

**WRITTEN TESTIMONY OF**



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**BEFORE THE**

**CONGRESS OF THE UNITED STATES**

**HOUSE OF REPRESENTATIVES**

**COMMITTEE ON ENERGY AND COMMERCE**

**SUBCOMMITTEE ON DIGITAL COMMERCE AND CONSUMER PROTECTION**

**Title of Hearing**

**DO NOT CALL: COMBATting ROBOCALLS AND CALLER ID SPOOFING**

**APRIL 27, 2018**

## **Executive Summary**

Consumers are being scammed out of hundreds of millions of dollars a year and are now conditioned to not answer the phone unless they know who's calling. They want to be able to trust their phones again and are demanding help.

To that end, First Orion offers protection from scam and unwanted calls. In addition to mobile applications, we work with T-Mobile USA, deploying Scam ID to over 58 million subscribers (free service) and giving them optional call blocking services. Out of over 34 billion calls we analyzed this past year, we identified over 3.5 billion, or about 12%, as scams. In addition, at the request of the consumer, we blocked over 500 million of these calls.

Despite our efforts and those of other key industry stakeholders, scam calls in particular are still a big problem. The fraudsters are very sophisticated, evolving their practices to avoid being labeled or blocked. As a result, we are in an arms race, not a marathon with a finish line, and will be in it until we make it un-profitable.

We provide consumers the best information available about who is calling and why and allow them to decide whether to answer. Consumers can make the decision to block all future calls from particular numbers or call categories.

Reported cases of false positives are a fraction of 1% and calling parties can easily fix an incorrect label.

First Orion applauds consumer education and enforcement efforts but also believes more can be done by industry and government together.

## **Introduction**

Due to advances in calling technology, it is now cheap and easy for legitimate companies and scammers alike to make billions of automated calls known as robocalls. As a result of the sheer volume of scam and unwanted calls, consumers are being swindled out of hundreds of millions of dollars every year and are being conditioned to not answer the phone unless they know exactly who is calling them, and it is increasingly difficult to know. They are frustrated that they can no longer trust their phones. We must better protect consumers, but this utter lack of trust in the voice channel must also change for us all to reap the benefits of a properly functioning voice communications system. Indeed, carriers and consumers aren't the only victims of the vast increase in scams. Legitimate call originators (companies that make outbound calls for themselves or as a service) who "play by the rules" have also been hurt by consumer distrust of any call they don't specifically recognize.

## **Overview of First Orion**

First Orion offers consumers, carriers and call originators a holistic approach to addressing the problems of illegal and unwanted calls. While maintaining a focus on ensuring that legal, wanted calls get delivered and answered, First Orion protects consumers from illegal, fraudulent, and unwanted phone calls to their home, office, and cell phones with our PrivacyStar mobile applications and our First Orion Network Enterprise Solution ("FONES") for carriers.

First Orion is headquartered in Little Rock, Arkansas with offices in Seattle, Washington and London, United Kingdom.

We are proud to have been chosen last year by T-Mobile USA, Inc. (“T-Mobile”) to support its groundbreaking Scam ID and Scam Block service, which now protects over 58 million T-Mobile subscribers (free to the consumer). By default, all of these subscribers receive Scam ID, which displays the label “Scam Likely” as part of the caller ID screen for calls we determine are fraudulent in nature. With the Scam Block service, subscribers can also sign up to block calls that are labeled “Scam Likely” (or calls from specific numbers) from ever ringing through to their cell phones.

We offer similar services to protect millions of consumers who have our PrivacyStar and carrier-branded mobile applications installed on their phones. We focus on offering similar functionality for home and office phones as well.

For over 7 years, First Orion has provided complaint data in an automated solution to the Federal Trade Commission (“FTC”). In fact, First Orion subscribers have historically provided as much as 30% of the fraud related complaints compiled by the FTC in its Consumer Sentinel Network.

### **Background on the “Robocall and Spoofing” Problem**

Communications habits have changed drastically with the advent of smart phones and digital communication, but an overarching problem is that consumers have simply become conditioned to NOT answer their voice calls —whether to their landlines or their cell phones.

When we get a call from an Unknown Caller or 800 number our everyday experience illustrates

that we just don't answer because, as we all know, many of those Unknown and 800 calls represent the unwanted and illegal calls that are the focus of this hearing.

