

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
 )  
Reliability and Continuity of Communications ) PS Docket No. 11-60  
Networks, Including Broadband Technologies )

**COMMENTS OF USA MOBILITY, INC.**

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USA Mobility, Inc. hereby submits the following comments in response to the Notice of Inquiry issued in the above-referenced proceeding on April 7, 2011.<sup>1</sup> The *NOI* seeks comment on “a broad range of issues regarding the reliability and resiliency of our Nation’s communications networks,” including “the inadequacy of backup power and insufficient communications backhaul redundancy as key factors that contribute to the congestion or failure of commercial wireless data networks, particularly during emergencies.”<sup>2</sup> USA Mobility commends the Commission for examining the reliability and continuity of communications services during emergencies.<sup>3</sup> USA Mobility agrees that “[i]t is critical that our Nation have access to reliable and resilient communications networks, especially during times of major emergencies, such as large-scale natural and man-made disasters.”<sup>4</sup>

Paging is a reliable and resilient communications system that has remained effective during prior disasters, including 9/11 and hurricane Katrina. As the Commission concluded

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<sup>1</sup> *Reliability and Continuity of Communications Networks, Including Broadband Technologies; Effects on Broadband Communications Networks of Damage or Failure of Network Equipment or Severe Overload; Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Notice of Inquiry, PS Docket Nos. 11-60, 10-92; EB Docket No. 06-119 (rel. April 7, 2011) (“*NOI*”).

<sup>2</sup> *Id.* ¶ 1.

<sup>3</sup> *Id.* ¶ 14.

<sup>4</sup> *Id.* ¶ 15.

based on its review of outages and success stories during and after Katrina, it should promote paging as a primary or backup communications service during emergencies.<sup>5</sup> The Commission also should avoid imposing mandates on paging that are unnecessary and unduly burdensome considering the redundancies inherent in paging networks.

## **BACKGROUND**

USA Mobility is the nation's leading provider of traditional one-way and advanced two-way paging services, supplying mission critical wireless services for police, fire, rescue operations, hospitals, and government, along with many utilities and other businesses that respond to emergencies. As of March 31, 2011, USA Mobility provided service to more than 1.8 million messaging devices.<sup>6</sup>

Paging's technological characteristics make it especially well-suited for use during emergency situations. Paging utilizes high-power transmissions up to 3,500 watts effective power with typical antenna heights of 300 feet or more, in contrast to the 100 watts of power and 90-foot antenna height of a typical cellular system. Paging signals simulcast from multiple antennas, providing a wider coverage area and better in-building penetration than other wireless technologies, and also resulting in natural redundancy in the event of the loss of one or more transmission towers. Paging makes use of satellite backhaul and network control, which minimizes dependency on the public switched telephone network ("PSTN") and enables rapid restoration of services.

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<sup>5</sup> Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks, Report and Recommendations to the Federal Communications Commission, EB Docket No. 06-119, at 32, 37-38 (June 12, 2006) ("Katrina Panel Report").

<sup>6</sup> Press Release: USA Mobility Reports First Quarter Operating Results (May 4, 2011), *available at* [http://usamobility.com/about\\_us/investor\\_relations/](http://usamobility.com/about_us/investor_relations/).

In addition, paging has many attributes that make it practical for emergency personnel. Paging services interconnect with computers, e-mail, cell phones, and PDAs. Pagers can provide one-way, two-way, one-to-one, and one-to-many text messaging. Paging devices are inexpensive and simple to operate, and have a long battery life from AA or AAA batteries that are easily replaced and do not need to be recharged. Paging systems can also be provisioned and activated quickly.

Paging proved to be a reliable and effective communication tool during 9/11 and Katrina.<sup>7</sup> One-way and two-way pagers worked when most other wireless services did not. The Katrina Panel recognized the benefits of paging, including the reliability of the satellite backbone infrastructure, the inherent redundancy of simulcast transmissions, superior building penetration, long battery life, and effective one-to-one and one-to-many text messaging.<sup>8</sup> In fact, the Katrina Panel recommended that the Commission affirmatively promote the use of paging services by educating the public safety community about the availability and capabilities of paging.<sup>9</sup>

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<sup>7</sup> See Peter Kapsales, *Wireless Messaging for Homeland Security: Using Narrowband PCS for Improved Communication During Emergencies*, at 1 (March 2004), available at <http://www.homelandsecurity.org/journal/articles/Kapsales.html> (concluding that, based on its exemplary performance during 9/11, two-way paging services “should be considered a primary or backup system to improve real-time communication among emergency personnel during critical periods when voice communication is not practical or fails”); Katrina Panel Report, at 24 (“Two-way paging operations remained generally operational during the storm and . . . provide[d] communications capabilities for some police, fire emergency [and] medical personnel, but could have been more widely utilized.”).

