TigerGraph

Major Financial Institution Improves Its Ability to Combat Money Laundering with TigerGraph

Introduction

This company provides banking, investment, mortgage, trust, and payment services products to individuals, businesses, governmental entities, and other financial institutions. It is one of the largest banking institutions in the United States, and has over 3,000 branches, primarily in the Western and Midwestern United States. The company has subsidiaries that include a processor of credit card transactions for merchants and a credit card issuer that issues credit card products to financial institutions.

The Challenge

The financial institution was looking to improve its networking and link analysis capability for anti-money laundering to be applied in three ways:
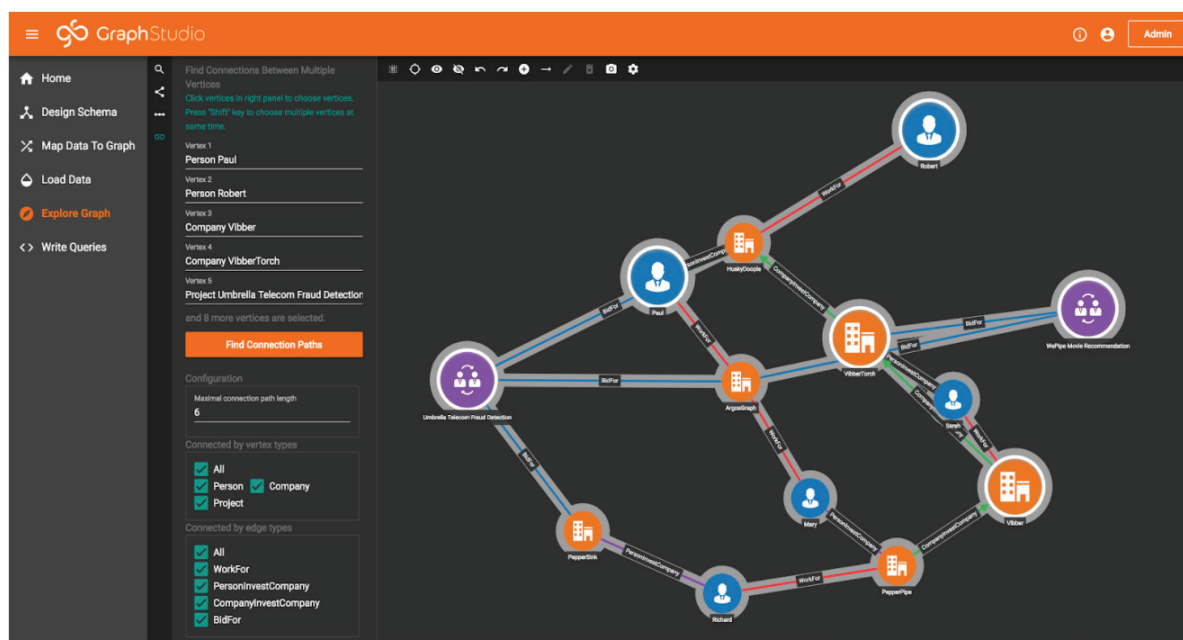
- Connections between open work items in situations of interest (such as previous SAR filings, other open work items) should be identified and available to analysts and investigators;

- Thorough ad hoc reviews of an entity should display the connections from an ecosystem surrounding a specific starting point of an investigation;

- The system should enable analysts to identify which connections and situations of interest lead to productive investigations and inform the creation, hibernation, or escalation of work items.

