

# Blitz Defense

The combined power of SIM Box Terminator  
and expert consultants in an African Opco



mobileum

Action driven by intelligence

## INTRODUCTION

# A winning formula

Mobileum's SIM Box Terminator solution showed a strong performance eradicating SIM Box fraud for a leading African operator. Employing a dual arsenal of active and passive detection techniques, coupled with expert consultants, it rapidly flagged and countered bursts of fraudulent activities. This proactive strategy triggered a prompt reaction by the Opco, leading to successful raids and the apprehension of numerous illicit SIM Box devices, saving the operator a significant amount of money. This emphasized the effectiveness and reliability of our approach in the ongoing fight against SIM Box fraud.

## CONTEXT

# Unraveling the threat

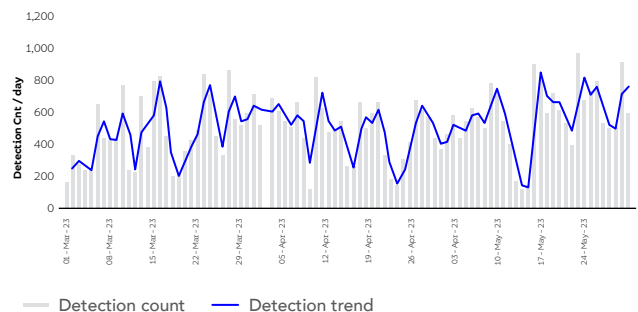
Within the complex telecom landscape, SIM Box fraud remains one of the most pervasive and unpredictable threats for operators, characterized by the illicit termination of international calls using rogue SIM cards. Perpetrators leverage SIM Box devices to circumvent traditional carrier networks, resulting in considerable revenue losses for operators on a global scale. In this instance, the capital city of an African country, emerged as a hotspot for fraudulent activities, demanding a rapid and efficient solution to stop the growing threat.

## PROBLEM STATEMENT

# Stepping through the hurdles

The operator encountered substantial hurdles in the quest to unveil and thwart SIM box fraud. The fraudsters' put in place a dynamic operational pattern, marked by the constant tweaking of IMEIs, intricate intra-SIM Box activities, and frequent shifts in location, creating an ever-evolving challenge. These expert maneuvers, coupled with sophisticated tactics, injected a layer of complexity, rendering the effective identification and apprehension of fraudulent SIM box devices exceedingly elusive. As the battle unfolded, the operator faced the demanding task of staying one step ahead in this high-stakes game to safeguard its subscribers and the integrity of the telco network, and minimize financial losses.

Bypass Onnet Trend



# Implementing a proactive solution alongside expert consulting

Our cutting-edge SIM Box Terminator solution, coupled with the expertise of seasoned consultants, created a new paradigm in the fight against SIM Box fraud. Fueled by advanced algorithms and real-time data analysis, our innovative solution not only swiftly identified but also tracked suspicious SIM Box activities, providing a comprehensive and proactive approach to fraud prevention.

## Solution Features Highlight



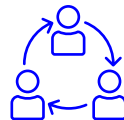
### Real-time Monitoring

Ensuring vigilant oversight, our solution continuously monitors call patterns, IMEIs, and location change. This approach enables the rapid identification of potential Sim Box operations, contributing to swift intervention.



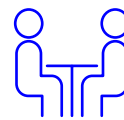
### Self-learning Capabilities

Powered by advanced analytics capabilities, the solution possesses self-learning capabilities that adapt and evolve alongside emerging fraud patterns. This ensures an effective detection mechanism, even in the face of frequent changes in tactics by fraudsters.



### Collaboration and Reporting

Facilitating seamless collaboration with the Opco, our solution provides regular, detailed automatic reports. These reports offer actionable insights, empowering the telecom operator to take proactive measures against SIM Box fraud and stay ahead in the battle against illicit activities.



### Dedicated Consulting

Acknowledging the importance of human insight, our solution is complemented by dedicated consultants. These experts perform ongoing Call Detail Record (CDR) analysis, engage in continuous R&D, and act as part of a comprehensive managed service assisting the operator and ensuring a holistic and adaptive approach to fraud prevention.

