Background: Texting has become a trusted and reliable form of communication for many Americans. Wireless messaging providers have taken measures to prevent large volumes of unwanted or malicious traffic from reaching consumers, and as a result, a relatively low percentage of text messages are spam.

In 2015, Twilio, a provider of mass-texting services, filed a petition asking the FCC to declare that text messaging services are “telecommunications services” and “commercial mobile services” as those terms are defined in the Communications Act. Twilio seeks to leverage the common carriage obligations associated with those regulatory classifications to stop wireless messaging providers from incorporating robotext-blocking, anti-spoofing measures, and other anti-spam features into their offerings.

What the Declaratory Ruling Would Do:

- Find that two forms of wireless messaging services—Short Message Service (SMS) and Multimedia Messaging Service (MMS)—are “information services,” not telecommunications services, under the Communications Act, and that they are not commercial mobile services, nor their functional equivalent.
- Deny the requests of Twilio and other parties seeking to apply common carriage regulation to these wireless messaging services.
- Remove regulatory uncertainty and empower wireless messaging providers to continue protecting American consumers from unwanted text messages, including spam and scam robotexts.

* This document is being released as part of a “permit-but-disclose” proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in WT Docket No. 08-7, which may be accessed via the Electronic Comment Filing System (https://www.fcc.gov/ecfs/). Before filing, participants should familiarize themselves with the Commission’s ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR § 1.1200 et seq.
Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of

Petitions for Declaratory Ruling on Regulatory Status of Wireless Messaging Service

WT Docket No. 08-7

DECLARATORY RULING*

Adopted: [] Released: []

By the Commission:

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I. INTRODUCTION

1. Texting has evolved into one of the most popular forms of communication for Americans, with trillions of wireless text messages sent each year in the United States.\footnote{Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, Twentieth Report, 32 FCC Rcd 8968, 8972, para. 20 (2017); see also Letter from Scott K. Bergmann, VP, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 08-7 et al., at 2 (filed Feb. 23, 2017) (CTIA Feb. 23, 2017 Ex Parte Letter) (1.89 trillion wireless messages sent in 2015).} The tremendous growth of wireless messaging is attributable in large part to the fact that providers have been able to

* This document has been circulated for tentative consideration by the Commission at its December 12, 2018 open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chairman has determined that, in the interest of promoting the public’s ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC’s ex parte rules apply and presentations are subject to “permit-but-disclose” ex parte rules. See, e.g., 47 C.F.R. §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission’s ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR §§ 1.1200(a), 1.1203.
ensure the relatively spam-free nature of this service, which in turn has spurred a high degree of consumer loyalty to this method of communication, especially among younger Americans.2

2  In this Declaratory Ruling, we find that two forms of wireless messaging, Short Message Service (SMS) and Multimedia Messaging Service (MMS), are information services, not telecommunications services under the Communications Act, and that they are not commercial mobile services, nor their functional equivalent. In so doing, we deny the requests of Twilio3 and other mass-texting companies who seek to leverage the common carriage of Title II to stop wireless providers from helping consumers by incorporating robotext-blocking, anti-spoofing measures, and other anti-spam features into their offerings. This decision removes regulatory uncertainty, empowers providers to continue protecting consumers from unwanted text messages, and should foster further innovation and investment in messaging services.

II. BACKGROUND

3. Legal Background. The Communications Act, as amended, divides communications services into two mutually exclusive types: highly regulated “telecommunications services” and lightly regulated “information services.”4 A “telecommunications service” is a common carrier service that requires “the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available to the public, regardless of the facilities used.”5 “Telecommunications” is “the transmission, between or among points specified by the end user, of information of the user’s choosing without change in the form or content of the information as sent and received.”6 By contrast, an “information service” is “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.”7

4. The Act provides a parallel framework that applies to mobile service providers: Each service is either “commercial mobile service” (a form of telecommunications service)8 or “private mobile service” (which cannot be a telecommunications service).9 “Commercial Mobile Service” is defined in relevant part as “any mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a


8 47 U.S.C. § 332(c)(1)(A); H.R. Conf. Rep. No. 104-458 at 125 (1996) (“This definition [of ‘telecommunications service’] is intended to include commercial mobile service.”).

9 47 U.S.C. § 332(c)(2) (prohibiting the Commission from treating providers of private mobile service as common carriers and hence as telecommunications carriers).
substantial portion of the public . . . .”10 “Interconnected service” is a “service that is interconnected with the public switched network,”11 which the Commission has defined by regulation to mean a service “that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network,”12 i.e., the traditional public switched telephone network “that use[s] the North American Numbering Plan in connection with the provision of switched services.”13 By contrast, a “private mobile service” is “any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service . . . .”14

5. The Commission has interpreted these definitions in various contexts, and courts have given the Commission significant deference in those interpretations. For example, in the 1998 Stevens Report, the Commission concluded that the provision of Internet access service was an information service, stating that “the provision of Internet access service crucially involves information-processing elements as well [as data transport]; it offers end users information-service capabilities inextricably intertwined with data transport.”15 Consistent with the Stevens Report, the Commission later concluded a variety of broadband Internet access services were also information services16—a finding that the Supreme Court upheld, in the context of cable modem service, because “the transmission component of cable modem service” is “sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated [information service] offering.”17

6. Also, in the 1998 Stevens Report, the Commission examined the regulatory classification of email service. There, the Commission found that “electronic mail utilizes data storage as a key feature of the service offering.”18 It then examined how an email “sender uses a software interface to generate an electronic mail message (potentially including files in text, graphics, video or audio formats)” and how the email provider “conveys it to a ‘mail server’ computer . . . , which stores the message until the recipient chooses to access it” and found email service to be an information service under the Act.19 Importantly, the Commission noted the fact that “[p]articular users may not exploit this feature of the

12 47 CFR § 20.3.
15 Stevens Report, 13 FCC Rcd at 11538, para. 80.
17 Brand X, 545 U.S. at 990-91, 1000 (quoting Stevens Report, 13 FCC Rcd at 11538, para. 76).
18 Stevens Report, 13 FCC Rcd at 11539, para. 78.
19 Stevens Report, 13 FCC Rcd at 11539, para. 78.
service offering; indeed, two users with direct Internet connections can communicate via electronic mail in close to real-time. Nonetheless, it is central to the service offering that electronic mail is store-and-forward, and hence asynchronous; one can send a message to another person, via electronic mail, without any need for the other person to be available to receive it at that time.”

7. In 2007, the Commission found that wireless broadband Internet access service was not an “interconnected service” under the Act and the Commission’s rules and thus not a commercial mobile service. It found that wireless broadband Internet access was not “interconnected” with the “public switched network” because subscribers had limited “ability to communicate to or receive communication from all users in the public switched network.” The Commission concluded that the Act and the Commission’s rules “did not contemplate wireless broadband Internet access service as provided today” and that a commercial mobile service “must still be interconnected with the local exchange or interexchange switched network as it evolves.” The Commission reaffirmed this analysis in 2017.

8. Wireless Messaging Service. The original wireless messaging service, SMS, enables users to send and receive short text messages, typically 160 characters or fewer, to or from mobile phones and can support a host of applications. When a user sends a message, the message is routed through servers on mobile networks. When a recipient device is unavailable to receive the message because it is turned off, the message will be stored at a messaging center in the provider’s network until the recipient device is able to receive it. The messaging center will then forward the message to the recipient device when it becomes available. After the network delivers the message, the message is then stored on the user’s device and will remain stored there until the user deletes it. Today, the content that can be sent by wireless messaging is not limited to mere text. In particular, MMS is an extension of the SMS protocol and can deliver a variety of media, and enables users to send pictures, videos, and attachments over wireless messaging channels.

9. The messaging ecosystem has evolved to include a variety of wireless messaging services and providers. Mobile service providers that offer wireless messaging service generally provide it as a

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21 See generally Wireless Broadband Order, 22 FCC Rcd 5901.
22 Id. at 5917-18, para. 45.
23 Id. at 5918 & n.119.
24 Restoring Internet Freedom Order, 33 FCC Rcd at 357-58, para. 79.
25 CTIA Mar. 14, 2008 Comments at 5 (noting that “SMS can, for example, be used to send or receive information in binary form, such as pictures or ringtones”).
26 See, e.g., CTIA Nov. 20, 2015 Comments at 35 (“in cases where a device is out of range or has been turned off when the system first tried to deliver the message, a Short Message Service Center (‘SMSC’) or Multimedia Message Service Center (‘MMSC’) will temporarily store the relevant message until the recipient’s device is ready to receive it, and then forward the message to that device.”).
28 Rich Communications Service (RCS) is the next-generation SMS and is an IP-based asynchronous messaging protocol. Its advanced messaging features allow users to, among other things, use mobile banking services, share high-resolution photos and files, track locations and interact with chatbots. Similarly, real-time text, or RTT, is defined in Section 67.1 of the Commission’s rules as “text communications that are transmitted over Internet protocol (IP) networks immediately as they are created, e.g., on a character-by-character basis.” See 47 CFR § 67.1(g). Given the lack of discussion of RCS and RTT in the record, we do not address their classifications here.
native function on a mobile handset by using telephone numbers. But mobile service providers are not
the only providers offering consumers the ability to send wireless messages. Applications providers like
WhatsApp and Apple’s iMessage also offer wireless messaging service. Generally, application providers
offer wireless messaging service through apps that are downloaded from smartphone app stores. Some
applications are used exclusively over the Internet and use IP addresses for routing. Others provide users
with phone numbers that allow messages to be exchanged between telephone numbers and Internet
endpoints.

Messages may be sent on a person-to-person basis (P2P) from one end user to another or
on an application-to-person (A2P) basis in which an entity (such as a business) uses an application to send
messages to large numbers of end users. P2P messaging traffic typically covers low-volume exchange
of wireless messaging among individual wireless consumers. A2P traffic is all messaging that falls
outside the definition of P2P, i.e., traffic that is not consistent with typical human operation. A2P
messaging also includes mass-texting campaigns that send the same or similar messages to hundreds if
not thousands of consumers with or without their prior express consent.

Finally, wireless messaging services are available to reach two distinct sets of users.
First, SMS and MMS can reach those users with 10-digit numbers from the North American Numbering
Plan that are SMS and MMS enabled (generally those associated with mobile phones). They can also
reach toll-free numbers that have been appropriately text-enabled. In addition, as a convenience to users
and to facilitate the delivery of lawful A2P traffic, wireless providers developed Common Short Codes
(CSCs), which are 5- to 6-digit codes typically used by enterprises for communicating with consumers at
high volume. Short codes are administered by the Common Short Code Administration, which leases
the codes to applicants. Once a short code is assigned to an applicant and before it can be used, each
mobile carrier must provision that code to a customer, usually through a third-party “aggregator” that
handles the provisioning across multiple providers.

As the messaging ecosystem has evolved, wireless messaging has grown into a critical
communications option for consumers. For many under 50, it is their main method of communicating. For
instance, 58 percent of teens with smartphones say that messaging is their primary way of keeping in

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29 Public Knowledge et al. Petition at 2-3; CTIA, “Messaging Interoperability SMS & MMS,”
Nov. 20, 2018).

