

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

|  |   |                     |
|--|---|---------------------|
| In the Matter of   | ) |                     |
|  | ) |                     |
| Advanced Methods to Target and Eliminate<br>Unlawful Robocalls   | ) | CG Docket No. 17-59 |
|  | ) |                     |
| Petition for Reconsideration and<br>Request for Clarification of USTelecom-<br>The Broadband Association | ) |                     |

**INCOMPAS AND THE CLOUD COMMUNICATIONS ALLIANCE JOINT  
OPPOSITION AND COMMENT TO THE PETITION FOR RECONSIDERATION AND  
REQUEST FOR CLARIFICATION OF USTELECOM – THE BROADBAND  
ASSOCIATION**

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ASSOCIATION**

INCOMPAS and the Cloud Communications Alliance (“CCA”) jointly submit this opposition and comment to the Petition for Reconsideration and Request for Clarification (“Petition”) filed by USTelecom-The Broadband Association (“USTelecom”) in the above captioned proceeding.<sup>1</sup> The Petition addresses the requirement adopted by the Federal Communications Commission (“Commission”) in the *Fourth Report and Order* that voice service providers notify callers when they or their third-party analytics partner block calls.<sup>2</sup>

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<sup>1</sup> Petition for Reconsideration and Request for Clarification of USTelecom – The Broadband Association, filed in CG Docket No. 17-59, May 6, 2021 (“Petition”). *See also*, Public Notice, Petition for Reconsideration of Action in Proceedings, Rept. No. 3173 (rel. May 11, 2021).

<sup>2</sup> *Advanced Methods to Target and Eliminate Unlawful Robocalls*, Fourth Report and Order, 35 FCC Rcd 15221 (2020) (“*Fourth Report and Order*”).

## I. INTRODUCTION AND SUMMARY

INCOMPAS and CCA appreciate USTelecom's recognition of the vital importance that notification will play in the developing telecommunications ecosystem that emphasizes call blocking in the fight against illicit robocalls. The Commission adopted a real-time notification requirement as part of its implementation of Section 10(b) of the TRACED Act, which requires that callers and consumers have transparent and effective redress when legitimate calls are blocked.<sup>3</sup> The requirement that voice service providers that block calls provide immediate notification complements and renders effective previous redress mechanisms adopted by the Commission.<sup>4</sup> As the Commission recognized, notification enables callers to trigger those redress mechanisms, facilitates faster resolution of disputes, and informs callers seeking to communicate important information that they should try alternative methods to reach the consumer.<sup>5</sup> The Commission highlighted the importance of redress mechanisms by requiring that they be implemented as a condition of receiving safe harbor protections for blocking, including the notification requirements adopted in the *Fourth Report and Order*.<sup>6</sup>

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<sup>3</sup> *Fourth Report and Order*, 35 FCC Rcd at 15238, ¶ 48 (citing TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)). The notification requirement also implements section 4(c) of the TRACED Act, which directs the Commission to establish a process for callers adversely affected by caller ID authentication information to verify the authenticity of their calls. *Id.* (citing TRACED Act § 4(c)(1)(C) (codified at 47 U.S.C. § 227b(c)(1)(C)).

<sup>4</sup> The *Third Report and Order* requires blocking providers to publish a single point of contact on their websites and to resolve blocking disputes within a reasonable period of time. *Advanced Methods to Target and Eliminate Unlawful Robocalls*, Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking, FCC Rcd 7614, 7633-34, ¶¶ 54-55 (2020) ("*Third Report and Order*").

<sup>5</sup> See *Fourth Report and Order*, 35 FCC Rcd at 15239, ¶ 53.

<sup>6</sup> *Third Report and Order*, 35 FCC Rcd at 7635, ¶ 55; 47 C.F.R. §§ 64.1200(k)(8), (9), (11)(vii).

