

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

In the Matter of)	
)	
Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications)	PS Docket No. 11-153
)	
Framework for Next Generation 911 Deployment)	PS Docket No. 10-255

COMMENTS OF THE VOICE ON THE NET COALITION

The Voice on the Net Coalition (“VON”)¹ hereby submits these comments in response to the Policy Statement and Second Further Notice of Proposed Rulemaking regarding text-to-911 issues, adopted January 30, 2014 (the “*FNPRM*”). VON supports the Commission’s goal of ensuring public safety as communication technologies change and develop. However, current technology will not permit interconnected text (i-text) providers reliably to route 911 texts to the appropriate public safety answering point (“PSAP”) absent the availability of a wireless carrier network and cooperation by that network operator. VON also questions certain of the underlying premises in the *FNPRM*, including the Commission’s cost assumptions and authority to regulate mobile applications and software developers.

In the *FNPRM*, the Commission aspires that by December 31, 2014, both CMRS and i-text providers will be capable of properly routing 911 texts and it seeks comment on the proposed deadline.² The *FNPRM* also seeks comment on the technical feasibility of three potential network models that the Commission suggests might be used to route text messages to the appropriate PSAP. In VON’s view, the first model, “SMS-API,” which relies predominantly

¹ The VON Coalition (www.von.org) works to advance regulatory policies that enable Americans to take advantage of the promise and potential of IP enabled communications.

² *FNPRM*, ¶¶2, 18.

on existing wireless 911 infrastructure, provides the best opportunity for i-text providers to comply with the proposed deadline.³ It requires i-text providers to build within the text application the ability to access carrier-based SMS directly from the i-text provider's software. After this handoff, the SMS would be routed by the carrier through its wireless 911 network as if the user had typed "911" into the device's native SMS application. The other models, which are described as "network-based" or "server-based," require an i-text provider to access location information and 911 text routing capabilities internally, which is not feasible or cost effective at this time.⁴

I. The Commission must clarify how and to whom the new rules, if adopted, will be applied.

The Commission proposes that new rules should apply to "interconnected text providers." A definition of this term is found in the *Bounce-Back Order*⁵: "all providers of software applications that enable a consumer to send text messages to all or substantially all text-capable U.S. telephone numbers and receive text messages from the same." The FCC should make clear that this is the definition that it is using in the *FNPRM*. References to OTT text applications in the *FNPRM* are confusing, would lead to marketplace uncertainty if broadly read, and should be avoided. For example, in the *FNPRM*, the Commission specifically makes reference to the "WhatsApp" messaging platform, implying that it may be an interconnected provider⁶ and often uses the term over the top to refer to text applications.⁷

³ See *id.* ¶¶25-29.

⁴ See *id.* ¶¶30-33.

⁵ See *FNPRM*, note 14, citing *Bounce-Back Order* ¶1.

⁶ *Id.* notes 15, 33.

⁷ See *e.g. id.* ¶¶ 6, 22, 34, 65.

Some applications that have been called interconnected in the FNPRM in reality use NANP telephone numbers—if at all—only as a way for users to identify their contacts who also use the application.⁸ Users of such services *cannot* “send text messages to all or substantially all text-capable U.S. telephone numbers and receive text messages from same.” Nor can these users send text messages to users of other text applications. These users can only send text messages to other users who have downloaded the same software and are within a closed user group.⁹

The ancillary use of NANP telephone numbers for user authentication, to identify other qualified users of the service, or for other administrative purposes should not render a service “interconnected” for purposes of Commission rules, when the service is not interconnected in fact. Moreover, the fact that these services only permit users to text other users of the same service undermines any argument that users would expect that they could successfully text a public safety center via 911.¹⁰ If it proceeds to rules, the Commission should clarify that any 911 requirements apply to a text provider that meets the existing definition of “interconnected text provider”¹¹ and not services that require both the sender and recipient to download and register specialized software to use the service. Without such clarification, the result will be

⁸ See *Why does WhatsApp use my phone number and my address book?* WhatsApp FAQ, available at, <http://www.whatsapp.com/faq/general/20971813>. These providers include WhatsApp, Facebook Messenger, LINE, KaKao Talk, Apple iMessage, Nimbuzz, Viber, WeChat, Google+, and Samsung ChatON. See TeleCommunication Systems, Inc., *Ex Parte*, GN Docket No. 11-117; WC Docket No. 05-196; and PS Docket Nos. 10-255, 11-153, at 4 (Jan. 24, 2014).

⁹ Other parties have confused the issue by describing WhatsApp and other closed services as interconnected providers. *Id.*

¹⁰ At most, the Commission should recommend that these service providers notify customers in their terms of use that texting 911 is not available; but no requirements should attach to these providers.

¹¹ See *FNPRM*, note 9.

ambiguous rules that would confuse consumers and discourage investment, adoption and development of new interconnected text applications.¹²

In the *FNPRM*, the Commission itself seeks comment on the scope of the text services that exist in the market, and whether it has adequate authority to regulate them.¹³ For the reasons above, VON asserts that the scope of services is not aligned with the proposed rules, and opposes the application of regulations to non-interconnected text services.