However, the answer to restoring confidence and transparency in the voice channel can't be simply blocking all robocalls and all spoofed calls. This is because not all robocalls and not all spoofing is bad, and not all scammers use robocalling and spoofing (even though many do).

Robocalls can generally be separated into one of three categories:

1. **Illegal:** This includes scams, but it also includes calls that may not be designed to defraud a consumer but that violate one or more of the telecommunications laws designed to protect consumers from unwarranted intrusions on their privacy.<sup>1</sup> These calls are also unwanted calls from the consumer's perspective.
2. **Legal but Unwanted:** These calls are not scams and are basically in compliance with laws and regulations, but the practices of the calling party are offensive or harassing to many consumers.
3. **Wanted:** These are calls that the consumer wants or needs, such as automated calls from his or her pharmacy or child's school.

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<sup>1</sup> At the Federal level, the primary relevant laws are the Telephone Consumer Protection Act, 47 U.S.C. § 227 (as amended by the Truth in Caller ID Act of 2009) and the relevant implementing regulations from the FCC, 47 C.F.R. § 64.1200-1202; the Telemarketing and Consumer Fraud and Abuse Prevention Act, 15 U.S.C. § 6101 et seq. and the relevant implementing regulations from the FTC, 16 C.F.R. § 310 (commonly known as the Telemarketing Sales Rule); and the Fair Debt Collection Practices Act, 15 U.S.C. § 1692 et seq. Many states also provide additional restrictions on telemarketing calls.

And there are a lot of them. According to one index, over 3 billion robocalls were made to US consumers in March 2018.<sup>2</sup>

While unwanted robocalls are annoying and contribute greatly to the lack of confidence in the ecosystem, scam-related calls are particularly pernicious. There are no official numbers on how many robocalls are fraudulent, but official reports on even just a slice of data show the problem is large. In 2017, the FTC received approximately 348,000 “imposter scam” reports, resulting in reported losses of \$328 million to imposter scams alone.<sup>3</sup> Imposter scams include, for example, “people falsely claiming to be with the government, a relative in distress, a well-known business, or a technical support expert, to get a consumer’s money,” but omit many other types of scams, such as traditional calls offering consumers “not to be missed” business or investment opportunities.<sup>4</sup> Additionally, numbers based on consumers reporting scams to law enforcement don’t reflect the actual number because, logically, only a fraction of the actual scams committed are reported.

Our own data suggest the problem is much larger. In the last year, First Orion has analyzed over 34 billion calls with over 3.5 billion (approximately 12%) of those calls being identified as scams. At the request of the consumer, First Orion blocked over 500 million of these scam calls.

The practice of “spoofing” amplifies the impact of unwanted and illegal robocalls. Spoofing is the practice of replacing the CallerID field with a number that is different from the actual calling

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<sup>2</sup> *Robocall Index*, YouMail, <https://www.youmail.com/phone-lookup/robocall-index/2018/March> (last visited Apr. 24, 2018).

<sup>3</sup> FED. TRADE COMM’N, CONSUMER SENTINEL NETWORK DATA BOOK 2017 (2018).

<sup>4</sup> *Id.*

number.<sup>5</sup> Scammers frequently illegally spoof with the caller ID information from a trusted party (such as the IRS<sup>6</sup>) or a randomly generated number with the same area code and prefix in an effort to get the called party to think it is a neighbor and answer (commonly referred to as “neighbor spoofing” or “neighborhood spoofing”).<sup>7</sup> Neighbor spoofing in particular has grown significantly in the past year.<sup>8</sup> It makes determining what is a wanted call versus an unwanted call more complicated because they both use the same phone number or a very close match to the called party’s phone number.

However, like with robocalling, not all spoofing is illegal or harmful.<sup>9</sup> For example, a national pharmacy chain letting the consumer know his or her prescription is ready for pickup from the local pharmacy may spoof the actual number for the pharmacy where the pickup will occur. This type of spoofing is legal and helpful.

### **Efforts to Fix the Problem**

The Federal Communications Commission (“FCC”) and key industry players jumpstarted the effort to control unwanted and illegal robocalls when they formed the Robocall Strike Force in July 2016.<sup>10</sup> Since then, the telecommunications industry has progressed in mitigating the

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<sup>5</sup> *Consumer & Governmental Affairs Bureau Clarification on Blocking Unwanted Robocalls*, 31 FCC Rcd. 10961 (2016).

