

Testimony of Steve Carlson

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Joint Committee on Emergency Response

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Good afternoon. I'm Steve Carlson, CA Government Affairs Counsel for CTIA-The Wireless Association, the international trade association representing wireless carriers, equipment manufacturers, and Internet service providers.

The wireless industry understands that continuity of service and survivability of networks during and after disasters and emergencies is critical to protect the public safety, to coordinate relief efforts, to support emergency responders and to allow people affected by emergencies to seek help and notify and communicate with loved ones.

The wireless industry not only accepts the responsibility that many people rely on their wireless devices in the aftermath of emergencies, but embraces it through multi-faceted efforts to create national and local strategies to promote resiliency of communications infrastructure.

My role will be to inform the committee how our industry generally acts to ensure maximum reliability of service during and after emergencies.

The briefing paper suggests that the wireless industry "can and should be taking steps..." to deal with emergencies. As my comments will show the wireless industry for years has been and will continue to take steps to promote the continuity of service and network resiliency.

Many carriers build redundant networks where appropriate and possible, which allow wireless switches to rapidly and dynamically reroute traffic based on needs and capacity constraints during times of potential overload. Having an adequate number of wireless cell sites and other infrastructure is not only key to providing the coverage and speeds consumers want in non-emergencies, it is absolutely critical to providing the flexibility to reroute traffic to maintain the networks in emergencies. Unfortunately many communities, including San Diego, make it

difficult to place cell sites in the numbers and locations necessary to have adequate coverage and capacity. Additionally, in order for wireless networks to continue to provide capacity its customers demand for normal service as well as in heavy load emergency situations, it is critical that there be adequate wireless spectrum allotted to wireless carriers, an issue on which we are working very hard at the national level. An analogy would be more lanes on the highway during rush hour, something Assemblymember Bradford heard a bit about last week in an NCSL/CTIA Policy Seminar on wireless

Network operators can also increase power at nearby cells to boost coverage and make up for a single cell or group of cells that have been rendered temporarily inactive.

When appropriate, and it isn't always, carriers employ portable or temporary base stations during emergencies to promote network continuity. Specifically, during times of heightened demand, decreased network capacity, or damage to network infrastructure, carriers will provision so called COWS, cellular base stations on wheels and other temporary base stations, that can act as a temporary cell sites in the event of damage to permanent cell sites.

Most important and most relevant to the topic of today's hearing, wireless carriers commonly provision many cell sites and switches with back-up power sources to maintain network operations even when the electrical grids fail. In addition, wireless carriers will provide this back-up power through permanent generators installed at a facility's location, with reserve batteries, and by deploying portable generators during emergencies. It should be pointed out that a number of communities make it difficult to employ permanent generators citing environmental issues.

CTIA believes carriers must retain the flexibility to employ back-up power techniques that in their expert opinion are best suited to the technological and logistical needs of individual carriers. In fact, due in part to the difficulty in zoning cell sites, carriers are deploying Distributed Antenna Systems. These are smaller arrays that don't, in fact can't, have back up power systems, but are very important in completing network infrastructure.

Lastly, wireless carriers often tailor their network resiliency and continuity of service plans to the unique needs of individual localities and the likely disasters experienced in different regions. For example, wireless providers will harden cell sites to withstand hurricane force winds in hurricane zones, and mobile switching

centers will be built on pilings or on upper floors of buildings to protect against flooding in flood-prone areas.

This site-specific planning stems from the individual assessments conducted by wireless providers and depends upon continued flexibility to implement the necessary protections for the particular locality.

I want to conclude by reinforcing that the wireless industry is dedicated to working with local, state and federal officials to ensure continuity of service and maximum wireless coverage during emergencies. As the briefing paper points out, CTIA is currently engaged in a proceeding at the FCC looking at these identical issues.

Our association and industry takes very seriously our vital role in serving residents during and after emergencies. A quick look at the CTIA web site, CTIA.org, will show numerous ways the wireless industry informs and educates customers on proper steps to prepare for and take in an emergency.

CTIA has established a Business Continuity/Disaster Recovery Program that provides an annual certification for wireless carriers that meet the planning standards and objectives necessary to ensure that they have prioritized service continuity and disaster recovery.

And wireless providers are constantly assessing the strengths and vulnerabilities of their networks by examining the specific environmental, topographical, geographical, population and cultural circumstances that influence individual networks.