

Signaling Risk Intelligence

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.

The Signaling Risk Intelligence Solution is designed to monitor and analyze network traffic for voice and SMS communications, specifically focusing on the SIP (Session Initiation Protocol) and SS7 (Signalling System No. 7) protocols. This solution aims to detect and mitigate various forms of fraud and helps operators protect their revenue, enhance subscriber trust, and ensure the integrity of their services. It combines advanced protocol analysis, machine learning, and real-time monitoring to deliver robust fraud detection and prevention capabilities, making it a critical component of modern telecom network security and management.

Why Detect Fraud Using Signaling Methods?



Faster Detection Time Identifies fraudulent activities more quickly.



Precise Alarms
Utilizes signaling fields absent in
Call Detail Records (CDRs) for accurate alerts.



Real-Time Call TerminationDisconnects ongoing fraudulent calls immediately.



Number BlockingPrevents specific numbers or ranges from making future calls.







Some of the Use Cases Addressed*

- SMS: Smishing, SMS Grey-Routes, Faking, SMS Traffic Pumping
- Voice: Robocall, CLI Spoofing, Wangiri, IRSF, PBX Hacking, Flash Calls, SIP Register Attacks

> Features

Network Protocol Agnostic

Possesses the capability to capture and analyze MAP, ISUP, and SIP packets. By supporting multiple protocols, the application enhances its utility in mixed or transitioning network infrastructures where different signaling systems coexist.

Multiple Data Ingestion Support

Reads network packets directly from port mirroring or packet capture files shared by the operator. This includes scenarios where packet capture files are already generated at the network element nodes.

Risk Intelligence Database

Uses unique signatures and a risk intelligence database to tag event attributes like A-Number and B-Number, identifying high-risk destinations and calls from unallocated ranges, thereby enabling proactive mitigation.

Seamless API Integration

Integrates with network elements in the telco infrastructure, allowing automatic actions on high-confidence threats. Detects and reports threats while also taking necessary actions to prevent them in the future.

Advanced AI/ML Capabilities

Enables early detection of unknown patterns, adapts to new threats, and minimizes false positives, thereby ensuring comprehensive protection.

*indicative list

> Business Benefits



Real-Time Detection

Detects voice and SMS fraud in real-time, allowing for immediate identification of fraudulent activities.



Reduced Fraud-Run Time

Enables the instant teardown or blocking of fraudulent calls and messages, minimizing the duration of fraud incidents.



Adaptability to New Frauds

Detects and counteracts new types or methods of fraud by leveraging the monitored signaling packets.



Improved Customer Experience

Safeguards customers and provides reliable service, helping to build and maintain a positive brand reputation.



Collaboration & Visualization

Provides visual tools for teams to build customized dashboards and reports to consume insights of the signaling packets.



Quicker Time to Action

Enables faster decision-making and response time with an extensive library of detection elements and real-time attack mitigation capabilities.

Subex Limited

Pritech Park SEZ, Block-09, 4th floor, B wing, Survey No.51 to 64/4 Outer Ring road, Varthur Hobli, Bengaluru560103 India

Tel: +91 80 6659 8700 Fax: +91 80 6696 3333

Subex, Inc

12303 Airport Way, Bldg. 1, Ste. 390, Broomfield, CO 80021

Tel: +13033016200

Fax: +1 303 301 6201

Subex (UK) Ltd

1st Floor, Rama 17 St Ann's Road, Harrow, Middlesex, HA1 1JU

Tel: +44 0207 8265300

Fax: +44 0207 8265352

Subex (Asia Pacific) Pte. Limited

175A, Bencoolen Street, #08-03 Burlington Square, Singapore 189650

Tel: +65 6338 1218

Fax: +65 6338 1216