



THE AML PROBLEM

Global money laundering transactions comprise an estimated two to five percent of the global GDP, or roughly \$1 - 2 trillion annually (Source: PWC report).

Any organization facilitating financial transactions – whether it’s non-bank money service businesses such as digital/mobile payment services, life insurers and retailers, to name a few – falls within the scope of anti-money laundering (AML) legislation. And the cost of AML compliance efforts continues to rise, with global spending

growing by almost nine percent per year to more than \$8 trillion in 2017 (Source: WealthInsight).

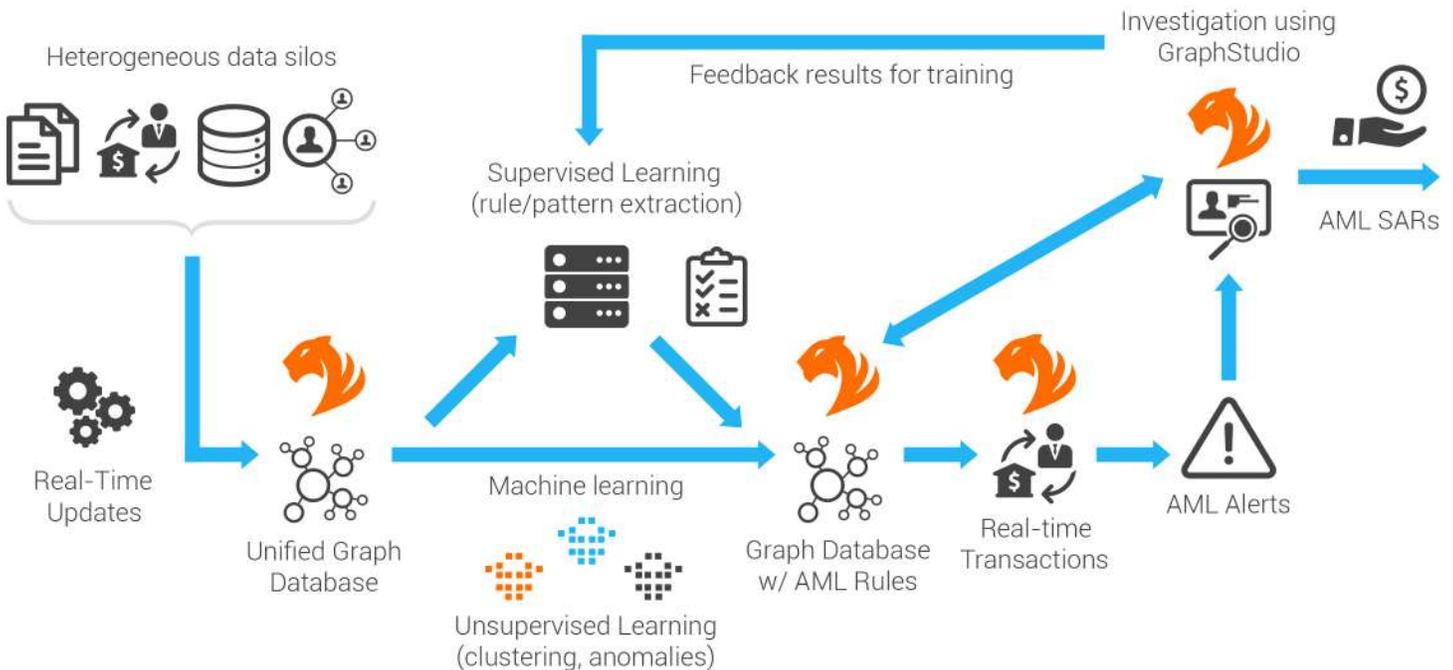
Today, criminals are using extremely sophisticated, ever-adapting tactics to bypass traditional anti-fraud solutions for money laundering. Many enterprises do have access to the data that could reveal the illicit activity, but they are unable to link the data and the relationships together.



FIGHTING MONEY LAUNDERING WITH REAL-TIME DEEP LINK ANALYTICS

Real-Time Deep Link Analytics by TigerGraph provides enterprises the ability to capture, curate, store, search, and analyze the data to find new correlations, relationships, and trends that were previously unavailable. Organizations can combat financial crime by identifying high risk transactions. For example, starting from an incoming deposit transaction, how this transaction is related to other entities can be identified as follows:

AML WORKFLOW WITH TIGERGRAPH





This diagram shows where TigerGraph is supporting the AML workflow - from analyzing the data, performing unsupervised and supervised learning to refine the ML rules.

Today's fraudsters try to disguise their activity by having circuitous connections between themselves and known bad activity or bad actors. Any individual connecting path can appear innocent, but if multiple paths from one point to another can be found, the likelihood of fraud increases.

Thus, more hops are needed to find connections two or more transactions away. This traversal pattern applies to many other use cases - where you can simply replace the transaction with a web click event, a phone call record, or a money transfer.

With Real-Time Deep Link Analytics, multiple, hidden connections are uncovered and fraud minimized. Deep Link Analytics by TigerGraph allows financial institutions to traverse the data, creating smarter AI and ML to improve AML detection, reduce investigation costs and streamline the AML process.



STOPPING MONEY LAUNDERING IN ITS TRACKS

Customer Use Case: E-Payment Company

TigerGraph is used by the #1 e-payment company in the world, with more than 100 million daily active users, to modernize how it conducts investigations.

