

Fighting international revenue share and SIM boxing fraud

HCLTech assists a large Telco operator in achieving 85% time reduction in detecting frauds

Overview

Our client, a Tier 1 telecom provider serving millions of subscribers, handles large volumes of data daily—processing over **1 billion events** and **2.5 billion data loads**. A portion of this volume comes from **SIM cards used temporarily**, such as those delivered to tourists and international visitors. This vast amount of data was processed by a scalable architecture, with software programs analyzing subscriber behavior reports.



The Challenge

Sophisticated attack methods

The client was experiencing fraud losses due to **IRSF (International Revenue Sharing Fraud)**—which exploits international revenue-sharing agreements between telecom companies to generate illicit income—and **SIM-boxing**, a form of fraud involving the illegal rerouting of international calls through low-cost, prepaid SIM cards using devices known as “GSM gateways” or SIM boxes.

The Objective

Rule-based detection

The client needed to enhance the effectiveness of their fraud detection, which had previously relied heavily on monitoring subscriber activity. Their goal was to complement this approach with **deterministic models** and implement **rule-based detection**, enabling the identification of fraud based on unusual behaviors or attribute patterns.



The Solution

Built-in fraud knowledge

By leveraging the **HCLTech Fraud Management framework** and its analytical capabilities, the client significantly improved fraud detection accuracy and reduced the time to uncover fraudulent activity.

The HCLTech solution utilized **behavior-matching profiles**, simultaneously analyzing multiple attributes to detect anomalies—such as top international destinations, number of international mobile equipment identities, call diversity and traffic distribution.



The Impact

Gaining control and preventing losses

The client experienced notable improvements across their operations, including:

- **85% average reduction** in fraud detection time
- **5x fraud risk coverage** within 6 months
- **Over 50%** reduction in revenue loss due to fraud

The relationship with this client continues, with HCLTech consultants providing ongoing guidance and countermeasures as new fraud schemes arise.