Testimony of

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on

Strengthening Communications Networks to Help Americans in Crisis

before the

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Chairman Pallone, Chairman Doyle, Ranking Member Walden, Ranking Member Latta, and members of the Subcommittee, on behalf of CTIA and the U.S. wireless industry, thank you for the opportunity to testify today on America's critical public safety communications needs. We welcome this hearing and a continuing dialogue to share the wireless industry's commitment to maintaining service to Americans even as the frequency and scope of emergency and disaster events increase. And we welcome discussion of key public safety issues, including support for our nation's 9-1-1 system and Wireless Emergency Alerts, and easing access to suicide prevention resources for people in crisis.

CTIA and its member companies recognize this Committee's long-history of leadership on public safety issues, including resiliency, which has encouraged the wireless industry to enhance our preparedness and response, our engagement with federal, state, and local public safety officials, and our coordination with critical infrastructure providers. In the aftermath of Superstorm Sandy, Chairman Pallone was instrumental in forging the Wireless Resiliency Cooperative Framework (Cooperative Framework) among wireless providers, which has enhanced collaboration and accelerated response and recovery efforts from recent disasters. Together, we are stronger than we were at the time of Sandy, and we continue to draw lessons from the increasing severity and frequency of disasters that strengthen our networks, our responses, and our performance for everyone who relies on wireless during emergencies. Of course, more can be done to enhance Americans' ability to rely on wireless during emergencies and disasters.

Today, CTIA and our member companies welcome the opportunity to offer our thoughts on how the RESILIENT Networks Act, READI Act, FIRST RESPONDER Act, National Suicide Prevention Hotline Act, and other bills on the agenda can enhance our efforts to work together so that wireless service will be available when Americans need it most.

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As consumers, we are all aware of the central role that wireless plays in our lives—especially during an emergency. When a friend or family member needs help, when a stranger is in trouble, or when we are just trying to say something if we see something, we pick up our wireless devices to call—or text—9-1-1. When disaster strikes, we reach for our wireless devices to find up-to-the-minute information that can help us respond and recover. And when significant emergencies threaten our communities, public safety professionals send Wireless Emergency Alerts (WEAs) with critical information that spurs us to action and keeps us safe.

Wireless providers build networks to connect people throughout the U.S. The wireless industry prides itself on delivering that connectivity every day and particularly during emergencies. But CTIA and our member companies know that meeting expectations for wireless resiliency requires constant evaluation and evolution. Given the historic storms and disaster events of the past few years, we are here today to support establishing clear expectations for wireless resiliency, while also enhancing the coordination and collaboration that is necessary to successfully prepare for, and respond to, any disaster event. While each emergency is unique, our networks are stronger than ever, and our member companies share a deep commitment to working collaboratively to improve resiliency.

As Americans Rely on Wireless, Providers are Continuously Working to Evaluate and Improve Resiliency.

As disasters increase in severity and frequency, the wireless industry continues to invest and innovate to fortify wireless services. All of us are grappling with the reality that recent weather-related disasters have been more destructive and costlier than ever before.[i] Between 2017 and 2019, the U.S. experienced more than a dozen disaster events so severe that they produced billion dollar losses. Within a single month in 2017, three once-in-a-generation storm and disaster events delivered the costliest disaster year in our nation's history at $318.9 billion.[ii] And many members of this Subcommittee have felt the impacts of these or similar events in your home districts and states.

Wireless service providers know that in the face of the growing number and intensity of disasters and emergencies, Americans are relying on wireless services more than ever. Time and again, we learn of stories of community, of public service, of heroism and perseverance, aided by wireless. For example, neighbors and volunteers supported each other through mobile apps and social media during the historic rainfalls over Texas and North Carolina following Hurricanes Harvey and Florence. And we see local emergency officials increasingly harnessing our nation's most recent emergency alert system—WEAs—to lead evacuations from areas under threat of floods or wildfires.

But there are other frustrating and heartbreaking stories as well. These stories illustrate why wireless providers continue their efforts to enhance resiliency. Our member companies are focused more than ever on building increasingly resilient networks, improving practices to

maintain service, enhancing coordination with other stakeholders, and, in the aftermath of any disaster or emergency, restoring service as quickly as possible.

Active Preparation, Rapid Response, and Consumer Education.

