

ORACLE®

Delivering Innovation & Value in FinCrime Compliance

Turbocharging Financial Crime Investigations with
Automated Case Decisioning

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Session outcomes

- Learning why a graph or a network is a natural, intuitive and expressive way to represent a case or investigation.
- Insights into increasing investigator productivity with visual exploration and navigation of the case graph
- Boosting investigation effectiveness with automated case decisioning powered by Deep Learning (AI) on Case Graphs

Questions to attendees

- How many members have some degree of automation within their existing AFC programme today?
- Anyone care to elaborate? Investigations examples?
- What barriers exist to the usage of greater automation within your investigations process?
 - Regulatory concerns
 - Underlying data issues
 - Inadequate skill set to execute an automation project
 - Other



Current Environment

Fines, more scrutiny, tighter regulations... **however, positive drivers for change**

U.S. Bank's Fines

How the \$613 million in penalties at U.S. Bancorp breaks down

\$0 million \$200 \$400 \$600

U.S./Justi
Dept.

OCC

FinCEN

Federal
Reserve

Note: OCC is
Currency, Fi
Enforcemer
Source: Jus



Startseite

Bezirk der
Staatsanwaltschaft

Aufgaben

Info & Service

Presse

Ansprechpartner

Pressemitteilung 12 vom 20.02.19

"Russian Laundromat"
Staatsanwaltschaft München I und
Bundeskriminalamt beschlagnahmen
50 Mio. Euro wegen Geldwäsche

For Investigation of Danske Money Laundering Scandal

World's biggest bank hit with record fine
for money laundering scandal



Photograph

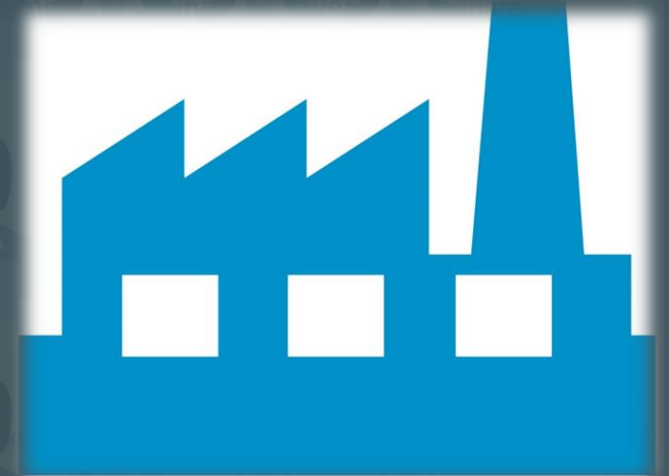
Bank in c
investigat

Germany has "massive" money laundering problem says Transparency International

Traditional Anti-Financial Crime Programme Response.....

- *“.....second-line AML compliance programs now look more like operational utilities or, as one executive put it, “factories,” and less like the independent oversight functions that banks first envisioned.*
- *These factories are expensive, yet might be acceptable if the huge teams and manual processes were working well. But many are not...”*

McKinsey & Company



McKinsey & Company - The compliance function at an inflection point

<https://www.mckinsey.com/business-functions/risk/our-insights/the-compliance-function-at-an-inflection-point>

Today's Investigator Experience

Financial crimes investigations present a significant operational challenge



Reviewing
HUNDREDS of Cases
Every Month



Leveraging Several
Internal and
External Systems



Saving Search
Results



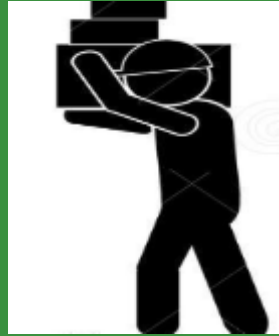
Aggregating Key
Information Into
Files



Finally Analyzing
& Annotating
Results

Today's Investigator Experience

How does this impact your business?



Manual

Nearly 50% of a typical investigation is still manual, and much of this is due to look for data in different, disparate systems



Exhaustive

The data challenge isn't going to go away suddenly, and investigations aren't going to get simpler



Subject to Human Error

80/20

Industry Survey

Analysts spend 80% of their time collecting the information and just 20% analyzing the information

Time To Think Differently?

