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AYASDI

Anti-Money Laundering: Next Generation Monitoring

WHITEPAPER

How To Talk Your Bank's CEO Out Of Making Bad Decisions About Anti-Money Laundering

Reputational damage caused by recent news stories has meant that bank leaders are under sudden pressure to fix anti-money laundering programs they didn't know were broken. The C-suite is prone to be defensive at first, but then swing to making rapid changes that are expensive, symbolic at best, and ineffective.

Executives leading anti-money laundering need to seize the agenda now, before it seizes them. This is a guide to doing just that.

Today's anti-money laundering programs were set in motion in 2002. They have largely remained unchanged. Meanwhile money-laundering itself has never stopped changing. The following three proven steps allow executives to regain control of the agenda –

1. Tune your transaction management system (TMS) to unlock all latent value
2. Keep your TMS in tune so you never have to reset again, regardless of how much change happens in the world
3. Find risks that your TMS is not finding and kill the noise the TMS finds

These three components allow an AML program to efficiently and continually update and not fall behind the evolution of money laundering. At the same time, it only allows updates that are proportionate to real money-laundering risks, rather than countering imagined threats.
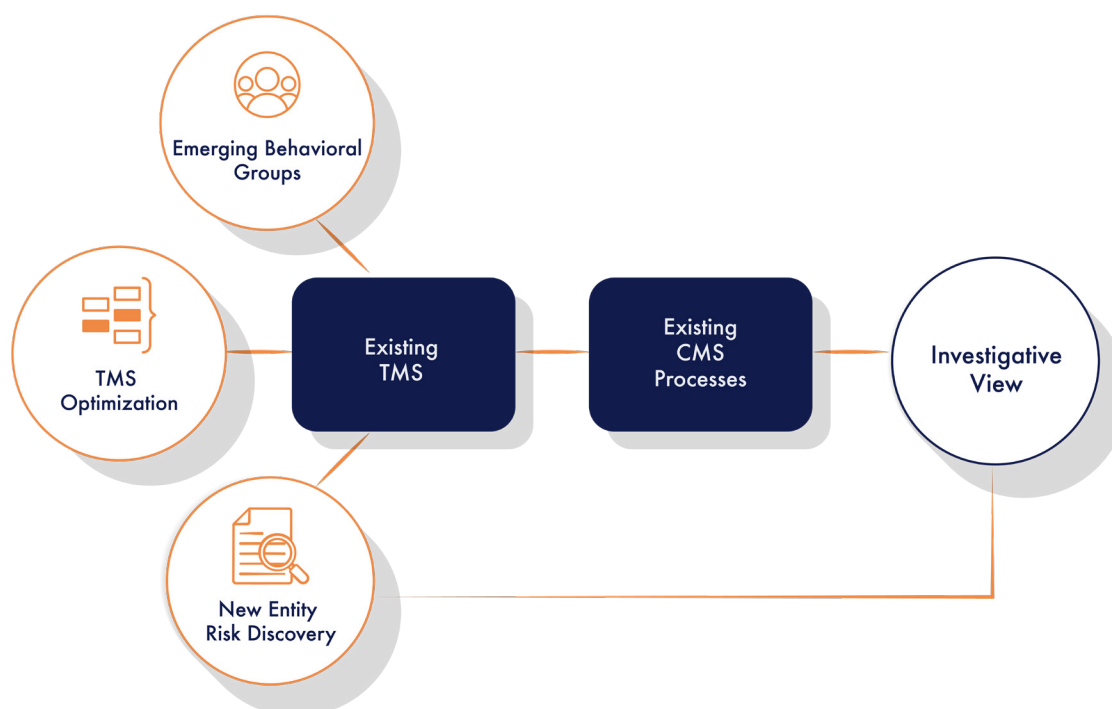

Figure 1: The augment or replace design of the Ayasdi AML solution.

1. TMS Optimization

Top bank leadership can become fixated on false positives as a key metric to attack when fixing anti- money laundering. That's not the right way to look at it and can lead to the wrong investments. The false-positive problem in AML is primarily a function of poor segmentation of input data. Better accuracy here is the real goal.

