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ATIS-1000101

SMS Unwanted Message Mitigation Landscape

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ATIS-1000101, SMS Unwanted Message Mitigation Landscape

Is an ATIS & SIP Forum Joint Standard developed by the **ATIS/SIP Forum IP-NNI Task Force** under the **ATIS Packet Technologies and Systems Committee (PTSC)** and the **Technical Working Group (TWG)** under the **SIP Forum**.

Published by
Alliance for Telecommunications Industry Solutions
1200 G Street, NW, Suite 500
Washington, DC 20005

SIP Forum LLC
733 Turnpike Street, Suite 192
North Andover, MA 01845

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SMS Unwanted Message Mitigation Landscape

Alliance for Telecommunications Industry Solutions

Approved September 16, 2024

Abstract

This Technical Report describes the current landscape of the text messaging ecosystem, architectures, and technologies used to deliver messages and describes countermeasures currently available to stakeholders to protect consumers from unwanted messages. The document primarily considers the Short Message/Messaging Service (SMS). A gap analysis is provided so as to identify potential areas where additional standards work to enhance existing mitigations may be needed. The document does not propose new mitigation solutions, but rather recommends the formation of a task force to evaluate methods for verified identity transmission and validation in text messaging.

Foreword

The Alliance for Telecommunications Industry Solutions (ATIS) is a global standards development and technical planning organization that develops and promotes worldwide technical and operations standards for information, entertainment, and communications technologies. ATIS' diverse membership includes key stakeholders from the Information and Communications Technologies (ICT) industry – wireless and wireline service providers, equipment manufacturers, broadband providers, software developers, VoIP providers, consumer electronics companies, public safety agencies, and internet service providers. ATIS is also a founding partner and the North American Organizational Partner of the Third Generation Partnership Project (3GPP), the global collaborative effort that has developed the Long-Term Evolution (LTE) and LTE-Advanced wireless specifications.

ATIS' Packet Technologies and Systems Committee (PTSC) develops standards related to services, architectures, signaling, network interfaces, next generation carrier interconnect, cybersecurity, lawful intercept, and government emergency telecommunications service within next generation networks. As networks transition to all-IP, PTSC will evaluate the impact of this transition and develop solutions and recommendations where necessary to facilitate and reflect this evolution.

The SIP Forum is an IP communications industry association that engages in numerous activities that promote and advance SIP-based technology, such as the development of industry recommendations, the SIPit, SIPconnect-IT, and RTCWeb-it interoperability testing events, special workshops, educational seminars, and general promotion of SIP in the industry. The SIP Forum is also the producer of the annual SIP Network Operators Conference (SIPNOC), focused on the technical requirements of the service provider community. One of the Forum's notable technical activities is the development of the SIPconnect Technical Recommendation – a standards-based SIP trunking recommendation for direct IP peering and interoperability between IP Private Branch Exchanges (PBXs) and SIP-based service provider networks. Other important Forum initiatives include work in Video Relay Service (VRS) interoperability, security, Network-to-Network Interoperability (NNI), and SIP and IPv6.

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Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, PTSC, 1200 G Street NW, Suite 500, Washington, DC 20005, and/or to the SIP Forum, 733 Turnpike Street, Suite 192, North Andover, MA, 01845.

The mandatory requirements are designated by the word *shall* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages. The word *may* denotes an optional capability that could augment the standard. The standard is fully functional without the incorporation of this optional capability.

The **ATIS/SIP Forum IP-NNI Task Force** under the **ATIS Packet Technologies and Systems Committee (PTSC)** and the **SIP Forum Technical Working Group (TWG)** was responsible for the development of this document.

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ATIS Standard on –

SMS Unwanted Message Mitigation Landscape

1 Scope, Purpose, & Objectives

1.1 Scope

This Technical Report (“Report”) describes example message delivery architectures, methods used by senders of Unwanted Messages, countermeasures available to messaging stakeholders, and provides a gap analysis. This document is entirely descriptive of the existing landscape; nothing herein should be interpreted as normative or otherwise prescriptive.

This document’s discussion of text messaging refers to SMS (Short Message/Messaging Service). It does not look at over-the-top messaging services that do not rely on SMS. It does not discuss MMS in detail, since doing so would not materially change the conclusions.

The document does not attempt to address laws or regulations and should not be interpreted or construed as providing legal advice.

1.2 Purpose

As the implementation of various mitigation techniques have been successful in helping protect consumers from illegal and unwanted “robocalls”, fraudulent actors are increasingly using other modes of communication, such as text messaging. The ATIS/SIP Forum IP-NNI Task Force (IP-NNI) has begun discussions about the text messaging ecosystem. This document summarizes the current landscape of the messaging ecosystem, architectures and technologies used to deliver messages, including Unwanted Messages, and countermeasures available to stakeholders to protect consumers from Unwanted Messages.

The Report is intended to educate the IP-NNI Task Force, messaging industry participants, and policymakers and serve as a basis for future discussion. While it describes perceived gaps, it does not propose new mitigation solutions. It is not intended to be used as direct comments to regulators on the above topics.

2 References

The following standards contain provisions which, through reference in this text, constitute provisions of this Technical Report. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Report are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

[Ref 1] CTIA, *Messaging Principles and Best Practices*.¹

[Ref 2] CTIA, *2023 Annual Survey Highlights*.²

[Ref 3] CTIA, *2022 Annual Survey Highlights*.³

[Ref 4] Morning Consult Survey: Nationwide poll of 1,999 registered voters, conducted December 3-5, 2021.

¹ This document is available from the CTIA at <<https://api.ctia.org/wp-content/uploads/2019/07/190719-CTIA-Messaging-Principles-and-Best-Practices-FINAL.pdf>>.

² This document is available from the CTIA at <<https://www.ctia.org/news/2023-annual-survey-highlights>>

³ This document is available at the CTIA at <<https://www.ctia.org/news/2022-annual-survey-highlights>>