

FACT SHEET

Fraud Prevention

Continuous Protection

lyfense.com



AI against fraud and financial crime,
developed alongside financial
institutions for more than three decades

About Lyfense

Lyfense brings advanced artificial intelligence technologies for fraud and financial crime prevention to the Latin American market, tailored to the regulatory and operational needs of Brazil, Colombia, and Chile. These technologies are supported by an international infrastructure with more than three decades of experience

in advanced analytics applied to the financial sector, developed by artificial intelligence experts from the Autonomous University of Madrid. They are capable of processing more than 100 billion transactions annually to support financial institutions in the early detection of fraud and in strengthening their compliance systems.

Our Mission

Lyfense drives a leading technological offering in the prevention of fraud and financial crime through advanced AI, continuous innovation, and sector expertise. Our mission is to help reinforce **trust**, preserve the **integrity** of macroeconomic financial systems, and **protect** them from potential harm.

The solution in numbers

**129 +
billions**

transactions
protected annually

**330 +
million**

users protected
every year

**< 50
milliseconds**

for 99.99% of
transactions processed*

2.400 +
transactions per
second*

**\$1.6
billions**
our FIs saved

* Known performance where
connection is TCP/IP socket and
the solution is on-premise.

The Problem

No secret:

the biggest concern to banks is Authorized Push Payment Fraud (scams). The statistics are alarming, and they're only getting worse by the minute!

The Solution

Best kept secret:

This exclusive solution provides a multi-channel fraud detection solution for FIs and PSPs providing a 360-degree, real time, defense against fraud, and a holistic view of your customers.

The Solution Deployed by Lyfense Solves it with Advanced Machine Learning

Seeking a cutting-edge fraud detection solution backed by 30 years of experience?

- **Intelligent Fraud Prevention**
The automatic daily retraining AI agent (Daily Adaptive Models or DAM) maintains fraud detection at the highest level using the most recent genuine behavior and new fraud patterns.
- **Accurate and Speedy Decision Making**
Selflearning profiles leverage users' devices, card transactions, beneficiaries, incoming payments, and locations. Real-time data enrichment occurs thanks to in-memory database.
- **Extensible interfacing**
The solution adapts to various data formats from FIs, enhancing models and reducing time to value. Say goodbye to costly and time-consuming interfacing.
- **Multi-Channel Integration**
Provides a 360-degree user view across all

transaction channels, such as online, mobile, telephony, ATM, card present and CNP payments etc. We support use cases across retail and corporate banking, as well as PSPs.

- **Multi-Functional Fraud Platform**
Customize risk thresholds via the rules engine, leverage the case management functionality, and visualize results using real-time dashboards and analytics.
- **Analyst's Dream**
FIs can send, via feeders, relevant user profile data and, combined with transaction data across all channels, create a unified view, facilitating holistic and expedited decisions.
- **Model Governance**
Collaborates closely with ML model governance teams to ensure transparency in model training methodology and meeting governance standards like explainability.

The Evolution of Fraud Prevention Solutions

Financial institutions aim to create a layered defense system that can effectively identify, prevent, and respond to all types of financial fraud.



Rules-Based
Real-time rules are ineffective if used exclusively.



Static Unsupervised Models
Unsupervised models flood FIs with false positives, draining resources and undermining fraud detection effectiveness.



Static Supervised Models
Financial Institutions relying only on static supervised models struggle to adapt to evolving fraud dynamics, resulting in lower effectiveness over time.



Automatic Daily Retraining AI Agent
Daily adaptive models are the latest breakthrough in fraud prevention. These models safeguard against known risks and are quick to detect and neutralize emerging fraud in real-time.

Legacy Fraud Solutions

Rules-Based

Traditional rules-based fraud solutions rely on historical attacks and data. While effective against known fraud patterns, this approach is inherently flawed in an everevolving attack landscape. Financial criminals perpetually modify their tactics, tactics, often deploying algorithms equivalent to hundreds of thousands of rules. Even a large team of rule-writers cannot keep pace with rapidly changing attack patterns, leading to crippling operational costs.

Static Unsupervised Models

Financial institutions (FIs) using unsupervised models often face an overload of false positives. While these models identify unusual behavior based on user profiles, atypical actions do not always indicate fraud. For example, many users experience blocks on legitimate transactions when

traveling abroad or making purchases from new retailers. Managing these false positives consumes valuable resources, frustrates genuine users, and undermines the effectiveness of fraud detection solutions.

