

# JONES DAY

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September 16, 2016

## VIA ECFS

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, NW  
Washington, DC 0554

**Re: WT Docket No. 08-7**

Dear Ms. Dortch:

Twilio filed its petition seeking Commission clarification that SMS and MMS messaging properly is classified under Title II to address a very basic, undisputed problem: wireless carriers are blocking millions of messages desired by consumers without their consent or knowledge. Not only is this carrier blocking is unprecedented, it is harming the Public Switched Telephone Network (“PSTN”), compromising consumer privacy and free expression, and creating public safety risks every day it persists.<sup>1</sup> On the Twilio platform alone, more than 100 million lawful, consented-to text messages have been blocked/filtered by wireless carriers in the previous year.<sup>2</sup> Across the PSTN, there can be no doubt that the number of lawful messages blocked by wireless carriers is many factors higher than what Twilio alone has experienced.

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<sup>1</sup> A number of commenters have directly cited potential and explicit public safety risks of arbitrary text message filtering on this docket. *See generally* comments and ex parte declarations on this docket from Aerialink, NexGen, as well as non-profit groups Trek Medics and Polaris Project.

<sup>2</sup> *See* Supplemental Declaration of Emily DenAdel Emery ¶5 (attached hereto as Exhibit A).

Twilio makes three fundamental points below. First, respect for consumer consent and respect for consumer privacy should be the guiding principles. Second, self-interested trade association efforts, like the proposed CTIA Messaging Principles and Best Practices, lack industry consensus, undermine the Commission's implementation of the Telephone Consumer Protection Act ("TCPA"), and harm consumers, competition, and the PSTN. Third, the Commission's TCPA implementation efforts protect consumers, service providers, and the PSTN. As described below, the Commission should build upon its TCPA framework by bringing all providers within the Commission's Title II ambit to ensure that consumers and the PSTN are protected and that service providers cooperate with one another towards these goals.

**I. The Commission Should Act Affirmatively To Prevent Ongoing, Worsening Consumer Harm**

As Twilio has maintained since first filing this petition, "Protecting consumers and competition by preventing blocking and promoting the free flow of communications among consumers and businesses has been a hallmark of Commission policy since the inception of the 1934 Communications Act" and blocking messages remains antithetical to the Commission's proper advocacy on consumers' interests.<sup>3</sup>

Dozens of commenters representing businesses, consumers, technology advocacy groups and providers have expressed concerns about how the current system impinges on the welfare of consumers, impacting both privacy and free expression. In contrast, wireless carriers and CTIA wrongly assert that they have an unfettered right to block traffic for good reason, bad reason, or

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<sup>3</sup> See Twilio Petition for Expedited Declaratory Ruling of Twilio Inc. at 1 (filed Aug. 28, 2015) ("Petition").

no reason at all in the absence of an affirmative Commission ruling. Demonstrating the wrong-thinking of that position, consumer advocacy groups have stated:

The status quo harms consumers, competition, and innovation by giving carriers free rein to abuse their gatekeeper position. Discriminatory text message blocking by the carriers not only raises competitive concerns, but also interferes with free speech rights. Even with the rise of over-the-top messaging services, text messaging remains a uniquely important communications mechanism, with particular significance owing to its universality, verifiability, importance to public safety and government functions, and its ubiquity as a fallback communications medium available to all mobile phone users.<sup>4</sup>

Here, as is the case elsewhere, Commission action is necessary to protect consumers and the on-going growth and development of innovative services that utilize the PSTN.

The Commission has rightfully advanced consumer protections, particularly with regard to how consumers' data is used by certain broadband providers.<sup>5</sup> The Commission should strive for consistency by ensuring that such protections – namely choice in which messages are sent and received without editorial input from wireless carriers – are extended to text messaging.

Just as the Commission has acted to guide the industry in ensuring consumer protection on broadband, the Commission's consistent intervention is required on messaging as well.

## **II. The CTIA Messaging Guidelines Harm Consumers, Competition, The PSTN, And The Commission's TCPA Implementation Efforts**

CTIA suggests that its purported "industry" guidelines sufficiently protect consumers.

CTIA is incorrect. Far from protecting consumers, CTIA's Messaging Guidelines and related

<sup>4</sup> See Comments of Public Knowledge, Common Cause and Free Press at 1 (filed Nov. 20, 2015).

<sup>5</sup> See Fact Sheet: Chairman Wheeler's Proposal To Give Broadband Consumers Increased Choice Over Their Personal Information.

[http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2016/db1006/DOC-341633A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db1006/DOC-341633A1.pdf).

carrier blocking of consented messages harm consumers, competition, and the PSTN, and undermine the Commission's TCPA orders.

