

# SCALING UP ANTI-MONEY LAUNDERING INVESTIGATIONS IN TODAY'S DIGITAL WORLD

Case Study |

An AML Vault with Knowledge Graphs, Machine Learning, and AI Accelerators comes to the rescue



## RESCUING A BANK FROM A SEA OF FALSE POSITIVES

Mergers and acquisitions attract the attention of regulators as both parties' compliance capabilities are reviewed. With banks, regulators must review their data governance, infrastructure, and analytical scores. The review does not just happen with the party being acquired, but with the acquiring bank itself. In particular, the acquiring bank's financial crime risk management (FCRM) is dissected to ensure that the newly acquired portfolio's addition will not disrupt or invalidate its current systems. If the acquisition graduates the bank from one size to the next, their fraud prevention and anti-money laundering (AML) investigation process engine must reassure that it can handle disruption, and scale. Regulators can delay the acquisition if weaknesses are found. The bank in this case study "opened their books" to regulators and was repeatedly denied approval until Mastech InfoTrellis came to the rescue.



### THE BUSINESS CHALLENGE

With their latest acquisition graduating them from small to mid-tier, a bank needed to prove that their FCRM can absorb shocks from portfolios that the acquisition will bring, given the difference in their risk profiles, and expecting almost 70% false positives to adjudicate. The acquisition was suspected of adding 30% to their current catalog of 2,500 scenarios from bank transactions and credit behavior data, sending their false positive rates prohibitively high. They knew that they needed to present more than just the typical manual adjudication strategy through staff augmentation of their 150+ investigators that were already known to the regulators past multiple unsuccessful regulatory reviews. So, how did knowledge graphs and AI save the day?



### THE SOLUTION

Mastech InfoTrellis leveraged its AML Vault, which consisted of an armory of ready-to-use AI accelerators built on a knowledge graph and machine learning built for investigating AML. By leveraging a graph data infrastructure, investigators use the AML Vault's accelerators to inject smart automations across the entire AML investigation process, upgrading manually intensive work to a systematic, easily auditable, continuously learning "engine." When investigating a case takes minutes instead of weeks, and the AI used is explainable, banks can finally scale their KYC verification, risk scoring, and false positive adjudications.



### THE OUTCOME

By leveraging a knowledge graph data infrastructure, the bank established a highly regulator-facing Smart Data Governance process that facilitated auto-investigation of cases on the 2,500+ scenarios, plus any additional volume presented via acquisitions. Their adjudication rate increased from 5% per month (using manual reviews) to 88% per month (now using AI accelerators). The 12% that remained were more complex cases that are tagged and resubmitted to the AML Vault for re-learning so that their nuances are accounted for in the future iterations. As for passing regulatory reviews and avoiding \$500M in fines, the autoML-enabled UI helped the investigators reduce false positive cases faster. Using this UI, which sits atop a knowledge graph infrastructure, the bank can now document all interactions on the UI as investigators do their research. From data governance to case reporting, documentation is now standardized and optimized by explainable AI that regulators could easily understand.