Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Advanced Methods to Target and Eliminate	)	CG Docket No. 17-59
Unlawful Robocalls	)	
	)	
Call Authentication Trust Anchor	)	WC Docket No. 17-97

REPLY COMMENTS OF RINGCENTRAL, INC.

RingCentral, Inc. ("RingCentral") respectfully submits these reply comments in response to

the Third Further Notice of Proposed Rulemaking ("*Third FNPRM*") released by the Federal

Communications Commission ("FCC" or "Commission") in the above-captioned proceeding.[1]

Consistent with RingCentral's initial comments, the record demonstrates that the Commission

must address several open issues to ensure that its policies will help to stop illegal robocalls while

also protecting lawful voice traffic and competition in the voice services marketplace. Indeed,

despite an extensive record, significant questions remain regarding how to treat calls that fail

SHAKEN/STIR authentication but that nevertheless may be lawful, as well as how best to

implement effective transparency and redress where lawful calls are blocked – all while ensuring

robust competition. Likewise, the divide among commenters regarding how (and if) to pursue a

Critical Calls List counsels caution.

As a global provider of cloud unified communications and collaboration solutions,

RingCentral strongly supports, and has invested heavily in, efforts to restore American's

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[1] *Advanced Methods to Target and Eliminate Unlawful Robocalls; Call Authentication Trust Anchor*, Declaratory Ruling and Third Further Notice of Proposed Rulemaking, CG Docket No. 17-59, WC Docket No. 17-97, FCC 19-51 (rel. June 7, 2019).

All references to "Comments" in this reply are to comments filed in CG Docket No. 17-59 & WC Docket No. 17-97 on or about July 24, 2019.

confidence in their telephone services and in Caller ID. As the Commission moves forward, however, the agency must ensure that SHAKEN/STIR implementation does not inadvertently undermine confidence that legitimate calls will reach their destinations or otherwise threaten competitive offerings available in the marketplace.

I. MANY IMPORTANT QUESTIONS MUST BE ANSWERED BEFORE THE FCC FURTHER MOVES FORWARD

Commenters from across the ecosystem agree that Caller ID authentication will be a key tool in the arsenal against illegal and unwanted robocalls. The record, however, reveals the significant policy, technical, and implementation questions around the deployment of SHAKEN/STIR. As RingCentral advocated in its comments – and as supported by the record – the Commission needs to address, or require industry to address, gaps in the framework before opening the floodgates to call blocking that may result in extensive over blocking of legitimate calls and harm competition.

A. Stakeholders Highlight How Gaps in the SHAKEN/STIR Framework Put Legitimate Calls at Risk of Being Blocked and Threaten Competition

The record confirms that legitimate calls could fail Caller ID authentication after initial SHAKEN/STIR deployments, and that open questions around implementation may threaten competition. In turn, overly relying on SHAKEN/STIR to inform call blocking decisions without adequately addressing the variety of calling patterns and use cases that exist could result in far too many legitimate calls being blocked.

As a threshold matter, premature reliance on SHAKEN/STIR could fundamentally threaten competition. Competitive providers that are unable to fully sign calls in each and every use case, or that otherwise cannot fully participate in the framework, may no longer offer a

viable, competitive option for an enterprise or other caller.[2] A myriad of other reseller models

exist to offer callers flexible and competitive choices likewise are at risk of unauthenticated

calls.[3] Until the industry develops standardized methods for certificate delegation or a similar

mechanism, resellers may be "unable to sign their own outgoing calls and their underlying

carriers may also be unable to sign their calls on their behalf."[4] Limiting signing to specific,

more straightforward scenarios – such as where an enterprise uses numbers associated with a

particular provider that exclusively carries that enterprise's outbound traffic – "would limit

customer choice by prohibiting other use cases that are more complex but that are not yet

candidates for meaningful (i.e., trustworthy) STIR/SHAKEN signatures."[5] Uneven

SHAKEN/STIR implementation, even when broadly deployed, can raise further competitive

concerns. Some providers are considering algorithmic modeling that could "degrade the level of

attestation of some competitive providers' traffic."[6] The Commission must ensure that

SHAKEN/STIR and call blocking program implementation do not create anti-competitive or

other discriminatory impacts, even if unintentional.[7]

Not only are there challenges addressing the variety of enterprise and competitive IP-

enabled offerings under the framework, as the Commission already is aware, there also are

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[2] Cloud Communications Alliance Comments at 5.

