

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Improving Resiliency, Reliability and)	PS Docket No. 13-239
Continuity of Mobile Wireless)	
Communications Networks)	PS Docket No. 11-60
)	

**COMMENTS OF THE RURAL WIRELESS ASSOCIATION, INC. AND NTCA – THE
RURAL BROADBAND ASSOCIATION**

The Rural Wireless Association, Inc. (“RWA”)¹ and NTCA – the Rural Broadband Association (“NTCA”)² (together “the Associations”) file these joint comments regarding the *ex parte* presentation made by wireless providers AT&T, Sprint, T-Mobile, Verizon (collectively, the “Big Four”), and U.S. Cellular, together with CTIA, in which they discuss a “Wireless Resiliency Cooperative Framework,” described as “a voluntary initiative that will enhance coordination and communication to advance wireless service continuity and information sharing during and after emergencies and disasters.”³ The Associations support the notion of network resiliency, but are concerned that a lack of functional bilateral roaming agreements between the Big Four and rural wireless carriers could hinder such resiliency in the event of an

¹ RWA is a 501(c)(6) trade association dedicated to promoting wireless opportunities for rural telecommunications companies who serve rural consumers and those consumers traveling to rural America. RWA’s members are small businesses serving or seeking to serve secondary, tertiary, and rural markets. RWA’s members are comprised of both independent wireless carriers and wireless carriers that are affiliated with rural telephone companies. Each of RWA’s member companies serves fewer than 100,000 subscribers.

² NTCA represents nearly 900 rural rate-of-return regulated telecommunications providers. All of NTCA’s members are full service local exchange carriers and broadband providers, and many provide wireless, video, satellite, and/or long distance services as well.

³ See *Ex Parte* Letter, dated April 27, 2016 from Joan Marsh, AT&T, Charles McKee, Sprint, Grant Spellmeyer, US Cellular, Scott Bergman, CTIA, Steve Sharkey, T-Mobile USA, and William H. Johnson, Verizon, to Marlene H. Dortch, Secretary, Federal Communications Commission, PS Docket Nos. 13-239 and 11-60, at 1.

emergency. To address this issue and permit the proposed initiative to achieve its desired effect across all users and across the country, the Associations recommend that the Commission require that: (1) carriers negotiate bilateral roaming agreements containing bilateral roaming terms and conditions that apply in the event of an emergency; (2) carriers conduct bilateral testing; (3) any roaming restrictions imposed after bi-lateral testing is completed be capable of being lifted within a two-hour window in order to gain access to the serving carrier's network.⁴

I. BACKGROUND.

In the United States today, there are four nationwide or near-nationwide mobile wireless carriers,⁵ and dozens of small, rural and regional mobile wireless carriers. The commercial mobile wireless marketplace has matured to the point where nearly all mobile wireless consumers expect two things from their provider-of-choice: (1) the ability to access mobile voice *and* data services at the fastest speeds available; and (2) the ability to use a mobile wireless device on a nationwide basis without being subject to roaming charges that exceed the allotment included in the customer's retail plan. If a mobile wireless carrier cannot offer cutting edge data services or the ability to seamlessly roam throughout the United States, then that carrier will be at a severe competitive disadvantage in the eyes of most current and prospective subscribers.⁶ Fortunately, the Commission changed its data roaming rules in 2011 to mandate

⁴ It is critical that such restrictions be lifted within a short defined period of time after the onset of an emergency. Waiting for the opening of a normal maintenance window will often involve a delay of 24 hours or more, which, by definition, flies in the face of any notion of an "emergency."

⁵ *Policies Regarding Mobile Spectrum Holdings*, Report and Order, WT Docket No. 12-269, GN Docket No. 12-268, at ¶ 24 (rel. June 2, 2014) (stating the number of nationwide facilities-based wireless service providers has decreased by a third from six to four – Verizon Wireless, AT&T, Sprint and T-Mobile).

⁶ Issues remain regarding commercially reasonable, inter-carrier wholesale data roaming rates, and these issues impact the ability of smaller carriers to offer retail nationwide plans at rates competitive with nationwide carriers. The Associations believe that a separate discussion about

that carriers be legally obligated to offer mobile wireless data roaming access to all technologically-compatible requesting carriers, at commercially reasonable rates, terms and conditions.⁷ Unfortunately, the subsequent reaction to this rule change by the country's Big Four carriers has created an unintended consequence that could threaten public safety in the event of an emergency. A more thorough examination of how inter-carrier roaming is managed at the wholesale and retail levels is required in order to understand its impact on public safety, network resiliency, carrier cooperation, and the proposed Framework at issue in this proceeding. The spirit of the Framework is well-intended, but it makes significant assumptions that are simply not true in today's wireless marketplace. Further action is required to ensure that the Framework serves the interest of *every* user – regardless of their choice of wireless provider or the choices made by their wireless provider – in the event of an emergency.