The Commission required blocking providers to use SIP Codes 607 or 608 and, for calls blocked on TDM networks, providers should use the long-established ISUP Code 21, which signifies that the call has been rejected. The Commission adopted these specific codes after careful consideration of the record. As the Commission noted, these codes are specifically to be used in the context of call blocking, either undertaken at the request of the called party or through an intermediary like an analytics engine. The Commission adopted SIP and ISUP codes because they “are in standard use throughout the network” and “are the best solution for immediate notification at this time.”<sup>7</sup> It rejected many of the same arguments that USTelecom recycles in its Petition, for example that specifying a response code will tip off bad actors.<sup>8</sup> Finally, recognizing voice service providers were already facing burdens in implementing STIR/SHAKEN, the Commission provided one year for voice service providers to make necessary software modifications to their networks.<sup>9</sup>

Notwithstanding the Commission’s careful consideration of the record and review of the Internet Engineering Task Force (“IETF”) documentation describing the SIP codes and related specifications, USTelecom argues that the Commission moved too quickly, imposing standards that are not finalized nor fully vetted. It asks instead that providers be given flexibility in determining how to notify callers but fails to provide any detailed information of what those notifications might entail or whether such notifications themselves have been formalized and vetted by industry standard bodies. The Commission, in requiring use of the SIP and ISUP codes recognized the importance of uniformity and standardization in this process and, for the reasons

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<sup>7</sup> *Fourth Report and Order*, 35 FCC Rcd at 15242, ¶ 60.

<sup>8</sup> *Id.* at 15239-40, ¶ 54.

<sup>9</sup> *Id.* at 15242, ¶ 61.

set forth below, should reject calls for their replacement with unspecified forms of flexibility.

The Commission should in no event extend the January 2022 deadline for notification. If the Commission concludes more time is needed to finalize these codes, it should require blocking entities to use an available form of notification pending finalization of any implementation standard for the SIP Codes. Alternatively, the Commission should deny access to the expanded safe harbor for network based blocking without customer input established in the *Fourth Report and Order* until the blocking entity provides notification using the SIP Codes or an alternative methods designated by the Commission.<sup>10</sup>

The Petition also seeks to restrict the scope of the notification requirement. All agree that notification is needed for analytics based blocking.<sup>11</sup> The Petition's request that notification not be required for calls using unassigned numbers or in the context of TDoS attacks is reasonable clarification. The Commission, however, should continue to require notification under the circumstances contemplated for use of the SIP Code 607, which is specifically designed to address subscribers' rejection of the calls as unwanted. Notification that a called party does not want to receive the call provides valuable information to callers and informs decisions by analytics engines. Finally, the Petition reasonably seeks clarification of the responsibilities of originating voice service providers and their enterprise customers regarding treatment of notifications.

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<sup>10</sup> *Id.* at 15235, n. 98 (requiring as a condition of the blocking and safe harbor that “voice service providers comply with redress mechanisms” previously adopted as well as the “transparency and redress requirements we adopt in this *Order*”); 47 C.F.R 64.000(k)(11)(vii).

<sup>11</sup> Petition at 10.

## **II. THE COMMISSION SHOULD CONTINUE TO REQUIRE USE OF THE SIP AND ISUP CODES AND PRESS INDUSTRY TO FINALIZE IMPLEMENTATION STANDARDS**

The Commission did not err in requiring use of these response codes. The SIP response codes, authored by former Commission chief technology officers, are designed to assist consumers and callers, and their voice service providers, navigate a world of expansive blocking to battle proliferating illicit or unwanted robocalls.<sup>12</sup> Both SIP specifications were approved and published as IETF standards track documents reflecting a consensus of the IETF community. Both underwent public review and were approved for publication by the Internet Engineering Steering Group (“IESG”). SIP Code 607 was authored by former Commission CTO Henning Schulzrinne, an inductee into the Internet Hall of Fame, and published in July 2017. It allows called parties to express that the call or message is unwanted, which informs the caller that it should not try calling again and provides subscriber input that can be used by analytics engines to determine whether to block calls from specific calling numbers.<sup>13</sup> The 608 SIP response code was co-authored by Eric Burger, who, after serving as the Commission’s CTO, served as assistant director for telecommunications and cybersecurity in the White House Office of Science and Technology. It was approved by the IESG in December 2019. It is specifically

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<sup>12</sup> Internet Engineering Task Force, RFC 8197, *A SIP Code for Unwanted Calls* (July 2017), <https://tools.ietf.org/html/rfc8197> (*SIP Code 607 Specification*); Internet Engineering Task Force, RFC 8688, *A Session Initiation Protocol (SIP) Response Code for Rejected Calls* (Dec. 2019), <https://tools.ietf.org/html/rfc8688> (*SIP Code 608 Specification*).