II. Interconnected text providers are capable of technically implementing the “SMS-API” model but not the network-based models.

A. The SMS-API text-to-911 model is technically feasible and achievable.

The SMS-API model is technically feasible, and can likely be implemented by i-text providers by the December 31, 2014, deadline suggested by the Commission. For the SMS-API model to work, however, wireless carriers and device manufacturers cannot block access to SMS applications by i-text applications. Consistent with 47 CFR 64.3001 for voice calling, carriers must also enable the end user’s texting capability for PSAP communications, regardless of whether the end user subscribes to a text plan with the carrier.

Implementing the SMS-API model will require software changes by i-text providers. Once the software has been updated, it would automatically be available to new users of the texting application but an update would need to be pushed through to existing users. VON recommends that, if it imposes requirements, the Commission track the update policy adopted in

¹² In addition, the Commission also uses the term “integrated text providers”, a term that is undefined in the *FNPRM*. *Id.* ¶43.

¹³ *See id.* ¶ 64.

the *Bounce-Back Order*.¹⁴ I-text providers that use automatic updating can deploy the new SMS-API capability to existing customers that accept automatic updates, but cannot be responsible or liable if customers do not download the update. The costs of designing, implementing and validating these updates would likely be in the range of thousands or tens of thousands of dollars per i-text application.

The success of this model also requires the cooperation of wireless carriers. Specifically, wireless carriers cannot block the application's access to the SMS API, which is readily available in mobile operating systems today. The wireless carriers will also have to allow their end user customers who may not otherwise have a texting plan with the carrier to send texts to and receive texts from the PSAPs, including any required bounce-back message that text-to-911 is unavailable in the required geographic area.

VON agrees with the Commission that there should not be any requirement at this time to route 911 texts to the appropriate PSAP in the absence of a functioning wireless carrier network, where only Wi-Fi may be available.¹⁵ In a Wi-Fi-only environment there is a lack of reliable location information and no reliable way for the text to be routed to the appropriate PSAP. Indeed, for privacy reasons or to extend battery life, some consumers opt to disable the GPS or other location capability available in their mobile devices. Even when such services are enabled, they may not function because of a weak signal, or may lack the resolution or accuracy to be useful to the PSAP. Other issues not yet identified may exist in the proposed architecture as well. Accordingly, when only Wi-Fi access is available, a bounce-back message that 911 is not

¹⁴ See Facilitating the Deployment of Text-to-911 & Other Next Generation 911 Applications, PS Docket Nos. 11-153, 10-255, Report and Order, 28 FCC Rcd 7556, ¶39 (2013) (“*Bounce-Back Order*”) (providing for updates in the regular course of business).

¹⁵ *FNPRM* ¶20.

available through the text application should fully satisfy any emergency service rule for i-text providers.

B. The network- or server-based models for text-911 are not currently achievable for i-text providers.

Many i-text providers offer their services to consumers for free or at a very low cost, and the popularity of these services is driven in large part by price considerations. With this business model, any significant new cost imposed by the Commission to create and maintain one of the network or server-based models for text-to-911 would be a substantial burden on i-text services and their hundreds of millions of users.

In particular, the network or server-based models would require an i-text provider to design new network infrastructure and connect with new third-party service providers like Text Control Centers (“TCCs”) and Commercial Location Services (“CLSs”).¹⁶ There would also be significant ongoing costs for maintaining 911 routing services through the TCCs.¹⁷ These additional costs could be as high as approximately \$1 per user, per year, not including access to CLS databases. Some OTT providers have tens or hundreds of millions of users and charge little, if anything, for the service; imposing a 911 expense of tens or hundreds of millions of dollars per year on each such service would radically change the business proposition.

Furthermore, i-text providers that do not charge their customers for the texting application may not have any financial relationship with the customer and there might not be any way to collect fees without incurring substantial additional expense. Thus these services, which offer no- or

¹⁶ See *FNPRM* fig. 2-4.

¹⁷ One wireless provider has raised the troubling prospect that there might not be interoperability and interconnection between TCCs, potentially forcing both carriers and PSAPs to connect to multiple TCCs. See Letter from Steve Sharkey, T-Mobile USA, to Admiral David Simpson, Chief, FCC Public Safety and Homeland Security Bureau, filed in PS Docket Nos. 10-255 and 11-153 (April 1, 2014).

low-cost alternatives that tend to improve the pricing and quality of carriers' text plans, could be impossible to maintain if i-text providers were required to implement network- or server-based text-to-911 models. Far from benefitting from a text-to-911 rule, the public would suffer greatly from costly mandates intended to force some wireless devices to have an additional—but potentially confusing—form of emergency capability, in addition to carrier voice calling and SMS where they are available. The Commission would undercut rather than advance its core mission of furthering the universal availability of communications services “at reasonable charges.”¹⁸

III. The Commission must clarify that any rules apply only to smart phones and limit provider liability.

A. Applicability to mobile devices

The Commission should make clear that any policies and or rules it adopts will apply only to apps used exclusively on smart phones. The term “mobile devices” includes a wide variety of computing devices, among them laptop computers, “feature phones,” smartphones, tablet computers, and e-readers, and others. Devices in these categories have a range of capabilities, only some of which are consistent with the application of one or more of the models proposed by the Commission. For example, less than half of all tablets connect to CMRS carrier networks.¹⁹ Tablets may also lack a native SMS API that interconnected text providers can access. Consumers reasonably have different expectations concerning the capabilities of different mobile devices, such that feature phones and smart phones may be expected to call or

¹⁸ 47 U.S.C. § 151.