II. IN MANY CASES, ROAMING AGREEMENTS ARE UNILATERAL AND EVEN BILATERAL ROAMING AGREEMENTS ARE BILATERAL IN NAME ONLY.

The Big Four carriers, by and large, have entered into bilateral roaming agreements with smaller requesting carriers (albeit sometimes reluctantly). When carriers enter into roaming agreements, there are four major components to such relationships. Step one is negotiating the commercial terms and conditions of the roaming relationship, especially the roaming rates and services offered. Step two is the testing of roaming functionality so that the home carrier's subscribers' devices function on the serving carrier's network. Step three is to issue a Commercial Launch letter. Step four is the decision by each carrier to restrict, either in whole or

whether the Commission should require bilateral roaming between compatible carriers during non-emergency times (and whether failure to do so unnecessarily limits consumers' rights to competition) is warranted.

⁷ *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, Second Report and Order, WT Docket No. 05-265 (rel. Apr. 7, 2011).

in part, where on the serving carrier's network the home carrier's subscribers are allowed or disallowed to roam.

Small and rural carriers, including the Associations' members, typically do not seek to restrict their customers' access to their roaming partners' networks outside of their home coverage area, but this is not the case for the Big Four carriers. Often, nationwide carriers restrict their customers from accessing rural carriers' networks even in areas where they have no coverage. The nationwide carriers have determined that it is better for their respective customers to do without any coverage in rural areas rather than pay the rural carrier for access to their networks. This position has become more obvious at the testing phase. In fact, it is not uncommon for the Big Four carriers to conduct only *unilateral* testing of roaming functionality where the nationwide carrier is the serving network. In such a case, regardless of the commercial terms and conditions that govern the relationship, the testing of roaming capabilities for the nationwide carrier's subscribers to roam on a rural carrier's network is never even begun, let alone finished. This affirmative decision by a nationwide carrier not to conduct bilateral testing renders it impossible for the nationwide carrier's customers then to roam on the rural carrier's network in the event of an emergency or under any exigent circumstance, even if the rural carrier is ready, willing, and able to provide such access.

Testing aside, small and rural wireless carriers have recently found instances where the Big Four unwilling to even enter into bilateral LTE roaming agreements. Smaller providers are instead offered *unilateral* agreements under which the rural carrier's subscribers can roam on the nationwide carrier's network, but with no capability of reciprocal roaming for the nationwide carrier's subscribers on the rural carrier's network. In such a case, there is obviously no testing of roaming capabilities for a nationwide carrier's subscribers to roam on a rural carrier's network,

because no commercial terms exist under which such roaming would ever be allowed. The potentially harmful repercussions of such choices by nationwide carriers cannot be ignored, especially when viewed through the prism of the Framework. The bottom line is that a unilateral roaming agreement (or a decision not to test under a bilateral-in-name roaming agreement) undermines the Framework by ensuring that the nationwide carrier's public safety users or retail customers will not be able to roam on a rural carrier's network in an emergency situation.

III. FUNCTIONAL BILATERAL ROAMING AGREEMENTS ARE INSTRUMENTAL TO PUBLIC SAFETY DURING NATURAL DISASTERS.

Examples of how functional bilateral roaming agreements impact public safety and the ability of consumers to communicate in the event of real-life disasters are readily available. In the days leading up to Hurricane Katrina's landfall in 2005, GSM-based carriers AT&T and T-Mobile discussed scenarios in which *after* the storm arrived, AT&T subscribers in Louisiana and southern Mississippi *might* be able to access portions of the T-Mobile network, and T-Mobile subscribers in those same markets *might* be allowed to access portions of the AT&T network. Because the two companies were fierce competitors in the retail marketplace, AT&T was very hesitant to open up "in market" roaming with T-Mobile *prior* to the storm's landfall out of fear of having its network inundated with new users.

As soon as Hurricane Katrina passed, the storm's devastating impact to life and property became apparent to the entire world. In some Gulf markets, only T-Mobile had a functioning GSM-based network. In other parts of the region, only AT&T's GSM-based network was left standing and functional. As it turned out, AT&T only agreed to open up its network in the immediate aftermath of the storm after acknowledging that many of its urban sites in New Orleans were out-of-service and would remain out-of-service for days and/or weeks while T-Mobile's comparable sites remained operational (thanks in large part to a switch and power

generator located on a high floor in a tall building). Thankfully, every day consumers, but also public safety and critical infrastructure personnel – including first responders, fire, police, National Guard, local government, Federal agencies, utility company and even insurance company personnel – were able to rely on a compatible “fallback” network when it mattered most. Eventually, after each carrier was able to bring its own network back to full operational status, the pre-storm, in-market roaming restrictions were reinstated. The ability of both AT&T and T-Mobile subscribers to use an ad hoc mesh of available GSM-based cell sites in Louisiana and southern Mississippi in the wake of this catastrophic hurricane was only possible because AT&T and T-Mobile had, *prior to the hurricane*, negotiated a roaming agreement, fully tested roaming functionality, and were poised to launch bilateral roaming services immediately upon need. Without all of those steps having taken place, one or both of these nationwide carriers would have had its customers left without wireless services when it was needed most.