30 See Verizon Nov. 20, 2015 Comments at 3-4.

31 P2P messaging traffic typically covers low-volume exchange of wireless messaging among individual wireless
consumers. However, some messaging application providers are exchanging traffic with wireless consumers via
P2P messaging. For purposes of this Declaratory Ruling, we define P2P messaging traffic as that which exhibits
the characteristics and attributes of typical human operation. A2P traffic is all messaging that falls outside the definition
of P2P, i.e., traffic that is not consistent with typical human operation. See Messaging Principles and Best Practices
at 8, CTIA (Jan. 19, 2017), https://www.ctia.org/docs/default-source/default-document-library/170119-ctia-
characteristics and attributes of typical human operation).

June 12, 2018).

33 CTIA Nov. 20, 2015 Comments at 20; see also www.usshortcodes.com (last visited Nov. 6, 2018). CTIA Nov. 20,
2015 Comments at 20.


touch with close friends. And in 2017, 1.77 trillion messages were exchanged in the United States. To facilitate Americans’ growing reliance on wireless messaging, providers have taken steps to protect this mode of communication from spam and other unwanted or malicious traffic. For example, wireless messaging providers apply filtering to prevent large volumes of unwanted messaging traffic or to identify potentially harmful texts. As a result of these efforts, wireless messaging remains a relatively spam-free service. For example, the spam rate for SMS is estimated at 2.8 percent whereas the spam rate for email is estimated at over 50 percent. Wireless messaging is therefore a trusted and reliable form of communication for many Americans. Indeed, consumers open a far larger percentage of wireless messages than email and open such messages much more quickly.

13. The Petitions for Declaratory Ruling. On December 11, 2007, several organizations led by Public Knowledge (collectively Public Knowledge et al.) filed a Petition for Declaratory Ruling asking the Commission to classify text messaging services as commercial mobile services (and hence telecommunications services) subject to Title II of the Act. The petitioners claim that such a ruling is

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36 How Having Smartphones (or not) Shapes the Ways Teens Communicate, PEW RESEARCH CENTER (Aug. 20, 2015), http://www.pewresearch.org/fact-tank/2015/08/20/how-having-smartphones-or-not-shapes-the-way-teens-communicate/ (also finding that 73 percent of teens have a smartphone).


38 See, e.g., Letter from Matthew Gerst, Assistant Vice President, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 08-7, at 3 (CTIA Nov. 16, 2018 Ex Parte Letter); AT&T Dec. 20, 2015 Reply at 6 (explaining that wireless messaging providers employ “filters that detect when a large volume of texts per second are being sent from a single phone number, or when a text is sent from numbers that have a large volume of texting with little voice or data usage, or when texts have other telltale signs of spam”); see also CTIA Messaging Principles and Best Practices (providing voluntary best practices for wireless messaging providers to manage traffic in a manner that protects consumers from unwanted messages); CTIA Nov. 16, 2018 Ex Parte Letter at 3 (“Wireless providers also use ‘account fingerprinting’ techniques to identify accounts sending high volumes of messages with key signs of spam activity.”); AT&T Dec. 20, 2015 Reply at 6 (explaining that providers have also instituted a service for consumers to forward mobile spam, “which feeds into a system that allows wireless providers to block spam from known sources”).

39 See CTIA Nov. 16, 2018 Ex Parte Letter at 3 & n.4 (citing various sources).

40 See, e.g., CTIA Nov. 20, 2015 Comments at 9-10; Mobile Future Dec. 21, 2015 Reply at 4-5 (“Consumers open a remarkable 98 percent of all SMS messages they receive, and they open 90 percent of text messages almost immediately upon receipt. In contrast, 50 percent of all e-mail traffic is spam, and consumers open a mere 20 to 30 percent of all e-mail messages they receive.”); see also DoSomething.org Nov. 20, 2015 Comment at 1; Voxiva Nov. 20, 2015 Comment at 2; AT&T Dec. 20, 2015 Reply at 4; Attorney General of South Carolina Dec. 21, 2015 Reply at 1; Fact Atlas Dec. 21, 2015 Comment at 1-2; National Assoc. of Neighborhoods Dec. 21, 2015 Comment at 1; National Black Caucus of State Legislators Nov. 30, 2015 Comment at 1.

41 Petition for Declaratory Ruling of Public Knowledge, Free Press, Consumer Federation of America, Consumers Union, EDUCAUSE, Media Access Project, New America Foundation, and U.S. PIRG, WT Docket No. 08-7 (filed Dec. 11, 2007) (Public Knowledge et al. Petition). Alternatively, Public Knowledge et al. ask that, if the Commission finds text messaging services to be “information services” subject to its Title I authority, the Commission should exercise ancillary jurisdiction to apply the non-discrimination provisions of Title II. Id. at iii, 2. On January 14, 2008, the Wireless Telecommunications Bureau (Bureau) released a Public Notice seeking comment on the Public Knowledge et al. Petition. See Wireless Telecommunications Bureau Seeks Comment on Petition for Declaratory Ruling that Text Messages and Short Codes are Title II Services or are Title I Services Subject to Section 202 Non-Discrimination Rules, Public Notice, 23 FCC Rcd 262 (2008). On February 1, 2008, the Bureau released an order granting a motion for an extension of time to file comments and reply comments on the Public Knowledge et al. Petition. See Petition for Declaratory Ruling that Text Messages and Short Codes are Title II Services or are Title I Services Subject to Section 202 Non-Discrimination Rules, Order, 23 FCC Rcd 1265 (2008).
necessary to prevent wireless messaging providers from “refusing to provision a short code or otherwise blocking text messages because of the type of speech which will be engaged in, or because the party seeking service is a competitor.”

14. On August 28, 2015, Twilio, a provider of mass-texting and spoofing services, filed a Petition for Expedited Declaratory Ruling in which it also asked the Commission to declare that messaging services are telecommunications services and commercial mobile services subject to common carrier regulation under Title II of the Act. Twilio asserts that such a ruling is necessary to prohibit wireless providers’ “unfettered” blocking of text messages, among other practices.

15. On October 13, 2015, the Wireless Telecommunications Bureau sought comment on the Twilio Petition and sought comment to refresh the record on the Public Knowledge et al. Petition. Commenters supporting the petitions include CallFire, a provider of mass-texting services, and customers of Twilio. These commenters argue that the Commission should classify wireless messaging services as Title II services and thereby prohibit blocking of text messages because wireless providers are blocking messages that consumers want. These and other commenters further argue that wireless providers’ message blocking practices are not transparent.

16. A wide range of commenters oppose the petitions, including state attorneys general, the American Consumer Institute, the National Emergency Number Association, and mobile service providers. These commenters generally contend that classifying SMS and MMS services as

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42 Public Knowledge et al. Petition at 2.

43 See, e.g., Simon van Zuylen-Wood, How robo-callers outwitted the government and completely wrecked the Do Not Call list, The Washington Post (Jan. 11, 2016), https://www.washingtonpost.com/lifestyle/magazine/how-robo-call-moguls-outwitted-the-government-and-completely-wrecked-the-do-not-call-list/2018/01/09/52c769b6-df7a-11e7-bbd0-9dfb2e37492a_story.html (“A few months ago, I told a friend in Boston I was writing about the robo-call epidemic. . . . I decided to spam him. There is a software platform called Twilio that allows companies, or anyone, really, to send out phone calls and text messages from a random number.”).

44 See generally Twilio Petition.

45 Twilio Petition at 4.


47 See CallFire Nov. 20, 2015 Comments at 1; Verizon Dec. 21, 2015 Reply Comments n.11 (“Peach Labs, ShowingTime, ClearCare, Trek Medics International, Remind101, IFTTT, Polaris, and Zillow Group are or were customers of Twilio.”).

48 See, e.g., CallFire Nov. 20, 2015 Comments at 1 (stating that CallFire’s subscribers “faces wireless carrier blocking every day”); Remind 101 Nov. 20, 2015 Comments at 1-2; IFTTT Nov. 20, 2015 Comments at 1-3; ShowingTime Nov. 20, 2015 Comments at 1-2; Zillow Nov. 20, 2015 Comments at 1-2.

49 See, e.g., Peach Labs Nov. 20, 2015 Comments at 1 (there is “no feedback loop” that states that messages have been blocked or why they have been blocked”); Telephone Science Corp. Dec. 21, 2015 Comments at 2-3 (“the blocking of legitimate messages, without notice or explanation, deprives message recipients of communication they have chosen to receive”).

common carrier services would restrict wireless providers’ ability to combat spam and unwanted messages and subject consumers to a flood of such messages.51 In addition, they argue that Twilio seeks Title II classification of wireless messaging services because Twilio sells the ability to conduct mass messaging campaigns and “earns more revenues the more messages its commercial customers send.”52 These commenters further contend that it is in the best interest of providers to ensure that messages that consumers want are delivered or they would risk losing customers to other providers or to over-the-top applications.53

III. DISCUSSION

17. In this Declaratory Ruling, we find that SMS and MMS wireless messaging services are information services, not telecommunications services, under the Act, and that they are not commercial mobile services, nor their functional equivalent. We further conclude that classifying SMS and MMS wireless messaging services as information services will enable wireless providers to continue their efforts to protect American consumers from unwanted text messages and is therefore in the public interest.

A. SMS and MMS Wireless Messaging Services are Information Services

18. The Act defines an “information service” as the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications. SMS and MMS wireless messaging services meet this definition.

19. First, SMS and MMS wireless messaging services provide the capability for “storing” and “retrieving” information.54 When a user sends a message, the message is routed through servers on mobile networks. When a recipient device is unavailable to receive the message because it is turned off, the message will be stored at a messaging center in the provider’s network until the recipient device is able to receive it.55 The messaging center will then forward the message to the recipient device when it

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51 See, e.g., AT&T Nov. 20, 2015 Comments at 2 (arguing that the request to subject messaging to Title II “is in reality a request to dismantle the existing protections for limiting abusive and deceptive text messaging”); Verizon Nov. 20, 2015 Comments at 10, 11-13 (under Title II, “spammers would refocus their efforts on mobile messaging” and “the spam floodgates would open”); FSF Dec. 16, 2015 Reply at 2 (“[I]mposing Title II regulation on messaging services almost certainly would harm consumers by restricting the ability of carriers to combat spam and unwanted messages.”); State Attorneys General Dec. 21, 2015 Reply at 1 (urging the Commission to “maintain the status quo regarding the protection of text messaging from spam and phishing messages”); North Carolina Attorney General Dec. 18, 2015 Reply at 2 (“Any change in FCC regulatory policy that resulted in a large increase in the amount of unwanted text messages to consumers has the potential to lead to increased fraud, unwanted charges on a bill, and slower performance on the consumer’s mobile device.”); American Consumer Inst. Nov. 17, 2015 Comments at 3 (making messaging services subject to Title II regulations would expose consumers to great risk and possibly affect consumers reliance on this form of communications and produce real costs to the consumer); NENA Dec. 21, 2015 Comments at 1 (unconstrained “spamming” of SMS users could lead to significant platform viability issues in the long term); NOBEL Dec. 15, 2015 Comments at 1 (classification under Title II or as commercial mobile service would unleash a torrent of unwanted spam, making it cumbersome to the consumer to filter critical messages).