<sup>6</sup> *See id.*

<sup>7</sup> FCC, *Consumer Alert: Protect Yourself Against ‘Neighbor Spoofing’, Scam Callers Placing Phone Calls That Appear to Be Local*, [https://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2018/db0308/DOC-349632A1.pdf](https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0308/DOC-349632A1.pdf) (rel. Mar. 8, 2018).

<sup>8</sup> *Id.*

<sup>9</sup> *Call Authentication Trust Anchor*, 32 FCC Rcd. 5988 (2017).

<sup>10</sup> *FCC to Host First Meeting of Industry-Led Robocall Strike Force*, Public Notice, DA 16-917 (rel. Aug. 12, 2016).

threats of many unwanted and dangerous calls. Industry organizations such as the USTelecom Association and CTIA actively organize and participate with industry working groups focused on solutions and best practices.<sup>11</sup> Most of the largest carriers have put some form of scam protection in place within the last year or so, although their exact form varies from carrier to carrier.<sup>12</sup> Also, there are reportedly over 500 call blocking or labeling mobile applications available to consumers that offer various types of call protection, up from approximately 85 in 2016.<sup>13</sup> Some of these are free or have basic features for free, while others are available at a cost ranging from \$.99 to \$3.99 per month.<sup>14</sup>

As it relates to spoofing, the industry has converged around an industry standard commonly referred to as STIR/SHAKEN.<sup>15</sup> This system uses “certificate tokens,” which one carrier sends to another during call transmission, to help identify illegally spoofed calls. While STIR/SHAKEN will advance the fight against illegal spoofing, even relatively unsophisticated scammers will, in

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<sup>11</sup> See Comments of The USTelecom Association, CG Docket No. 17-59 (filed January 23, 2018) discussing industry efforts to address issues such as false positives and the Industry Traceback Group as examples. Comments of CTIA, CG Docket 17-59 (filed January 23, 2018) discussing examples of industry collaboration.

<sup>12</sup> A description of many such efforts can be found in Strike Force documents. Industry Robocall Strike Force Report, *attached to* Letter from Brian Scarpelli, ACT/The App Association, Thomas Goode, ATIS, Krista Witanowski, CTIA, and Kevin Rupy, USTelecom, to Marlene H. Dortch, FCC, CG Docket No. 17-59 (filed Apr. 28, 2017).

<sup>13</sup> Comment by Krista Witanowski, Assistant Vice President, CTIA, March 23, 2018 FCC-FTC Joint Policy Forum, Fighting the Scourge of Robocalls, March 23, 2018, *available at* <https://www.fcc.gov/fcc-ftc-robocalls-forum> at 135:30-45.

<sup>14</sup> See *How to Stop Robocalls*, CTIA, <https://www.ctia.org/consumer-resources/how-to-stop-robocalls> (last visited Apr. 19, 2018).

<sup>15</sup> FCC, ROBOCALL STRIKE FORCE REPORT (2016), <https://transition.fcc.gov/cgb/Robocall-Strike-Force-Final-Report.pdf>.



many cases, have ways to circumvent the detection. Moreover, STIR/SHAKEN adoption and implementation is just beginning, and until all carriers (originators and terminators) implement the technology, its benefits are limited.

The FCC also recently began allowing providers to block calls without requiring consumer consent when the blocking will prevent almost-certainly-illegal calls from ever being completed.<sup>16</sup> Provider-initiated call blocking is another important tool for preventing harms associated with unwanted and illegal calls; it complements other tools currently available to consumers, such as the subscriber-initiated call blocking services discussed herein. However, this type of provider-initiated blocking will unfortunately not affect many calls since the scammers have exhibited sophistication to rapidly change and adapt to new rules allowing provider-initiated call blocking.

Starting in 2013, even before the formation of the Robocall Strike Force, the FTC focused attention on the issue with its “Robocall Challenges,” designed to incentivize innovation in the effort to curb the growing problem.<sup>17</sup> The FTC has continued to play a pivotal role with consumer education, information sharing, and enforcement actions. Bringing such actions has stopped billions of robocalls and imposed hundreds of millions of dollars in penalties. However, due to the complexities of scams, enforcement is equally complex, frequently involving multiple agencies such as the FCC, the Department of Justice, the Internal Revenue Service, the U.S.