The problems permeating the CTIA Messaging Guidelines are too numerous to list. Most fundamentally, however, the guidelines make no provision for ensuring that consumers get messages they want to receive.<sup>6</sup> They similarly make no provision to ensure consumers, businesses, organizations, and institutions are able to send lawful messages to their communities of interest. As for other examples, the CTIA Messaging Guidelines neither bind nor place any obligations on wireless carriers; ignore existing routine conventions and database registries (e.g., toll free registries); and are being used to create an unlawful paid prioritization channel. There's little doubt why these guidelines have yet to be shared publicly, or with the Commission. In short, these self-serving guidelines create additional problems within the industry and for consumers.<sup>7</sup>

The record of this docket demonstrates that every day, teachers and schools are having messages to students and parents blocked. Health care messages are blocked. And at least one crime victim failed to receive a prisoner release notification to their phone as a result of carrier blocking. The list of valid, lawful messages being blocked or filtered by carriers increases every

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<sup>6</sup> In the context of the TCPA and its Robocall Strikeforce, the Commission just reaffirmed that carriers may block calls at the request of consumers, and that consumers have the right to block calls they do not want. *See Public Notice*, Consumer and Governmental Affairs Bureau Clarification on Blocking of Unwanted Robocalls, DA 16-1121 (rel. Sept. 30, 2016). Twilio agrees. The Commission regulates both robocalls and text messages under the TCPA, 47 U.S.C. § 227 (a Title II statutory provision), and there can be no doubt that text messages deserve at least equal treatment to that provided to pre-recorded voice calls.

<sup>7</sup> As a result, CTIA's stated efforts to issue reformed guidelines have been unable to obtain consensus among stakeholders, further emphasizing the need for Commission action.

day. It is no answer to tell impacted entities to “go buy a CTIA short code instead.” That misses the point. Consumers, businesses, and other institutions have a right to use their North American Numbering Plan (“NANP”) telephone number for any lawful purpose they like, including text messaging, which the Commission most recently affirmed in the *Edison/Blackboard Declaratory Ruling*.<sup>8</sup> This is what common carriage and the ubiquity and seamlessness of the PSTN has been about since the original enactment of the Communications Act.

Contrary to those bedrock principles of ubiquity and seamlessness, CTIA and the carriers work in concert to hamstring, if not prevent altogether, consumers, businesses, and institutions from using the fundamental PSTN resource – NANP telephone numbers – for text messaging. Their primary enforcement tool is blocking/filtering messages, ostensibly under the guise of the CTIA Messaging Guideline’s so-called “P2P-A2P” distinction. Under the guidelines, “P2P” messaging is essentially when one human sends another human a text using a mobile handset. P2P messaging, under the guidelines, can be done using a standard 10-digit NANP telephone number. Any other kind of message is “A2P,” and under the guidelines, any messages determined to be A2P must be sent using a CTIA common short code (“CSC”).<sup>9</sup> This result is a direct affront to the Commission’s authority over the NANP and mobile operators’ obligations to carry traffic.

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<sup>8</sup> *Blackboard, Inc. Petition for Expedited Declaratory Ruling Edison Electric Institute and American Gas Association Petition for Expedited Declaratory Ruling*, CG Docket No. 02-278, WC Docket No. 07-135, Declaratory Ruling (rel. Aug. 4, 2016) (“*Edison/Blackboard Declaratory Ruling*”).

<sup>9</sup> Twilio outlines the process and financial incentives for wireless carriers and the CTIA to force consumers to use the CSC system in the initial submission on this docket. See Petition at 18-23.

To be sure, this “P2P-A2P” distinction has nothing to do with SPAM prevention, consumer consent, network protection, or network management. Rather, the “P2P-A2P” distinction provides a basis (albeit illegitimate) for carriers to employ content-based and volumetric blocking of text messages sent over NANP numbers. If the carrier doesn’t like the content or the volume of texts coming from a NANP number gets “too high,” the carrier starts blocking/filtering the calls – without any regard to consumer consent – and without any obligation to provide notification or reason for their blocking decision. The sender of the text must either use multiple telephone numbers to send messages (a practice disliked by CTIA and the wireless carriers and thus subject to disruption), or the sender must use a high cost, low functioning CTIA CSC. In other words, “P2P-A2P” enforces an unlawful, discriminatory paid prioritization system, where CTIA in concert with the carriers seeks to extract money from providers and businesses by forcing them to buy a CSC and pay premium CSC messaging charges in order to avoid carrier blocking. These are not mere assertions – these are undisputed facts.

