1-1 call volume on record during the storm, not a single 9-1-1 call went unanswered due to the resiliency, redundancy, and diverse call routing of the state NG911 system.*

Technological obsolescence creates dangerous risks for public safety. Despite the numerous benefits of NG911, unfortunately,most of today's 9-1-1 systems still use technologies prevalent in the 1970's that are rapidly becoming obsolete. Continued reliance on outdated technologies poses significant risks to public safety due to higher

maintenance costs, system malfunctions, service outages, and increased cybersecurity vulnerability.

Fortunately, these risks can be minimized by implementing NG911 and supportive technologies that are widely available today. iCERT and its member companies have spent considerable time and resources to develop innovative solutions and the systems and services that use them. For more than a decade, iCERT's members have worked with the National Emergency Number Association (NENA) and other interested stakeholders to develop the architectural framework and standards blueprint for NG911 (referred to as "NENA i3"). NENA i3, while still evolving, is both detailed and roubust enough that systems, products, and services using the i3 standard are widely available in the U.S. today, as well as in Canada and Europe where i3 has been welcomed.

Next Generation 9-1-1 should be a national priority and a national imperative much as 9-1-1 once was. Everyday, our nation faces a variety of challenges that threaten the safety and security of our communities. While most are localized events that impact a relative few, many increasingly impact a large segment of the population. However, regardless of their size, each emergency requires – indeed demands – the most effective emergency response possible. State and local 9-1-1 authorities are doing their best with the limited budgets they have, but more must be done to ensure that the nation has an emergency response system that can effectively meet the challenges of the future. Whether or not NG911 is implemented should not be a question. It should be a national imperative, and it should occur as quickly as feasible. As I'll discuss in a moment,

Congressional action and financial support are major reasons we have 9-1-1 today. Federal, state, and local officials should work together again to ensure that NG911 is implemented promptly and effectively. Put simply, NG911 should be made a national priority that has the full support of policymakers across the nation.

Federal legislation is needed to accelerate the implementation of NG911. iCERT believes that Congress should take a cooperate leadership role through bipartisan concensus legislation that makes NG911 funding and implementation a national priority, and we applaud the current initial efforts underway. Any discussion of a larger infrastructure effort would be incomplete if it did not include an NG911 initiave at its core.

It's important to recall that incentive leadership for 911 and public safety is not a new role for Congress, but a return to one of its core values – protecting the American people. It was Congress that initiated the first study and recommendations for 9-1-1 in the United States, and it was Congress that provided the initial grants, through the Law Enforcement Assistance Administration (LEAA), to fund the first 9-1-1 systems in our country. In demonstrating the strong commitment of Congress to the important goal of NG9-1-1, Federal legislation could help to achieve several key objectives.

First and foremost, it could provide additional Federal funding support to assist states and localities in upgrading to and implementing NG911 systems and services. This Federal funding assistance is critical, as iCERT believes that the lack of available "seed" or "gap" grants is the single greatest impediment to NG911 implementation. Importantly, we do

not believe that the Federal Government should bear the full responsibility of funding future 9-1-1 system operations. However, the existing funding mechanisms used by state and local 9-1-1 authorities are severely strained, as public safety professionals look to operate and maintain existing 9-1-1 systems. Increased Federal funding would provide the on-time capital necessary to upgrade those systems to NG911.

Federal legislation could also promote more effective implementation of NG911 by requiring that Federal funds be made available in accordance with grant guidelines that are designed to support important national objectives. For example, iCERT believes that the effectiveness of NG911 implementations will be maximized when there are clear governance structures and effective coordination at the regional or state level. iCERT is a strong supporter of local government control, but effective planning and funding of Next Generation 9-1-1 requires regional and statewide planning. Federal guidance tied to funding can also ensure that there is both effective and efficient integration of NG911 systems with the nationwide public safety broadband network being implemented by the First Responders Network Authority (FirstNet). To be clear, NG911 is not the "same" as FirstNet, and the accomplishment of FirstNet's goals is not a substitute for NG911. Neither is NG911 a substitute for FirstNet. However, if both are not accomplished in a coordinated fashion, then each is diminished, and the dream of a seamless collaborative public-to-first responder end-to-end network will go unrealized.

As NG911 is deployed throughout the nation, with IP-based secure networks taking the place of legacy 9-1-1 analog systems, the risks posed by increased exposure to cyber attacks will need to be considered and addressed in a comprehensive fashion. A national collaborative standardized blueprint for NG911 can provide the necessary assurances that NG911 systems are implemented with appropriate and effective measures to protect against cyber attacks, including compliance with the Cybersecurity Framework developed by the National Institute of Standards and Technology (NIST).

Conclusion: The Time Is Now To Act. As a nation, we cannot continue to let 9-1-1 fall behind – we must act. The good news is that much of the work has been done to enable the transition to NG911. The roadmap is there. Standards bodies are hard at work. iCERT members are applying their marketplace creativity in developing innovative solutions Now is the time to accelerate our progress down the transition path. Funding for accelerated implementation of NG911 service across the U.S. will provide significant benefits and improved security and emergency services for; the public, vulnerable and undersereved populations,9-1-1 professionals, andour first responders. Yet, we cannot expect our 9-1-1 system to continue to be successful without support from all of us – from Congress, from the commercial sector, state and local government, and from key stakeholders as we look to support the public agencies that deliver life saving services to our citizens, residents, and visitors every hour of every day.

iCERT looks forward to working with all the members of this Committee, Congress, and the Administration to support the advancement of NG911 for our country.

I thank the Committee for the opportunity to discuss these important issues with you today and I am happy to answer any questions.