52 CTIA Nov. 20, 2015 Comments at 2; see also AT&T Dec. 21, 2015 Reply at 2.

53 See, e.g., Verizon Nov. 20, 2015 Comments at 1 (“Users send tens of billions of messages daily, switching among their wireless providers’ messaging services and the many popular applications — such as WhatsApp, Snapchat, Facebook Messenger, and Skype — that provide messaging ‘over-the-top’ of mobile broadband Internet access service.”).


55 See, e.g., CTIA Nov. 20, 2015 Comments at 35 (“in cases where a device is out of range or has been turned off when the system first tried to deliver the message, a Short Message Service Center (‘SMSC’) or Multimedia (continued…)”)
becomes available. After the network delivers the message, the message is then stored on the user’s device and will remain stored there until the user deletes it. This storage and retrieval capability is analogous to email service, which has been recognized under Commission precedent as an information service and similarly involves storage and retrieval functionality.56 Both email and SMS and MMS messaging services support asynchronous transfer of information allowing users to send messages without the need for the recipient of the message to be available to receive it.

20. Contrary to the suggestions of some commenters,57 the storage and retrieval functionality of SMS and MMS wireless messaging is an essential component of the services. It allows users to retrieve messages at any time and to interact with the stored information. AT&T explains, for example, that messaging service users can interact with the stored message data either by responding to the message by text, editing the message or forwarding it.58 The storage and retrieval functionality of SMS and MMS wireless messaging services also support users’ expectation that the wireless messages they send will be delivered to their intended recipients even if the recipients’ devices are turned off or are otherwise unavailable. As Verizon states, “the store-and-forward nature of messaging is critical to the service offered to customers. Without the store-and-forward capability, messages could only be exchanged if both the sending and receiving devices were connected to the cellular network at the time the message was sent. That is not the service Verizon and other wireless providers offer, which promises to deliver messages even if the receiving device is not immediately available to take delivery.”59

21. SMS and MMS wireless messaging services also involve the capability for “acquiring” and “utilizing” information. As CTIA explains, a wireless subscriber can “ask for and receive content, such as weather, sports, or stock information, from a third party that has stored that information on its servers. SMS subscribers can ‘pull’ this information from the servers by making specific requests, or they can signal their intent to have such information regularly ‘pushed’ to their mobile phone by the application provider.”60 MMS also allows users to interact with data by watching and replaying videos and opening attachments.61 The Commission has found that services that provide this ability for subscribers to utilize and interact with stored information, even information provided by third parties, are

(Continued from previous page)
information services.62

22. In addition, SMS and MMS wireless messaging services involve “transforming” and “processing” capabilities. Messaging providers, for example, may change the form of transmitted information by breaking it into smaller segments before delivery to the recipient in order to conform to the character limits of SMS.63 They can also reformat multimedia messages before delivery to resolve the differences in the media processing capabilities of the sending and receiving devices. In describing its MMS service offering, for example, AT&T notes that “[i]f you send a message to a phone incapable of picture and video messages, the recipient receives a text message with a link to view your message online.”64 Commonly, wireless providers may compress or reduce the quality or size of photos and videos to optimize the viewing of a message on a particular receiving device.65 We agree with commenters that without these capabilities, some messages could not be delivered to their recipients. Indeed, as one provider explains, “these capabilities alter the ‘packet payload’ (i.e., the content requested or sent by the user) which the Commission has long recognized means that a service transforms information and therefore, is an information service.”66 Messages that are exchanged between email and messaging platforms may also be reformatted to ensure compatibility with each platform. In the case of an email sent as a text message, for instance, information such as an email’s subject line is stripped out of the message and “time, date, status reports, and call-back numbers”67 are added to the message. Other texting services similarly involve information processing functionalities, such as the ability to program the service to generate automatic replies upon receipt of incoming messages.68

23. In sum, SMS and MMS wireless messaging services offer the capability for “storing” and “retrieving” information, for “acquiring” and “utilizing” information, and for “transforming” and “processing” information. Accordingly, the services fit squarely within the statutory definition of an “information service.”

24. The Commission has previously concluded that the question of whether an information service is “offered” should be evaluated with respect to the integrated finished product.69 Under this test,

62 See, e.g., Stevens Report, 13 FCC Rcd at 11530, para. 59 (“if a user can receive enhanced functionality, such as manipulation of information and interaction with stored data, the service is an information service”), see also Restoring Internet Freedom Order, 33 FCC Rcd at 322-25, para. 30-33.

63 See, e.g., Twilio, SMS Features, www.twilio.com/sms/features (last visited Nov. 20, 2018) (listing “concatenation” as SMS feature and stating “[e]xchange long messages and Twilio will automatically segment and reassemble them with no custom code required”).


65 See, e.g., Twilio, SMS Features, www.twilio.com/sms/features (last visited Nov. 20, 2018) (listing MMS as a feature of SMS service and stating that it creates “visual customer experiences with attachments and picture messages. Images are resized to meet carrier specs”).


67 CTIA Nov. 20, 2015 Comments at 37; T-Mobile Mar. 14, 2008 Comments at 14-15 (“email and IM protocols use different fields and formats than SMS messages. To render the two systems compatible, T-Mobile must strip certain information, add other information, truncate messages too long for SMPP, and so forth.”).


69 See, e.g., Cable Modem Declaratory Ruling, 17 FCC Rcd at 4822, para. 38; Wireline Broadband Internet Access Services Order, 20 FCC Rcd at 14863, para. 14; Brand X, 545 U.S. at 990 (stating that the key question is whether the transmission component is sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated offering).
an integrated information service may include a transmission component inextricably intertwined with information processing capabilities. The Commission has historically looked at two factors to make this determination—consumer perception and the actual characteristics of the service. Consistent with this framework, we examine whether wireless providers’ SMS and MMS service offerings make available information processing capabilities inextricably intertwined with transmission. To make this determination, we consider both how consumers perceive SMS and MMS wireless messaging services as well as how the services are provided as a factual matter. Our analysis shows that both factors support the conclusion that SMS and MMS wireless messaging services inextricably intertwine the information processing capabilities we describe above with transmission.

25. We begin by examining what consumers perceive to be the “integrated finished product” when they purchase wireless messaging service. Consumers perceive the offer of wireless messaging service to include more than mere transmission. They expect their wireless messaging service to enable the information processing functionalities that allow wireless messages to be stored and retrieved, and to allow users to send different types of media among different devices and messaging platforms. Indeed, evidence shows that consumers often prefer SMS and MMS wireless messaging services precisely because of these functionalities. For example, consumers view SMS and MMS messaging services as less disruptive and intrusive than voice calls because the storage and retrieval functionality of the services allows messages to be sent without anyone being there to receive them.

26. Turning next to how the service actually is provided, we find that, as a factual matter, SMS and MMS wireless messaging services are offered as a single, integrated information service. Although these services involve the transmission of information, the information processing functionalities associated with the services must be combined with transmission for the services to work. With SMS and MMS texting, the transmission of wireless messages is “always and necessarily” combined with data processing functionalities that enable storage and retrieval of messages and/or the transformation of information. In fact, SMS and MMS wireless messaging services are only offered along with these information processing capabilities. As one provider states, “[a] user cannot make use of the underlying transmission associated with [SMS and MMS wireless messaging service] . . . without also having access to the capabilities for acquiring, storing, transforming, retrieving, utilizing, or making available information.” The information processing capabilities of messaging combined with transmission enable the asynchronous transfer of information and ensure that wireless messages can be

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71 See, e.g., Cable Modem Declaratory Ruling, 17 FCC Rcd at 4843-44, para. 38; Wireline Broadband Order, 20 FCC Rcd at 14910, para. 104; Wireless Broadband Order, 22 FCC Rcd at 5909, para. 21; Restoring Internet Freedom Order, 33 FCC Rcd at 502, para. 342.

72 See Brand X, 545 U.S. at 990 (explaining that “[i]t is common usage to describe what a company ‘offers’ to a consumer as what the consumer perceives to be the integrated finished product”).

73 CTIA Mar. 14, 2008 Comments at 36 (“Messaging allows subscribers to interact with stored information and allows subscribers to pull information from servers or have information pushed to their mobile phone.”); T-Mobile Mar. 14, 2008 Comments at 16-17 (“Messaging is a store and forward service and allows the customer to query electronic databases and receive messages back.”).

74 See e.g., Why millennials still love text, https://www.openmarket.com/resources/millennials-still-love-text/ (last visited Nov. 20, 2018) (noting that 63 percent of millennials prefer to receive texts because they are less disruptive than a voice call).

75 See, e.g., CTIA Nov. 20, 2015 Comments at 40 (“A user cannot purchase or even use the transmission capabilities of messaging without also having access to the storage and processing capabilities .”).

exchanged and accessed across different platforms and devices.

27. Twilio contends that the information processing capabilities of wireless messaging service should be viewed as “add-on” or “adjunct to basic” services that are insufficient to make wireless messaging service an information service.77 Twilio’s use of the term “adjunct” refers to pre-1996 Telecommunications Act precedent under which the Commission held that some capabilities “may properly be associated with basic [common carrier] service without changing its nature.”78 The 1996 Telecommunications Act does not use the term “adjunct-to-basic,” but rather includes a “telecommunications management” exception to the definition of information services, excluding from the definition those capabilities “for the management, control, or operation of a telecommunication system or the management of a telecommunications service.”79 The Commission has found that the telecommunications management exception is properly understood as “directed at internal operations, not at services for customers or end users.”80 We find that the information processing functionalities of SMS and MMS wireless messaging services are intended to benefit consumers and are not merely directed at internal operations. Consumers view the data processing functionalities that enable storage and transformation of information as essential elements of SMS and MMS wireless messaging services. As stated above, the record shows that consumers often prefer texting to calling because of these features.81 The Commission has clarified that the scope of services viewed as falling within the telecommunications management exception to the information service definition is “narrow” and should focus only on those services that “facilitat[e] bare transmission.”82 The Commission has explained that, even where functionalities were useful in some way to providers in managing their networks, where those functionalities were designed primarily to be essential for end users, they would not fall within the telecommunications systems management exception.83 We find that even if the information processing functionalities of SMS and MMS wireless messaging services help wireless providers route wireless messages through their networks, those functionalities are nonetheless essential to end users and their ability to use wireless messaging services. Thus, consistent with Commission precedent, we reject the argument that those functionalities fall within the telecommunications management exception to the definition of information service.

77 Twilio Petition at 34-35 & n.77; Twilio Dec. 21, 2015 Reply at 20 (“what CTIA and the wireless carriers are describing is the adjunct-to-basic process used to ‘determine how to route the [message] properly, and there is no doubt that the inclusion of that functionality does not somehow convert the basic telecommunications service offering into an information service.’