Before a storm, wireless providers take numerous steps to fortify networks: from verifying cell site battery backup to moving portable generators into readily available staging areas, topping off backup generator fuel tanks, and moving additional fuel and refueling trucks into place to prepare for power outages.[iii] Wireless providers also stage recovery and response teams for rapid deployment so they are ready to jump in when it is safe to do so. In case there is a gap in or weak network coverage due to loss of power or a damaged cell site, providers ready a wide range of deployable assets, including Cells on Wheels (COWs), Cells on Light Trucks (COLTs), and Cells on Drones (Flying COWs), that can be sent to temporarily enhance or restore wireless coverage.[iv]

Before, during, and after each event, wireless industry response teams work tirelessly to prepare and respond to the emergency. These teams work around the clock to engage with the federal government and state Emergency Operations Centers (EOCs) to share timely information with government officials, power companies, and other public safety stakeholders in order to identify where portable generators and mobile cell units are needed most, and transport equipment to these critical sites in response to an evolving disaster event. After an emergency passes, wireless providers regularly assess their individual performance and collaborate with other communications providers and industries to identify opportunities to enhance preparedness and response for the next emergency event.

Consumer education is also a critical component of the wireless industry's resiliency efforts. In the days and hours leading up to a major storm, CTIA and the wireless community share tips about preparing for and using mobile devices in an emergency, and they target this information on social media to consumers in the affected region.

Investing in Network Resiliency.

Beyond these activities, the wireless industry is making investments that will result in more resilient networks. As an initial matter, the wireless industry has invested more than $253 billion in capex between 2010 and 2019 and more than $27.4 billion in 2018 alone.[v] That $27.4 billion investment contributed to, among other things, the deployment of 25,000 additional cell sites in 2018—the vast majority being new small cell deployments.[vi] Through these investments, wireless providers are building networks with redundant, diverse, and densified infrastructure; if one cell site may be impacted by an emergency, other cell sites are able to support communications, such as 9-1-1 or WEAs. By upgrading existing networks with more resilient infrastructure in disaster-prone areas, these investments have led to some positive results during recent disaster events.

For instance, at least 95 percent of cell sites remained operational in the areas in Texas and Louisiana affected by Hurricane Harvey.[vii] In the aftermath of Hurricane Michael, the percentage of cell sites in the overall affected area never fell below 81 percent on a given day.[viii] In the face of increasing challenges to power availability in California last year, 96 percent of cell sites remained operational throughout the areas in California affected by the preemptive public safety power shutoffs—despite the fact that more than 2.7 million Californians were

without power.[ix] And just last month, after a 6.4 magnitude earthquake knocked out infrastructure and electric power across Puerto Rico, 68 percent of cell sites remained operational—a percentage that grew to more than 80 percent within 48 hours.[x] While these statistics do not diminish the frustrating and threatening experiences consumers suffered from devastating events, they do provide some context regarding overall wireless resiliency.

Those experiences have also fueled wireless provider efforts to apply lessons learned to better equip networks for future events with new resiliency-first actions. For example,[xi] wireless providers have buried new fiber in Panama City, Florida, used steel rather than wood poles to better withstand high winds in Puerto Rico and the U.S. Virgin Islands, and elevated equipment to account for future flooding in Texas and Louisiana. In California, wireless providers are investing in fixed generators at new cell sites, diversifying backup power solutions at existing cell sites and expanding the availability of portable generators that can be more readily accessed and deployed in coordination with evolving information about electric utilities' preemptive public safety power shutoffs.

All of these efforts are necessary because each disaster is different and providers need the flexibility to respond to evolving challenges. The investments that wireless providers make in time, material, and people to employ the best set of tools at each provider's disposal to prepare for and respond to the unique nature of an emergency have made our networks stronger.

Coordination and Collaboration are Critical to Resiliency and Restoration.

As wireless providers take the necessary steps to invest in their networks and prepare for increasingly devastating events, coordination and collaboration among wireless providers, electric utilities, government officials and public safety stakeholders is essential to rapidly respond and restore services in areas that are most affected by emergency events.