New approaches required to address today's investigations challenges

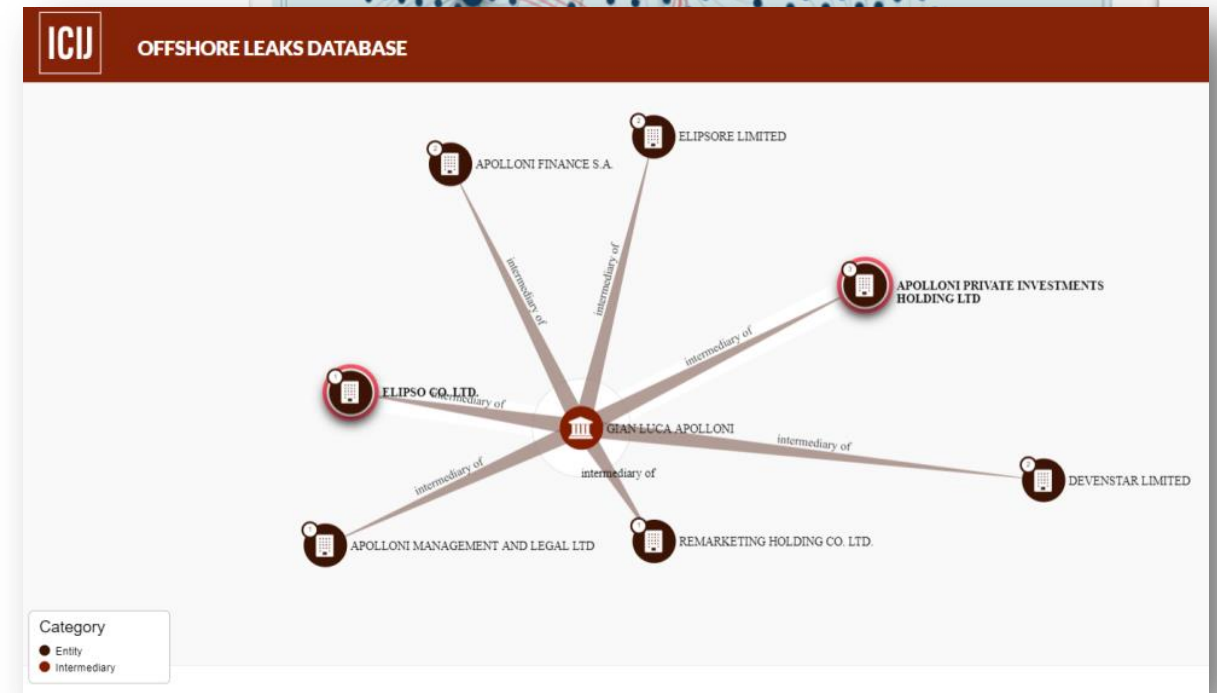
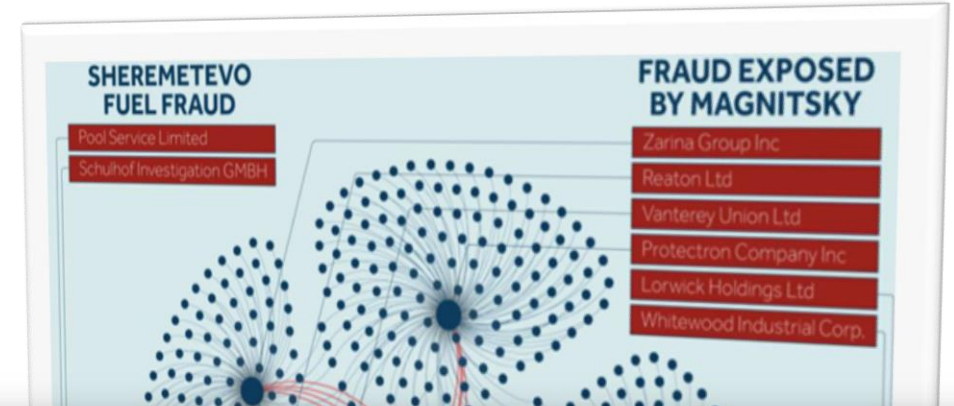
How can we have **more effective** processes?

How can investigators have **more time for analysis**?

Can we leverage intelligent automation to deliver
new efficiencies and insights?

Criminals are great networkers....

- Troika Dialog - a network of offshore companies set up by this Russian investment bank called Troika Dialog.
- Main purpose to channel billions of dollars out of Russia
- Helped Russian oligarchs and politicians to
 - secretly acquire shares in state-owned companies,
 - buy real estate both in Russia and abroad
 - purchase luxury yachts, hire music superstars for private parties, pay medical bills, and much more.
- Highly connected, cross border, complex....