78 See, e.g., North American Telecommunications Association Petition for Declaratory Ruling, Under § 64.702 of the Commission’s Rules Regarding the Integration of Centrex, Enhanced Services, and Customer Premises Equipment, Memorandum Opinion and Order, 101 FCC 2d 349, 359, para. 24 (1985) (“The computer processing services we recognized as permissible adjuncts to basic service are services which might indeed fall within possible literal readings of our definition of an enhanced service, but which are clearly ‘basic’ in purpose and use.”).


80 See Restoring Internet Freedom Order, 33 FCC Red at 328, para. 36 & n.114 (explaining that the telecommunications management exception from the statutory information service definition was drawn from the language of the Modified Final Judgment of 1982).


82 Restoring Internet Freedom Order, 33 FCC Red at 329-30, para. 38.

83 Restoring Internet Freedom Order, 33 FCC Red at 328-30, paras. 36-38.
28. Twilio also asserts that the Commission must find wireless messaging service to be a telecommunications service because “the only offering that wireless carriers make to the public, with respect to messaging, is the ability of consumers to send and receive messages of the consumers’ design and choosing.” 84 Public Knowledge et al. argue that wireless messaging service is different from other services the Commission has classified as information services because it does “not rely on the Internet and simply relay[s] the user’s communications from one place to another, without change in the form or content of the communication.”85 They also claim that wireless messaging service is intertwined with mobile voice service, and thus the two services should be regulated in the same manner.86 They note, for example, that “most phones will recognize a phone number inside of a text message, and will allow the owner to easily call that number or add it to his or her address book.”87 These arguments are unpersuasive.

29. To begin with, the definition of an information service is not limited to services that rely on the Internet. Rather, what matters are the capabilities offered by the service, and as we explain above, wireless messaging services feature storage, retrieval, and other information-processing capabilities. SMS and MMS wireless messaging services do much more than merely transmit “information of the user’s choosing, without change in the form or content of the information.”88 Twilio points to providers’ marketing materials to support its argument that what wireless providers are offering to consumers is only the ability to send and receive messages of their design and choosing, but those materials also discuss the information processing capabilities associated with wireless messaging service.89 Verizon, for example, states that “if a message is sent to you while your device is off or outside of the Verizon Wireless coverage area, your message will be stored for later delivery.”90 In describing picture and video messaging, AT&T states “[i]f your phone isn’t capable of receiving a picture or video message, you’ll

84 Twilio Dec. 21, 2015 Reply at 16; see also, Public Knowledge, Common Cause and Free Press Nov. 20, 2015 Comments at 9-10; Joseph A. Tomain, Esq. Apr. 14, 2008 Reply at 12. In addition to requesting that the Commission find wireless messaging service to be a Title II telecommunications service, petitioners also request that the Commission confirm that the provisioning of short codes is “part of the underlying Title II text messaging service.” Letter from Jef Pearlman, Equal Justice Works Fellow and Staff Attorney, Public Knowledge to Kevin Martin, Chairman, FCC, WT Docket No. 08-7 (filed Dec. 15, 2008) at 3-5, 10 (Public Knowledge Dec. 15, 2008 Ex Parte), see also, Twilio Petition at 1 & n.2. Public Knowledge also contends that “[e]ven if the Commission should find that short codes are somehow a separate service from text messaging, which they are not, - the provisioning of short codes would still be ‘adjunct’ to those text messaging services, and therefore subject to the same Title II regulatory structure.” See Public Knowledge Dec. 15, 2008 Ex Parte at 5. We agree that the provisioning of short codes is a component of wireless messaging service. Whereas wireless messages are typically sent to a recipient’s 10-digit telephone number, short codes are described in the record as “a short string, typically 5 or 6 digits long, that serves as the address of an application to which a mobile subscriber may send a short text message ....” See CTIA Mar. 14, 2008 Comments at 6. Short codes are leased by third parties through the Common Short Code Administration and serve as “mobile marketing address[es].” See CTIA Mar. 14, 2008 Comments at 6, www.usshortcodes.com (last visited Oct. 31, 2018). The fact that the provisioning of short codes is a component of SMS and MMS wireless messaging services, however, does not change our overall analysis of how SMS and MMS wireless messaging services should be classified or lead us to change our determination that they provide information-processing capabilities that fit within the definition of an information service.

85 Public Knowledge et al. Petition at 10-11.


88 47 U.S.C § 3(50).

89 Twilio Petition at 31-33.

receive a text message explaining how to view it. If you send a message to a phone incapable of viewing picture and video messages, the recipient receives a text message with a link to view your message online.” While the specific description of texting services may differ from provider to provider, these examples provide evidence that information-processing capabilities are an integral part of the SMS and MMS wireless messaging services that wireless providers offer to consumers.

30. Moreover, the fact that SMS and MMS wireless messaging services are typically bundled with mobile voice services does not overcome our findings regarding the information service capabilities that these services provide and does not justify their classification as telecommunications services. For example, the fact that fixed broadband Internet access service is often bundled with wireline voice service does not render fixed broadband Internet access service a telecommunications service.

31. We also reject Twilio’s argument that we must classify wireless messaging services as telecommunications services because the Commission has already “held that a text message is a call under a portion of Title II” (i.e., under Section 227 of the Act). We find no inconsistency between our decision here and our actions in the Telephone Consumer Protection Act (TCPA) context, and reject Twilio’s claim that our decision applying the TCPA’s prohibition on placing calls to wireless numbers applies to text as well as voice calls implicitly addressed the regulatory classification of wireless messaging services and requires that they be treated as telecommunications services. To the contrary, the Commission’s decision merely clarified the meaning of the undefined term “call” in order to address the obligations that apply to telemarketers and other callers under the TCPA. That decision neither prohibits us from finding that wireless messaging service is an information service, nor compels us to conclude that messaging is a telecommunications service. Twilio’s argument amounts to an assertion that if any provision in Title II of the Act applies to a service, then that service must be a telecommunications service. But a look at Title II easily belies that claim. For instance, although it is titled “Common Carriers,” Title II applies not only to common carriers or telecommunications carriers, but also to other entities such as electric utilities and equipment manufacturers. Section 224, for example,

92 See infra paras. 37-40 (finding that wireless messaging service is also not the functional equivalent of commercial mobile services).
93 See Restoring Internet Freedom Order, 33 FCC Rcd at 358, para. 80, n. 296.
94 Twilio Petition at 26. Twilio’s reliance on Verizon v. FCC, 740 F.3d 623, 650-59 (D.C. Cir. 2014) for its claim is misplaced. That decision stands for the proposition that the Commission cannot impose Title II regulation on a non-Title II information service. Verizon, 740 F. 3d at 628. It does not stand for the proposition that “if a communication service is regulated as a telecommunications service subject to common carrier obligations in part, it has to be regulated as a Title II common carrier service as a whole,” as Twilio claims. Twilio Petition at 26. We also reject Twilio’s contention that the Enforcement Bureau Consent Decree resolving allegations of unfair billing practices with regard to AT&T’s SMS is determinative of wireless messaging’s regulatory status. Twilio Petition at 28-29. By its own terms, the Consent Decree stipulates that it may not be used as precedent and therefore it has no bearing on our determination in this proceeding of whether SMS/MMS wireless messaging service does or does not meet the definition of information service. AT&T Mobility LLC Unauthorized Third-Party Billing Charges, Order and Consent Decree, 29 FCC Rcd 11803, para. 11 (2014) (“It’s the intent of the Parties that this Consent Decree shall not be used as evidence or precedent in any action or proceeding, except an action to enforce this Consent Decree.”). The Consent Decree also does not contain any analysis of the regulatory status of AT&T’s SMS. In any event, the Commission is not bound by any decision of one of its bureaus. See, e.g., Comcast Corp. v. FCC, 526 F. 3d 763, 769-70 (D.C. Cir. 2008).
95 Twilio Petition at 3, 27-28; see also Public Knowledge, Common Cause and Free Press Nov. 20, 2015 Comments at 11.
96 See CTIA Nov. 20, 2015 Comments at 46-47.
imposes requirements on electric utilities with respect to pole attachments.  Section 255 requires telecommunications equipment manufacturers to provide equipment accessible for persons with disabilities. The TCPA provision itself generally prohibits the use of a facsimile machine to send unsolicited advertisements, but that does not constitute a determination that an individual’s sending of a fax is a telecommunications service, just as the application to an individual’s making “text calls” does not reflect a determination that wireless messaging is a telecommunications service. In any event, for purposes of regulatory treatment, there is a significant difference between being subject to Commission regulation and being subject to per se common carrier regulation. Only the latter requires classification as a telecommunications service. We clarify herein that SMS and MMS wireless messaging are Title I services, and thus, will not be subject to per se common carrier regulation.

32. Having determined that wireless messaging service is an information service, we reject requests that we use ancillary authority to apply common carrier regulation. As discussed in Section III.C below, application of the non-discrimination provisions of Section 202 of the Act or similar non-discrimination mandates under Title I would be contrary to the public interest.

B. SMS and MMS Wireless Messaging Services are Not Commercial Mobile Services

33. We find that SMS and MMS wireless messaging services do not constitute “interconnected services.” Therefore, they do not meet the statutory definition of commercial mobile services, and need not be classified as telecommunications services on that basis. In particular, wireless messaging services do not “give subscribers the capability to communicate to or receive communications from all other users on the public switched network.” Instead, users of SMS and MMS wireless messaging services may only send wireless messages from devices able to message other platforms and to other users with wireless messaging-enabled devices. This leaves out a significant number of

97 47 U.S.C § 224.

98 47 U.S.C. § 255; but see Twilio Dec. 21, 2015 Reply at 17-19 (arguing that Title II obligations apply in those contexts only because the equipment or activities are related to the use of common carrier services).


100 See Verizon, 740 F. 3d 652; Cellco, 700 F.3d at 547.

101 Public Knowledge et al. Petition at iii, 16-18; Public Knowledge, Common Cause and Free Press Mar. 14, 2008 Comments at 6-9; Rebelte Mar. 14, 2008 Comments at 14-16; Rebelte Apr. 14, 2008 Reply at 8-9; American Foundation for the Blind, American Association of the Deaf-Blind, American Council of the Blind, Coalition of Organizations for Accessible Technology and Communication Service for the Deaf (“Consumer Groups”) Apr. 14, 2008 Reply at 7-8 (contending that the Commission should “apply Section 255 protections to text messaging through its ancillary jurisdiction”). We also reject Public Knowledge’s and Rebelte’s argument that the NARUC line of cases requires wireless messaging services to be treated as common carrier services. See, e.g., Public Knowledge, Common Cause and Free Press Mar. 14, 2008 Comments at 3-5, 7; Rebelte Mar. 14, 2008 Comments at 8-9. Because we conclude that wireless messaging services are information services, providers of the service may not be subject to common carrier requirements with respect to their provision of the service and therefore we need not address the applicability of the NARUC test for common carriage. See 47 U.S.C. §153(44).