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<sup>16</sup> *Advanced Methods to Target & Eliminate Unlawful Robocalls*, 32 FCC Rcd. 9706, ¶¶ 9-56 (2017).

<sup>17</sup> Press Release, Fed. Trade Comm’n, FTC Announces Robocall Challenge Winners (Apr. 2, 2013), <https://www.ftc.gov/news-events/press-releases/2013/04/ftc-announces-robocall-challenge-winners>.

Treasury Inspector General for Tax Administration, the U.S. Postal Inspection Service, and state and foreign country agencies. We particularly applaud these enforcement efforts and emphasize the growing need for continued focus on enforcement.

Despite all these efforts, we all are still getting too many fraudulent calls. The fraudsters can be very sophisticated both technologically and organizationally<sup>18</sup> and are evolving their practices to avoid being labeled or blocked. Some fraudsters run their operations like legitimate calling businesses and are constantly changing their tactics to look like they are legitimate and to get consumers to answer their calls, especially when answer rates drop. To address the problem on an ongoing basis, solution providers will need to identify and adapt to scammers' ever-changing tactics, until we make scam robocalling so difficult to do that it is no longer profitable for the scammers. The best parallel in today's technology-driven world is the issue of

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<sup>18</sup> One notable recent case involved a "complex scheme in which individuals from call centers located in Ahmedabad, India, impersonated officials from the IRS and U.S. Citizenship and Immigration Services (USCIS), and engaged in other telephone call scams, in a ruse designed to defraud victims located throughout the United States. Using information obtained from data brokers and other sources, call center operators targeted U.S. victims who were threatened with arrest, imprisonment, fines or deportation if they did not pay alleged monies owed to the government. Victims who agreed to pay the scammers were instructed how to provide payment, including by purchasing general purpose reloadable (GPR) cards or wiring money. Upon payment, the call centers would immediately turn to a network of "runners" based in the United States to liquidate and launder the fraudulently obtained funds." Guilty pleas have been secured for all 24 U.S. defendants charged in the case. Press Release, Dep't of Justice, Last Defendant in the United States Pleads Guilty in Multimillion Dollar India-Based Call Center Scam Targeting U.S. Victims (Nov. 13, 2017), <https://www.justice.gov/opa/pr/last-defendant-united-states-pleads-guilty-multimillion-dollar-india-based-call-center-scam>.

sophisticated hackers and the need for constantly updated virus protection systems to keep up with them. Put differently, we are in an arms race, not a marathon with a finish line.

The problem is further complicated by the fact that fraudsters and legitimate calling parties alike use robocalling and spoofing—and that while most scams are robocalls, some are not. So we need to make sure the “arms” we develop in this race are more akin to precision-guided missiles than to powerful but indiscriminate bombs—and that any “shields” we give to legitimate call originators can’t also be used by scammers.<sup>19</sup> First Orion is working hard toward that end.

### **First Orion Solutions**

First Orion’s scam solutions label suspected fraudulent calls as “Scam Likely,” and potentially unwanted, abusive, or harassing calls as “Nuisance Likely,” “Telemarketer,” “Survey,” or other categories as appropriate. Consumers can choose to block individual calling numbers or to block whole categories of calls, such as “Scam Likely” or “Survey.”

First Orion’s overwhelming customer satisfaction validates this approach. This solution also maximizes transparency for the called party, and helps isolate labeling errors, both “false

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<sup>19</sup> Certain obvious suggestions for mitigating the impacts of call labeling and blocking on legitimate calling simultaneously benefit the call originators and the scammers. Call originators for example are asking providers to generate a type of “indicator tone” when calls are blocked. Unfortunately, such a tone would immediately alert the scammers that the number they are using has been identified so they must move on to another number instead of having to measure the effect after the fact. See Reply Comments of First Orion, Corp., CG Docket No. 17-59 (filed Feb. 22, 2018).

negatives” (failing to identify a fraudster) and “false positives” (misidentifying a legitimate call as a scam call) so corrections can be made in the labeling algorithms.

We analyze and label calls through sophisticated algorithms, machine learning, and artificial intelligence, which are based on the calls we see, complaints and feedback from consumers about calls, research and verification processes, and dozens of other sources of data and intelligence. For example, no one piece or source of data ever causes a call to be labeled “Scam Likely.” It is always a combination of data points. Our approach does not rely solely on using “White Lists” of legitimate callers or “Black Lists” of phone numbers of fraudsters, which scammers could easily circumvent using a variety of evolving methods to trick consumers to answer phone calls.

