

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of )  
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911 Call-Forwarding Requirements for ) PS Docket No. 08-51  
Non-Service-Initialized Phones )  
 )

**REPLY COMMENTS OF VERIZON**

The record supports maintaining the current rule that requires service providers to deliver 911 calls from non-service initialized (“NSI”) handsets to PSAPs. Public safety and industry agree that blocking 911 calls from NSI-identified handsets would block many legitimate 911 calls. Commenters also agree that a large percentage of fraudulent NSI 911 calls originate from a comparatively small percentage of handsets. Enabling PSAPs to block 911 calls from that small minority of problem NSI handsets would ease the burdens those calls impose on PSAPs and improve public safety, while preserving access to 911 services for legitimate NSI 911 calls. And the record indicates that such solutions are technically feasible. The Commission should thus first encourage PSAPs to work with vendors on those solutions before it considers changing the existing rule.

**I. BLOCKING NSI-IDENTIFIED 911 CALLS WOULD PREVENT MANY LEGITIMATE 911 CALLERS FROM REACHING HELP IN EMERGENCIES.**

Comments from public safety and industry stakeholders confirm that blocking 911 calls from NSI-identified handsets would prevent many legitimate 911 callers from reaching emergency assistance.<sup>1</sup> It is a misperception that all NSI 911 callers are small children, teenage

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<sup>1</sup> See, e.g., APCO Comments at 3; BRETSA Comments at 3; NASNA Comments at 3; Competitive Carriers Ass’n (CCA) Comments at 4-5; Mission Critical Partners (MCP)

pranksters, or troubled serial callers. TCS estimates that as many as 65 percent of NSI 911 calls could be from legitimate callers;<sup>2</sup> similar data from the City of Philadelphia indicates that over 47 percent of total NSI 911 calls could be from legitimate 911 callers.<sup>3</sup> NASNA states that the Hawaii County, Hawaii PSAP received more legitimate than fraudulent or non-emergency NSI 911 calls.<sup>4</sup> In 2008, Montgomery County, Maryland estimated that 30 percent of NSI 911 calls were legitimate.<sup>5</sup> These varying but significant percentages should compel the Commission to carefully assess the potential impact on legitimate 911 callers before modifying the rule.

Other commenters' data confirm that the proposed rule change could affect 911 callers facing real emergencies. For example, the Texas 911 Entities explain that during 2014 in El Paso, Texas, 3.2 percent of NSI 911 calls resulted in a first responder dispatch. Using a first responder dispatch as a proxy for legitimate 911 calls understates the number of legitimate NSI and non-NSI 911 calls; an automobile accident, for example, may trigger many 911 calls from passers-by but only a single dispatch. But even using such a conservative proxy would represent nearly 4200 emergency calls in 2014, and over 10 every day—in just one PSAP of several thousand in the United States.<sup>6</sup> And as people nationwide place hundreds of thousands of wireless 911 calls daily, blocking only a small fraction of them would affect thousands of those legitimate 911 calls every day.

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Comments at 4-5; Nat'l Network to End Domestic Violence Comments at 1; Sprint Comments at 2-3.

<sup>2</sup> TCS Comments at 3 (NSI handsets that made fewer than 10 calls during a 12-month period as a proxy for legitimate 911 calls).

<sup>3</sup> Philadelphia Comments at 3 (over 47 percent).

<sup>4</sup> NASNA Comments at 3.

<sup>5</sup> Maryland ENSB PN Comments at 3 (filed June 30, 2008).

<sup>6</sup> Texas 911 Entities Comments at 7-8.

The proposed rule change also would block 911 calls from service-initialized handsets.<sup>7</sup> Public safety commenters generally acknowledge that applying caller authentication procedures to block NSI 911 calls will affect 911 calls from service-initialized handsets in some circumstances.<sup>8</sup> After reviewing some commenters' statements minimizing these challenges,<sup>9</sup> Verizon revisited and confirmed that 911 calls from service-initiated handsets over Verizon's CDMA network appear as NSI in certain situations, such as when a handset: (i) first roams into another carrier's network; (ii) moves from one mobile switching center to another; and (iii) is re-connecting to the network.<sup>10</sup> The CDMA network maintains an emergency translator function that allows a carrier to deliver a call to the digits "911" even though that device does not register as a valid service-initialized handset in a mobile switching center's visitor location register. *All* other calls, whether originating from an NSI or service-initialized handset, are subjected to authentication procedures. The network will block a call from a device that does not appear in the register as service-initialized. If Verizon were to remove the number "911" from the emergency translator to comply with the proposed rule change, the authentication processes would apply by default to all 911 calls. The network would thus block 911 calls from a service-initialized handset that, for example, does not register as service initialized in the situations described above.<sup>11</sup>

Changing CDMA architecture to avoid this problem would require new technical standards that would transform how legacy CDMA networks function for 911 and non-911 calls

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<sup>7</sup> See CCA Comments at 5-6; CTIA Comments at 3; AT&T Comments at 4.

<sup>8</sup> APCO Comments at 3; NASNA Comments at 5; Texas 911 Entities Comments at 13.

<sup>9</sup> See AT&T Comments at 4; Philadelphia Comments at 4.

<sup>10</sup> See *NPRM* ¶ 34; see also Verizon Comments at 2.

