Combating Fraud in SMS Messaging:
A Comprehensive Approach by Innovative Operators

Position Paper

Innovative Operators

This White Paper reflects Innovative Operators' commitment to combating fraud in SMS messaging and working collaboratively with industry bodies to secure the future of this critical communication channel.

MESSAGING EVOLUTION LAB

Introduction

Executive Summary

Fraud in SMS messaging is a growing concern, threatening the reliability and trustworthiness of a vital communication channel. As the only truly ubiquitous messaging platform, SMS is indispensable for personal and application-to-person (A2P) messaging. Innovative Operators (IO) and its Messaging Evolution Lab (MEL) are committed to tackling these challenges head-on.

This position paper outlines the vision of the IO Executive Board of Mobile operators, the communities' mission, strategic actions, and collaborative efforts with industry bodies to combat SMS fraud, ensuring secure, reliable, and trusted communication for all stakeholders.
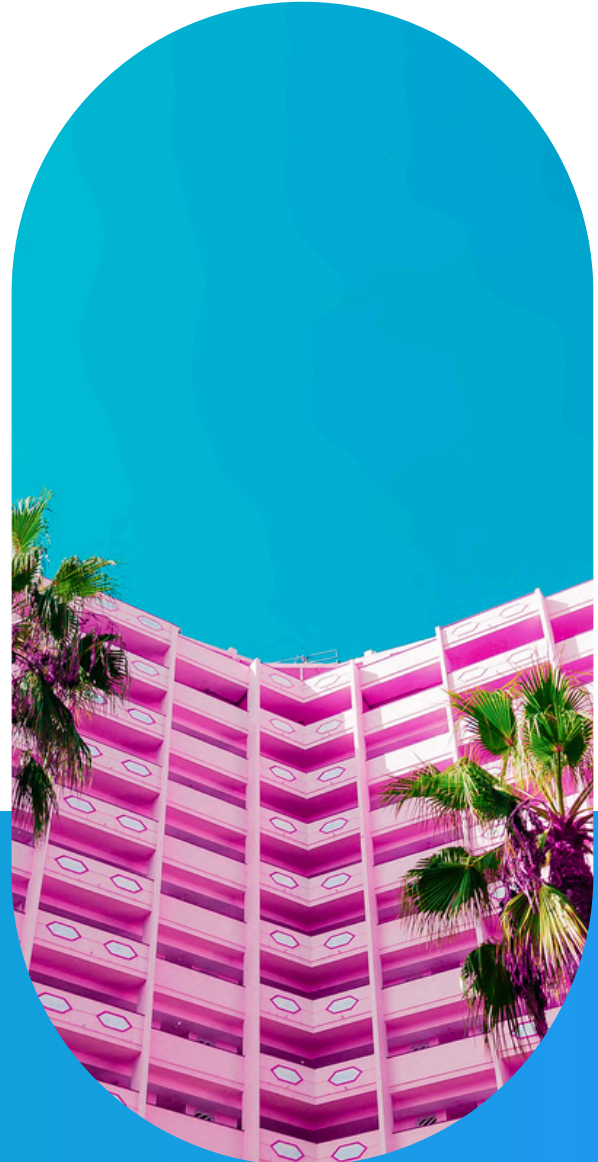
Background

Innovative Operators (IO) is a member association focused on telecoms innovation exclusively led and supported by approximately 150 Mobile Operators from 95 countries globally. Through accelerator labs, IO is dedicated to enhancing communication technologies with innovation, a keen focus on digital transformation and enhancing services for its customers.

Through the **Messaging Evolution Lab (MEL)**, IO unites the mobile operator community to understand their opinions, their companies' vision for messaging and how through a united front and with collaboration mobile operators can ensure secure and reliable messaging services.

MESSAGING EVOLUTION LAB

Our mission is to address the multifaceted nature of SMS fraud and to work alongside other industry bodies to fortify the integrity of SMS messaging.

The Mission of Innovative Operators and MEL

The mission of Innovative Operators and MEL is to create a secure and trustworthy messaging ecosystem. Our primary objectives include:

1. Enhancing Transparency and Accountability:

- **Direct Routes with Minimal Hops**: Ensuring messages are delivered via the most direct and secure routes to reduce the risk of fraud.

