



Introduction

Nikira™ Fraud Management System is the next generation fraud management solution built to deliver on a 3-step philosophy of Detect-Investigate-Protect. Nikira detects known fraud types and patterns of unusual behaviour, helps investigate these unusual patterns for potential fraud, and uses the knowledge thus generated to upgrade and protect against future intrusions.

Nikira is differentiated by its unique architecture that harnesses the power of proven rules-based alarms and pattern matching driven by advanced statistical techniques. Adding power to this hybrid detection system is a set of strong case management tools. These tools provide all relevant case data which are made easily accessible through a single window in a fast web-based GUI.

Nikira's high flexibility allows operators of different sizes to customize rules to suit unique network and business requirements. Moreover, seamless visual alarm linking using 3rd party visualization software reduces investigation efforts, thus decreasing case turnover time.

Nikira has the ability to detect fraud types in all telecom environments—Wireline (PSTN, ISP, VoIP), Wireless (2G, 2.5G, 3G) and across all services—postpaid, prepaid, VAS, MMS and m-Commerce.



Business benefits

Future-proof detection techniques

Networks are fast converging and services delivered over the next generation networks are becoming more complex by the day. Fraud detection systems based on conventional rule creation and threshold definition tend to end up either overlooking a potential fraud or detecting them too late in the cycle. Nikira addresses this problem by an innovative hybrid approach of multi-dimensional rule creation combined with advanced pattern analysis techniques.

The unique rule-creation function in Nikira supports processing of records for transactions across service stages like subscription, authentication, usage & payments in addition to conventional tracking of network activities. A fraud analyst can use the above data from multiple sources including SS7, VoIP, SIP & IP records and efficiently configure custom rules in order to track fraud at a multi-dimensional level.

Nikira additionally incorporates an advanced self-correcting pattern analysis functionality through Unsupervised Neural Networks-based detection technologies to proactively detect and combat innovative fraud attacks. Using efficient statistical trend analysis techniques, Nikira monitors the rate of change in usage pattern for each subscriber on a 24 X 7 basis and alerts the analyst against an abrupt change in subscriber behaviour. The analyst

also has the flexibility to select specific subscriber/user-groups requiring special attention. Coupled with the Hidden Markov Model-based Intelligent Alarm Pre-Qualification method, fraud analysts can effectively prioritize from a list of alarms and can concentrate on the most likely fraud scenarios.

Guard against repeat offenders

A majority of fraudsters are professional offenders and look to strike after having been caught in earlier attempts. Nikira implements strong pre-activation subscriber verification tools that help operators guard against such professional repeat offenders.

Nikira allows operators to cross-check new subscribers with the database of known fraudsters. This cross-checking can be performed using multiple matching techniques and across numerous fields. Operators can set a level of percentage match that would automatically trigger an investigation before activating a new subscriber.

Ensure pre-paid service is truly risk-free

Operators believe that the pre-paid service reduces the risk of fraud as subscribers make upfront payment. Nothing could be further from the truth. Multiple cases, worldwide, have shown ingenious fraudsters

colluding with members of the operator's delivery chain (e.g. dealers) to perpetrate large frauds.

Nikira aids fraud detection in the pre-paid service based on odd value refills, manual refills, repeated refills, etc. Moreover, Nikira helps curb internal fraud, often encountered in the pre-paid service, through multiple layers of tracking, role-based access and security mechanisms.

Launch profitable IP-based services

IP-based services are no longer next-generation services; they are

now-generation services. Operators must rapidly scale their operations to accommodate these NGN services. Unfortunately, operators will now be assailed by fraudsters who use innovative strategies, targeting these new business models, leading to more revenue losses.

Nikira extends existing analytical tools to curb NGN IP frauds, associated with services such as GPRS/3G services, ISP, VoIP, m-Commerce, etc. Nikira is capable of detecting and preventing IP frauds for both wireline and wireless environments.

About Subex Limited

Subex Limited is a leading global provider of Operations and Business Support Systems (OSS/BSS) that empowers communications service providers (CSPs) to achieve competitive advantage through Business Optimization and Service Agility - thereby enabling them to better operational efficiency to deliver enhanced service experiences to subscribers. The company pioneered the concept of a Revenue Operations Center (ROC) - a centralized approach that sustains profitable growth and financial health through coordinated operational control.

Subex's product portfolio powers the ROC and its best-in-class solutions enable new service creation, operational transformation, subscriber-centric fulfillment, provisioning automation, revenue assurance, cost management, data integrity management, fraud management and interconnect / inter-party settlement.

Subex's customers include 36 of the world's 72 biggest* telecommunications service providers. The company has more than 300 installations across 70 countries.

* Forbes' Global 2000 list, 2009

For more information please visit www.subexworld.com



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