103 AT&T Nov. 20, 2015 Comments at 6 (emphasis added).

104 AT&T Nov. 20, 2015 Comments at 3-4; AT&T Mar. 14, 2008 Comments at 12-13; CTIA Nov. 20, 2015 Comments at 44; CTIA Mar. 14, 2008 Comments at 31, 42. Service providers also contend that wireless messaging service does not meet the definition of “interconnected” because wireless messages do not travel over the public switched network. See, e.g., CTIA Nov. 20, 2015 Comments at 43-44; AT&T Nov. 20, 2015 Comments at 4.
consumers who continue to use fixed line telephones that generally are not wireless messaging-enabled.\textsuperscript{105} The Commission’s most recent data indicate, for instance, that there were 58 million fixed telephone lines in service as of December 2016.\textsuperscript{106} We agree with commenters that because SMS and MMS wireless messaging services do not provide the ability to reach all of these landline subscribers, they do not meet the definition of interconnected services.\textsuperscript{107}

34. Twilio argues that wireless messaging services nevertheless meet the definition of interconnected services because users have the capability to reach landline phones through the use of apps that allow landline phones to be text-enabled.\textsuperscript{108} We find this argument to be unavailing. First, Twilio’s argument rests on the capabilities of a separate application or service that provides text to landline functionality. As the Commission has found previously, however, the definition of “interconnected service” focuses on the nature of the offered mobile service itself.\textsuperscript{109} We agree with commenters that the fact that users may be able to text landline numbers through the use of a separate application or service does not make SMS and MMS wireless messaging services themselves interconnected services.\textsuperscript{110}

\textsuperscript{105} We acknowledge that the Commission’s 1994 \textit{Second CMRS Report and Order} in adopting a definition of interconnected service indicated that the term would encompass mobile services that used store-and-forward technology, but that alone is not determinative of whether any specific service with such capabilities is “interconnected” for purposes of the definition of commercial mobile service. Our finding with respect to wireless messaging service is that it does not meet the definition of “interconnected” because it does not provide subscribers with the ability to reach all other users of the public switched network. That wireless messaging service uses store-and-forward technology does not overcome that deficiency; indeed, the storage-and-forwarding capabilities support treatment of wireless messaging as an information service. \textit{Implementation of Sections 3(N) and 332 of the Communications Act Regulatory Treatment of Mobile Services}, Second Report and Order, 9 FCC Rcd 1411, 1435, para. 57 (1994) (\textit{Second CMRS Report and Order}).


\textsuperscript{107} See \textit{e.g.}, T-Mobile Apr. 14, 2008 Reply at 17; Sprint Nextel Mar. 14, 2008 Comments at 13.

\textsuperscript{108} Twilio Dec. 21, 2015 Reply at 22. Some services allow businesses to use computer interfaces to message enable their wireline numbers. \textit{See, e.g.}, ZipWhip, Business texting for today’s conversations, \url{https://www.zipwhip.com} (last visited Nov. 20, 2018); AT&T, AT&T Business Messaging, \url{www.business.att.com/products/business-messaging.html} (last visited Nov. 20, 2018) (“AT&T Business Messaging is a group notification and messaging interface that enables enhanced notification and responses features for business messages.”). Certain mobile service providers allow their messaging subscribers to use wireless messaging to send a digitized voice recording to landline numbers. \textit{See, e.g.}, Verizon Wireless, Text to Landline FAQs, \url{https://www.verizonwireless.com/support/text-to-landline-faqs/} (last visited Nov. 20, 2018). Verizon states that its text to landline service lets a subscriber send text messages to a phone that has a fixed wire connection (e.g., a home phone) rather than a mobile phone or tablet. The message is converted from a text message to a voice message. The service is available for use with most White Pages listed phone numbers in the U.S. \textit{See also} Verizon Mar. 14, 2008 Comments at 6. Sprint offers a similar service that will translate a text message into synthesized voice for delivery to a wireline phone. Sprint Mar. 14, 2008 Comments at 11-12. AT&T offers businesses the ability to receive text messages on wireline business phones. \textit{See AT&T Business, AT&T Landline Texting, \url{https://www.business.att.com/products/landline-texting.html} (last visited Nov. 20, 2018).}

\textsuperscript{109} \textit{Wireless Broadband Order, 22 FCC Rcd at 5917-18, paras. 45-46 (finding that wireless broadband Internet access service, itself, was not an interconnected service because users had to rely on a separate service or application, such as VoIP, to be able to communicate to or receive communications from all other users of the public switched network).}

\textsuperscript{110} \textit{See CTIA Nov. 16, 2018 \textit{Ex Parte} Letter at 6 (explaining that “[m]uch like broadband Internet access does not itself offer interconnection to the PSTN absent use of a distinct VoIP application, the availability of a [text-to-landline (TTL)] service does not transform wireless providers’ SMS/MMS messaging services into an ‘interconnected’ service” and also noting that TTL “is a service that is offered and priced separately from wireless providers’ SMS/MMS messaging services”).}
Moreover, even if text-to-landline service were not viewed as a separate service, text-to-landline service does not appear to be supported by all providers, and as a result, not all landline phones are able to send or receive SMS and MMS text messages. In addition, even in cases where text-to-landline service is available, the message sent to a landline number is typically sent as a digitized voice recording, and particularly for MMS messages, does not include any pictures or other media components that are regularly included in messages sent to other mobile devices.

35. That wireless subscribers are capable of receiving text messages from all other users on the public switched network that possess devices capable of transmitting text messages does not change our analysis. MetroPCS, for example, argues that “[i]t is irrelevant whether landline phones are capable of receiving SMS messages from wireless units since the ‘or’ in the definition of ‘interconnected service’ is met as soon as wireless devices have demonstrated capability to receive such messages from landline phones.” This argument is unpersuasive, because regardless of the use of the word “or,” wireless messaging service does not provide users with the ability to receive communications from all users of landline phones. While there are, as described above, some services that provide text-to-landline functionality by translating wireless messages to voicemail, these services do not appear to be available from all providers and, where these services are not available, wireless messaging users are not able to receive wireless messages from landline phones. Furthermore, to the extent that landline phones are capable of sending and receiving wireless messages, the technologies that allow such communications transform wireless messages into a different communications medium and exhibit the characteristics of information services.

36. We also disagree with Twilio’s claim that the Commission has already ruled that wireless messaging service is interconnected with the public switched network. In 2007, the Commission applied automatic roaming obligations to push-to-talk and SMS services based on its determination that doing so would serve the public interest because “consumers expect the same seamless connectivity with respect to these features and capabilities as they travel outside their home network service areas.” While the Commission noted that some SMS services were provided on an interconnected basis, the Commission did not address the question of whether SMS services were interconnected for purposes of

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111 See Public Knowledge et al. Petition at 9 (acknowledging that “landlines do not all have the capability to receive text messages directly”); CTIA Nov. 16, 2018 Ex Parte Letter at 6, n. 9 (“Indeed, not all wireless providers offer TTL services and the vast majority of text messages are not sent using TTL capability. Moreover, some offerings enable TTL capability only to those landline numbers listed in the white pages and not to all landline numbers (e.g., not to medical facilities, emergency operators, unlisted numbers).”).

112 See CTIA Nov. 16, 2018 Ex Parte Letter at 6, n. 10 (“Further, TTL cannot transmit all of the content sent via messaging. For example, a voice message cannot usefully convey a photo or a clickable URL or every emoji, meaning that TTL does not deliver the entirety of the message to a landline phone.”).

113 MetroPCS Apr. 14, 2008 Reply at 4.

114 Id. at 5.

115 See supra paras. 18-23.


addressing the regulatory classification of such services. To the contrary, the Commission specifically declined to address that issue, stating that “nothing in this order should be construed as addressing regulatory classifications of push-to-talk, SMS or other data features/services.” Accordingly, our detailed analysis and conclusion here that messaging does not meet the regulatory definition of “interconnected service” under the Commission’s rules does not conflict with the Commission’s 2007 Roaming Report and Order.

37. Further, we find that SMS and MMS wireless messaging services are not the functional equivalent of commercial mobile services. A mobile service that does not meet the definition of commercial mobile service is presumed to be a private mobile radio service unless the service is determined to be the functional equivalent of commercial mobile service. A variety of factors are evaluated to determine whether the mobile service in question is the functional equivalent of a commercial mobile radio service, including: consumer demand for the service to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service, would prompt customers to change from one service to the other; and market research information identifying the targeted market for the service under review.

38. We see no evidence that SMS and MMS wireless messaging services are closely substitutable with commercial mobile radio services, whether from a technical or practical point of view. Nor have we seen any evidence that a change in the price of SMS and MMS wireless messaging service will cause a change in the price of commercial mobile radio service. The record does not indicate that customers would switch from wireless messaging service to a comparable commercial mobile service due to changes in price or service terms. Moreover, the fact that several providers bundle messaging with voice, on its own, is insufficient to enable us to conduct a demand substitution test to overcome the presumption that wireless messaging is not a commercial mobile service but rather a private mobile service.

39. The technical characteristics and consumer use of wireless messaging service are also

118 2007 Roaming Report and Order, 22 FCC Rcd at 15837, para. 55 (“Provision of these features differs from one carrier to another, i.e., push-to-talk and SMS are interconnected features or services in some instances, but non-interconnected in others, depending on the technology and network configuration chosen by the carriers.”).

119 2007 Roaming Report and Order, 22 FCC Rcd at 15837, para. 54 & n.134.

120 We therefore agree with those commenters who drew the same conclusion. See, e.g., Verizon Mar. 14, 2008 Comments at 37; Sprint Mar. 14, 2008 Comment at 13-14; T-Mobile Mar. 14, 2008 Comment at n.41; AT&T Apr. 14, 2008 Reply at 6-7; CTIA Apr. 14, 2008 Reply at 5-6; CTIA Nov. 20, 2015 Comment at 47; AT&T Nov. 20, 2015 Comment at 6-7.

121 47 CFR § 20.3 (definitions of private mobile service and commercial mobile service); see also CTIA Nov. 16, 2018 Ex Parte Letter at 6-7.

122 47 CFR § 20.3. Twilio’s arguments regarding how there were an equal number of messages to voice minutes in 2014 and how messages are transported for negligible marginal costs have no bearing on this test. See Twilio Petition at 11-12. The Commission no longer uses the alternative version of this test, which was adopted in the Title II Order, and rescinded in the RIF Order. Restoring Internet Freedom Order, 33 FCC Rcd at 334, 360, paras. 72, 83.

123 As Verizon notes, our rules require that in order for a petitioner to overcome the presumption that a service is not CMRS, they must “show that the mobile service is closely substitutable, in the antitrust sense, for commercial mobile service. Twilio makes no effort to make that showing. Nor could it.” Verizon Nov. 20, 2015 Comments at 18. Public Knowledge et al. contend that increased use of messaging, compared to smaller increases in the use of voice minutes, means that messaging is a “replacement” for voice. Public Knowledge et al. Petition at 19-20. That fact alone only shows trends in use for each service and does not prove that one service is being used for another.
distinct from commercial mobile service. Wireless messaging service enables users to exchange messages containing text and multimedia content for viewing immediately or at a later time and conduct Internet searches. Though recipients of SMS and MMS messaging may respond immediately, they are not required to be present at the time the message is sent. In contrast, a commercial mobile service call requires the caller and recipient to be available at the same time for the phone conversation.