<sup>11</sup> See *NPRM* ¶ 34.

alike—even as customers migrate to VoLTE networks. VoLTE networks are designed to identify service-initialized handsets even in the situations described above. It would make little sense to take the backwards-looking step to incur the expense to retrofit the CDMA network to address the identification problem as customers migrate to new VoLTE networks that do not present the same problem.

## **II. PUBLIC SAFETY STAKEHOLDERS SHOULD ADDRESS NSI 911 ISSUES THROUGH TECHNOLOGY INNOVATION AND OUTREACH.**

The record also shows that individual PSAPs or states can use technically feasible solutions to determine how best to handle NSI-identified 911 calls. For example, TCS and NENA described in their comments an approach considered in Tennessee that would enable PSAPs to use a third party vendor to deliver 911 calls from specific problem NSI handsets to a location other than the PSAP's premises; the caller would receive a message back that the call to 911 failed.<sup>12</sup> To accomplish this, the relevant state or local government could designate the alternate termination point as the "appropriate PSAP" for routing purposes. Technical solutions should put the NSI 911 issue in the hands of the public safety experts because of the varied opinions within the public safety community on the value of completing NSI-identified 911 calls. By encouraging these types of arrangements, the Commission could thus achieve its objectives without any changes to its current rules: service providers would continue to transmit all 911 calls, and would deliver the 911 call based on the PSAP's wishes. This approach would allow public safety stakeholders to make key decisions as the industry transitions to VoLTE networks.

The Commission also should encourage public safety stakeholders to work directly with service providers on other ways to address problem NSI 911 calls. The relative number of NSI

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<sup>12</sup> TCS Comments at 8-9; NENA Comments at 5-6; *see also* MCP Comments at 9 n.27.

911 calls varies by provider, which suggests that different business practices could be a contributing factor. Call data from Philadelphia show that a disproportionately smaller percentage of 911 calls identified as NSI originate from Verizon and Sprint than from other service providers.<sup>13</sup> The percentage of 911 calls from Verizon and Sprint from NSI devices was approximately one-half to one-third that of AT&T and T-Mobile.<sup>14</sup> A similarly wide disparity among providers in other jurisdictions would suggest that changes in service providers' technologies, marketing, handset management, or other practices could significantly reduce the number of problem NSI 911 calls without modifying the rule. PSAPs and service providers could address industry practices in a workshop or at the CSRIC.<sup>15</sup>

As a part of those discussions, PSAPs could encourage service providers to take technically feasible measures (within the capabilities of their existing networks) to minimize the circumstances when service-initialized handsets appear as NSI. For example, to address issues that occur when a wireless network hands off a device from one mobile switching center area to another, Verizon has reprogrammed its network to update the register of authorized devices as quickly as the equipment will allow and consistent with industry standards. The Commission can encourage these actions without eliminating the current rule.

### **III. ANY CHANGE TO THE “ALL-911 CALLS” RULE MUST MINIMIZE DISRUPTION TO CONSUMERS AND SERVICE PROVIDERS.**

If the Commission insists on moving ahead with changing the rule to require blocking of NSI calls to 911 despite the varying opinions in the public safety community, it must address

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<sup>13</sup> Philadelphia Comments at 1.

<sup>14</sup> *Id.*

<sup>15</sup> *See* Verizon Comments at 4.

consumer expectations and the wireless industry's transition to IP-enabled services in several important ways. First, consistent with APCO's comments, the Commission must allow service providers to comply with any rule change by applying existing call authentication procedures to all 911 calls, including the limited number of calls from service-initialized handsets that cannot be authenticated and appear as NSI to CDMA wireless networks. And, as discussed above, the Commission should avoid imposing the costly upgrades that would be required to legacy CDMA network equipment as consumers migrate away from those technologies to VoLTE networks.<sup>16</sup>

Second, the Commission and state and local governments must lead the significant consumer education efforts that would be required for such a threshold change in 911 policy. Service providers cannot effectively inform the target user population about the impact of the rule change; service providers do not have commercial relationships with users of NSI handsets and cannot communicate with them through email, text messages, or bill inserts.

Third, the Commission must allow sufficient time to comply with any rule change. Both industry and public safety commenters agree that more than six months would be required for existing networks.<sup>17</sup> Verizon estimates that at least 12 months would be necessary to implement and test the new capability throughout its network. The six-month time period proposed in the *NPRM* and the timing of the proposed rule change also would pose implementation challenges for VoLTE-only handsets under development today. Current specifications will program those handsets to allow 911 calls from NSI handsets; any change to that instruction will take time to

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<sup>16</sup> If the Commission were to exclude 911 calls from VoLTE handsets from the rule, it should confirm that Sprint's proposed standards-based proposal to transmit 911 calls from "access authenticated" VoLTE handsets is a permissible method (but not the only permissible method) of complying with any new requirements for VoLTE handsets. Sprint Comments at 4-6.

<sup>17</sup> APCO Comments at 2; NASNA Comments at 4; TCS Comments at 5; Verizon Comments at 3.

implement. A lengthier period also would afford the Commission and state and local governments more time to educate affected consumers, particularly senior citizens and consumers in lower-income communities that may rely disproportionately on NSI handsets for 911 purposes.

#### **IV. CONCLUSION.**

The rulemaking record shows that the proposed rule change would hurt legitimate 911 callers. The Commission should instead maintain the existing requirement to transmit 911 calls from NSI handsets *and* encourage public safety and industry stakeholders to pursue other solutions to reduce fraudulent NSI 911 calls.

Respectfully submitted,

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