The financial benefits of the CTIA and the carriers’ paid prioritization blocking/filtering regime are unquestionable, as the CTIA reports that the CSC program is by far and away its single largest revenue generator. In the most recent public data available, CTIA reported that its CSC program was responsible for generating approximately 40% of the association’s \$62 million annual revenue.<sup>10</sup>

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<sup>10</sup> See CTIA’s IRS Form 990 for FY 2014 (an excerpt of which is attached hereto as Exhibit B). The CTIA reported its top three sources of revenue as follows: Common Short Code

Although CTIA would have everyone believe that its CSC system has been a panacea for “spam” text messages, this is simply not the case. Unsatisfied with CTIA’s efforts, AT&T recently announced that it would begin its own monitoring of messages over CSCs. AT&T described its goal as follows:

Reduce SMS SPAM on A2P Short Code Campaigns. AT&T will take a more active role in Identification and Mitigation of SMS SPAM on Short Codes. The intention is to protect the interests of all messaging partners in the ecosystem and aggressively reducing SPAM to our subscriber base.<sup>11</sup>

Thus, in spite of CTIA’s suggestion to the contrary, unsolicited messages are a problem within the CTIA CSC system. The expensive command-and-control system may generate substantial revenue for CTIA and defray carrier membership costs, but the system does not protect consumers, competition, or the PSTN. Indeed, the Guidelines weaken rather than strengthen the Commission’s TCPA implementation efforts.

### **III. The Commission’s TCPA Implementation Efforts Protect Consumers, Service Providers, And The PSTN**

The TCPA is a consumer protection provision, codified by Congress in Title II, Common Carriage, of the Communications Act. 47 U.S.C. § 227. The Commission has repeatedly, consistently, and uniformly held that text messages are “calls” under the TCPA, and every reviewing court has agreed. Text messaging has become the most prevalent means of people to

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(continued...)

Program: \$24,928,819, which is higher than the next two sources of the association’s revenue combined (Annual Convention: \$11,998,242; and Membership Dues: \$10,982,524).

<sup>11</sup> See AT&T SPAM Mitigation Policy for Global Communication (attached hereto as Exhibit C).

communicate with one another using their PSTN phone number, and myriad providers, including the carriers, offer messaging solutions for every type phone number, including PSTN landline numbers. Text messaging interconnected with the PSTN is a common carrier service, and claims to the contrary simply fail as a matter of fact, law, and common sense.

The Commission's TCPA implementation efforts, particularly the *2015 Omnibus Order*<sup>12</sup> and the recent *Edison/Blackboard Declaratory Ruling*, have done a great deal to clarify the rules for businesses, utilities, schools, and others to communicate with communities of interest using text messages. Consumers must consent to receive text messages, and consumers can revoke their consent at any time, using any reasonable means. Failure to follow the Commission's rules constitutes a violation of the TCPA, subjecting the message initiator to class action lawsuits. And the Commission can – and has – utilized its enforcement to fine service providers and others that do not comply with the rules.

More recently, a number of health care-related entities have sought a declaratory ruling on consumer consent issues specific to the medical industries, where multiple entities are often involved in delivering solutions to patients and others.<sup>13</sup> As this petition and those from the utility sector, education sector, and others demonstrate, a massive consumer demand exists for

<sup>12</sup> *Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991*, CG Docket No. 02-278, WC Docket No. 07-135, Declaratory Ruling and Order, 30 FCC Rcd 7961 (2015) (“*2015 Omnibus Ruling*”).

<sup>13</sup> *Public Notice*, CGB 02-278, Consumer and Governmental Affairs Bureau Seeks Comment on Petition for Expedited Declaratory Ruling Filed by Anthem, Inc., Blue Cross Blue Shield Association, Wellcare Health Plans, Inc., and The American Association of Healthcare Administrative Management (Aug. 19, 2016). Throughout their petition, the health care entities describe tremendous consumer benefits from text messaging related to appointment and other use cases.



consumers to use text messaging to communicate with all types of businesses and institutions. All of these industry segments, and their service providers, like Twilio and others, seek to be brought fully into the Commission's TCPA compliance framework.

In over 20 years of TCPA implementation, the Commission has never issued any order or adopted any regulation that discriminates against a type of service provider or restricts any type of PSTN telephone number from sending or receiving text messages. As just one recent example, nothing in the *Edison/Blackboard Declaratory Ruling* limits the ability of a utility or a school to utilize any telephone number lawfully assigned to them for sending or receiving a text message. Nor is there any limit on the volume of text calls they can make from a single telephone number. Indeed, entities like utilities and schools often have a telephone number recognized by their constituents. As long as an entity follows the Commission's TCPA principles, the foundational principles of ubiquity and seamlessness demand that carriers complete text calls, just like voice calls. That said, consumer consent always has been and should continue to be the Commission's touchstone.

#### **IV. The Commission Should Act Urgently To Protect Consumers And The PSTN**

The Commission has taken great strides to clarify and formalize the TCPA regime for messaging and other forms of calls to ensure that consumer consent is respected. The Commission can and should build upon these efforts by invoking its Title II authority to ensure that foundational PSTN principles are applied to messaging, just like other calls.

Title II is the most straightforward and consistent solution to this issue. Most recently, the Commission was able to use its Title II authority to establish, among other things, three bright line rules protecting users of fixed and mobile broadband internet access service:

1. No blocking access to legal content, applications, and services;
2. No throttling lawful traffic on the basis of content or application or services uses; and
3. No Paid Prioritization favoring some lawful traffic over other lawful traffic.