40. Marketing materials highlight the distinctions between these two services, suggesting under the last prong of the functional equivalence test that wireless providers target separate markets for commercial mobile service and SMS/MMS. For example, in promoting its business messaging service, AT&T states that consumers “can find calls intrusive.” And as a business wireless messaging firm notes, compared to voice service, wireless messaging is “a more reliable way of communication because it may be stored and read at any moment later, it’s clear and cannot be misunderstood,” but that voice is important in a variety of situations and “never drops off the market.” This market information, in addition to the fact that wireless messaging is typically bundled with voice as a complementary service, indicates that firms recognize that consumers highly value the unique characteristics of each service and do not consider these services as substitutes for each other. Accordingly, under the functional equivalence standard, we find that wireless messaging today is not the functional equivalent of

124 See Twilio Petition at 32 (Twilio acknowledges that customers can use wireless message service to communicate with others when the sender or the receiver is not available for a voice call).

125 Even in those instances when the intended recipient is not able to receive a call, the record indicates that consumers do not view voicemail as an acceptable alternative to SMS/MMS messaging. Consumers, particularly younger users, use messaging instead of voice mail as a preferred data storage technology, and even if consumers used wireless messaging service as a substitute for voice mail, this would be a further indication that wireless messaging service is an information service because voice mail is an information service. See, e.g., Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana, Memorandum Opinion and Order, 13 FCC Rcd 20599, 20780-81, para. 314 (1998). See also CTIA Nov. 20, 2015 Comments at 35-6 (citing Rachel Rood, Please Do Not Leave a Message: Why Millennials Hate Voice Mail, NPR (updated Dec. 4, 2014), https://www.npr.org/sections/alltechconsidered/2014/10/23/358301467/please-do-not-leave-a-message-why-millennials-hate-voice-mail; Teddy Wayne, At the Tone, Leave a What? Millennials Shy Away from Voice Mail, New York Times (June 12, 2014), http://www.nytimes.com/2014/06/15/fashion/millennials-shy-away-from-voice-mail.html?r=0. 65% of JP Morgan Chase employees chose to eliminate voicemail when the firm offered to do so as a cost-cutting measure, and only 6% of Coca-Cola employees decided to keep voicemail when given the same option. Neil Howe, Why Millennials Are Texting More and Talking Less, Forbes.com (July 15, 2015), https://www.forbes.com/sites/neilhowe/2015/07/15/why-millennials-are-texting-more-and-talking-less/#32c613e65975. Millennials in particular prefer messaging to voice. Twilio, Global Mobile Messaging Consumer Report 2016 at 8, https://assets.ctfassets.net/2fcg2lkzwx1t/l4l4jDXMv5KkqiU64akoOW/1b80836a7ed82bb4a654a4dbd16d4e6/Twilio_-_Messaging_Consumer_Survey_Report_FINAL.pdf (noting that millennials prefer to interact with businesses by messaging rather than email or voice).


128 Public Knowledge, Common Cause and Free Press Nov. 20, 2015 Comments at 16; IOC Apr. 14, 2008 Reply Comments at 5; CTIA Dec. 21, 2015 Reply at 22 (the fact that messaging may be bundled with voice and data services does not make messaging CMRS).
commercial mobile service.\textsuperscript{129}

41. Lastly, our conclusion that SMS and MMS wireless messaging services meet the definition of information service also compels us to conclude that they are not commercial mobile services. Consistent with the Commission’s previous findings in the context of mobile broadband Internet access service,\textsuperscript{130} classifying messaging as a commercial mobile service under Section 332 and also as an information service under Section 3 of the Act could lead to “contradictory and absurd results.”\textsuperscript{131} Such an interpretation would create an internal contradiction in the statutory framework because section 332 would require that a service provider be treated as a common carrier with respect to its provision of wireless messaging service,\textsuperscript{132} while Section 3 would prohibit the application of common carrier regulation to the wireless messaging service provider.\textsuperscript{133} Construing the commercial mobile service definition to exclude SMS and MMS wireless messaging services avoids this contradiction and is consistent with the Act’s overall intent to allow information services to develop free from common carrier regulations.\textsuperscript{134}

C. Classifying SMS and MMS Wireless Messaging Services as Information Services is in the Public Interest

42. Our classification of SMS and MMS wireless messaging services as information services is not only fully consistent with the Communications Act, it is also independently supported by public policy considerations. As discussed below, such a classification will empower wireless providers to continue their efforts to protect consumers from unwanted text messages. By contrast, classifying SMS and MMS as Title II telecommunications services would harm those efforts and open the floodgates to unwanted messages—drowning consumers in spam at precisely the moment when their tolerance for such messages is at an all-time low.

43. In the absence of a Commission assertion of Title II regulation, wireless providers have employed effective methods to protect consumers from unwanted messages and thereby make wireless messaging a trusted and reliable form of communication for millions of Americans.\textsuperscript{135} We reject the request of Twilio and other providers of mass-texting services to upend this status quo by classifying


\textsuperscript{130} Restoring Internet Freedom Order, 33 FCC Rcd at 359-60, para. 82; Wireless Broadband Order, 22 FCC Rcd at 5919-21, paras. 48-56

\textsuperscript{131} Restoring Internet Freedom Order, 33 FCC Rcd at 359-60, para. 82. See also ALEC Apr. 14, 2008 Reply at 5; AT&T Nov. 20, 2015 Comments at 2; Verizon Nov. 20, 2015 Comments at 18-19; Verizon Dec. 21, 2015 Reply at 9; Verizon Apr. 14, 2008 Reply at 22.

\textsuperscript{132} 47 U.S.C. § 332(c)(1)(A) (“A person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier for purposes of this chapter . . . .”).

\textsuperscript{133} 47 U.S.C. § 153(47) (the definition of “telecommunications carrier” in Section 3 of the Act states that “[a] telecommunications carrier shall be treated as a common carrier under the Act only to the extent that it is engaged in providing telecommunications service”).

\textsuperscript{134} Stevens Report, 13 FCC Rcd at 11511, para. 21.

\textsuperscript{135} See supra para. 12; CTIA Nov. 16, 2018 Ex Parte Letter 2-3; see also NOBCO Dec. 21, 2015 Reply Comments at 1 (“Filtering helps maintain the level of trust subscribers have in the texting experience . . . .”); Nat’l Assoc. of Neighborhoods Dec. 21, 2015 Reply Comments at 1 (arguing that text messaging is increasingly popular because of its convenience and level of trust); Mobile Future Dec. 21, 2015 Reply Comments at 4-5 (stating that the relatively spam-free nature of wireless messaging makes the service a particularly reliable method of communication); DoSomething Nov. 21, 2015 Comments at 1 (explaining that “one of the reasons text messaging is so valuable in activating our members is because it is relatively spam-free and users trust the medium”).
SMS and MMS as telecommunications services subject to common carriage obligations under Title II. Applying such regulation, or only non-discrimination obligations, to SMS and MMS, either directly or through an exercise of ancillary jurisdiction, would inhibit wireless providers’ ability to continue protecting consumers from unwanted messages. In particular, in the context of voice service, under Title II, the Commission has generally found call blocking by providers to be unlawful, and typically permits it only in specific, well-defined circumstances. The record shows that, as a result, wireless providers would be limited in their efforts to prevent spam and unwanted messages from reaching end users under Title II regulation, and consequently, consumers would be bombarded with unwanted text messages.

44. The record also demonstrates that applying Title II regulation and thereby curbing wireless providers’ ability to use anti-spam and other protections would open SMS and MMS to more spam attacks. Indeed, continuing to empower wireless providers to protect consumers from spam and other unwanted messages is imperative in light of the fact that the growth and popularity of SMS and MMS wireless messaging services have made them an attractive target for bad actors and spammers.

For example, according to Fact Atlas, SMS spam volumes have grown in proportion with overall SMS usage.

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136 See, e.g., State Attorneys General Dec. 21, 2015 Reply at 1 (urging the Commission to “maintain the status quo regarding the protection of text messaging from spam and phising messages. Wireless carriers protect consumers’ messaging through the use of safeguards and filters. This practice is a benefit to consumers and should continue to be permitted”); North Carolina Attorney General Dec. 18, 2015 Reply at 2 (“In summary, any change in FCC regulatory policy that resulted in a large increase in the amount of unwanted text messages to consumers has the potential to lead to increased fraud, unwanted charges on a bill, and slower performance on the consumer’s mobile device.”); South Carolina Attorney General Dec. 21, 2015 Reply Comments at 1 (urging the Commission to strongly consider the impact of any change in regulatory structure on consumers); see also AT&T Nov. 20, 2015 Comments at 2 (arguing that the request to subject messaging to Title II “is in reality a request to dismantle the existing protections for limiting abusive and deceptive text messaging); Citizens Against Government Waste Dec. 21, 2015 Reply Comments at 1 (Title II classification “would severely hamper the ability of wireless carriers to restrict unwanted spam messages to consumers” because “[u]nder the current regulatory structure, wireless carriers have been able to provide protection to consumers from unwanted spam text messages through various filtering technologies”).

137 See, e.g., Advanced Methods to Target and Eliminate Unlawful Robocalls, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 9706, 9709, paras. 8, 9 (2017); Establishing Just and Reasonable Rates for Local Exchange Carriers, Declaratory Ruling and Order, 22 FCC Rcd 11629, 11631, para. 6 n.20 (WCB 2007) (Rates for LECs Declaratory Ruling) (noting that the “Commission has allowed call blocking only under rare and limited circumstances”).

138 See, e.g., CTIA Nov. 16, 2018 Ex Parte Letter at 5 (“[T]reating messaging as a telecommunications services would . . . allow spammers to bring endless challenges to filtering practices under Sections 201 and 202 of the Act, taking away critical flexibility to address evolving threats to consumers. It would jeopardize wireless providers’ actions to filter spam and provide a safe consumer experience for mass messages.”); AT&T Dec. 21, 2015 Reply Comments at 9 (applying Title II and thereby “eliminating all industry protections would invite an exponential increase in the amount of spam attempts, which could threaten the viability of text messaging”); Verizon Dec. 21, 2015 Reply at 1 (“Subjecting any portion of the mobile messaging marketplace to Title II common carriage requirements will harm consumers by limiting what messaging providers can do to stop spam and robotexts.”); ITIF Dec. 21, 2015 Reply Comments at 1 (“[C]ommon carrier status would lead to an increase in unwanted messages, significantly undermining the value of these services to end users.”); FSF Dec. 16, 2015 Reply at 2 (“[I]mposing Title II regulation on messaging services almost certainly would harm consumers by restricting the ability of carriers to combat spam and unwanted messages.”).

139 See, e.g., AT&T Dec. 21, 2015 Reply at 10 (explaining that “spammers would undoubtedly shift their efforts toward text messaging and send billions if not trillions of machine-generated messages per year to consumers”); Verizon Nov. 20, 2015 Comments at 10-13.