[3] *See, e.g.*, Letter from David Morken, CEO, Bandwidth to FCC Commissioner Geoffrey Starks, CG Docket 17-59 (filed July 10, 2019).

[4] INCOMPAS Comments at 7.

[5] Verizon Comments at 9.

[6] INCOMPAS Comments at 6.

[7] *See also, e.g.*, Massachusetts Department of Telecommunications and Cable ("MDTC") Comments at 7 (urging the FCC to ensure providers are not permitted to block calls on "anti-competitive or discriminatory grounds").

challenges associated with legacy networks.[8] Accordingly, even if SHAKEN/STIR is

implemented on all IP interconnections, a "substantial number" of calls would lack full

authentication.[9]

Ultimately, although "there is a great deal of enthusiasm for the SHAKEN/STIR

framework and its eventual adoption . . . industry still has meaningful hurdles that must be

overcome."[10] To achieve the benefits of SHAKEN/STIR, "the framework must [] enable [wide]

participation, and there is the rub."[11] To ensure wide participation, the Commission and the

industry must ensure that SHAKEN/STIR can account for all use cases and business models.

Accordingly, RingCentral reiterates its view that the FCC should require the SHAKEN/STIR

governing board to ensure mechanisms to facilitate reseller, enterprise, and legitimate Caller ID

substitution use cases exist in the near term and, until then, refrain from encouraging any

additional call blocking.[12]

B.   Stakeholders Urge the FCC to Help Establish Standards for Notice and
        Redress Requirements

The record overwhelmingly shows that standards for transparency and redress

mechanisms are necessary to mitigate against any inadvertent blocking of legal calls, particularly

where providers can block calls preemptively.[13] Several commenters suggest that service

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[8] *See, e.g.*, NCTA – The Internet & Television Association ("NCTA") Comments at 6; WTA – Advocates for Rural Broadband ("WTA") Comments at 3-5; USTelecom Comments at 14-15; Verizon Comments at 2.

[9] NCTA Comments at 6.

[10] INCOMPAS Comments at 5.

[11] *See* Cloud Communications Alliance Comments at 6.

[12] RingCentral Comments at 6-7.

[13] *See, e.g.*, AT&T Comments at 12; Consumers Groups Comments at 7; NTCA – The Rural Broadband Association ("NTCA") Comments at 14-15; Voice on the Net ("VON") Coalition at

providers that block a suspected illegal robocall should send an intercept message to the blocked

caller and/or return a specific SIP response code.[14] In many circumstances, the caller's

underlying voice service provider may be in the best position to work with a terminating carrier

to resolve any blocking of legal calls.[15] Accordingly, when blocking has occurred, there must

also be a mechanism to notify providers, and not just callers, and to ensure swift and appropriate

redress.[16] Transparency and redress safeguards are crucial to ensuring the continued delivery of

lawful calls as providers work to stop and block unlawful ones.

II. DIVERGENT VIEWS ON A CRITICAL CALLS LIST DEMONSTRATE THAT MOVING FORWARD WOULD BE PREMATURE

Virtually all commenters acknowledge that 9-1-1 calls are critical and many highlight

other important types of calls that also never should be blocked, but the record is rife with

disagreement and uncertainty about the appropriate way to shield such calls from call blocking.

As an initial matter, several commenters explain that such a Critical Calls List would be

technically or administratively difficult to administer. As one commenter describes, though

"appealing on its face," many "complex issues" would need to be resolved to implement a

Critical Calls List.[17] For example, providers "are not well positioned to maintain individual lists

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3; American Association of Healthcare Administrative Management Comments at 5-6; WTA Comments at 6-7; MDTC Comments at 6.

[14] *See, e.g.*, Cloud Communications Alliance Comments at 10; Twilio Comments at 9; VON Coalition Comments at 3; NTCA Comments at 14.