With the Commission’s Title II findings on fixed and mobile broadband firmly in place, there can be no doubt that PSTN-based messaging is similarly a Title II service, as today all mobile phone numbers and rapidly increasing volumes of landline phone numbers are text-enabled.<sup>14</sup>

Accordingly, the Commission should act urgently to reiterate the applicability of bright line principles on text messaging. These principles must include the clarification that providers are obligated to deliver consented messages, that paid prioritization and discrimination are prohibited, and that providers may act to preserve reasonable network management.

Providers also have an obligation to manage their networks to prevent abuse before it happens. Towards that end, Twilio submits that the Commission should ensure that all providers – carrier and others – utilize reasonable network management principles to protect consumers

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<sup>14</sup> Although Twilio firmly believes that Title II of the Act squarely addresses the PSTN messaging issues raised in its Petition (for example, the Commission already has said that Title II’s section 227 applies equally to text messages) Twilio would not oppose Commission action on other legal bases, such as that proposed by Voice on the Net Coalition, which state that the Commission “can use its Title I and Title III authority to impose nondiscrimination and no blocking requirements on wireless carriers.” *See Voice on the Net Coalition ex parte presentation* WT 08-7, filed April 25, 2016.

and the PSTN. In addition to following the Commission's TCPA regulations regarding consent and related items, Twilio would support Commission adoption of the following principles:

1. All providers must take reasonable steps to ensure that their offerings are not being used for fraud or abuse.
2. All providers have an obligation to cooperate with one another and take reasonable steps to prevent consumers from receiving calls that violate the TCPA and any other Commission regulations.
3. If a provider identifies potential fraud or abuse, they must inform the source provider of the potential fraud or abuse.
4. Upon identification, providers have an obligation to investigate and potentially suspend customers associated with the potential fraud or abuse.

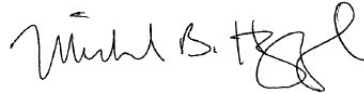
Commission adoption of the reasonable network management standards above would protect the PSTN and provide added protection to consumers by placing affirmative obligations on all providers that make up the messaging industry.

## **V. Conclusion**

Consistent with the foregoing, the Commission should grant Twilio's petition. Doing so would bring text messaging and its providers fully within Title II of the Commission Act, where the Commission would have a full complement of tools to protect consumers, promote competition, and protect the PSTN. The Commission has ample authority to grant the relief Twilio has requested. All providers, carriers and non-carriers, have an obligation to cooperate

with one another to protect consumers, competition, and the PSTN. Grant of Twilio's petition will further the Commission's goals.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael B. Hazzard". The signature is fluid and cursive, with a large, stylized "H" and "Z" at the end.

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Michael B. Hazzard  
Jones Day  
51 Louisiana Avenue, N.W.  
Washington, DC 20001-2113

Counsel to Twilio Inc.

Attachments

## **Exhibit A**

## **Declaration of Emily DenAdel Emery**

I, Emily DenAdel Emery, declare pursuant to 28 U.S.C. § 1746:

1. I am the Senior Manager, Government Relations for Twilio Inc. (“Twilio”). I have been with Twilio since 2011, and in my capacity have knowledge of the Twilio messaging platform, technical operations and relationships with aggregators. I have personally investigated the non-delivery of legitimate, lawful text messages that wireless consumers consented to receive. I submit this declaration to update the record on the ongoing impact of message blocking, as previously detailed by Twilio and other affected entities in this docket.<sup>1</sup>
2. Since June 2015, Twilio has actively monitored and quantified the impact of the blocking practices described in Twilio’s Petition. Since filing the Petition on August 28, 2015, Twilio has continued to observe a significant increase in the blocking of text messages. Since filing the Petition to shed light on the wireless carriers’ practice of blocking text messages without notification, the problem continues to worsen.
3. Comments in WT Docket No. 08-7 from Twilio and other impacted companies and advocacy groups demonstrate how each month, wireless carriers are blocking millions of messages that are TCPA compliant and that consumers have opted in to receive.
4. In response to requests to quantify the extent of message blocking from Wireless Bureau staff and to demonstrate the ongoing harm of this behavior, I submit the following volumes of messages blocked by wireless carriers as observed by Twilio.
5. Based on the available data resulting from my investigation, I have been able to confirm that well over 60 million consented messages initiated by Twilio customers have been blocked in the year 2016, and over 100 million messages have been blocked since Twilio filed its petition. These are low, conservative estimates given the fact that message blocking at the behest of wireless carriers is neither consistently nor transparently reported back to providers like Twilio.
6. In the month of August 2016, approximately 8 million consented messages were blocked. In the month of September 2016, approximately 7.5 million consented messages were blocked. In the month of October 2016, approximately 10 million consented messages were blocked. In the month of November 2016, approximately 8 million consented messages were blocked. In the month of December 2016, I can confirm that over 12

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<sup>1</sup> In the Matter of Petition of Twilio Inc. for an Expedited Declaratory Ruling Stating that SMS/MMS Messaging and Short Codes Are Title II Services, WT Docket No. 08-7 (the “Petition”).

million messages were blocked on Twilio's platform alone. Again, the precise number of blocked messages is impossible for Twilio to determine, because wireless carriers do not consistently or transparently report which messages are blocked or the basis for blocking.

