THETARAY

# SUCCESS STORY
## ANTI-MONEY LAUNDERING FOR CORRESPONDENT BANKING

**ORGANIZATION**
Large global bank

**DEPARTMENT**
AML, Financial Crime Investigation Unit

**FOCUS AREA**
Correspondent banking

**AVAILABLE DATA**
- 6 years of correspondent banking activity
- 200 Million SWIFT messages

**CHALLENGES**
- Unable to detect sophisticated, unknown money laundering schemes (e.g. Russian Laundromat)
- Data silos in correspondent banking
- Lack of AML controls for SWIFT data

**PROJECT GOALS**
- Detect 100% of the known Russian Laundromat cases
- Identify additional, unknown money laundering cases

**ROI**
- 100% of 428 suspicious transfers detected as money laundering
- All suspicious, anomalous transactions clustered into 7 attack vectors with common characteristics, providing clear description of the MOs
- 8,400 anomalies grouped into 7 clusters, providing increased efficiency and improved forensics for both governance and risk mitigation

**THETARAY BENEFITS**
- Effective and meaningful detection
- Increased efficiency
- Lower AML cost
- Improved forensics
- Enhanced risk governance and mitigation

**THETARAY VS FORENSICS ANALYSIS – FINDING UNKNOWN UNKNOWNS BETTER AND FASTER**

A 2-year manual investigation by a subcontractor confirmed the bank's exposure to the Russian Laundromat scheme and validated 426 money laundering cases that could be attributed to the Russian Laundromat scheme. ThetaRay was able to match and exceed forensic analysis results presented by the consulting firm in just 2 weeks.

## Background

A large multinational bank headquartered in the UK had accidently identified its unbeknownst involvement in a global, sophisticated money laundering scheme later dubbed the "Russian Laundromat". While the unfortunate discovery came to light via various third-party data and public knowledge, the internal banking control mechanisms failed to pick up any suspicious activity connected with this financial crime scheme.

A manual investigation of several hundred transactions revealed high levels of suspicious activity that could be attributed to the Russian Laundromat case.

## Challenge

The Russian Laundromat scheme that was first uncovered in 2014 has exposed major flaws in the currently implemented anti-money-laundering controls. Despite having handled the Laundromat's funds for over 6 years, the bank was not able to either detect or prevent substantial amounts of illegal money passing through its system.

One of the primary challenges facing the bank was its reliance on the rules-based transaction monitoring systems that are limited by the knowledge of previously identified financial crime schemes, codified as rules, creating opportunities for skilled criminals to circumvent them.

An additional challenge was presented by data silos common for correspondent banking and the lack of AML controls for SWIFT data.

"One of the primary challenges facing the bank was its reliance on the rules-based transaction monitoring systems"

## Quickly spot anomalies indicative of financial crime

To assess the actual risk, understand money laundering patterns, properly manage the riskiest correspondent banking relationships with tier 2 banks, and report their findings to stakeholders and regulators, the bank needed a sophisticated review and analysis of correspondent banking activity using historical data for the past six years.

ThetaRay was approached to propose a scalable solution that will automatically detect the known money laundering schemes and expose the unknown patterns, detect illicit activity fast and reveal additional customers of the bank who were involved in the Russian Laundromat scheme.

The goal was to enable the bank to modify and augment its existing money laundering detection process and address issues such as missed criminal activity, undetected illicit money transfers and underreported money laundering cases.

## Objectives

1. *Detect 100% of known money laundering cases automatically*
2. *Expose unknown money laundering schemes*
3. *Propose automatic and scalable AML solution*
4. *Shorten money laundering detection time*
5. *Maintain regulatory compliance posture*

## Requirements

The bank set several strict requirements for this project

1. *Identify illicit activity at the placement, layering and integration stages of money laundering process*
2. *Detect confirmed money laundering cases without prior knowledge, using only historical correspondence banking data*
3. *Use only SWIFT Data for analysis*

## RESULT

Despite rigorous requirements and the minimum data provided for analysis, ThetaRay was able to exceed customer expectations:

- **100% Detection Rate**
  - All 428 previously identified suspicious transfers detected, using only SWIFT MT 103 messages
- **Increased efficiency**
  - Extremely low number of anomalies, 8,400 out of 200 Million SWIFT messages
  - 8,400 anomalies grouped in 7 clusters for the analyst team to review
  - New patterns indicating money laundering were identified using machine learning techniques, training the system on the available data
- **3 money laundering typologies indicating clear Financial Crime patterns for ongoing monitoring**
  - Identified three money laundering typologies (dubbed "Rotation Schemes" in correspondent banking indicative of the criminals' insider knowledge of the banking control mechanisms or the lack of thereof

## Conclusion

ThetaRay's Anti-Money Laundering for Correspondent Banking provides the industry first solution proven to detect suspicious activity not only at placement but also through layering and integration back into the financial system. Built on patented Artificial Intelligence (AI) and Unsupervised Machine Learning algorithms, it empowers banks to rapidly discover previously unknown schemes, ensuring that money launderers cannot simply learn to bypass static rules and thresholds. ThetaRay's rules-free solution uses Unsupervised Machine Learning algorithms to analyze SWIFT messages, combined with available KYC data, to identify anomalies from normal activity.

ThetaRay's advanced analytics platform was able to successfully expose criminal activity in correspondent banking – an area that was previously considered a "black hole" in financial crime detection.

Following the challenging objectives and KPIs, the customer was surprised by the successful outcomes of ThetaRay's analysis; the project which was initially classified as "out-of-reach", was marked a success. The customer is planning implementations of ThetaRay's solutions for new domains such as Compliance Workflow.

> "ThetaRay's advanced analytics platform was able to successfully expose criminal activity in correspondent banking"

## The ThetaRay Value

Correspondent banking remains a high-risk yet crucial activity for the global economy. Over the years, banks implemented multiple risk mitigation techniques to no avail.

With ThetaRay, banks can bridge this gap by effectively managing the correspondent banking relationship risk:

- Analyze large sets of data
- Include SWIFT data into AML controls
- Perform enhanced due diligence on banks and customers
- Detect indirect TF and Sanctions exposure
- Comply with regulatory and reporting requirements

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