Previously, the AML practice was a very manual effort, as investigators were involved with everything from examining data to identifying suspicious money movement behavior. Operating expenses were high and the process was highly error prone.

Implementing TigerGraph, the company was able to automate development of intelligent AML queries, using a real-time response feed leveraging ML. Results included a high economic return using a more effective AML process, reducing false positives and translating into higher detection rates.

Customer Use Case: Credit Card Company

Similarly, a top five payment provider sought to improve its AML capabilities. Key pain points include high cost and inability to comply with federal AML regulations - resulting in penalties. The organization relied on a manual investigative process performed by a ML team comprised of hundreds of investigators, resulting in a slow, costly and inefficient process with more than 90 percent false positives.

Using TigerGraph, the company is leveraging a graph engine to modernize its investigative process. It has moved from having its ML team cobble processes together towards combining the power of graph analytics with ML to provide insight into connections between individuals, accounts, companies and locations.

By uniting more dimensions of its data, and integrating additional points - such as external information about customers - it is able to automatically monitor for potential money laundering in real time, freeing up investigators to make more strategic use of their now-richer data. The result is a holistic and insightful look at its colossal amounts of data, producing fewer false positive alerts.



THE TIGERGRAPH AML ADVANTAGE

How TigerGraph improves AML quality and reduces cost

AML REQUIREMENT	TIGERGRAPH CONTRIBUTION	RESULTS AND BENEFIT
Build and maintain data set	<ul style="list-style-type: none"> • Easy to link new data • Graph model • Scalability • Super-fast querying & analytics • Super-fast updates 	<ul style="list-style-type: none"> ✓ Unified and maintainable transaction + KYC master database ✓ Richer and one-stop data resource
Build money laundering detection model(s)	<ul style="list-style-type: none"> • Fast parallel deep link analytics for in-graph machine learning • Fast data export/import for out-of-graph machine learning 	<ul style="list-style-type: none"> ✓ Speed and flexibility for learning and re-learning models ✓ More complete data + ML → fewer false positive alerts
Detect potential money laundering → Generate alert	<ul style="list-style-type: none"> • Real-time transaction + analytics processing 	<ul style="list-style-type: none"> ✓ Generate alerts in real-time, directly from your transaction database, tunable for risk.
Investigate alerts → Convert to SARs	<ul style="list-style-type: none"> • Fast ad hoc or programmed queries • GraphStudio query+visualization • User & data security/authorization 	<ul style="list-style-type: none"> ✓ Analysts work more efficiently, saving time and money. ✓ Secure, private investigation
Compliance	<ul style="list-style-type: none"> • Graph model has self-explanatory semantics • Unified AML pipeline has fewer pieces to explain 	<ul style="list-style-type: none"> ✓ Transparent data model and simple workflow is audit-ready.



TigerGraph TigerGraph for Anti-Money Laundering (AML)

LEARN MORE

As we are in an era of data explosion, it is more and more important for organizations to make the most in analyzing their colossal amounts of data in real time for AML. TigerGraph's Deep Analytics graph platform can help.

TigerGraph is used by the world's leading organizations for AML. To learn more, visit: www.tigergraph.com or contact sales@tigergraph.com.

CONTACT

TigerGraph
3 Twin Dolphin Drive, Suite 225
Redwood City, California 94065
United States

www.tigergraph.com
sales@tigergraph.com

CUSTOMERS AND USE CASES

TigerGraph's real-time analytics on giant graphs is the engine behind fraud prevention at the world's largest e-commerce provider, recommendations at the world's largest mobile e-commerce company, and network management at the world's largest electric grid company.

ANTI-FRAUD & ANTI-MONEY LAUNDERING:

TigerGraph's deep link analytics and big graph capabilities uncovers hard-to-find patterns and connections. Financial crimes teams can investigate specific transactions, high-risk customers or counterparty relationships using a graph modeling approach, in real-time.

MASSIVE-SCALE TRANSACTION PROCESSING:

One of the world's largest e-payment companies uses TigerGraph to handle a graph with 100B+ vertices and 2B+ real-time updates/day. 20-node cluster, 2+ years in production, full ACID.

SUPPLY CHAIN INTELLIGENCE:

Provides real-time visibility and analytics into key supply chain operations including order management, shipment status and other logistics.

CUSTOMER INTELLIGENCE:

Empowers organizations to quickly deploy powerful relationship analysis capabilities. Real-time capabilities allow retailers to quickly synthesize and make sense of customer behavior and activities, smartly clustering products and make real time, personalized recommendations.

SMART GRID:

Working closely with leading energy and utility companies, TigerGraph has pioneered Native Parallel Graph approaches that help companies monitor and analyze power flows, detect bottlenecks, and alert personnel about grid performance issues.

About TigerGraph

TigerGraph is the world's fastest graph analytics platform powered by Native Parallel Graph (NPG) technology. TigerGraph fulfills the true promise and benefits of the graph platform by tackling the toughest data challenges in real time, no matter how large or complex the dataset. TigerGraph supports applications such as IoT, AI and machine learning to make sense of ever-changing big data. For more information, follow the company on Twitter [@TigerGraphDB](https://twitter.com/TigerGraphDB) or visit www.tigergraph.com.