7. I can confirm that the vast majority of the blocked messages Twilio observed over the past year were legitimate messages based on knowledge of customers' brands and use cases, an analysis of opt-out requests and an internal analysis of reported violations of Twilio's Acceptable Use Policy.<sup>2</sup>
8. Twilio takes the responsibility to prevent unwanted messages extremely seriously. Twilio disables accounts that violate its Acceptable Use Policy. In this declaration, the provided estimates of consented text messages blocked do not include messages generated by accounts that have subsequently been disabled for violations of Twilio's Acceptable Use Policy.
9. While complete analysis on the extent of message blocking is impossible due to a lack of complete carrier reporting, Twilio is able to assess a partial scope of errors on message delivery on a per customer basis. Based on this, Twilio is able to determine that the impact of carrier blocking has a wide-ranging, disproportionate and unpredictable impact across Twilio's customers' accounts.
  - a. *Wide-ranging impact.* I have analyzed message blocking volumes at the customer level, and provide the following estimates based on this partial data. Over the year 2016, between 1,000 and 3,500 individual Twilio customers had their messages blocked in any given month.
  - b. *Disproportionate impact.* In addition to having a wide-ranging impact, the impact of blocking has a disproportionate impact on specific customers. In the month of August 2016, at least 11 Twilio customers had over 100,000 messages blocked, at least 19 Twilio customers had over 50,000 messages blocked, and at least 66 customers had over 10,000 messages blocked. In the month of September 2016, at least 8 customers had over 100,000 messages blocked, at least 14 customers had over 50,000 messages blocked, and at least 65 customers had over 10,000 messages blocked. In the month of October 2016, at least 14 customers had over 100,000 messages blocked, at least 23 customers had over 50,000 messages blocked and at least 72 customers had over 10,000 messages blocked. In the month of November 2016, at least 11 customers had over 100,000 messages blocked, at least 24 customers had over 50,000 messages blocked and at least 73

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<sup>2</sup> Twilio's Acceptable Use Policy: <https://www.twilio.com/legal/aup>.

customers had over 10,000 messages blocked.

- c. *Unpredictable impact.* In analyzing the accounts most impacted by carrier blocking, I analyzed the top five most impacted Twilio customer accounts for each of the previous four months, August, September, October and November 2016. Given consistent use case and messaging volumes, it would be reasonable to expect that the same five accounts would be most impacted each month. However, this is not the case. For the past four months, 11 different customers were in the top five most impacted Twilio customer accounts. Customers report to Twilio that it is exceedingly difficult to anticipate or correct their messaging behavior due to the inconsistency of which messages will be blocked on a given month coupled with a lack of transparent guidelines (i.e. why TCPA compliant messages with a clear opt-in from a consumer are still subject to carrier blocking). This further demonstrates the need for a bright line rule that consented messages must be transmitted.

10. Contrary to the assertions made by the CTIA in its recent *ex parte* presentation,<sup>3</sup> neither Twilio nor other cloud providers have an incentive to transmit unwanted, or “spam” messages. The opposite is true. Twilio has every incentive to protect its reputation from risk, protect Twilio’s customers’ connectivity to end users, preserve the quality of the text messaging channel as a whole, and to reduce costs paid to carriers for transmitting messages. Twilio in fact has strong incentives to *prevent* unwanted messages, and will continue to invest accordingly. Indeed, the whole basis of Twilio’s petition is to bring the Commission’s affirmative involvement in ensuring that consumers receive the messages they want and do not receive the ones they don’t want.

11. Twilio invests substantial resources in monitoring its network to prevent the transmission of unwanted messages while respecting the ability of consumers to receive messages they want, including use of the following strategies:

- a. *Managing and monitoring opt-out requests.* Twilio monitors opt-out requests received in response to messages sent from Twilio’s customers. When a recipient of a message texts “STOP” (and similar negative phrases) to a phone number, Twilio automatically prevents the recipient from receiving additional messages. Twilio uses the volume of STOP requests as one of several vectors for identifying potentially non-compliant accounts. In cases of high opt-out rates, Twilio may either suspend an account for violating the Acceptable Use Policy or work with the customer to verify and correct their opt-in process.

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<sup>3</sup> CTIA *ex parte* presentation dated August 23, 2016 <https://www.fcc.gov/ecfs/filing/10822262918191>.