As previously noted, following Superstorm Sandy, we worked with congressional and FCC leaders to develop a flexible set of principles to encourage wireless providers—who are otherwise competitors—to work together and provide mutual assistance during emergencies, while maintaining incentives for investment and innovation through the Wireless Resiliency Cooperative Framework.[xii]

Facilitated by the Cooperative Framework, wireless providers have put aside competitive differences to pull together in response to emergencies. For example, wireless providers engaged in mutual aid by sharing resources such as generators and repairing one another's antennas in Puerto Rico and the U.S. Virgin Islands during the days and weeks following Hurricane Maria. Wireless providers also have maintained service to consumers by honoring roaming arrangements encouraged by the Cooperative Framework. And since the Cooperative Framework's adoption, wireless providers have worked with the FCC to expand the scope of cell site data that can be shared with consumers and local public safety officials.

Taken together, the common-sense, actionable principles of the Cooperative Framework have helped to harness the collective resources of the wireless industry to maintain and quickly restore wireless services to Americans affected by disasters; at the same time,

we've learned that preparing for and responding to the next storm or emergency requires more engagement with key infrastructure, public safety, and government stakeholders.

Even as Americans rely on wireless during emergencies, wireless relies on infrastructure providers to power our networks, antennas, and devices, and state and local governments to maintain roads, bridges, and tunnels that are necessary to transport equipment and access critical sites. Cooperative efforts among these interdependent stakeholders are required to prepare for and rapidly respond to disasters. Efforts that lack coordination, no matter how well intentioned, can lead to bad results.

For example, in the race to restore service in the aftermath of Hurricane Michael, electric utility clean-up crews in Florida inadvertently cut critical fiber lines used for backhaul by wireless providers.[xiii] Last year, we learned from the preemptive public safety power shutoff events in California that better coordination among wireless providers and electric utilities is needed in wildfire-prone regions. As wireless service depends on electric services, coordination efforts between these industries should reflect as much.

Given the challenges of Hurricane Michael and last year's de-energization events in California, wireless providers are revisiting how they engage with electric utilities and public safety partners to further improve coordination and communication. In fact, before the next hurricane and wildfire seasons begin, I'm pleased to announce that CTIA and the Edison Electric Institute (EEI) will convene representatives from our member companies to identify near-term actions that can improve information sharing and preparedness by focusing on lessons learned from preemptive public safety power shutoffs related to wildfire events and

mutual preparation and restoration efforts in hurricane-prone areas. We expect our collaboration will foster discussion about longer-term efforts to facilitate sharing of industry-to-industry service expectations and planning needs that not only allow for better coordination during emergency and disaster events but also promote overall resiliency. We will keep this Committee, the FCC, and public safety stakeholders appraised of our progress to further enhance information sharing that is necessary in the collective effort to maintain and restore services after a disaster event.

Setting National Expectations for Resiliency, Emergency Alerts, Suicide Prevention, and 9-1-1.

Even as our networks are getting stronger in the face of increasingly severe events, we recognize that more can be done to enhance Americans' ability to rely on wireless during emergencies and disasters.

We support the goals of Chairman Pallone and Representative McNerney's RESILIENT Networks Act (H.R. 5926). The bill rightly recognizes that communications providers, electric utilities, and public safety stakeholders need new tools to share information and work together to ensure our nation's critical infrastructure can meet the evolving challenges of emergencies and disasters, including pre-planned power downs. By recognizing that wireless networks are deployed on a nationwide basis but emergency events are local, the bill also directs the FCC to set clear expectations for roaming, mutual aid, and backup power during disasters through reasonable and flexible rules. In addition, we know that the low-latency, high-capacity capabilities of 5G will further raise expectations among wireless consumers and public safety stakeholders, and we welcome the bill's focus on how 5G will improve resiliency.

In the spirit of supporting the goals of the RESILIENT Networks Act, we identify here a few areas where improvements can be made and look forward to continuing to work with the Subcommittee to address these and any other issues. First, we appreciate that the bill recognizes the FCC's important role in assessing the impact of emergencies and disasters on communications infrastructure and, when appropriate, activating the Disaster Information Reporting System (DIRS) when such infrastructure may be affected by emergencies. Activation of DIRS and a declaration of a federal emergency are the two best indicators of a widespread threat to communications infrastructure, and thus any provisions of this bill that go into effect during times of emergency should be tied to these two events.

Second, the bill acknowledges the important role that reasonable roaming agreements play during times of emergency in ensuring continuity of service—a principle we support and have embraced in the Cooperative Framework. However, the bill could create confusion by requiring providers to disclose the status of their networks while excluding areas where customers are roaming on another provider's network. This approach may not further situational awareness among public safety when customers can still communicate with emergency services in a roaming circumstance.