- **Commitment to Quality:** Require a better qualification of membership for non-operators via better screening such as the IO.30 Accreditation Programme.

2. Strengthening Commercial Models:

- **Delivered vs. Submitted Messages:** Ensuring a commercial model based on delivered messages, transparent and secure, instead of the current model of Submitted messages.

- **Charging Principles:** Establishing clear, consistent and effective charging principles for SMS Messaging.

3. Implementing Advanced Technological Solutions:

- **Authentication Technologies:** Evolving the Messaging ecosystem to Integrate into new advanced authentication mechanisms to ensure the legitimacy of messages and full protection of the end user.

- **Fake Delivery Report (DLR) Detection:** Deploying sophisticated solutions to identify and block fake delivery reports, a critical source of fraud.

4. Collaborative Efforts

- **Working together as a group of Mobile operators** and alongside other industry bodies and regulatory authorities to establish and enforce comprehensive standards for secure messaging practices worldwide.

Enhancing Transparency and Accountability

Strengthening Commercial Models

Implementing Advanced Technological Solutions

Collaborative Efforts

"We at MEL are tasked with putting the right protocols and business practices to maintain a clean and healthy messaging ecosystem, supported by the highest ethical standards. It ensures trust and integrity among users, fostering a safe and productive communication environment. Each member's commitment to these principles is crucial for the overall success and prosperity of our digital interactions."

Pablo Mlikota (e&), MEL Chair

Understanding SMS Fraud

Fraud in SMS messaging can take various forms, including:

1. Artificial Inflation of Traffic (AIT): Fraudsters cause the generation of fake traffic to inflate costs for enterprises.