An upcoming enhancement in the First Orion solution will allow us to identify fraudulently spoofed calls based on individual call interrogation instead of using phone number analysis. Phone call interrogation is better at catching scammers who quickly change the numbers that they spoof. As a result, we expect the number of identified scam calls to rise from an average of 12% to as high as 15% or 16% based on current levels of traffic.

On mobile devices, in addition to labeling, First Orion solutions provide enhanced CallerID information, which includes the number calling, a company name if available, a call category (e.g. telemarketing, survey, etc.), phone number and category blocking and the ability to easily file a complaint. We also have a powerful solution that enhances traditional 15-digit caller ID to alert consumers of fraudulent and unwanted calls.

Of course, any approach will have some errors, even if minimal. For our solutions, reported cases of false positives (calls that are mislabeled as “Scam Likely” or other labels) are a small fraction of 1% of the calls we analyze. Interestingly, our reported error rate for calls where we are notified that we failed to identify a scam is also far below 1%.

Although our error rates are low, we work hard to lower them further still. First Orion collaborates extensively with call originators and consumers to actively engage all groups to improve call labeling accuracy. Consumers who use one of the PrivacyStar apps can provide feedback about whether calls are mislabeled (either as a false positive or false negative), and we use this information to better train our analytics systems. T-Mobile customers can also provide feedback about First Orion’s call labeling service through the T-Mobile website.

Additionally, First Orion actively solicits feedback from call originators to reduce false positives and negatives by participating in several call originator organizations and working groups.

First Orion also takes other common-sense measures to ensure callers can easily and quickly resolve errors. For example, First Orion buys the ad term “Scam Likely,” so consumers and call originators who may have no other context for call labeling and blocking can reach both T-Mobile’s feedback page and First Orion with just a few clicks. Consumer feedback is always helpful, so we will continue to investigate ways to maximize the feedback we receive.

We also recognize that we can and should rectify any potential errors or issues that affect legitimate call originators. We’ve recently launched [www.CallTransparency.com](http://www.CallTransparency.com), which provides legitimate call originators with the opportunity to register their number-related

information. Once both the call originator and their number information are authenticated, legitimate calls from registered numbers will not be labeled “Scam Likely.”

In addition, First Orion’s Perception Product, currently in beta testing, allows call originators to harness the power of our data analytics to monitor the performance and status of their outbound calling practices. For example, call originators will learn when a scammer is using one of the company’s numbers to place illegally spoofed calls or when the call originator is generating significant numbers of consumer complaints. With these offerings, we strive to balance the interests of consumers and call originators alike, with a goal of helping consumers trust and appreciate their phones again.

### **What the Future Holds**

Any effective solution that addresses scam and unwanted calls will require cooperation from all stakeholders – government, the telecommunications industry, call originators and consumers.

Much work remains: even for consumers protected by industry-leading solutions with extremely low error rates, tens of millions of scam and unwanted calls are going through every month without being labeled or blocked. However, much of the groundwork for future progress has been laid.

The industry and regulators have learned a lot in this last year or so about aggressively fighting the fraudsters with new tools. For its part, industry has stepped up to the FCC’s challenge to take the lead in call protection solutions and industry will continue refining algorithms and approaches over time.

By allowing providers to block a very limited class of calls, the FCC has wisely established a light-touch regulatory regime with the potential for significant consumer benefits. Providers can now block calls, without informing the subscriber, in certain instances where the call is almost certainly illegal. Providers can also couple provider-initiated blocking with other labeling and subscriber-initiated blocking tools that help consumers better decide how to customize their own handling of incoming calls.

There is one area that First Orion believes needs more focus. Supplementing ongoing efforts of the FCC, FTC and consumer organizations such as Consumers Union, First Orion recommends these parties work together to better educate consumers about the kinds of scams that are being perpetrated, the challenges in fighting scam calls, the options available to help consumers know who is calling and why and the tools available to manage the calls they do receive.

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Mr. Chairman, First Orion appreciates the opportunity to appear today to share with the Committee an overview of our business and perspective on the robocall and spoofing issues. First Orion is available to provide any additional information the Committee may request.