[15] *See* NCTA Comments at 10 n.26 (explaining that the originating provider's network will often be the source of an authentication issue, but blocking will happen on the terminating provider's network, therefore "a terminating provider may need to refer the caller to his or her own provider"); WTA Comments at 7 ("Notice is critical for the blocked carrier so that it is able to contact the blocking provider in order to fix any problems resulting in the blocking of legitimate calls that are not the targeted robocalls.").

[16] *See, e.g.*, INCOMPAS Comments at 9.

[17] T-Mobile Comments at 10.

of critical callers," nor do they have the expertise to "vet the thousands of entities around the country seeking to register as critical callers."[18] In fact, in just one sample jurisdiction, "there will be hundreds of numbers that need to be on the list."[19] The size, scope, and complexity of the list may require that it be centrally maintained while also allowing, according to one public safety commenter, public safety entities to manage their numbers.[20] But a centralized database that is accessible by a wide number of entities raise serious security concerns.[21] If the Critical Calls list were breached, "it would immediately render moot" protections for emergency call centers, as illegal scammers would "start spoofing these numbers to evade network blocking."[22]

Even several of the stakeholders that endorse the Commission's Critical Calls List proposal disagree with each other regarding its scope, underscoring that "critical" is a subjective criterion. For instance, one provider suggests that "[e]xpanding the category of critical calls beyond PSAPs will present definitional challenges that will make not blocking problematic, unwieldy, and subjective,"[23] whereas another suggested that in addition to PSAPs, the list should *automatically* include "all numbers used for 'reverse 911' communications, Government Emergency Telecommunications Service [] calls, and other federal, state, and local government

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[18] Sprint Comments at 5; *see also* Larimer Emergency Telephone Authority ("LETA") Comments at 1-2 (stating that the proposed Critical Call List would not "provide sufficient safeguards or protections" to ensure public safety calls make it through the network under the SHAKEN/STIR framework).

[19] LETA Comments at 2.

[20] *Id.* at 3.

[21] *See also* Sprint Comments at 6 (suggesting it would be "inevitable" that a Critical Calls List becomes public due to the "thousands of carriers and potentially unlimited app developers and analytics entities seek[ing] access to it").

[22] USTelecom Comments at 10; *see also* T-Mobile Comments at 10; Boulder Regional Emergency Telephone Service Authority Comments at 5; Comcast Comments at 12-13.

[23] T-Mobile Comments at 10.

emergency outbound communications[.]"[24] Including too many numbers creates huge

implementation challenges, but including too few creates risks of blocking critical calls.

In sum, the record shows that critical implementation questions remain. Given this status

of the record, the FCC should wait until the Critical Calls List concept is further developed and

made more concrete before moving forward. At that time, the Commission should provide the

industry, relevant public safety bodies, and other stakeholders another chance to provide

comment before making a decision on the best approach forward.[25]

III.   CONCLUSION

RingCentral and every other stakeholder in the proceeding support the Commission and

industry efforts to eliminate illegal robocalls. As the Commission moves forward, the agency

must ensure that its policies to stop illegal robocalls do not unintentionally reduce competition or

undermine lawful calling. The Commission needs to work with industry to address the many

remaining gaps in how the SHAKEN/STIR framework accounts for various use cases, business

models, and technologies. In addition, the Commission must make sure that providers

implement mechanisms to identify and timely remediate any inadvertent blocking of lawful calls.

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[24] Comcast Comments at 12.

[25] *See, e.g.*, T-Mobile Comments at 9 ("[T]he question of what constitutes 'critical calls' and how they are identified is one that should be decided by the Commission with input from all industry stakeholders, including voice providers and the public safety community."); CTIA Comments at 22 ("The Commission should seek input from the public safety community, voice service providers, and other robocall ecosystem stakeholders to develop its approach to critical calls—whether by developing a Critical Calls List or other solutions.").

Finally, the Commission should heed the concerns raised in the record regarding its Critical Calls

List proposal and proceed cautiously.

Respectfully submitted,

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August 23, 2019