Static Supervised Models

Like the rules-based method, static ML models are trained on historical data and, thus, degrade over time. Their incapacity to detect changing user behavior, new products, shifting social norms, and evolving fraud tactics contributes to this decline.

Next Generation Solutions

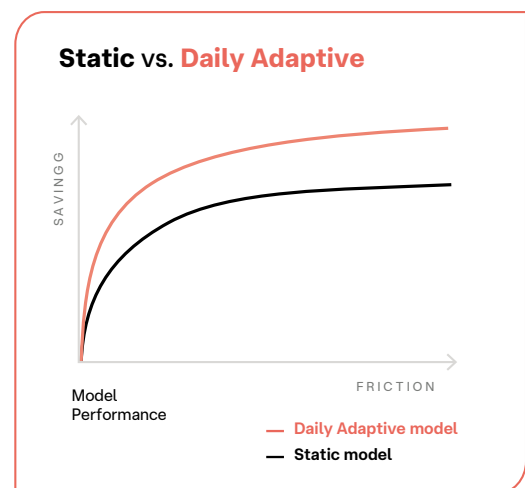
Automatic Daily Retraining AI Agent

Our machine learning models identify more fraud and reduce friction (false positives) using the most advanced and sophisticated machine learning technologies, providing significant savings to the financial institution. These models continuously adapt to combat evolving attack patterns, thereby improving detection effectiveness. Change is constant: from variations in user behavior to financial changes or the emergence of new threats. The daily retraining AI agent (DAM) updates the models every day using new transaction data from the last 24 hours — including reported fraud — to maintain accuracy even in complex environments.

How do we do this?

The fraud prevention solution implemented under Lyfense employs optimized machine learning procedures specifically designed for fraud detection.

Our adaptable models update daily without downtime or the need for data scientist intervention, effectively combating fraud by responding to behavioral shifts and emerging tactics.



Rigorous error checks and safeguards mitigate issues like biased data and noise, ensuring robust performance with minimal disruption to legitimate transactions. In an ever-changing regulatory environment, a solution like the one implemented under Lyfense is essential for addressing evolving fraud challenges and keeping pace with dynamic fraud vectors.

Product Features

- **Multi channel:** Cards, Mobile, eBanking, ATM, Branch, P2P, Corporate, Acquirer, Telephony.
- **Comprehensive 360-degree** customer view and alert management.
- **Fraud Hub:** a centralised platform for the secure exchange of fraud-related information between financial institutions and customers, to strengthen detection, prevention and coordinated response to fraud threats across the financial ecosystem.
- **Automatic retraining AI agent that improves** the accuracy of fraud detection models on a daily basis.
- **Pre-configured** financial behavioural models that update **automatically**.
- BYOM (Bring Your Own Model) functionality that enables **clients to run their own fraud models** alongside the models implemented by Lyfense, combining proprietary knowledge with the platform's native protection.
- Real-time **financial behavioural monitoring**.
- **Real-time monitoring** of both APPF outbound and inbound.
- Advanced easy-to-use configurable rules through a **user interface** (no programming needed).
- **Generative AI** for rule creation and review.
- **Workflow Manager** enabling the execution of automated or manual workflows triggered by events, integrating internal and external systems through no-code configurations based on condition and action nodes.
- **Workflow automation** based on alerts.
- **Real-time** dashboards and reporting for enquiry and response.

Technical Specifications

- SaaS or on-premises deployment options.
- PCI-DSS and ISO27001 compliant.
- Self-publishing API for easy integration.
- Real-time optimized architecture for authorisation flow.
- Low level code and in memory databases.
- Real time response.
- Customisable data models.
- Strong model governance controls.
- Optimised on Fraud vs Friction (VDR vs tFPR).



About Lyfense

Lyfense is the operational identity under which advanced artificial intelligence solutions for fraud and financial crime prevention are deployed. These solutions have been developed over more than three decades and applied on a large scale in financial institutions in Brazil, Colombia, and Chile.

Technology developed by Lynx Financial Crime Tech, S.A., recognized for:

Gartner

Chartis



FStech
Anti-Fraud Solution
of the Year

pay³⁶⁰
AWARDS
Best Initiative in Utilising
Data or AI. 2025

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