<sup>8</sup> Katrina Panel Report, at 10. The Katrina Panel’s findings with respect to the resilience and reliability of paging are relevant to this proceeding and should factor into any new Commission initiatives regarding network reliability and continuity, even though the Commission decided to terminate the Katrina proceeding, EB Docket 06-119. See *NOI* ¶ 51 (noting that if the Commission were to terminate EB Docket 06-119, it would consider the record of the terminated proceeding “to the extent relevant” to this proceeding).

<sup>9</sup> Katrina Panel Report, at 32, 37-38.

## DISCUSSION

The Commission's efforts to improve communications during emergencies should include promotion of paging as an effective primary or backup communications system. In addition, the Commission should avoid applying unnecessary mandates, such as backup power requirements, on paging services, which are inherently redundant and reliable, and far less vulnerable to outages than broadband wireless services.

### **I. THE COMMISSION SHOULD PROMOTE PAGING AS A RELIABLE AND EFFECTIVE MEANS OF COMMUNICATION DURING EMERGENCIES**

In order to enhance the overall reliability and resiliency of day-to-day operations as well as improve continuity of operations during major emergencies, the Commission should promote paging with state, tribal, and local governments.<sup>10</sup> The myriad benefits of paging make it perfectly suited for use during emergencies. The Commission should implement the Katrina Panel's recommendation to promote paging with public safety personnel and should also encourage the inclusion of paging chips in broadband CMRS devices.

Paging services are ideal for emergency use. As described above, paging's characteristics, including simulcasting, high-power transmissions, long battery life, and satellite backhaul and network control, make it a reliable backup or primary source of communication during emergencies. Also, although our Nation's spectrum resources are generally scarce, narrowband PCS services do not face a spectrum crunch. In addition, paging is affordable—an added benefit for public safety providers facing dwindling budgets. USA Mobility's average monthly plan sells for less than \$10 per unit, only a fraction of the cost of a typical service plan for a smart phone or other broadband wireless device.

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<sup>10</sup> See *NOI* ¶ 44 (asking what affirmative roles the Commission could play in working with states, tribal, and/or local governments).

The Commission should follow the Katrina Panel's recommendation to educate the public safety community about the availability and capabilities of technologies, such as paging, that may provide effective backup solutions for existing public safety communications systems. For instance, the Panel suggested that the Commission promote paging and other useful technologies at public safety conferences and urge public safety officials to familiarize themselves with alternative communications technologies such as two-way paging.<sup>11</sup> In addition, the Commission should provide resource materials on its website explaining the benefits of paging for emergency use.<sup>12</sup>

The Commission also should encourage the inclusion of paging chips in broadband CMRS devices. Doing so would allow consumers to access paging services even if other communications networks go down during an emergency. The majority of USA Mobility's customers are institutions such as hospitals, government agencies, and large enterprises. Fewer individuals now subscribe to paging services due to the increased prevalence of cell phones and smart phones. Adding paging capabilities to broadband CMRS devices would ensure that consumers who use such devices would have access to a reliable source of communication even in the event of a major man-made or natural disaster.

In sum, promotion of paging for emergency use, through education efforts with emergency personnel and through the inclusion of paging chips in broadband CMRS devices, will help improve the reliability and resilience of our Nation's communications network during emergencies.

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<sup>11</sup> Katrina Panel Report, at 32, 37-38.

<sup>12</sup> For instance, the Commission could provide such information on the FCC website page devoted to Emergency Communications: <http://www.fcc.gov/topic/emergency-communications>.

## **II. ANY NEW REGULATIONS SHOULD RECOGNIZE THE DISTINCTIONS AMONG TECHNOLOGIES AND SHOULD NOT NEEDLESSLY BURDEN PAGING SERVICES, WHICH ARE INHERENTLY REDUNDANT AND RELIABLE**

As described above, paging is inherently redundant and reliable. As a result, most regulations intended to ensure the reliability and continuity of other types of CMRS would be unnecessary and unduly burdensome for paging carriers. There must be a rational connection between any particular requirements imposed on paging carriers and findings relevant to the paging industry.<sup>13</sup> The Commission has recognized the distinctions between paging and other types of CMRS in the past,<sup>14</sup> and should do so here, as well.

### **A. A Backup Power Requirement Would Unnecessarily Burden Paging Carriers.**

The *NOI* recognizes that different requirements may be appropriate for different types of communications service providers.<sup>15</sup> The inherent reliability and redundancy of paging services obviate the need for backup power at each transmitter site. In addition, a backup power requirement would be especially burdensome for paging carriers.