Another demonstration of the importance of carrier cooperation occurred during Iowa’s Missouri River flooding in 2011. As part of its preparations, an RWA member serving this area built platforms to house its base stations above the rising flood waters. As a result, this RWA member’s subscribers benefitted from uninterrupted wireless service in the flooded region. The subscribers of a nationwide carrier with whom the member had a functional, bilateral roaming agreement also enjoyed uninterrupted service. Other wireless customers, whose carrier did not take steps to ensure continued equipment operation, lost service during the flooding and were unable to obtain alternative service.

The proposed Framework assumes these types of wireless access policies based on mutual coordination and cooperation will be possible today under similar circumstances. Unfortunately, these assumptions are misplaced. There are many instances today where after the

bilateral roaming agreement is signed by the carriers, and regardless of the rates in place, the nationwide carrier does not perform the testing necessary to guarantee that its subscribers have the technical ability to roam on the rural carrier's network. The roaming relationship does not even get to the point where in-market or adjacent-market restrictions are imposed for *commercial reasons* by one or both carriers. Instead, the technical testing portion is dropped by the nationwide carrier and the bilateral roaming relationship becomes a *de facto* unilateral roaming relationship. The problem with this scenario – which is replicated quite often in rural areas of the United States – is that no one knows when or where a natural (or manmade) disaster will occur.⁸

It is entirely possible that in markets served by just one nationwide carrier and one rural carrier, where bilateral roaming is theoretically feasible, the nationwide carrier's subscribers will be technically *incapable* of roaming on the rural carrier's network in the event of an emergency or disaster. The administrative and technical burdens of establishing bilateral roaming capabilities are insignificant when compared to the benefits reaped when life-saving personnel in a disaster zone can make voice calls or access mobile broadband services. The unintended consequences are magnified even more when the discussion turns away from urban areas like San Francisco or New York to rural markets where nationwide carrier coverage is inconsistent at best and there are rural roads, canyons, valleys and entire remote regions served only by a rural carrier.

The Associations envision a bleak scenario in which the majority of public safety and critical infrastructure personnel on-site during and immediately after an event use the AT&T,

⁸ The 1989 Bay Area Earthquake, the 1994 Northridge Earthquake, the terrorist attacks perpetrated on September 11, 2001, and Hurricane Sandy in 2012 are just a few additional examples of region-wide disasters that can occur anywhere in the United States, impacting both populous urban centers and remote rural communities.

Sprint, T-Mobile or Verizon networks, but the only carrier capable of providing service is a rural carrier that is *incapable* of allowing inbound roaming because nationwide carriers did not test roaming functionality (or only engaged in a unilateral agreement to begin with). This is troublesome because it may be too late to initiate roaming capabilities once an emergency situation begins. Technical difficulties and lack of staff availability could pose serious issues, especially given rural carriers' limited personnel resources under the best of circumstances. The scenario described above can be rectified by ensuring that: (1) carriers negotiate bilateral roaming agreements containing bilateral roaming terms and conditions that apply in the event of an emergency; (2) carriers conduct bilateral testing; and (3) any roaming restrictions imposed after bi-lateral testing is completed are capable of being lifted within two hours of the onset of an emergency in order to gain access to the serving carrier's network.

These areas where nationwide subscribers lack roaming capability will not disappear anytime soon, even with FirstNet on the nation's horizon. It will be years before a stand-alone public safety network like FirstNet is in place and operational nationwide. Of course, FirstNet too will be subject to natural and manmade disasters, no matter how well built the network is, and regardless of whether it is operated and/or controlled by a nationwide carrier or a collection of carriers. In the meantime, disasters and emergencies will strike without notice. Even the best-prepared nationwide carriers can expect some level of service disruption; and if the event is truly catastrophic, those disruptions will be counted in days and weeks, not minutes and hours.

IV. CONCLUSION.

The Associations support a framework that enhances network resiliency – but it must be one that is nationwide in scope for the benefit of all users in the event of an emergency, rather than being defined and limited by the desire of some providers to keep their users *off* of other

carriers' networks. The Associations' members build and operate some of the most technologically-advanced mobile wireless networks in the country today, and in many cases, a member is the only carrier to provide any type of mobile wireless service in the area. There can and should be a legitimate policy debate about where the FCC should require bilateral roaming between compatible carriers during non-emergency times and whether the lack of such a requirement unnecessarily limits consumers' rights to competition. But no reasonable argument can be made to ignore and abandon the testing of roaming capabilities when a bilateral agreement is initially reached. At the very least, a functional bilateral roaming agreement should be considered a failsafe option that tens or even hundreds of millions of potential mobile consumers, including public safety and critical infrastructure personnel, can rely on when a disaster hits and there is only one network up and running in a disaster zone.

Respectfully submitted,

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May 31, 2016