- b. *Sender reputation and validation.* Twilio has had success in eliminating false positive suspensions by analyzing the reputation of a given account using a scoring methodology. Legitimate messages are constantly getting caught in wireless carrier nets, as they are blocked without context. But because Twilio's customers have reputation scores, we can contextualize campaigns based on message initiator and rapidly identify potentially problematic customers.
- c. *Retaining PSTN functionality.* One common and catastrophic technique used by wireless carriers is blacklisting specific phone numbers, removing text message functionality for sometimes up to 90 days. When carriers blacklist a phone number, it impacts the expected ongoing operability of the PSTN. Because the blacklisting is done without notification, it can be devastating to our customers, who may publish their virtual business phone number publicly with no means to cure for non-functionality.
- d. *Investment in reasonable network management.* Behind the scenes, Twilio continues to invest in network management to minimize message fraud vectors and protect the messaging pipeline. Combining agile engineering with more standard telecommunications provider best practices, Twilio has 24/7 emergency coverage and an on-call Support team, as well as a dedicated Fraud Services team with engineering resources dedicated to the enforcement of Twilio's Acceptable Use Policy.

12. The single greatest way to improve Twilio's ability to identify and suspend potentially troublesome customers would be for the mobile operators to communicate directly with Twilio when potential issues of fraud or abuse arise. Today, the mobile operators do not routinely provide Twilio or other providers with any information regarding blocked messaging traffic. Rather, Twilio has to piece it together afterwards. To protect the message ecosystem, all providers should be obligated to work cooperatively together to ensure that consumers get the messages they want and that consumers can block messages they do not want.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

*Emily DenAdel*

Emily DenAdel Emery

Executed on January 11, 2017

## **Exhibit B**

Form **990**Department of the Treasury  
Internal Revenue Service**Return of Organization Exempt From Income Tax****Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations)**

- ▶ Do not enter social security numbers on this form as it may be made public  
▶ Information about Form 990 and its instructions is at [www.irs.gov/form990](http://www.irs.gov/form990)

OMB No 1545-0047

**2014****Open to Public Inspection****A For the 2014 calendar year, or tax year beginning 01-01-2014, and ending 12-31-2014****B Check if applicable**

- ☐ Address change  
☐ Name change  
☐ Initial return  
☐ Final return/terminated  
☐ Amended return  
☐ Application pending

**C Name of organization**  
CTIA - THE WIRELESS ASSOCIATION% MICHAEL DONNELLAN  
Doing business asNumber and street (or P.O. box if mail is not delivered to street address) Room/suite  
1400 16TH STREET NWCity or town, state or province, country, and ZIP or foreign postal code  
WASHINGTON, DC 20036**D Employer identification number**

52-1347628

**E Telephone number**

(202) 736-3200

**G Gross receipts \$** 81,685,373**F Name and address of principal officer**  
MEREDITH ATTWELL BAKER  
1400 16TH STREET NW  
WASHINGTON, DC 20036**H(a)** Is this a group return for subordinates? ☐ Yes ☒ No**H(b)** Are all subordinates included? ☐ Yes ☐ No  
If "No," attach a list (see instructions)**H(c)** Group exemption number ▶**I Tax-exempt status** ☐ 501(c)(3) ☒ 501(c)(6) (insert no.) ☐ 4947(a)(1) or ☐ 527**J Website:** ▶ WWW.CTIA.ORG**K Form of organization** ☒ Corporation ☐ Trust ☐ Association ☐ Other ▶**L Year of formation** 1984 **M State of legal domicile** DC**Part I Summary**

Activities &amp; Governance

**1** Briefly describe the organization's mission or most significant activities  
SEE SCHEDULE O**2** Check this box ☐ if the organization discontinued its operations or disposed of more than 25% of its net assets

<b>3</b> Number of voting members of the governing body (Part VI, line 1a)	<b>3</b>	36
<b>4</b> Number of independent voting members of the governing body (Part VI, line 1b)	<b>4</b>	34
<b>5</b> Total number of individuals employed in calendar year 2014 (Part V, line 2a)	<b>5</b>	109
<b>6</b> Total number of volunteers (estimate if necessary)	<b>6</b>	48
<b>7a</b> Total unrelated business revenue from Part VIII, column (C), line 12	<b>7a</b>	59,296
<b>7b</b> Net unrelated business taxable income from Form 990-T, line 34	<b>7b</b>	-39,864

Revenue

	Prior Year	Current Year
<b>8</b> Contributions and grants (Part VIII, line 1h)	11,633,899	10,982,524
<b>9</b> Program service revenue (Part VIII, line 2g)	46,639,755	44,596,473
<b>10</b> Investment income (Part VIII, column (A), lines 3, 4, and 7d)	2,414,307	3,819,901
<b>11</b> Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)	-86,658	3,424,209
<b>12</b> Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12)	60,601,303	62,823,107