> **"Our bank is proud of its leadership role in financial services innovation. Thanks to TigerGraph we are confident in the strength of the [anti-money laundering] program we have in place today and are better prepared than ever to tackle financial criminals."**
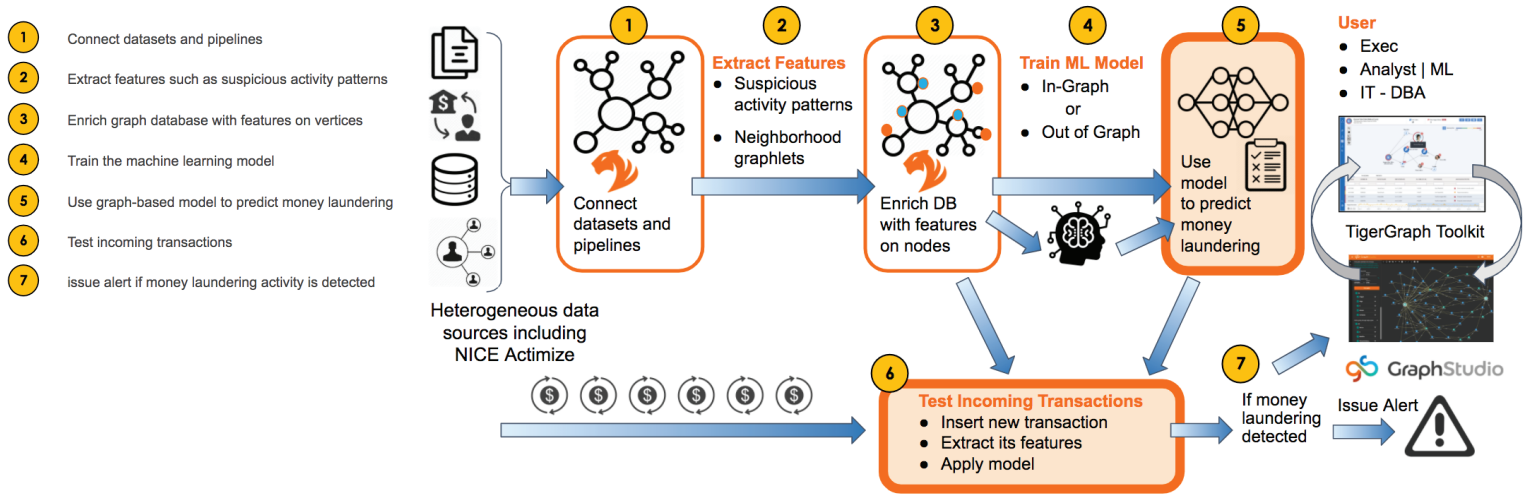>
> - Chief Innovation Officer

Mapping The Money Laundering Networks with TigerGraph

The Solution

TigerGraph is providing this financial institution with the ability to perform in-depth analysis that was impossible with its prior legacy system based on a relational database. TigerGraph offers the capability for this business to see its connected data in context. Moreover, TigerGraph is delivering the scalability to analyze ever-increasing amounts of data and an extensibility derived from its support for machine learning that keeps the bank's anti-money laundering program ahead of financial criminals.
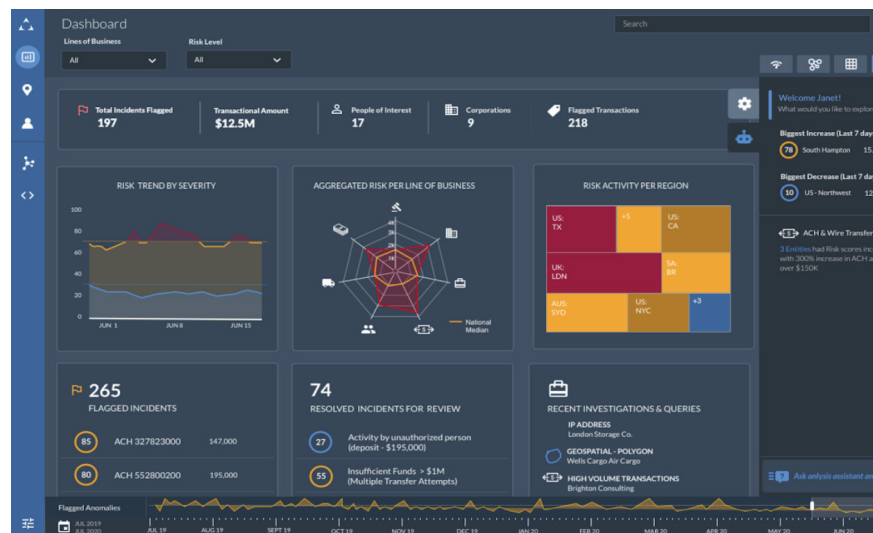
End-to-end AML Solution with TigerGraph and NICE ACTIMIZE or similar financial crimes solutions

1. Connect datasets and pipelines
2. Extract features such as suspicious activity patterns
3. Enrich graph database with features on vertices
4. Train the machine learning model
5. Use graph-based model to predict money laundering
6. Test incoming transactions
7. issue alert if money laundering activity is detected

The Results

Although only in production for months, this company is experiencing an improvement in the ability of its analytical and investigative teams to identify and trace connections between work items that are indicative of money laundering and react in real-time. This is improving the effectiveness and efficiency of these teams, and further substantial gains in productivity are resulting from their ability to determine which situations of interest to prioritize.