Even sophisticated financial services institutions using machine learning for detecting AML can suffer from low accuracy and high false positives. This is because open source machine learning techniques analyze data in large groups and cannot get specific enough to correctly surface genuine suspicious behavior.

Smart segmentation is the crucial first step for a transaction monitoring system to detect suspicious patterns, without needlessly flagging expected ones accurately. The process falls short when institutions only sort static account information using pre-determined rules.

Ayasdi AML ingests the greatest volume and variety of data available—about customers, counterparties, and transactions—and then applies objective machine learning to create the most refined and up-to-date segments possible. The crucial difference is that Ayasdi AML assigns—and reassigns—parties to segments based on their actual behavior, revealed in their real transactions and true inter-relationships, over time.

This allows ongoing rationalization, rather than a one-time fix whose value fades over time.

Ayasdi AML's auto feature generation and selection quickly identify attributes within the data that contain signal, even the weakest signal, and then automatically creates new derived attributes that accelerate intelligent segmentation. This removes the reliance on solely data scientist resources and allows teams to focus on producing the desired outcomes.

Transaction Monitoring System

10+

Features

Machine Learning Data Science Approach

100s

of Features

Ayasdi AML

1000s

of Features

Figure 2: An intelligent segmentation process delivers far more granular and uniform groups, resulting in higher thresholds and fewer false positives. In addition, these granular groups catch false negatives.

The more data sources available, the better the grouping that results from Ayasdi AML segmentation. Ayasdi AML technology does not require labeled data to derive an initial segmentation. Removing the requirement for labeled data permits substantial expansion of the number of data sources, including customers of a bank's customers (KYCC). Ayasdi AML provides complete transparency into what drives the segmentation. Ayasdi AML produces a complete documentation workflow containing simple decision trees shared with internal model governance boards and external regulators.

Figure 3: Complete transparency of process for regulators and internal model review boards, but highly consumable and clear business interface.

2. Emerging Behaviors

Banking leadership, and certainly regulators, can fail to realize that every day, changes to products, geographies, regulations, acquisitions, and source data can undermine the work performed in the prior tuning exercises. Discovering anomalies, navigating networks, or simply meeting a rule threshold can still fail to uncover all the malfeasance you may be held responsible for.

Outside of the most opportunistic or unsophisticated money launderers, financial criminals evolve. Their evolution results in growing inefficiency on the side of the bank as its static systems become less and less effective, but don't become any less expensive.

Because Ayasdi AML analyses customer transactions daily, it automatically captures customers' behavior and alerts against changes in behavior over time, such as:

