

Signaling Security



OVERVIEW

The growing complexities in the telecom ecosystem and dependence on various services for revenues demand a future-proof mechanism to secure CSPs' networks and prevent revenue losses.

Subex's Signaling Security (SS7, Diameter, GTP, SMS, etc.) solution is designed to analyze real-time network traffic to address the traditional and new-age risks across various services. It employs a proactive approach using a combination of signatures, heuristics, and machine learning techniques to prevent various attacks. It monitors multiple parts of a telco network, starting at the IP layer and going up to layer 7 to detect security and fraud breaches. As a result, the solution helps CSPs protect their customers, networks, reduce potential churn and negative impact on the brand image, and avoid significant financial loss.

Why detect Fraud using Signaling Methods?



Ability to tear down fraudulent calls before it occurs



Deterministic alarms using signaling fields that aren't present in CDRs



Reduced time-to-detect



Reduction in decision-time of analysts



Minimal fraud run-time



For more information write to info@subex.com
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Some of the use cases that we address*:

SMS: A2P, Malware, etc.

Voice: Robocalls, CLI Spoofing, Wangiri Fraud, A-number Refiling, Early detection of IRSF, PBX/IP PBX Hacking, Malicious User Agent Attacks, SIP Register attacks, etc.

GTP: Botnet Attacks, Malware, DoS, etc.

FEATURES

- 01 Multi-Tier Detection:**
Incorporates a 3-tier detection strategy - signatures, heuristics, and machine learning to detect vulnerabilities and attacks.
- 02 Deep Packet Inspection:**
Incorporates DPI-based signatures (over 58,400) and heuristics (with over 3000+ pre-configured rules) analysis to detect attacks proactively.
- 03 Active Threat Intelligence:**
Provides threat intel sourced from Subex's honeypot network with over 400 different architectures and 4000+ devices in over 66 different locations worldwide.
- ML-Based Anomaly Detection:**
Enables early detection of unknown patterns with advanced AI/ML capabilities.
- Coherent Integration:**
Integrates seamlessly with network elements in the CSPs' infrastructure.
- Scalability & Flexibility:**
Scales across geographies, device numbers, architectures, and connectivity flavors effortlessly.
- 07 State-based Signaling System:**
Allows the configuration of complex fraud scenarios, thus reducing false positives and providing an enhanced detection that a Session Border Controller(SBC) cannot perform.

*indicative list

BUSINESS BENEFITS



Minimal Fraud Run-time:

Detects any form of threat in the signaling setup and tears down such attempts before the transaction is set up, thus reducing fraud run-time drastically.



Enhanced Threat Coverage:

Increases threat coverage across various services and network layers with active threat intelligence.



Positive Brand Image:

Safeguards customers from telecom fraud, reduces customer churn, improves customer experience, thus help build a positive brand image.



Increased Accuracy:

Decreases false positives significantly with the AI/ML models, thus increasing accuracy.



Increased Coverage:

Provides coverage across various new offerings such as IPTV, 5G MEC, etc., as well as traditional offerings. Covers security threats across all network layers and types.



Quicker Time to Action:

Enables faster time to action with the use of advanced detection techniques and a vast dictionary of detection elements coupled with the ability to tear down an attack in near-real-time.

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