

SUCCESS STORY

ANTI-MONEY LAUNDERING

ORGANIZATION

Tier 1 bank located in APAC

DEPARTMENT

Corporate Banking

FOCUS AREA

Anti-Money Laundering
Innovation

AVAILABLE DATA

- 45,000,000 transactions
- 12 months of data
- Over 100,000 corporate customers
- Customer information
- Socio-demographic information
- Account information
- Financial Transactions

BUSINESS CHALLENGES

- High false positive rates
- 3rd party alert fatigue
- High operational costs
- Low detection rates

PROJECT GOALS

- Detect suspicious activity that was not picked up by the current rules-based systems
- Identify new emerging money laundering and terrorist financing trends
- Improve operational efficiency by reducing 3rd party system alerts
- Improve AML compliance

ROI

- 30% reduction in operational costs
- 4X increase in detection accuracy
- 35%+ reduction in 3rd party alerts
- Identification of 5 new money laundering patterns

THETARAY BENEFITS

- Ability to detect anomalies in big data environment
- Ability to cluster anomalies for more effective investigation
- Detect AML new patterns that are not defined by the bank's existing rule-based transaction monitoring system
- No parameters and thresholds to define for monitoring

Background

A tier 1 bank with multiple locations across APAC was relying on a rule-based transaction monitoring system that notoriously missed money laundering cases while generating a high number of alerts (over 75,000 alerts per year with over 95% being classified as false positives). The bank was experiencing continuous operational inefficiencies, alert fatigue and high operational costs related to its current AML program.

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Challenge

- Unable to detect previously unknown, emerging money laundering schemes
- False positive rate – greater than 95%
- Inflated analyst teams
- Alert fatigue

Goals and Objectives

The project was designed to address two areas of concern:

Objective 1: Missed money laundering cases

Objective 1: Operational inefficiencies of the existing AML program

Within those areas, the following main objectives were set forth:

- Detect suspicious activity that was not picked up by the current rules-based systems and could be indicative of money laundering
 - Identify new emerging money laundering and terrorist financing activities/ trends
 - Improve AML compliance
 - Improve operational efficiency
 - Reduce 3rd party system alerts
 - Reduce monetary and human resources required to handle alerts
 - Reduce false positive rate
 - Improve alert prioritization workflow
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RESULT

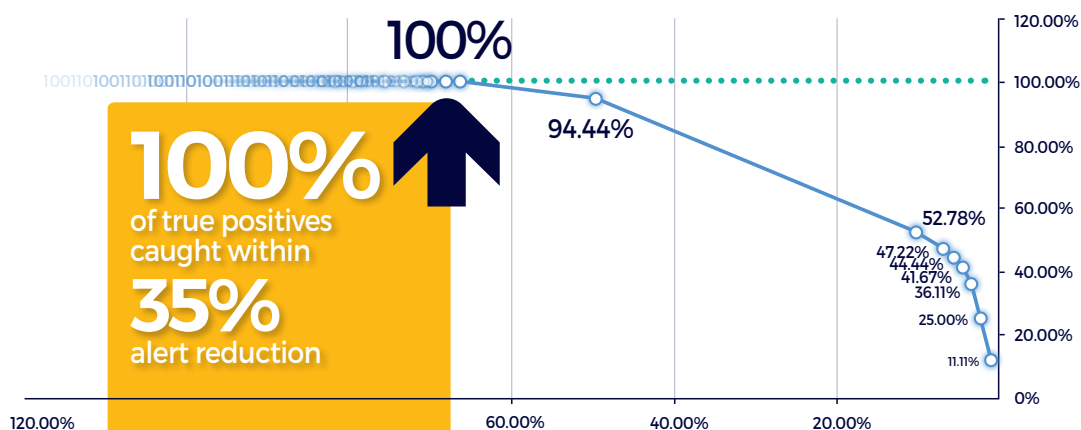
During a period of three weeks, ThetaRay was able to demonstrate the following business values.

Detected Previously Missed Suspicious Activity

- **New money laundering cases detected** - using unsupervised machine learning analysis and multi-dimensional data, including changes in customer behavior and transactional patterns, ThetaRay was able to detect suspicious activity previously missed by the bank's legacy system.
- **Prior closed cases re-opened** - several prior investigated cases that were closed as non-suspicious were re-opened based on the new analysis patterns provided by ThetaRay.
- **New patterns indicating money laundering** identified by adding more data sources into the analysis in just a few hours

Reduced Analyst Work While Improving Compliance

- **4,200** suspicious activities detected, reduced to **48** patterns for efficient triage leveraging detailed, explainable results
- **Alerts matching high severity patterns assigned priority** for analyst review improving AML outcomes
- **95%** of legacy system alerts classified as **false positives** while accounting for 100% of true positives
- Overall **35%** reduction in **false positives** significantly mitigating alert fatigue issue



Conclusion

All KPIs were achieved successfully resulting in significant improvements in AML compliance and detection accuracy.

ThetaRay's patented algorithms offered dramatic improvements in operational efficiency and alert quality by providing advanced anomaly detection capabilities and low false-positive rates. The ThetaRay Analytics Platform includes the ability to rapidly ingest multiple data sources and to create clusters of anomalies indicative of suspicious activity, which are categorized and assessed for severity. The clusters include a detailed listing of specific feature combinations that are attributed to each anomalous event.

ThetaRay demonstrated a significant efficiency improvement by analyzing 3rd party alerts, adding new prioritization methods, tagging and workflow improvement. Further segmented analysis shows potential for an even greater efficiency - up to 42% reduction in false positive alerts.

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The ThetaRay Value

Strengthen compliance

- Detect suspicious cases that were not detected by current system controls
- Provide new angles to the alerts generated such as trends of behavioral patterns
- Detect early signs of emerging money laundering and terrorist financing risks

In-depth investigation

- Integrate multiple data sources to display all relevant information in a consolidated report for a more informed analysis
- Full transparency of detected events with forensics traced back to each event

Operational efficiency

- Automated finding of suspicious events and ability to start an investigation case in a matter of minutes
- Reduction in the total number of alerts based on accurate detection coupled with alert clustering
- Low false positive rate
- Increase in operational efficiency, including the ability to better utilize resources, investigate alerts in order of priority and report suspicious activities to authorities in a timely manner

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