- The customer's behavior deviation over time, based on specified thresholds
- The changes in a party's behavior compared to their peers in their segment
- The deviation in customer behavior compared to the information provided during KYC – Deviation to "Nature & Purpose"
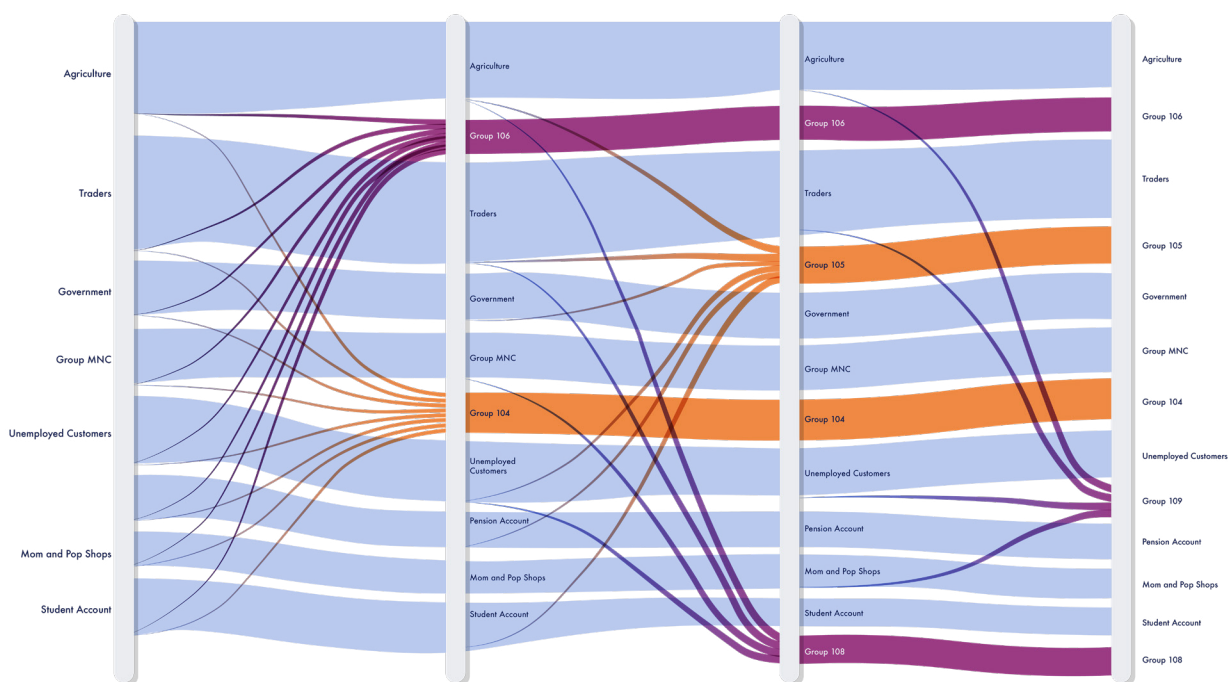- Party migration between and across segments

Figure 4: A diagram of dynamic behavioral adaptation and movement over time…

Ayasdi AML provides detailed, auditable reports highlighting emerging behaviors and further the current rule applicability to immediately address them, providing detailed segment characteristics and membership insight.

Using one customer's correspondent banking data, Ayasdi AML reduced false positives by 60%, increased risk detection by 120%, and increased speed to risk detection by 40%.

A supervised risk detection layer added to unsupervised AI provides broader and faster risk coverage for an institution.

3. New Entity Risk Detection

Finally, don't get locked into a formula you then have to blindly follow, or the cycle of surprises and rash decisions will repeat.

A simple and intuitive user interface ensures an efficient loop between users and the AML process allowing threats to be discovered, alerted, sent to case management, visualized, investigated, escalated, added to a watch cycle, automatically segmented for subsequent monitoring, submitted to any auto CMS/SAR/STR system. This allows discovery of not just AML, but precursors to laundering including tax evasion, fraud, and trafficking.

With multiple detection techniques, both supervised and unsupervised, combining customer data, transactions, TMS metadata, alert, disposition, escalation and SAR filing data with state-of-the-art behavioral change mathematics, Ayasdi AML allows for ongoing rationalization despite your customers' and the regulatory environment's volatility.