# Harmonizing a symphony of success



## Significant revenue protection

The revenue loss attributed to SIM Box activities was drastically reduced from \$30,000 per month to under \$1,000, leading to a significant increase in revenue

CALENDAR MONTH	TOTAL DETECTION COUNT	AVG. MOU/ DAY UNTIL DETECTION	TOTAL MIN OF USAGES	COST IMPACT @ ITR RATE* (\$0.30/MIN)
Mar '23	16,319	5.83	98,066	\$29,420
Apr '23	15,380	5.57	88,255	\$26,477
May '23	19,258	5.62	113,992	\$34,198
Jun '23	459	4.62	3,072	\$922
<b>Total</b>	<b>51,416</b>	<b>5.41</b>	<b>303,385</b>	<b>\$91,016</b>

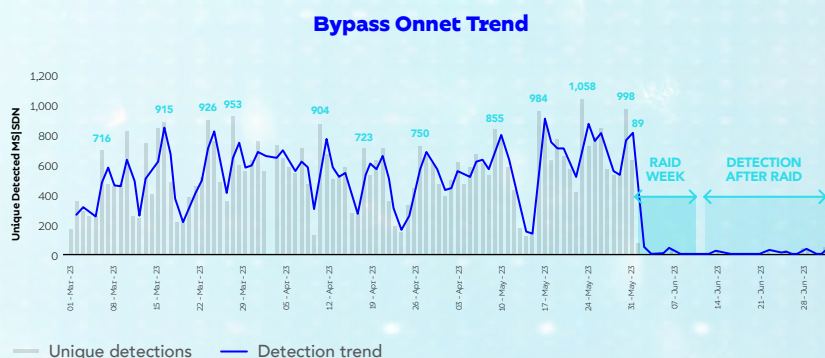
\*The ITR rate considered for calculation is \$0.30/min.



## Notable decrease in illicit Sim box activities

The utilization of both active and passive detection methods, coupled with timely raids conducted by the Opco, resulted in a remarkable drop in detection to nearly 3%. This substantial decline meant significant reduction in the Minutes of Use attributed to existing SIM Boxes during the initial quarter of implementation.

The graph below illustrates the day-to-day detection of SIM Box instances by our solution, highlighting its responsiveness in real-time.



Further it illustrates a continuous daily identification of more than 500 cases since the implementation in the first quarter.





### **Enhanced Fraud Detection**

Despite fraudsters' efforts to elude discovery by altering patterns, our solution consistently identified fraudulent activities within a matter of minutes, ensuring swift response.



### **Strengthened Customer Confidence**

Taking proactive measures against fraud bolstered customer trust, resulting in enhanced call quality and a reduction in incidents of dropped calls.



### **Disrupted the SIM Box Operation**

Through a rigorous week-long raid, multiple fraudulent SIM Box devices were successfully apprehended, leading to the effective dismantling of a complex illicit network.



### **Established Industry Leadership**

The Opco established itself as a frontrunner in fraud prevention, serving as a model for other operators grappling with similar challenges.

## **CONCLUSION**

# **A pivotal moment in the fight against SIM Box fraud**

The battle against SIM Box fraud in this African country was overhauled after the implementation of SIM Box Terminator, coupled with expert advisory. With the ability to identify fraudulent activities within a matter of minutes, the solution revealed remarkable efficiency and precision. Opco's proactive decision-making, backed by the insights derived from Mobileum's solution, culminated in a successful raid that apprehended multiple fraudulent SIM Box devices.

Successfully detecting and mitigating SIM Box fraud has not only safeguarded operators' revenue but has also enhanced trust among customers. The improved call quality and uninterrupted services contributed to a positive customer experience, reinforcing the opco's standing as a dependable telecom service provider.

Our solution operated by experienced consultants stands at the forefront of the global fight against telecom fraud, playing a crucial role in the relentless pursuit to identify and eradicate SIM Box fraud.



# risk management

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## About Mobileum

Mobileum is a leading provider of Telecom analytics solutions for roaming, core network, security, risk management, domestic and international connectivity testing, and customer intelligence. More than 1,000 customers rely on its Active Intelligence platform, which provides advanced analytics solutions, allowing customers to connect deep network and operational intelligence with real-time actions that increase revenue, improve customer experience and reduce costs. Headquartered in Silicon Valley, Mobileum has global offices in Australia, Germany, Greece, India, Portugal, Singapore, UK and United Arab Emirates.

More in [www.mobileum.com](http://www.mobileum.com)

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