Expenses

<b>13</b> Grants and similar amounts paid (Part IX, column (A), lines 1-3)	2,855,430	2,417,492
<b>14</b> Benefits paid to or for members (Part IX, column (A), line 4)	0	0
<b>15</b> Salaries, other compensation, employee benefits (Part IX, column (A), lines 5-10)	19,901,652	24,203,165
<b>16a</b> Professional fundraising fees (Part IX, column (A), line 11e)	0	0
<b>b</b> Total fundraising expenses (Part IX, column (D), line 25) ▶ 0		
<b>17</b> Other expenses (Part IX, column (A), lines 11a-11d, 11f-24e)	31,174,731	28,056,475
<b>18</b> Total expenses Add lines 13-17 (must equal Part IX, column (A), line 25)	53,931,813	54,677,132
<b>19</b> Revenue less expenses Subtract line 18 from line 12	6,669,490	8,145,975

Net Assets or Fund Balances

	Beginning of Current Year	End of Year
<b>20</b> Total assets (Part X, line 16)	138,365,257	161,452,850
<b>21</b> Total liabilities (Part X, line 26)	12,372,386	26,868,506
<b>22</b> Net assets or fund balances Subtract line 21 from line 20	125,992,871	134,584,344

**Part II Signature Block**

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

**Sign Here**

Signature of officer

2015-11-09  
DateMEREDITH ATTWELL BAKER, PRESIDENT & CEO  
Type or print name and title**Paid Preparer Use Only**Print/Type preparer's name  
TRAVIS L PATTONPreparer's signature  
TRAVIS L PATTONDate  
2015-11-09Check ☐ if self-employed PTIN  
P00369623

Firm's name ▶ PricewaterhouseCoopers LLP

Firm's EIN ▶

Firm's address ▶ 600 13TH STREET NW SUITE 1000  
WASHINGTON, DC 200053005

Phone no. (202) 414-1000

May the IRS discuss this return with the preparer shown above? (see instructions) ☒ Yes ☐ No

For Paperwork Reduction Act Notice, see the separate instructions.

Cat No 11282Y

Form **990** (2014)

**Part VIII Statement of Revenue**Check if Schedule O contains a response or note to any line in this Part VIII ☐

		(A) Total revenue	(B) Related or exempt function revenue	(C) Unrelated business revenue	(D) Revenue excluded from tax under sections 512-514
<b>Contributions, Gifts, Grants and Other Similar Amounts</b>	<b>1a</b> Federated campaigns . . . . . <b>1a</b> _____				
	<b>b</b> Membership dues . . . . . <b>1b</b> 10,982,524				
	<b>c</b> Fundraising events . . . . . <b>1c</b> _____				
	<b>d</b> Related organizations . . . . . <b>1d</b> _____				
	<b>e</b> Government grants (contributions) <b>1e</b> _____				
	<b>f</b> All other contributions, gifts, grants, and similar amounts not included above <b>1f</b> _____				
	<b>g</b> Noncash contributions included in lines 1a-1f \$ _____				
	<b>h</b> <b>Total.</b> Add lines 1a-1f . . . . . ▶	10,982,524			
<b>Program Service Revenue</b>	<b>2a</b> ANNUAL CONVENTION <b>Business Code</b> _____				
	_____ 900099	11,994,242	11,953,842	40,400	
	<b>b</b> CERTIFICATION _____	515100	7,658,906	7,658,906	
	<b>c</b> CTIA ORG _____	541800	14,506		14,506
	<b>d</b> CSC PROGRAM _____	517000	24,928,819	24,924,950	3,869
	<b>e</b> _____				
	<b>f</b> All other program service revenue _____				
	<b>g</b> <b>Total.</b> Add lines 2a-2f . . . . . ▶	44,596,473			
<b>Other Revenue</b>	<b>3</b> Investment income (including dividends, interest, and other similar amounts) . . . . . ▶	1,361,897		521	1,361,376
	<b>4</b> Income from investment of tax-exempt bond proceeds . . ▶	0			
	<b>5</b> Royalties . . . . . ▶	0			
	<b>6a</b> Gross rents (i) Real 4,517,101 (ii) Personal _____				
	<b>b</b> Less rental expenses 1,266,833 _____				
	<b>c</b> Rental income or (loss) 3,250,268 0				
	<b>d</b> Net rental income or (loss) . . . . . ▶	3,250,268			3,250,268
	<b>7a</b> Gross amount from sales of assets other than inventory (i) Securities 20,053,437 (ii) Other _____				
	<b>b</b> Less cost or other basis and sales expenses 17,595,433 _____				
	<b>c</b> Gain or (loss) 2,458,004 _____				
	<b>d</b> Net gain or (loss) . . . . . ▶	2,458,004			2,458,004
	<b>8a</b> Gross income from fundraising events (not including \$ _____ of contributions reported on line 1c) See Part IV, line 18 . . . . . <b>a</b> _____				
	<b>b</b> Less direct expenses . . . . . <b>b</b> _____				
	<b>c</b> Net income or (loss) from fundraising events . . ▶	0			
	<b>9a</b> Gross income from gaming activities See Part IV, line 19 . . . . . <b>a</b> _____				
	<b>b</b> Less direct expenses . . . . . <b>b</b> _____				
	<b>c</b> Net income or (loss) from gaming activities . . ▶	0			
	<b>10a</b> Gross sales of inventory, less returns and allowances . . . . . <b>a</b> _____				
	<b>b</b> Less cost of goods sold . . . . . <b>b</b> _____				
	<b>c</b> Net income or (loss) from sales of inventory . . ▶	0			
<b>Miscellaneous Revenue Business Code</b>					
<b>11a</b> MANAGEMENT FEES _____ 900099	90,000	90,000			
<b>b</b> OTHER NET INCOME FROM SUBSIDIARIES _____ 900099	67,074	67,074			
<b>c</b> REALIZED GAIN ON PURCHASE OF CM LAND _____ 900099	8,842	8,842			
<b>d</b> All other revenue . . . . . _____	8,025	8,025			
<b>e</b> <b>Total.</b> Add lines 11a-11d . . . . . ▶	173,941				
<b>12</b> <b>Total revenue.</b> See Instructions . . . . . ▶	62,823,107	44,711,639	59,296	7,069,648	