AyasdiAI's explainable and auditable solution, leverages an ensemble AI approach and applies that to each and all of the parties, accounts, counter-parties, intermediaries, merchants, employees, or KYC profile data elements available both individually and contextually as a whole, discovering, detecting, and alerting on the risk hidden in the most simple to most complex relationships – efficiently.
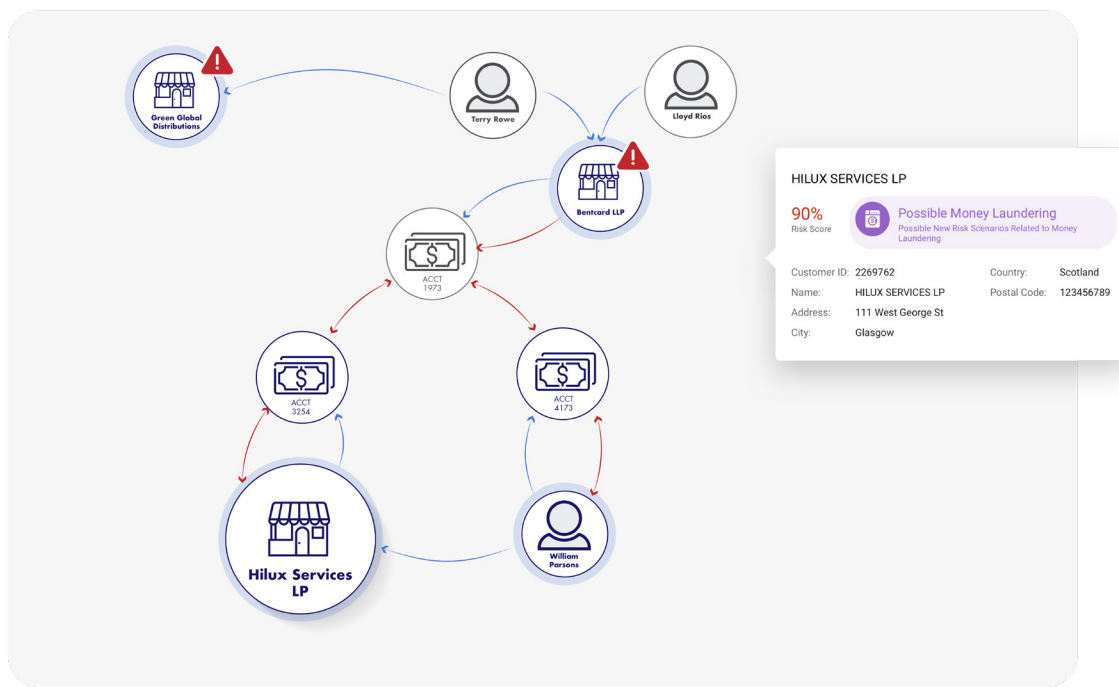

Figure 5: Visualization of a network of financial crime specific risk, using internal, external and transaction data

Looking for AML risk in enormous data sets including customers, accounts, and transactions requires looking beyond any one element. Solely alerting on a transaction(s), account, or even customer with a single focus generates too much noise.

Data is parsed, and entities resolved and measured by a family of algorithmic approaches, enriched with third party data and made available to be visualized, all the while maintaining full transparency, data lineage and auditability. An ensemble method is applied to the risk scored entities and the alert is generated – visualized, with full context and available for investigation or sent to a downstream case management application or other process.

New entity risk detection summarizes all risks in a single view, enabling instant visualization and machine or human prioritization in line with your institution's appetite for risk and backs it up with in-depth, drillable, pre-fetched, pre-aggregated, and enriched party data. Account behaviors, credits, debits, payment histories, payment flow visualizations, and more are available to give your investigator and analyst community a holistic and clear picture.

Rationalize Anti-Money Laundering

1. Increased Risk Detection	**120%**	150% L3 Escalation 120% SARs Filed
2. Speed to Risk Detection	**40%**	40% SARs Identified >30 Days Sooner
3. Reduction of False Positives	**60%**	>60% False Positive Reduction

To find out how to leverage AI for your AML challenges contact us at sales@ayasdi. com to arrange a demonstration.

About Symphony AyasdiAI

Symphony AyasdiAI, part of the SymphonyAI Group, is the world's most advanced artificial intelligence software company. Symphony AyasdiAI helps organizations discover new and valuable insights in enterprise data. With unprecedented accuracy, transparency, and speed. Built upon over a decade of research and experience, Symphony AyasdiAI delivers insights to Fortune 500 companies and public sector organizations to capture growth, avoid risks and manage inefficiencies. www.ayasdi.com

About Symphony Group

The SymphonyAI Group is the fastest growing and most successful group of B2B AI companies, backed by a $1 billion commitment to build advanced AI and machine learning applications that transform the enterprise. Symphony AI is a unique operating group of over 1,600 skilled technologist and data scientists, successful and proven entrepreneurs, and accomplished professionals, under the leadership of one of Silicon Valley's most successful serial entrepreneurs, Dr. Romesh Wadhwani.

Symphony
AYASDI

555 Twin Dolphin Dr, Suite 370
Redwood City, CA 94065 USA
+1 650.704.3395
sales@ayasdi.com
ayasdi.com | @ayasdi