140 See CTIA Nov. 20, 2015 Comments at 12.
traffic volumes.\textsuperscript{141} Symantec also explains that “[a]s more users rely on their mobile devices, more spam, scams, and threats are tailored to these devices,” and “SMS and other mobile messaging technologies are readily being used as a means to deliver all kinds of scam campaigns, such as adult content, rogue pharmacy, phishing and banking scams, payday loan spam, fake gifts.”\textsuperscript{142} Additionally, two dozen state attorneys general have expressed concerns about the threat that scams via text messaging pose to consumers or provided state residents with tips on how best to avoid such scams.\textsuperscript{143}

45. For these reasons, state attorneys general and other commenters argue that the Commission should not allow wireless messaging services to become plagued by unwanted messages in the same way that voice service is flooded with unwanted robocalls.\textsuperscript{144} We agree. Last year, Americans received approximately 30 billion robocalls, and for the first five months of 2018,\textsuperscript{145} more than 16 billion robocalls have already been placed.\textsuperscript{146} And the Commission receives over 200,000 complaints about unwanted calls each year—around 60 percent of all of the complaints that the Commission receives from consumers.\textsuperscript{147} Our classification of SMS and MMS as information services will enable wireless providers to continue taking steps to ensure that wireless messaging remains relatively spam-free, and therefore a trusted form of communication for millions of Americans, while a contrary classification would open messaging to many of the same scams and nuisances that plague consumers of voice services today.

46. At the same time, we find no reason to believe that consumers will not receive the messages they do want as a result of this Declaratory Ruling.\textsuperscript{148} First, wireless providers have every


\textsuperscript{143} See, e.g., N.Y. Att’y Gen., Stop Mobile Spam: Protect Your Mobile Phone from Unwanted Text Message (SMS) Spam, \url{http://www.ag.ny.gov/internet/stop-mobile-spam} (last visited Nov. 20, 2018); CTIA Nov. 20, 2015 Comments n.47 (citing consumer alerts from state attorneys general across the country).

\textsuperscript{144} See, e.g., Idaho Attorney General Dec. 21, 2015 Reply Comments at 1; Arizona Attorney General Dec. 21, 2015 Reply Comments at 1; North Carolina Attorney General Dec. 21, 2015 Reply Comments at 2; Verizon Nov. 20, 2015 Comments at 1.

\textsuperscript{145} Herb Weisbaum, It’s not just you – Americans received 30 billion robocalls last year (Jan. 17, 2018), \url{https://www.nbcnews.com/business/consumer/it-s-not-just-you-americans-received-30-billion-robocalls-n838406}.

\textsuperscript{146} Megan Leonhardt, Americans received over 16 billion robocalls so far this year—here’s how to stop them (June 6, 2018), \url{https://www.cnbc.com/2018/06/06/americans-got-16-billion-robocalls-this-year-heres-how-to-stop-them.html}. Given that unwanted robocalls continue to afflict consumers despite the TCPA and measures to enforce it, we disagree with commenters who assert that the TCPA and CAN-SPAM Act are sufficient on their own to protect consumers from unwanted messages. See, e.g., Twilio Petition at 24-25. As Verizon explains, notwithstanding the TCPA, millions of spam messages reach its network each month. Verizon Nov. 20, 2015 Comments at 11-12. Further, we note that nothing in this Declaratory Ruling affects the current status of text messages as “calls” for purposes of the TCPA. Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, Report and Order, 18 FCC Rcd 14014, 14115, para. 165 (2003).


\textsuperscript{148} Some parties claim that wireless providers are unlawfully blocking SMS and MMS wireless messages. See Twilio Petition at 7-9; Public Knowledge \textit{et al.} Petition at 3-6. Other commenters do not actually claim that their messages have been blocked in the past, provide only vague estimates (or no estimate at all) of how many messages have been blocked, or are simply speculating about the probable effects of SMS and MMS wireless message blocking on their businesses. See Polaris Nov. 20, 2015 Comments at 1; Trek Medics Nov. 18, 2015 Comments at 1; CareMessage Nov. 17, 2015 Comments at 1; Zillow Nov. 20, 2015 Comments at 1-2; IFTTT Nov. 20, 2015 (continued…)
incentive to ensure the delivery of messages that consumers want to receive in order to guarantee the integrity of this essential service and to retain consumer loyalty. Consumers have a wealth of options for wireless messaging service; if wireless providers do not ensure that messages consumers want are delivered, they risk losing those customers to other wireless providers or to over-the-top applications. In the occasional event that such measures have been found to block messages that may be wanted, wireless providers have responded quickly. Some parties asserted in their 2015 comments that blocking practices were opaque, but industry has responded to calls for more transparency so that consumers or businesses can detect or appeal the blocking. For instance, the CTIA Messaging Principles state that wireless providers that implement blocking should offer an appropriate unblocking process, and

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Comments at 1-3; ShowingTime Nov. 5, 2015 Comments at 2. In one instance, AT&T temporarily blocked wireless messaging traffic from a spammer using CallFire’s wireless messaging service, but it continued service once the spamming issue was resolved. CallFire Nov. 20, 2015 Comments at 1-2 (claiming that wireless providers have blocked all messages from its short code); see also AT&T Dec. 21, 2015 Reply at 10-11 (explaining that CallFire’s messages were blocked because they were sent by a spammer client and that the suspension of the short code was only temporary).

149 CTIA Dec. 21, 2018 Reply at 2 (“Wireless providers have every reason and incentive to continue to ensure that mobile messaging remains a highly valued offering and continues to provide consumers with tangible and growing benefits.”).

150 See, e.g., Mobile Future Dec. 21, 2015 Reply at 2-3 (explaining that the growth of various over-the-top options, including Apple’s iMessage, WhatsApp, Facebook Messenger, GroupMe, Skype, and Snapchat, demonstrates that “[t]he mobile messaging market is incredibly competitive and dynamic”); FSF Dec. 16, 2016 Reply at 1-2 (stating that the market for wireless messaging service is competitive, since consumers can choose between wireless providers and also IP-based edge providers); Verizon Nov. 20, 2015 Comments at 1 (“Users send tens of billions of messages daily, switching among their wireless providers’ messaging services and the many popular applications — such as WhatsApp, Snapchat, Facebook Messenger, and Skype — that provide messaging ‘over-the-top’ of mobile broadband Internet access service.”); Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, Twentieth Report, 32 FCC Rcd 8968, 9037, para. 93 (WTB 2017) (finding “there is effective competition in the marketplace for mobile wireless services”).

151 Verizon, for example, corrected course when its blocking practices were called into question in the NARAL example that Twilio and Public Knowledge et al. mention in their respective petitions. See Verizon Mar. 14, 2008 Comments at 20-21; U.S. Chamber of Commerce Mar. 14, 2008 Comments at 4 (explaining that the NARAL incident was a case of the market working even without FCC intervention). When AT&T suspended CallFire’s short code, it was “only for a very brief amount of time” while “AT&T and the third-party aggregator investigated the source of the problem and the methods the malicious spammer was using to gain improper access to CallFire’s short code.” AT&T Dec. 21, 2015 Reply at 10-11; see IPI Apr. 14, 2008 Reply (contending that “the complaints that have been leveled in the [Public Knowledge et al.] petition . . . will likely to be resolved by the market place”). More recently, where “consumer protection measures impact legitimate messaging traffic, wireless providers have taken steps to adjust and calibrate filters in real-time by utilizing global data from multiple sources and implementing rule-based decision-making, machine learning and artificial intelligence.” CTIA Nov. 16, 2018 Ex Parte Letter at 4.

152 Twilio indicated in its petition that blocking “often occurs without any warning to the subscriber and with no explanation as to how the content is in any way objectionable.” Twilio Petition at 8; see Telephone Science Corp. Dec. 21, 2015 Comment at 2-3 (calling for more transparency on the systems and criteria employed by wireless providers when blocking messages so that consumers and business could detect or appeal the blocking); CallFire Nov. 20, 2015 Comments at 3 (arguing that it cannot invest in the future of messaging services when its service can be shut down with no notice); Peach Labs Nov. 20, 2015 Comments at 1 (arguing that there is “no feedback loop” that states that its messages have been blocked or why they have been blocked); Showing Time Nov. 20, 2015 Comments at 2 (stating that “there is no notification to the sender or recipient that the message did not go through”); Vonage Dec. 21, 2015 Reply at 3 (stating that it has had a message service shutdown without advance warning or an opportunity to correct).
that “suspension of service should last only as long as reasonably necessary to identify and correct the problem.”

47. Some commenters assert that under Title I, providers of SMS and MMS wireless messaging services might act anticompetitively, blocking messages in order to protect their services against competitors. But this concern is not borne out in the marketplace; the Commission has not imposed Title II or other non-discrimination obligations, and yet under current industry practices, competing services are thriving. According to Mobile Future, other offerings have long ago surpassed SMS and MMS messaging services in terms of volume of messages sent, with global consumers now sending 50% more messages per day on WhatsApp alone. In any event, in cases in which wireless providers are alleged to be perpetrating unfair or deceptive acts or practices, the U.S. Federal Trade Commission has broad authority to police such conduct and protect consumers. Similarly, if wireless providers act in an anticompetitive manner, their actions can be challenged under the general antitrust laws.

48. Commenters make a number of other policy arguments for classifying wireless messaging as a Title II service, none of which we find persuasive. We find such classification

153 CTIA Messaging Principles at 15, 16.


155 See ACI Nov. 18, 2015 Comments (noting that “[m]essaging is a highly competitive market and consumers routinely utilize several forms of messaging [and that] messaging can come in many forms”); CTIA Nov. 16, 2018 Ex Parte Letter at 1-2 (noting that, in 2018, messages sent through over-the-top applications were almost triple the volume of SMS traffic). Even Twilio’s petition states that the messaging ecosystem has been blossoming and has spurred the development of thousands of new companies and business models. Twilio Petition at 5-6. Rebtel contends that there is insufficient competition to prevent discriminatory conduct and foster innovation, and that wireless providers’ blocking practices harm its business. Rebtel Mar. 14, 2008 Comments at 17-18. As recently as 2017, however, Rebtel reported a revenue of $95 million. A Swedish Upstart Takes On WhatsApp, Reaching $95M In Revenue (Dec. 16, 2017), https://www.forbes.com/sites/elizabethmacbride/2017/12/26/a-swedish-upstart-takes-on-whatsapp-reaching-95m-in-revenue/#2e24cd225ab.

156 Mobile Future Dec. 21, 2015 Reply at 2-3; see also FSF Dec. 16, 2016 Reply at 1-2 (stating that the market for wireless messaging service is competitive, since consumers can choose between wireless providers and also IP-based edge providers). The record also reflects that, as of 2012, OTT applications handled 19 billion messages daily, compared to 17.6 billion messages handled by wireless providers daily. Verizon Nov. 20, 2015 Comments at 4 (citing Chat app messaging overtakes SMS texts, Informa says, BBC News (Apr. 29, 2013), http://www.bbc.com/news/business-22334338).