2. Spam and Phishing: Unsolicited messages aimed at deceiving recipients into disclosing sensitive information.
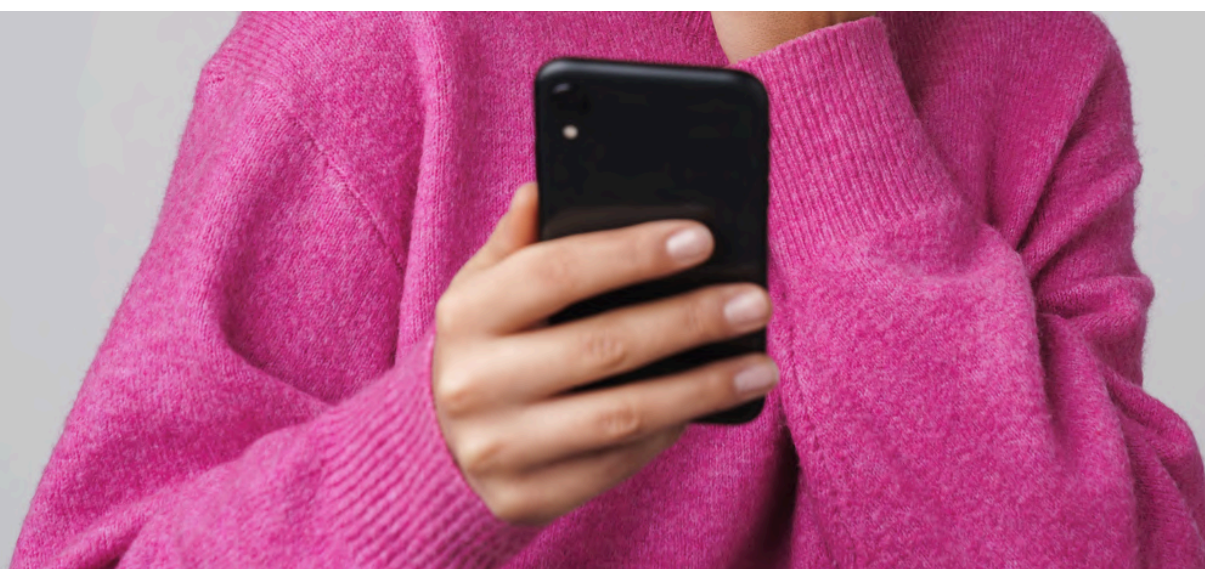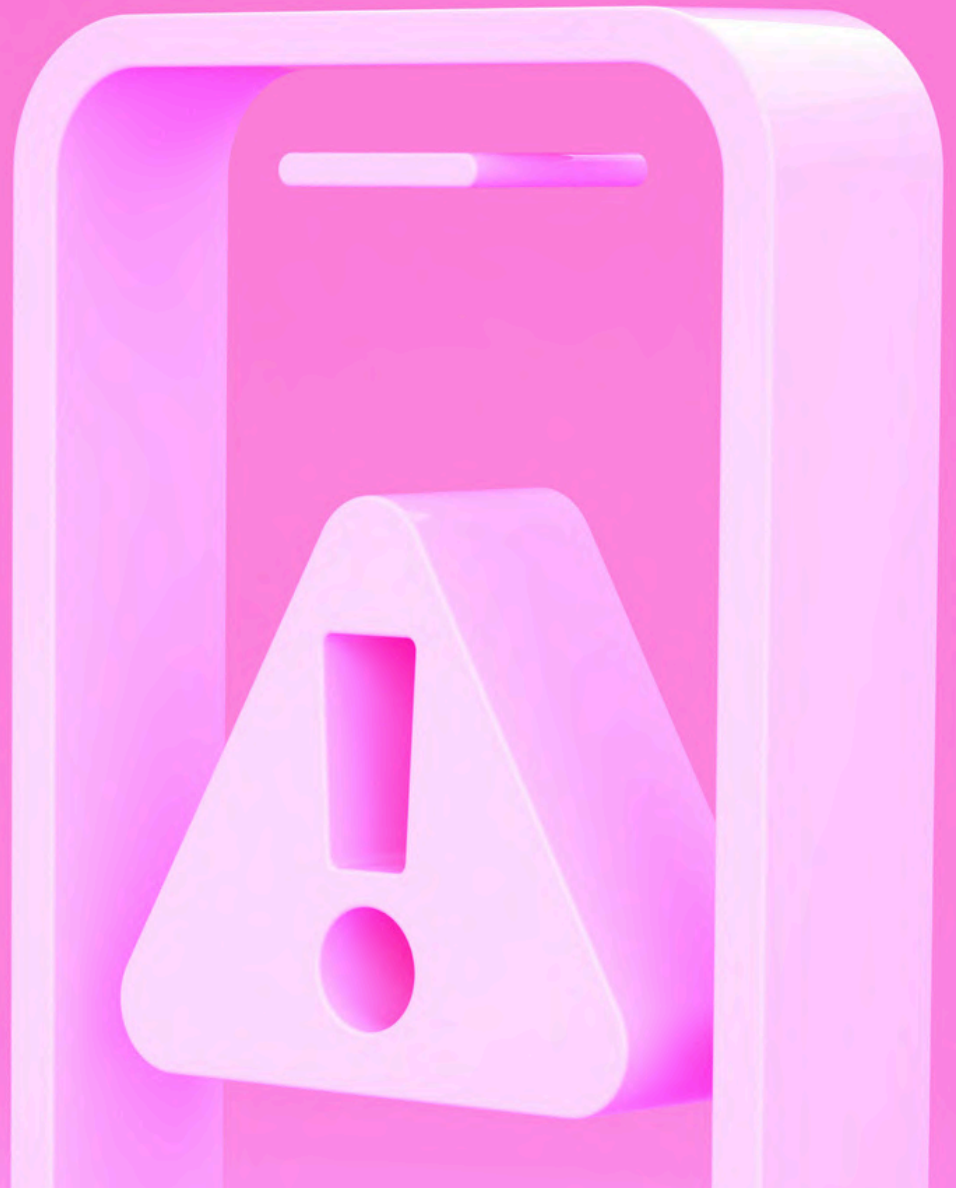
3. Spoofing: Messages sent from falsified sender IDs to mislead recipients.

4. Grey Routing: Unauthorized routing of messages through non-compliant channels.

These fraudulent activities not only degrade the user experience but also escalate operational costs and diminish the overall effectiveness of SMS as a communication tool.