## **Exhibit C**

# SPAM Mitigation Policy for Global Communication

## **Objective:**

Reduce SMS SPAM on A2P Short Code Campaigns. AT&T will take a more active role in Identification and Mitigation of SMS SPAM on Short Codes. The intention is to protect the interests of all messaging partners in the ecosystem and aggressively reducing SPAM to our subscriber base.

## **Target:**

Based on Analysis of reported Short Code SPAM incidents, over 90% of all SPAM reported was on Shared Short Codes. Our efforts to mitigate SPAM will concentrate on the identification and monitoring of shared Short Codes.

## **Tools:**

AT&T will utilize existing tools and further integrate 7726 reports, content filters and URL filters into our SPAM defenses. We will utilize WMC to provide additional analysis of the various data sources to help detect and react to SPAM on a near real time basis. AT&T will contact the aggregators with any actions to be taken on short codes identified to be delivering SPAM. WMC will review data and market place monitoring for utilization and expansion of adaptive risk indicators. WMC will take action on several fronts:

- WMC will work with affiliate networks to address spam incidents involving affiliate offers
- WMC will alert link shortening services, hosting providers, and domain registrars to malicious or deceptive sites promoted via spam messaging
- WMC will also reach out to search providers, security providers, and known industry blacklists to help cut off market access to malicious or deceptive sites promoted via spam messaging

## **Aggregators Responsibility**

### **1. Communication of increased Spam Efforts to the content providers.**

- AT&T requirement that all existing shared Short codes be identified, quickly. AT&T will run a script to update CMS of these shared short codes
- Any new on-boarded shared short codes will be tagged as such in CMS
- AT&T will formally vet each shared short code provider

### **2. Provide consultation to shared short code providers emphasizing that shared short codes should only run similar type campaigns for risk mitigation: for example**

- Appointments – Medical
- Emergency Alerts – Universities, schools
- Promotional - Night Clubs / Restaurants
- Marketing – Coupons

Recommend that the Content Provide bolster their onboarding screening and messaging filters to limit exposure to delivery of SPAM.

### 3. Enforcement

- Upon detection – AT&T will Notify agg to suspend messaging on an identified Short Code
- AT&T will provide a RCA template for the CP to complete and return to the aggregator. Messaging may be suspended until such time the RCA is received
- AT&T will require the campaign delivering SPAM be altered or terminated immediately.
- AT&T, in most instances, will authorize messaging to be re-instated once the RCA has been received.
- AT&T does reserve the right to terminate a short code for sending SPAM to our subscribers.
- WMC will reach out to the affiliate networks, identifying affiliate marketers responsible for promoting spam messaging and coordinating with the affiliate networks hosting the offers to disable the offending affiliate marketer's accounts and withhold payment related to spam-promoted offers
- WMC will alert link shortening services, hosting providers, and domain registrars, working to shut down and disable access to malicious or deceptive sites promoted via spam messaging
- WMC will also reach out to search providers, security providers, and known industry blacklists to help cut off market access to malicious or deceptive sites promoted via spam messaging

I view this as a collective partnership between AT&T, aggregators and content providers in an effort to protect and enhance the short code messaging ecosystem.

My goal is to make sure the policy is clear, and consistent across all aggregators for your communication out to content providers. This policy is in effect immediately and I look forward to your assistance.



## **Amendment to Short Code SPAM Mitigation Policy – June 2016**

The vast majority of AT&T subscriber complaints and reported SPAM are on short code based SMS campaigns related to high risk financial offers running on shared short codes. As a result, as of 07/1/2016, high risk financial offers as outlined below will no longer be allowed on Shared Short Codes. These type of financial offers will be allowed to run on dedicated short codes submitted for a specific content provider and program description.

### **High-Risk Financial Offers banned on Shared Short Codes**

- Loan origination and matching
  - Payday loans
  - Short-term loans
  - Auto loans
  - Mortgage loans
  - Student loans
- Debt consolidation and reduction
- Investment opportunities
- Credit repair programs
- Tax relief programs
- Work from home programs