158 Specifically, we note that Sections 1 and 2 of the Sherman Act, as well as Section 5 of the FTC Act, protect competition in all sectors of the economy where the antitrust agencies have jurisdiction. See 15 U.S.C. §§ 1-2, 45. Some commenters contend that wireless providers have a terminating monopoly with respect to SMS and MMS wireless messaging services, which should therefore be regulated under Title II. See Public Knowledge et al. Apr. 14, 2008 Reply at 13. As discussed above, the record indicates that there are several competitive options for SMS and MMS wireless messaging services. To the extent a party raises issues with respect to anticompetitive conduct, the antitrust laws are the more appropriate vehicle to address such claims as compared with burdensome Title II regulation.
unnecessary to protect individuals with disabilities,\textsuperscript{159} enforce the First Amendment,\textsuperscript{160} protect public safety and health,\textsuperscript{161} or foster innovation.\textsuperscript{162}

49. Beyond empowering wireless providers to continue protecting consumers from unwanted text messages, our classification decision today promotes innovation and investment by removing the regulatory uncertainty caused by the threat of Title II classification of SMS and MMS wireless messaging services. The Commission has recognized that “regulatory burdens and uncertainty, such as those inherent in Title II, can deter investment by regulated entities.”\textsuperscript{163} Even the threat of Title II regulation

\textsuperscript{159} Consumer groups argue that SMS and MMS wireless messaging services should be classified as a Title II service so that mobile phone providers would be required to make their systems accessible to people with disabilities. Consumer Groups Apr. 14, 2008 Reply at 2. However, the Commission’s authority to impose accessibility requirements to SMS and MMS wireless messaging services is not dependent on the service being classified under Title II. In fact, the Commission has previously identified SMS text messaging (along with e-mail and other similar services) as an “electronic messaging service”—a type of “advanced communications service”—that is subject to part 14 of the Commission’s rules, which govern access to advanced communications services and equipment by people with disabilities. See 47 CFR pt. 14; \textit{Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010, Report and Order and Further Notice of Proposed Rulemaking}, 26 FCC Rcd 14557, 14564, para. 13 (2011) (concluding that “entities that make or produce end user equipment, including tablets, laptops, and smartphones [are] responsible for the accessibility of the hardware and manufacturer-provided software used for e-mail, SMS text messaging, and other ACS”). We reiterate here that this Declaratory Ruling excludes RTT. \textit{See supra} para. 12 & n.28.

\textsuperscript{160} Public Knowledge and others argue that measures wireless providers take to prevent spam constitute content-based discrimination of speech and, as such, violate the First Amendment rights of consumers and organizations. \textit{See}, e.g., Public Knowledge \textit{et al.} Petition at 19-21. The First Amendment, however, applies to governmental action, not to private business decisions, and no party in this proceeding has suggested that the measures taken by wireless providers to protect consumers from unwanted messages constitute governmental action. \textit{See Rendell-Baker v. Kohn}, 457 U.S. 830, 837 (1982) (“[I]t is fundamental that the First Amendment prohibits governmental infringement on the right of free speech.”); \textit{Roberts v. AT&T Mobility LLC}, 877 F.3d 833, 837 (9th Cir. 2017) (explaining that a threshold requirement of a First Amendment infringement claim is the presence of state action), \textit{cert. denied}, 138 S. Ct. 2653 (2018); \textit{Info. Providers’ Coal. for Def. of the First Amendment v. FCC}, 928 F.2d 866, 877 (9th Cir. 1991) (explaining that the First Amendment prohibition against “prior restraint” does not apply to private companies that are “not state actors” under the circumstances).

\textsuperscript{161} Twilio and commenters supporting its petition state that filtering and blocking could have detrimental effects to public safety and health. Twilio Reply at 4-6; Trek Medics Nov. 18, 2015 Comments at 1; CareMessage Nov. 17, 2015 Comments at 1. However, as discussed, commenters asserting this argument do not claim that their messages have actually been blocked. \textit{See supra} note 148. Remind101, which provides a communication tool that helps teachers communicate with students and parents, asserts that an effective blocking rate of 100% happens for “some types of correspondence,” without explaining the types of messages that are blocked. Remind101 Nov. 20, 2015 Comments at 1-2. \textit{See also} CTIA Nov. 16, 2018 \textit{Ex Parte} Letter at 4 (noting that wireless providers are constantly working to develop innovative tools and technologies “to delineate legitimate and unwanted messaging traffic,” including real-time calibration of filters and partnership with message senders to whitelist traffic sent from verified senders).

\textsuperscript{162} \textit{See}, e.g., ClearCare Nov. 9, 2015 Comments at 2; IFTTT Nov. 20, 2015 Comments at 3; Zillow Nov. 20, 2015 Comments at 2. We do not believe Title II classification of these messaging services would promote innovation; to the contrary, common-carrier regulation inhibits that goal. \textit{See infra} para. 49. Indeed, the robust development of messaging services generally—such as wholly-unregulated services like Facebook’s WhatsApp—demonstrates that light-touch regulation is better calibrated to the needs of innovators in a dynamic marketplace. \textit{See, e.g.}, CTIA Nov. 16, 2018 \textit{Ex Parte} Letter at 2 (highlighting that the volume of messages sent through over-the-top applications was almost triple the volume of SMS traffic in 2018).

\textsuperscript{163} \textit{Restoring Internet Freedom Order}, 33 FCC Rcd at 364, para. 88; \textit{see Cable Modem Declaratory Ruling}, 17 FCC Rcd at 4802, para. 5; \textit{Wireline Broadband Order}, 20 FCC Rcd at 14865, para. 19, \textit{aff’d}, \textit{Time Warner Telecom, Inc.} (continued…)}
can have significant deleterious effects on investment.\(^{164}\) In contrast, regulatory certainty and a “minimal regulatory environment . . . promote[] investment and innovation in a competitive market.”\(^{165}\) Our classification decision today not only avoids the potential pitfalls of a Title II regime, it is also a recognition that utility-style regulation is not suitable for dynamic technological industries, such as SMS and MMS wireless messaging services, that constantly undergo major developments, because such regulation inherently restricts the activities in which the regulated industry can engage.\(^{166}\)

50. Additionally, we note that our finding that SMS and MMS wireless messaging services are information services does not affect the general applicability of the spectrum allocation and licensing provisions of Title III and the Commission’s rules to this service.\(^{167}\) These provisions and rules continue to apply because the service is using radio spectrum. Title III empowers the Commission to prescribe the nature of the service to be rendered and to make such rules and regulations and prescribe such restrictions and conditions as may be necessary to carry out the provisions of the Act.\(^{168}\) Application of provisions governing access to and use of spectrum (and their corresponding Commission rules) is not affected by whether the service using the spectrum is classified as a telecommunications or information service under the Act. Further, nothing in this Declaratory Ruling should be construed as modifying any spectrum use authorizations and service rule obligations arising out of license conditions or rules governing unlicensed use of the spectrum.

51. Finally, we also note that nothing in this Declaratory Ruling impacts the Commission’s ability to maintain and update its text-to-911 rules.\(^{169}\) The Commission has previously found that

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\(^{164}\) See George S. Ford, Net Neutrality, Reclassification and Investment: A Counterfactual Analysis, Phoenix Center Perspectives 2 (Apr. 25, 2017), http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf (discussing how the threat of Title II regulation discouraged ISP investment and explaining that the 2010 announcement of a framework for reclassifying broadband under Title II was associated with a $30 billion-$40 billion annual decline in investment in the U.S. Bureau of Economic Analysis’ “broadcasting and telecommunications” category between 2011 and 2015).

\(^{165}\) See Cable Modem Order, 17 FCC Rcd at 4802, para. 5 (quoting Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Universal Service Obligations of Broadband Providers, CC Docket No. 02-33, Notice of Proposed Rulemaking, 17 FCC Rcd 3019, 3022 para. 5 (2002)).

\(^{166}\) See Restoring Internet Freedom Order, 33 FCC Rcd at 369, para. 100.

\(^{167}\) Some commenters contend that, instead of pursuing Title II classification, the Commission should use its existing authority over wireless providers and SMS and MMS wireless messaging services—including its Title III authority—to provide incentives to the industry to resolve the problems identified by Public Knowledge and Twilio and to adopt a dispute resolution process to address interconnection and traffic exchange issues between messaging service providers. VON Coalition Nov. 20, 2015 Comments at 5-9; Vonage Dec. 21, 2015 Reply at 1, 4-6. While we generally agree that the Commission retains its Title III authority over messaging, we decline at this time to adopt any specific measures under Title III to regulate messaging.

\(^{168}\) 47 U.S.C. § 303(f).

\(^{169}\) See 47 C.F.R. § 20.18(q). Relatedly, this Declaratory Ruling will ensure that consumers will continue using SMS and MMS wireless messaging services, which, as NENA emphasized in its comments, are an important platform for Text-to-911 services. NENA Dec. 21, 2015 Reply at 1. Research proffered in the record shows “that spam exposure leads to significantly lower user engagement, both statistically and in economic terms,” and “[c]onsumers read fewer messages and check messages less frequently when spam levels increase.” Fact Atlas, Choice and Innovation: Safeguarding the SMS Marketplace 5. Thus, our classification decision, which confirms the ability of wireless providers to protect consumers from spam, is further supported by important public safety considerations.
Sections 301, 303, 307, 309 and 316 support its authority in this context, and they continue to do so. 170 The Commission has also relied on the Twenty-First Century Communications and Video Accessibility Act (CVAA) to provide authority in this area, as well as its authority to protect the safety of life and property by safeguarding the public’s ability to access 911 services. 171 More recently, Congress specifically directed the Commission to consider improvements to 911 across multiple technological platforms when it enacted Kari’s Law Act of 2017172 and Section 506 of RAY BAUM’S Act.173 Similarly, the Commission’s authority regarding wireless emergency alerts (WEAs) remains unchanged by this Declaratory Ruling.174

IV. ORDERING CLAUSES

52. Accordingly, IT IS ORDERED, that pursuant to Sections 1-4, and 303, of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-54, and 303, and Section 1.2 of the Commission’s rules, 47 C.F.R. § 1.2, the Declaratory Ruling IS ADOPTED.

53. IT IS FURTHER ORDERED, pursuant to Sections 1-4, and 303, of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-54, and 303, and Section 1.2 of the Commission’s rules, 47 C.F.R. § 1.2, that the Petition for Declaratory Ruling filed by Public Knowledge et. al. in WT Docket No. 08-7 on December 11, 2007, IS DENIED.

54. IT IS FURTHER ORDERED, pursuant to Sections 1-4, and 303, of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-54, and 303, and Section 1.2 of the Commission’s rules, 47 C.F.R. § 1.2, that the Petition for Expedited Declaratory Ruling filed by Twilio Inc. in WT Docket No. 08-7 on August 26, 2015, IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary


174 See Warning, Alert and Response Network (WARN) Act, Title VI of the Security and Accountability For Every Port Act of 2006, 120 Stat. 1884, codified at 47 USC § 1200, et seq. (2006) (WARN Act). Further, although WEAs are text-based, they are functionally distinct from SMS, instant messaging, or other point-to-point texting. Unlike these other text services, WEA texts are sui generis, non-commercial, point-to-multipoint alerts initiated by authorized government entities and delivered to wireless handsets over the Federal Emergency Management Agency’s Integrated Public Alert and Warning System (IPAWS) for the sole purpose of warning the public of danger to their lives and property. Under the Commission’s rules, CMRS providers may voluntarily elect to transmit alert messages in accordance with our WEA rules. See generally 47 CFR § 10.