The same features that make paging especially suited for use during emergency situations negate the need for a backup power requirement. For instance, paging's high-power transmissions that simulcast from multiple antennas provide a wider coverage area than other

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<sup>13</sup> Just as “an agency must provide adequate explanation before it treats similarly situated parties differently,” it must “justify its failure to take account of circumstances that appear to warrant different treatment for different parties.” *Petroleum Commc’ns, Inc. v. FCC*, 22 F.3d 1164, 1172 (D.C. Cir. 1994); *see also Cal. Dep’t of Water Res. v. FERC*, 341 F.3d 906, 910 (9th Cir. 2003).

<sup>14</sup> For example, paging carriers do not support 911/E911 capabilities, are not subject to local number portability or “number pooling,” and are subject to separate universal service contribution rules.

<sup>15</sup> *NOI* ¶ 23 (“If the Commission were to find there is a need for specific backup power requirements, should they be uniform for all communications service providers or should there be different levels of backup for different services based upon other factors?”).

wireless technologies, and also result in natural redundancy in the event of the loss of one or more transmission towers. Also, paging makes use of satellite backhaul and network control, which minimizes reliance on the PSTN and enables rapid restoration of services.

Meanwhile, paging's higher power levels require larger, heavier, and more costly backup power solutions than cellular services. As a result, a backup power mandate would be more burdensome for paging service providers.<sup>16</sup> In order to obtain backup power at each transmission site, USA Mobility would have to install some combination of liquid petroleum generators and uninterruptible power supply devices. The former would require zoning permits for fuel tanks and the installation of concrete pads for the generators, with associated lease modifications, while the latter would entail installation of devices at least the size of a commercial refrigerator and weighing up to 1.5 tons each. Space constraints might make backup power infeasible in some instances. Where feasible, the capital expenditure required would be an enormous burden, without anything approaching commensurate benefits for end users.

Because of decreasing subscribership, USA Mobility will have to decommission many transmitters over the coming years even without a backup power mandate. An unnecessary backup power rule would force the company either to install expensive backup power at many transmitters that will soon be removed or to accelerate the decommissioning process. Thus, instead of increasing the reliability and resiliency of the network, a backup power requirement would in fact decrease the availability and effectiveness of paging services.

Requiring backup power for paging would be arbitrary and capricious, and likewise contrary to the public interest. The Commission should not lump paging together with other

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<sup>16</sup> *See id.* ¶ 25 (requesting information regarding potential challenges to deploying backup power solutions, including cost); *see also* Final Brief for Petitioner USA Mobility, Inc. at 14-16, CTIA-The Wireless Association, *et al.* v. FCC, 530 F.3d 984 (D.C. Cir. 2008) (Nos. 07-1475, 07-1477, 07-1480).

CMRS licensees; rather, the Commission should consider the implications for paging in particular. A backup power mandate is not needed for paging services and would be especially costly and burdensome for paging providers. Given the dramatic differences between paging and other wireless services, a one-size-fits-all solution to backup power concerns cannot be justified.

**B. When Evaluating the Merits of Any Additional Requirements, the Commission Should Consider the Specific Attributes of Paging Services.**

The Commission should consider the specific attributes of paging services as it evaluates the scope and application of any additional proposed regulations. For example, a requirement regarding backhaul redundancy would likely be unnecessary as applied to paging services. The Commission should not apply new mandates to the paging industry that would ultimately worsen rather than improve the reliability and continuity of paging services.

The *NOI* asks whether and how inadequate backhaul redundancy can impair the operation of communications networks during major emergencies.<sup>17</sup> Paging services are inherently redundant and do not require further backhaul redundancy. Because its narrowband PCS transmitters are controlled by satellites, USA Mobility's paging transmission network is far less dependent on the PSTN than many other wireless systems—and thus far less vulnerable to outages during natural disasters and other emergencies. Satellite transmission also allows messages to be directed to multiple base-station paging transmitters within a geographic footprint in a simulcast fashion. Thus, like a backup power mandate, a requirement regarding backhaul redundancy would serve no valid purpose, and thus would be arbitrary and capricious as applied to paging carriers.

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<sup>17</sup> *NOI* ¶ 26.

If the Commission considers other types of regulations, it should also consider exempting paging services based on their unique characteristics.<sup>18</sup> Moreover, paging services are under tremendous economic pressure. Undue regulation could diminish the availability of this reliable and effective source of communication. The Commission should avoid imposing mandates on paging that are not beneficial to the public interest.

### CONCLUSION

For the foregoing reasons, USA Mobility urges the Commission to promote paging services as an effective means of emergency communications and refrain from imposing undue mandates on paging carriers.

Respectfully submitted,

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<sup>18</sup> See *id.* ¶ 45 (asking whether, if the Commission were to adopt specific requirements, certain communications service providers should be subject to exemptions or different requirements).