"Fraudulent SMS activity is not only expensive in the short term but threatens the entire SMS A2P ecosystem. Eventually forcing brands to find often less effective but less expensive alternatives, endangering the end-to-end value chain."

Jim Sturges (AT&T), MEL Deputy Chair

Strategic Actions to Combat SMS Fraud

To effectively combat SMS fraud, IO and MEL have developed a comprehensive strategy that includes:

Commercial Workstreams

- **Impact of Fraud in the Messaging Ecosystem:** Identifying different types of fraud and documenting each case to understand the challenges and develop remediation programs.
- **Mitigating A2P Cannibalisation:** Analysing alternatives that drain traffic from the messaging ecosystem and proposing integration plans to minimize cannibalization.

Technical Workstreams

- **Improving Quality:** Enhancing message delivery success rates by using direct routes and ensuring minimal hops.
- **Reducing Fraudulent Traffic:** Implementing anti-fraud measures and deploying solutions to detect and block fake Delivery Reports (DLRs).
- **Integration of Future Authentication Technologies:** Designing an ecosystem where new authentication technologies can coexist with traditional messaging.

Operational Workstreams

- **Futuristic Vision of the Messaging Business:** Providing a vision of the future of messaging, including a gap analysis and recommendations for actions to protect and grow the messaging business.

Collaborative Efforts with Industry Bodies

Innovative Operators and MEL are committed to working alongside other industry bodies to combat fraud. Our collaborative efforts include:

1. Engaging with Industry Forums:
Our Member operators participate in forums such as the Global Leadership Forum (GLF) and i3 Forum to align best practices and develop industry awareness of the challenges in the messaging space.

2. Developing a Messaging Charter:
Launching a messaging charter to restore trust in the ecosystem, focusing on improving quality, reducing fraudulent traffic, ensuring commercial transparency, and committing to innovation.

3. Promoting Information Sharing:
Facilitating collaboration and information sharing among industry players to combat fraud more effectively.

4. Implementing Compliance Audits:
Conducting regular audits to ensure adherence to anti-fraud regulations and best practices.

"As we consider Messaging Evolution as a member community, we uncover not only a focus area that excites mobile operators but also demonstrates a huge appetite to explore what opportunities there are in developing further messaging as a service to mobile subscribers and the wider ecosystem.

I was genuinely surprised and delighted to realise the number of operators who through this lab had issues to raise and ambitions to achieve, that together could have a very powerful industry voice."

Jason Bryan, Director General of IO

Conclusion

Combating fraud in SMS messaging is a complex but essential endeavour that requires a collective effort from all stakeholders within the telecom ecosystem. By enhancing transparency, refining commercial models, and deploying advanced technological solutions, we can protect the integrity of SMS messaging and ensure it remains a trusted and effective communication channel. Innovative Operators, through its Messaging Evolution Lab, is committed to help lead this charge, fostering a secure and reliable messaging environment for enterprises and consumers alike.

About Innovative Operators

Innovative Operators (IO) as a Mobile Operator member association is a driver of telecoms innovation. Through its mobile operator labs, IO is dedicated to enhancing communication technologies in the communication ecosystem. Through its Messaging Evolution Lab, IO collaborates with industry stakeholders to consider innovative solutions that ensure secure and reliable messaging services for the future and to see what opportunities there are for Mobile operators in the wider messaging ecosystem.

MESSAGING EVOLUTION LAB

Demonstrating the synergies between the IO Executive Board and Advisory Board, it was decided that a new Lab was needed to analyse the messaging ecosystem from an MNO perspective, the Messaging Evolution Lab (MEL).

During the sessions, members are asked to contribute and work together to define the workstreams of the lab and set the objectives and action points to tackle each of the challenges mobile operators are facing.

MEL has three main workstreams focused on the commercial, technical and operational aspects of the Messaging ecosystem.

Pablo Mlikota
e& Group
MEL Chair

Jim Sturges
AT&T
MEL Deputy Chair

Key topics:

Messaging Business   Future Outlook   Firewall

Artificial Inflation of Traffic (AIT)   Fraud and Security

Authentication   A2P SMS   RCS

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