ORACLE

Building Adaptive AML Systems

How technology can help create a more agile and adaptive Transaction Monitoring System allowing institutions to respond quickly to emerging threats or opportunities.

July, 2023, Version [1.0]

ORACLE

Purpose statement

This document describes how today's AMLTransaction Monitoring Systems lack agility and why this is critical for financial institutions to remain compliant and be efficient. It describes how Oracle's Compliance Studio and Compliance Agent can together help create a more agile and adaptive Transaction monitoring System.

ORACLE

Building Adaptive AML Systems: Bringing Agility and Speed to AML Transaction Monitoring

Transaction monitoring systems (TMSs) are essential to anti-money laundering (AML) compliance today. The way in which financial institutions manage these systems has changed markedly over the last 15 years, with institutions adopting a more rigorous and data-driven approach to tuning and optimizing them.

While the limitations of rules-based systems have been widely acknowledged, viable alternatives have been slow to emerge. The promise of artificial intelligence (AI) and machine learning (ML) has been widely touted as the solution to the problem of detecting money laundering. Building supervised models to detect money laundering, however, continues to be incredibly challenging in the absence of clean labels and due to the extremely rare nature of suspicious transactions.

We believe targeted ML models will be vital in combating specific typologies of financial crime. In fact, highly skilled data scientists should be able to focus exclusively on solving such problems.

Even so, rules-based transaction monitoring systems will have a role to play as a broad safety net for capturing anything outside the specific typologies we monitor using targeted ML models. Improving the efficiency and effectiveness of these systems will be a vital part of improving overall transaction monitoring and AML compliance.

Set-it-and-leave-it mindset presents new risks

Today, financial institutions prefer to take a set-it-and-leave-it approach to transaction monitoring systems. This decision is largely dictated by the cost of making changes to the system. Any changes to the scenarios in the system have to be rigorously validated with historical data. Given the high cost of running these validations, banks prefer to leave the TMS unaltered as long as possible, considering changes only during annual tuning cycles.

The implications of this approach are two-fold.

1) Institutions are willing to set thresholds to conservative values and bear the cost of large number of false positives. This means resources that could have been devoted to higher-priority initiatives are being misallocated to generate and review low-quality alerts that rarely result in the detection of suspicious behavior.
2) By keeping thresholds at conservative levels, Institutions are willing to sacrifice agility to keep the cost of complying with model risk requirements low and mitigate the risk of false negatives. However, this lack of agility means institutions are not prepared to respond quickly to unexpected changes in the external environment.

Adaptive and agile solutions are the answer

The key to addressing these challenges is to make AML systems more adaptive and agile.

We need technology that can identify changes in customer behavior in a timely fashion, quickly evaluate a wide range of adjustments to controls, gather evidence to support the chosen changes, automate the evaluation of the chosen control on real data, and quickly roll out these changes to production.

Agility and adaptability empowers institutions to be aggressive with transaction monitoring controls based on their risk appetite and the risk profile of specific customer segments. If there is any deviation from expected behavior, institutions can react quickly and make necessary adjustments.