AML Dashboard - built by partner Expero Inc.

Learn More

- Watch a presentation on the Application of Graph Model in Fintech and Risk Management from Graph + AI World.
- Read a white paper on Making AML Compliance Easier and Smarter.
- Read the TigerGraph for Anti-Money Laundering solution brief.

Some of Our Customers

AMGEN® **intuit** **wish**

国家电网公司 STATE GRID CORPORATION OF CHINA

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Pagantis

IPPEN DIGITAL PLATTFORM

Kickdynamic

- Real-time fraud detection at 7 out of the world's top 10 global banks
- Care path recommendations for 50 million patients
- Personalized offers for 300 million consumers
- Energy infrastructure optimization for 1 billion people

> **"Once we have everything built in graph, we can react to changes in real-time. Graph is at the centre of everything we do."**

Dr. Jay Yu
Distinguished Engineer and Architect,
Intuit

> **"With TigerGraph we can join sources of data together and make connections within the data that previously we couldn't. We can now answer questions that, for the last 20 years, we didn't think were possible to ask."**

Harry Powell, Director of Data & Analytics,
Jaguar Land Rover

About TigerGraph

TigerGraph is the only scalable graph database for the enterprise. TigerGraph's proven technology connects data silos for deeper, wider and operational analytics at scale. Seven out of the top ten global banks use TigerGraph for real-time fraud detection. Over 50 million patients receive care path recommendations to assist them on their wellness journey. 300 million consumers receive personalized offers with recommendation engines powered by TigerGraph. The energy infrastructure for 1 billion people is optimized by TigerGraph for reducing power outages. TigerGraph's proven technology supports applications such as fraud detection, customer 360, MDM, IoT, AI, and machine learning.

For more information visit **www.tigergraph.com** and follow us at: Facebook Twitter LinkedIn

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Get Started for Free at Tigergraph.com/Get-TigerGraph

TigerGraph Cloud graph database as a service is built for agile teams who'd rather be building innovative applications to deliver new insights than managing databases.

Cloud Starter Kits

TigerGraph Cloud Starter Kits are built with sample graph data schema, dataset, and queries focused on specific use cases such as fraud detection, recommendation engine, supply chain analysis and/ or a specific industry such as healthcare, pharmaceutical or financial services.

STARTER KIT	OVERVIEW
COVID-19 ANALYSIS	Detect hubs of infection and track the movements of potential spreaders
CUSTOMER 360-ATTRIBUTION & ENGAGEMENT GRAPH	Create a real-time 360 view of the customer journey for attribution and engagement insights.
CYBERSECURITY THREAT DETECTION-IT	Block cybersecurity threats by detecting interconnected events, devices and people
ENTERPRISE KNOWLEDGE GRAPH (CORPORATE DATA)	Analysis of corporate data including investors and key stakeholders.
ENTERPRISE KNOWLEDGE GRAPH (CRUNCHBASE)	Knowledge graph examples featuring crunchbase data with startups, founders and companies.
ENTITY RESOLUTION (MDM)	Identify, link and merge entities such as customers with analysis of attributes and relationships.
FRAUD & MONEY LAUNDERING DETECTION	Multiple types of fraud and money laundering patterns.
GSQL 101	Introduction to TigerGraphs powerful graph query language.
HEALTHCARE GRAPH (DRUG INTERACTION/ FAERS)	Healthcare example focused on public (FAERS) and private data for pharmaceutical drugs.
HEALTHCARE–REFERRAL NETWORKS, HUB (PAGERANK) & COMMUNITY DETECTION	Analyze member claims to establish referral networks, identify most influential prescriber's and discover the connected prescriber communities.
MACHINE LEARNING & REAL-TIME FRAUD DETECTION	Mobile industry example for detecting fraud in real-time and generating graph-based features for training the machine learning solution.
NETWORK & IT RESOURCE OPTIMIZATION	Network and IT resource graph for modeling and analyzing the impact of the hardware outage on workloads.
RECOMMENDATION ENGINE (MOVIE RECOMMENDATION)	Graph-based movie recommendation engine built with public data.
SOCIAL NETWORK ANALYSIS	Social network example for understanding and analyzing relationships.
SUPPLY CHAIN ANALYSIS	Example covering inventory and impact analysis.