And third, we support the bill's focus on enhanced information sharing, both between industries and different levels of government, and with the public safety community. However, we note that tomorrow, the FCC is expected to launch a new proceeding aimed at expanding the scope of public safety stakeholders who can access DIRS information. The FCC's Notice of Proposed Rulemaking will likely generate a robust record and may spur new ideas for better

enhancing information sharing among key stakeholders moving forward. We encourage the Subcommittee to monitor the FCC proceeding and the issues raised, rather than adopting legislation before the FCC develops a record.

We support Representative McNerney's READI Act (H.R. 4856). Today, wireless providers serving more than 99 percent of wireless consumers are voluntarily participating in the WEA system, transmitting thousands of alerts each year that are helping our local alert originators save lives. By encouraging the alert-originator community to adopt and regularly adapt their emergency alerting procedures to avoid false alerts and harness evolving capabilities, the READI Act can help ensure that WEAs remain a trusted source of emergency information for the American public.

Americans rely on wireless to easily access emergency services, whether calling 9-1-1 or seeking support from suicide prevention centers throughout the U.S. We support Ranking Member Walden's FIRST RESPONDER Act (H.R. 5928) because a robust and reliable 9-1-1 service is the centerpiece of our nation's emergency communications system. 9-1-1 service is a partnership among federal, state, and local governments, public safety professionals, and industry. However, state and local governments undermine public trust and public safety when they divert portions of the $2.6 billion dollars in 9-1-1 fees collected annually from wireless consumers. If adopted, the FIRST RESPONDER Act will give the FCC more tools to discourage the unacceptable practice of state 9-1-1 fee diversion and ensure our nation's 9-1-1 system can continue to support life-saving services for millions of wireless consumers.

Finally, we also support the goals of H.R. 4194 to ease access to the National Suicide Prevention Lifeline by designating 9-8-8 for providers to route calls to these existing services that help people in crisis every day. These crisis centers need sufficient funding to support the increased call volumes that are likely to come from implementing 9-8-8. Given the significant fee diversion issues noted above, we are concerned about the effectiveness and equities of solely funding this important work from state and local fees on all Americans' wireless bills. We look forward to continuing to work with this Committee on this bill to ensure suicide prevention crisis centers have the resources they need to continue saving lives.

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Thank you again for the opportunity to testify. We look forward to working with you to further ensure that wireless is there when Americans need it most.

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[i] Adam B. Smith, *2010-2019: A landmark decade of U.S. billion-dollar weather and climate disasters*, NOAA (Jan. 8, 2020), https://www.climate.gov/news-features/blogs/beyond-data/2010-2019-landmark-decade-us-billion-dollar-weather-and-climate.

[ii] *Id*.

[iii] *See* Comments of CTIA, PS Docket No. 11-60, at 5-6 (Apr. 29, 2019) (CTIA Apr. Framework Comments).

[iv] *Id.*

[v] *See* CTIA, *2019 Annual Survey Highlights*, at 5 (June 20, 2019), https://api.ctia.org/wp-content/uploads/2019/06-/2019-Annual-Survey-Highlights-FINAL.pdf.

[vi] Press Release, CTIA, *Mobile Data Use Nearly Doubles, CTIA Annual Survey Shows* (June 20, 2019).

[vii] CTIA Apr. Framework Comments at 3.

[viii] *Id.*

[ix] *See, e.g.,* FCC, *Communications Status Report for Areas Impacted by California Public Safety Power Shutoffs*, at 3 (Oct. 28, 2019).

[x] CTIA, *The Wireless Industry Responds to Puerto Rico Earthquake* (Jan. 15, 2020), https://www.ctia.org/news/blog-the-wireless-industry-responds-to-puerto-rico-earthquake; Letter from Ajit V. Pai, Chairman, FCC, to Yvette D. Clarke, New York Congresswoman, U.S. House of Representatives (Feb. 14, 2020), https://docs.fcc.gov/public-/attachments/DOC-362600A2.pdf.

[xi] Ina Fried, *1 big thing: Climate change challenges wireless industry*, Axios Login newsletter (Nov. 25, 2019), https://www.axios.com/newsletters/axios-login-dace70d7-f3cc-48a5-9f9e-a0aa9aa4305a.html.

[xii] *See* CTIA Apr. Framework Comments at 7.
[xiii] *See* Reply Comments of CTIA, PS Docket No. 11-60, at 3 (Feb. 25, 2019).