<sup>13</sup> *SIP Code 607 Specification* at 2. See also, *SIP Code 608 Specification* at 4-5 (noting that “[I]n the current call handling ecosystem, users can explicitly reject a call or later mark a call as being unwanted by issuing a 607 SIP response code” that can inform analytics engines that the entity placing the calls may be a source of unwanted calls and a legitimate caller will learn that the called party is not interested in receiving its calls.)

designed to inform callers that their call has been blocked by an intermediary such as an analytics engine and “addresses [the] need for remediating falsely blocked calls.”<sup>14</sup>

**A. The Commission Should Continue to Require the Use of the SIP and ISUP Codes**

None of the Petition’s arguments warrant reversal of the Commission’s decision to require use of these codes. The Petition claims the “standard” (it is unclear whether the Petition refers to both SIP Codes) is unfinished and has yet to be vetted and approved by the IP-NNI.<sup>15</sup> During consideration of the *Fourth Report and Order*, the Commission was informed that development work for the SIP codes was “well underway.”<sup>16</sup> The Petition notes that the IP-NNI is working on a proposal to “provide the calling community notification as they have requested, but in a manner that can actually be implemented by providers.”<sup>17</sup> It thus appears that a “finalized” and implementable standard is forthcoming. Unfortunately, the Petition provides no further information regarding the nature of this proposal. At any rate, the concern that the “standard” is not finalized may soon be mooted.

The Petition overall suffers from excessive vagueness. To horribly mix metaphors, the Petition urges the Commission to exchange a bird in the hand for a pig in a poke. The Petition urges the Commission to allow blocking providers flexibility in giving “effective notice –

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<sup>14</sup> *SIP Code 608 Specification* at 4. More specifically, the code “informs the SIP User Agent Client that an intermediary blocked the call and provides a redress mechanism that allows the caller to contact the operator of the intermediary.” *Id.*

<sup>15</sup> Petition at 3.

<sup>16</sup> Reply Comments of Lumen Technologies, *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, at 5 (filed Sept. 29, 2020).

<sup>17</sup> Petition at 6.

whether through an industry standardized return code, an intercept announcement, or notification mechanism later deemed sufficient.”<sup>18</sup> But this sort of open-ended “flexibility” is exactly what the Commission sought to avoid by prescribing standardized uniform notifications.<sup>19</sup> Callers and the originating service providers that service them should not be expected to modify their systems to receive multiple forms of notification that each blocking entity separately decides best satisfies effective notice.

The Petition also provides insufficient detail regarding implementation of these codes, other than generally expressing concerns regarding interoperability between IP and TDM networks and the SIP Code 608’s use of standardized “jCards.” The Commission adequately addressed the interoperability concern in the *Fourth Report and Order*. That is why it chose to use ISUP Code 21, which is an already established TDM response code that has been mapped to SIP codes using the IETF’s SIP to TDM mapping specification published in 2002.<sup>20</sup> The Commission recognized that the mapping between the specific new 607 and 608 response codes had not been completed and thus provided flexibility to use the existing mapping specification between SIP Code 603 and ISUP Code 21. SIP Code 603 signifies the called party declined the call, but not that the call was necessarily unwanted or blocked. Nevertheless, a caller receiving either ISUP Code 21 or the SIP 603 response code can reasonably assume that the call has been

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<sup>18</sup> *Id.* at 9.

<sup>19</sup> *Fourth Report and Order*, 35 FCC Rcd at 15242, ¶ 58 (“By establishing requirements for specific SIP and ISUP codes, we ensure, to the extent possible, that callers receive uniform responses.”).

<sup>20</sup> *Id.* at 15240, n. 133 (citing Internet Engineering Task Force, *Integrated Service Digital Network (ISDN) User Part (ISUP) to Session Initiation Protocol (SIP) Mapping* (Dec. 2002), <https://tools.ietf.org/html/rfc3398> (*ISUP and SIP Code Mapping Specification*)).

rejected or blocked and take appropriate investigative action.<sup>21</sup> The Petition fails to explain why the flexibility the Commission provided in terms of SIP and TDM mapping is insufficient to address its interoperability concerns.<sup>22</sup>

The second concern raised in the petition is the SIP Code 608's use of the "jCard" to provide contact information in the form of a telephone number, or web address, to contact the blocking entity. The Petition claims the *Fourth Report and Order* did not expressly refer to this feature of the SIP Code. There was no reason for the Commission to do so, however, because the jCard is an integral feature of the 608 response code.<sup>23</sup> A jCard is similar to a virtual business card or "vCard" that is routinely sent as an attachment to emails when sharing contact information. In the context of this SIP code, the jCard provides information on how to contact the entity blocking the calls, which is referred to as the "redress address."<sup>24</sup> A blocking entity