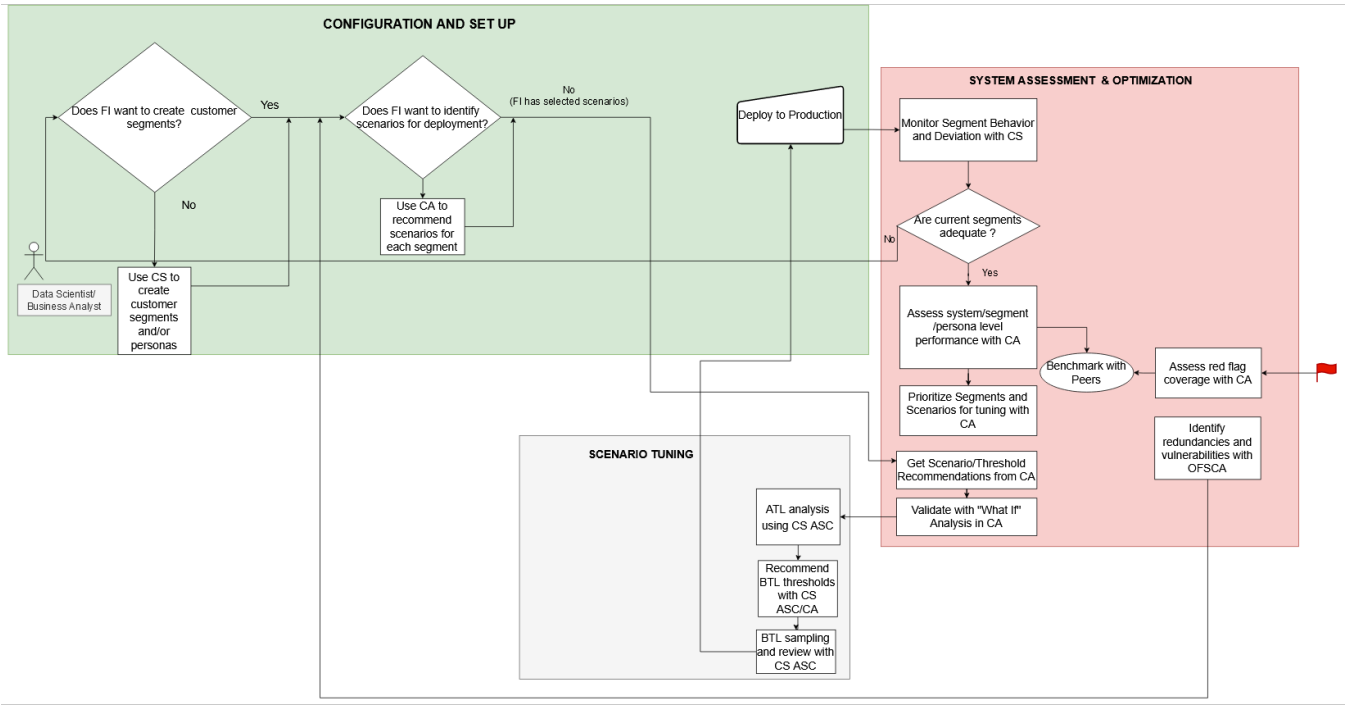
As a result, institutions can limit false positives while being able to react quickly to mitigate risk from false negatives. Making a change to the TMS will go from being a 'one-way door' decision to a 'two-way door' decision as institutions can quickly roll back changes to the system or further augment them if they determine it is not working as expected.

Building adaptive AML

At Oracle, we have been building an ecosystem of solutions that can create a truly agile and adaptive AML system that includes:

- Oracle Financial Services Compliance Agent (CA) - An AI-powered SaaS experimentation platform that helps financial institutions holistically assess and optimize the performance of their transaction monitoring system (TMS) and gather empirical evidence to support business decisions.
- Oracle Financial Services Compliance Studio (CS) – An advanced analytics application that leverage the latest innovations in AI, ML , graph analytics and data management and is purpose built to fight financial crime
    - Customer Segmentation and Deviation - A CS module that can be used to segment customers according to AML risk and identify anomalous customers
    - Automated Scenario Calibration (ASC) – A CS module that simplifies and automates scenario tuning

Figure 1. Oracle's Adaptive AML Ecosystem



In Oracle's ecosystem approach, Oracle Financial Services Compliance Studio allows institutions to create risk-based segments and then closely monitor them for shifts in activity. It also allows users to determine whether it is necessary to create new segments.

Oracle Financial Services Compliance Agent allows users to evaluate the performance of each segment holistically, prioritize segments for tuning, recommend new scenarios or thresholds, and carry out what-if analysis to validate

selected thresholds. It also reveals redundancies and vulnerabilities within the system that can help eliminate potential false positives and false negatives.

Finally, Oracle Financial Services Compliance Studio allows institutions to automate and simplify the scenario-tuning process by eliminating up to 80% of manual effort.

Our vision for the future

Oracle's mission is to deliver end-to-end industry automation to solve our customer's most complex problems.

Our vision for AML transaction monitoring in the cloud is an adaptive, agile, and autonomous transaction monitoring system that uses technology to automate away the low value manual processes while using AI to help compliance officers make better decisions to create a highly effective, yet cost- efficient TMS.

Any institution using Oracle's AML TMS should be able to configure and manage it with no more than one compliance officer and one business analyst. Oracle Financial Services Compliance Agent is key to enabling this "1+1" goal.

If you want to play a role in realizing this vision, schedule a demo for OFS Compliance Agent and OFS Compliance Studio by contacting us at financialcrime_ww_grp@oracle.com.

ORACLE

Connect with us

Call +**1.800.ORACLE1** or visit **oracle.com**. Outside North America, find your local office at: **oracle.com/contact**.

blogs.oracle.com facebook.com/oracle twitter.com/oracle