¹⁹ See <http://www.fiercewireless.com/story/analyst-cellular-enabled-tablet-sales-drop-through-2016/2012-07-20>; see also <https://www.ce.org/News/News-Releases/Press-Releases/2013-Press-Releases/Only-Half-of-3G-4G-Tablet-Owners-Pay-for-Data-Plan.aspx>.

conceivably text 911, but tablets, laptop computers and e-readers likely are not expected to have that functionality. The Commission should limit the applicability of any rules that may be adopted in this proceeding to applications installed on smart phones only, as these phones are the devices from which consumers are most likely to expect phone-like functionality.

B. Limitations on liability and consumer confusion

Historically, wireline and wireless carriers have limited liability for the failure to complete a call to 911.²⁰ Limitations on liability have been thought necessary to protect service providers against unreasonable costs. Similarly, to the extent that the Commission requires interconnected providers to route texts to 911, the Commission must, to the extent possible, expand those liability limitations to interconnected providers. VON recognizes this may require federal and/or state legislation, but exposing interconnected text providers to unlimited liability for 911 texts will chill investment, research and development in these important services. VON recommends one way to achieve this goal is to make any rules for interconnected text providers adopted in this proceeding contingent on the limitation of liability for interconnected providers to which the rules apply. If the Commission fails to do this, then it should not impose text-to-911 obligations on the unprotected providers.

VON is particularly concerned that lawsuits and liability exposure may result from consumer confusion about when texting 911 is a viable option. In particular, consumers may not be aware when their device is in a Wi-Fi-only mode and the location information needed to route a 911 message is unavailable. Users will lose valuable time sending messages that yield only bounce-back messages, delaying the time when they initiate a voice call or send an SMS

²⁰ See 47 U.S.C. § 615a(a); see also, TeleCommunication Systems, Inc., *Ex Parte Letter*, WC Docket No. 04-36, Attach. at 41 (Apr. 22, 2005), (stating that wireless and wireline carriers are insulated from liability except for gross negligence).

message, if that option is available. In addition, to the extent that any text-to-911 solution relies on commercial location services, those services may not work if the user has disabled the “location services” settings on their mobile devices. The multitude of variations based on service area, PSAP, and user device functionality will make it virtually impossible for application providers to educate users about every scenario, much less provide timely and accurate information in an emergency. Consumer confusion endangers public safety; it does not enhance it.

IV. The Commission lacks authority to regulate interconnected or other OTT text providers.

The Commission relies on the Communications and Video Accessibility Act (“CVAA”) and its ancillary jurisdiction to impose 911 requirements on interconnected text providers.²¹ The *FNPRM* incorporates by reference much of the discussion on legal authority in the *Bounce-Back Order* to demonstrate its authority.²² However, there is not a sufficient link between the requirement that i-text providers provide text-to-911 capability and the Commission’s existing jurisdictional authority. Legal authority for requiring bounce-back messages was based in part on ancillary authority asserted by the Commission to ensure that misleading messages are not sent via radio spectrum.²³ This logic would not support service mandates under the *FNPRM*.

The Commission’s jurisdictional authority is not supported by the CVAA. Section 3 of the CVAA requires that no rule created under it require the use of proprietary technology.²⁴ The Commission’s network and server-based models, however, would require interconnected text providers to use the proprietary technologies of wireless carriers, operating systems, TCC and

²¹ See *FNPRM* ¶66.

²² See *id.* ¶65-66.

²³ See *Bounce Back Order* ¶131.

²⁴ 47 U.S.C. § 153 note (Pub. L. 111-260, § 3, Oct. 8, 2010, 124 Stat. 2752).

CLS services. Any requirement that interconnected or other OTT text providers use such services, therefore, would violate the CVAA, and exceed the Commission's authority thereunder. Further, requiring the implementation of network or server based text-to-911 models may exceed the Commission's authority under the CVAA as such models may not be "achievable,"²⁵ as explained in Section II above.

CONCLUSION

The Commission should recognize that the only model for text-to-911 services that could be technically feasible or achievable for OTT text providers is the SMS-API model; clarify the meaning of "interconnected text provider" and "mobile device" in the context of any rules that are adopted; ensure liability protection; and not impose rules that are beyond its authority.

Respectfully submitted,

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²⁵ 47 C.F.R. § 615c(g).