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<sup>21</sup> As stated in *Fourth Report and Order*:

"IETF documentation currently recommends that ISUP code 21 be mapped to either SIP code 403 "Forbidden" or, where the cause location is "user," SIP code 603 "Decline." *ISUP and SIP Code Mapping Specification*. It is unlikely that SIP code 403 will be used where 607 or 608 is appropriate. We recognize, however, that, because the distinguishing factor is the causelocation, it may be impossible for voice service providers to determine whether 603, 607, or 608 is the appropriate code when receiving cause code 21 with a cause location of "user." *For purposes of satisfying the rules we adopt today, we permit a voice service provider to use any of these codes it deems appropriate*. Because the IETF recommends code 603, we encourage voice service providers to continue using this approach unless they have clear knowledge that 607 or 608 is the more appropriate code. As a result, when ISUP code 21 or SIP code 603 is returned, callers should investigate as they would if SIP code 607 or 608 were indicated." (emphasis added)." *Fourth Report and Order*, 35 FCC Rcd at 15241, n. 135

<sup>22</sup> The *SIP Code 608 Specification* also described an interoperability process that the Commission "strongly" urged providers to utilize. *Id.* at 15241, ¶ 57.

<sup>23</sup> *SIP Code 608 Specification* at 7-9, 11-15.

<sup>24</sup> *Id.* at 9 (Calling parties "can use the information returned by the jCard to contact the intermediary that rejected the call to appeal the intermediary's blocking of the call attempt.").

that utilizes a web portal to receive complaints about blocking could, for example, insert the URL of the website into the jCard, which is then inserted into the SIP header.

The authors of the SIP 608 response code chose to use a jCard instead of a vCard because it provides heightened security by using a cryptographic signature and it is the “the mechanism used by STIR.”<sup>25</sup> Both the SIP 608 response code and STIR utilize Javascript Object Notation (JSON) Tokens (JWT) and JSON Web Signatures (JWS) to format and securely transmit information.<sup>26</sup> As was the case regarding interoperability, the SIP 608 response code sought to utilize accepted and standardized protocols and processes. USTelecom should provide more detailed information on why use of jCards “pose significant challenges that may not be possible to overcome” by the January 1, 2022 deadline.<sup>27</sup>

The Petition raises two more general issues, neither of which merit reconsideration. It claims that entities will stop blocking calls if they are required to utilize a notification mechanism that has not been vetted and may not be ready for wide-scale implementation by the January 2022 deadline. This concern is adequately addressed by the proposal below to allow blocking entities to utilize another method of notification pending finalization of the SIP Codes as long as that method has been publicly described to the Commission. The Petition’s other

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<sup>25</sup> *Id.* at 7, 18-19 (addressing security concerns).

<sup>26</sup> *Id.* at 8-9; ATIS 1000074-E, Errata on ATIS Standard on Signature-based Handling of Asserted information using toKENs (SHAKEN) at 4.1.1. (defining token-based signatures that combines the use of JSON Web Tokens, JSON Web Signatures, and x.509 certification key pairs).

<sup>27</sup> To the extent there is a legitimate concern that providing a telephone number or URL in a jCard creates excessive burdens, industry could consider a less burdensome alternative that simply identifies the blocking entity. This is critical information no matter how it is transmitted. Simply knowing a call is blocked without also having some way to identify the blocking entity renders the notification ineffective as a mechanism to facilitate the caller’s ability to quickly trigger the blocking entity’s redress mechanism.

general concern, that use of these codes will tip off bad actors, was already rejected by the Commission, as noted above, and the Petition raises no new or different arguments.

#### **B. The Commission Should Not Extend the January 2022 Deadline**

The Petition does not expressly request an extension of the January 2022 deadline set in the *Fourth Report and Order*, apart from suggesting that industry may not have time to implement the SIP Codes. Even if more time is needed to implement those codes, the Commission should not extend the deadline for requiring blocking entities to send notifications. If it concludes that the specific SIP Codes require additional time for implementation, the Commission should nevertheless require blocking entities to provide some form of real-time notification by January 1, 2022. Blocking entities could be allowed to use this method until the IP-NNI finalizes implementing standards for the 607 and 608 SIP codes, including any necessary further guidance for mapping to ISUP Code 21, plus time, if demonstrably needed, to make network changes, not to exceed 6 months after the IP-NNI's release of the implementation standard.

To ensure that the other, interim, forms of notification are effective, the Commission should require USTelecom or Petition supporters to specify the form of notification that they will use and the Commission should designate from that record which of these may be used as interim notification mechanisms. At a minimum, the notification should inform the caller that the call has been blocked and identify the blocking entity so that callers can quickly contact them to seek redress.

Alternatively, failure to provide an effective form of notification, as designated by the Commission, by the January 2022 deadline should result in the blocking entity's inability to rely

on the expanded safe harbor adopted in the *Fourth Report and Order*.<sup>28</sup> As the Commission clearly states in the order, the expanded blocking and safe harbor is conditioned on compliance with the notification obligation.<sup>29</sup>

### **III. THE COMMISSION MAY REASONABLY LIMIT THE SCOPE OF THE NOTIFICATION REQUIREMENT BUT NOT TO THE EXTENT REQUESTED**

INCOMPAS and CCA agree with the Petition that notification is required for analytics-based blocking and that notification should not be required when blocking calls on the basis set forth in the Commission's *2017 Call Blocking Order*.<sup>30</sup> That order authorizes providers to block calls using numbers that have been designated by their subscribers as Do-Not-Originate or DNO numbers. The *2017 Call Blocking Order* also authorized blocking of calls using three categories of unassigned numbers, those that are invalid, unallocated, or allocated but unused. The Commission's rationale is that calls using these numbers are highly likely to be illegitimate. Nevertheless, recognizing that there may be some lawful use of these numbers, the Commission required providers to verify the status of these numbers before engaging in authorized blocking.<sup>31</sup> As long as the blocking entities comply with the verification and other requirements of *2017 Call Blocking Order*, notification of blocking would not appear to serve a useful purpose. Notification would also appear counterproductive in the context of a TDoS attack, as suggested by the

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<sup>28</sup>*Fourth Report and Order*, 35 FCC Rcd at 15235, ¶ 41.

<sup>29</sup>*Id.* at 15235, n. 98; 47 C.F.R. § 64.1200(k)(11)(vii).

<sup>30</sup> *Advanced Methods to Target and Eliminate Unlawful Robocalls*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 9706 (2017) (*2017 Call Blocking Order*).

<sup>31</sup> *See, e.g., 2017 Call Blocking Order*, 32 FCC Rcd at 9716, ¶ 27; *id.* at 9720, ¶ 40 (citing INCOMPAS comments noting that many legitimate callers do not originate calls on the PSTN and therefore do not have telephone numbers).

Petition.<sup>32</sup> The Commission, however, should assure itself that industry can reasonably distinguish between a TDoS attack and legitimate high volume calling scenarios.

We disagree, however, with the Petition's request to entirely eliminate notification where blocking is done based on the consumer's own analysis of which calls they do not want. That request would appear to nullify use of the 607 SIP Code. The SIP Code 607 Specification identifies sound reasons for providing notification when the called party does not want to receive the call, including providing useful information to the caller and useful information to analytics engines. If there are circumstances where notification creates particular privacy concerns or implementation questions, those should be addressed rather than entirely eliminating its use.

**IV. THE COMMISSION SHOULD PROVIDE FURTHER GUIDANCE REGARDING THE RESPONSIBILITIES OF ORIGINATING SERVICE PROVIDERS RECEIVING NOTIFICATIONS**

The Petition reasonably seeks further guidance or clarification regarding the interaction between originating service providers and their customers making outbound calls when a notification is received from a blocking entity. As the Petition notes, some enterprise customers may expect that their voice service provider will address blocking problems including responding to a notification. This may be particularly true for smaller enterprise customers that may not want to undertake any necessary changes to its internal systems to receive notifications.<sup>33</sup> Other enterprises, as noted in the Petition, may want to make any necessary changes to their internal systems and expect to receive and respond to notifications. These expectations, however, should be clear as between the originating provider and their enterprise customer so that there is no confusion or ambiguity as to which party will respond to the

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<sup>32</sup> Petition at 11.

<sup>33</sup> *Id.* at 14.

notification. The Commission may wish to consider a default rule that the originating service provider will be responsible for initiating action upon receipt of a blocking notification in the absence of a clear understanding between the parties.

## **CONCLUSION**

For the reasons set forth above, the Commission should reject in part and grant in part USTelecom's Petition for Reconsideration and Request for Clarification.

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