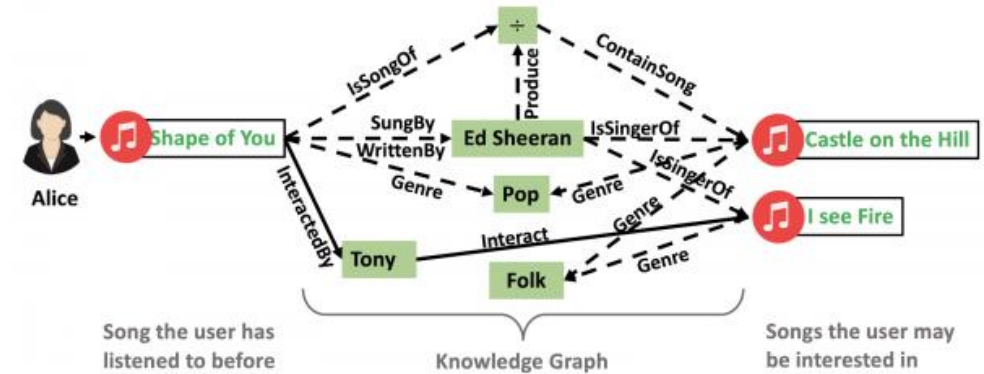
“It takes a network to catch a network....”

Taking the fight to the criminals

What is graph technology and how can it “turbocharge” AFC Investigations?

Top 10 Data and Analytics Technology Trends for 2019

- Analytic techniques that **allows for the exploration of relationships between entities of interest** such as organizations, people and transactions.
- Graph data stores can efficiently **model, explore and query data with complex interrelationships across data silos**
- Graph analytics will **grow in the next few years due to the need to ask complex questions across complex data**, which is not always practical or even possible at scale using SQL queries.

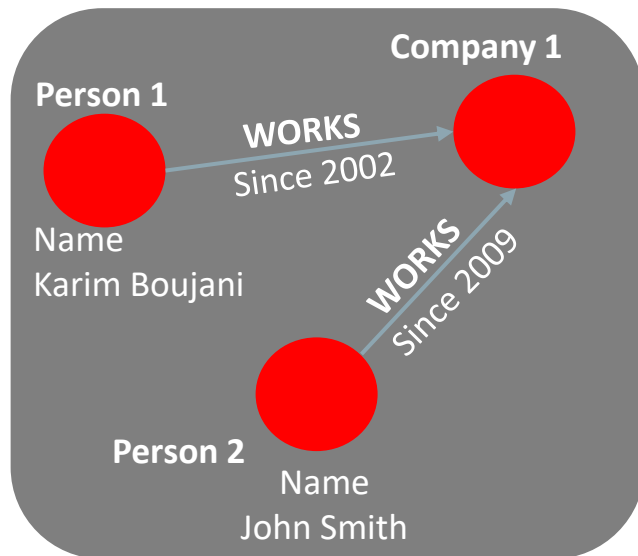


<https://engineering.linkedin.com/blog/2016/10/building-the-linkedin-knowledge-graph>
<https://www.ebayinc.com/stories/blogs/tech/explainable-reasoning-over-knowledge-graphs-for-recommendation/>
<https://www.gartner.com/en/newsroom/press-releases/2019-02-18-gartner-identifies-top-10-data-and-analytics-technolo>

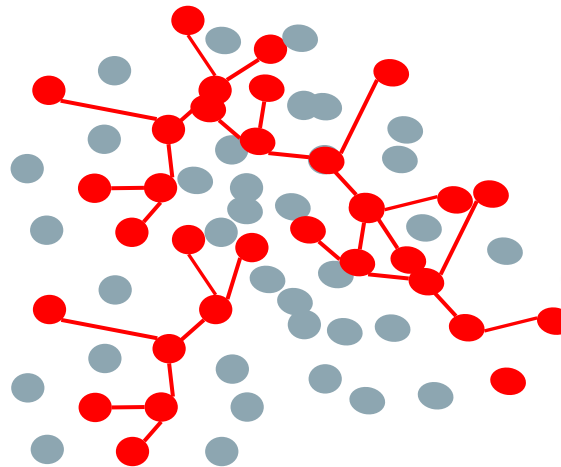
Enhanced Investigations: Graph Analytics

Connecting internal & external data to bring new insight to investigations

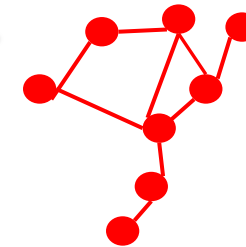
Relationships encoded as networked graph data & then visualised



Identify, “normal”, “non normal” and potential clusters, patterns and chains



Search for, identify and apply new patterns & rules



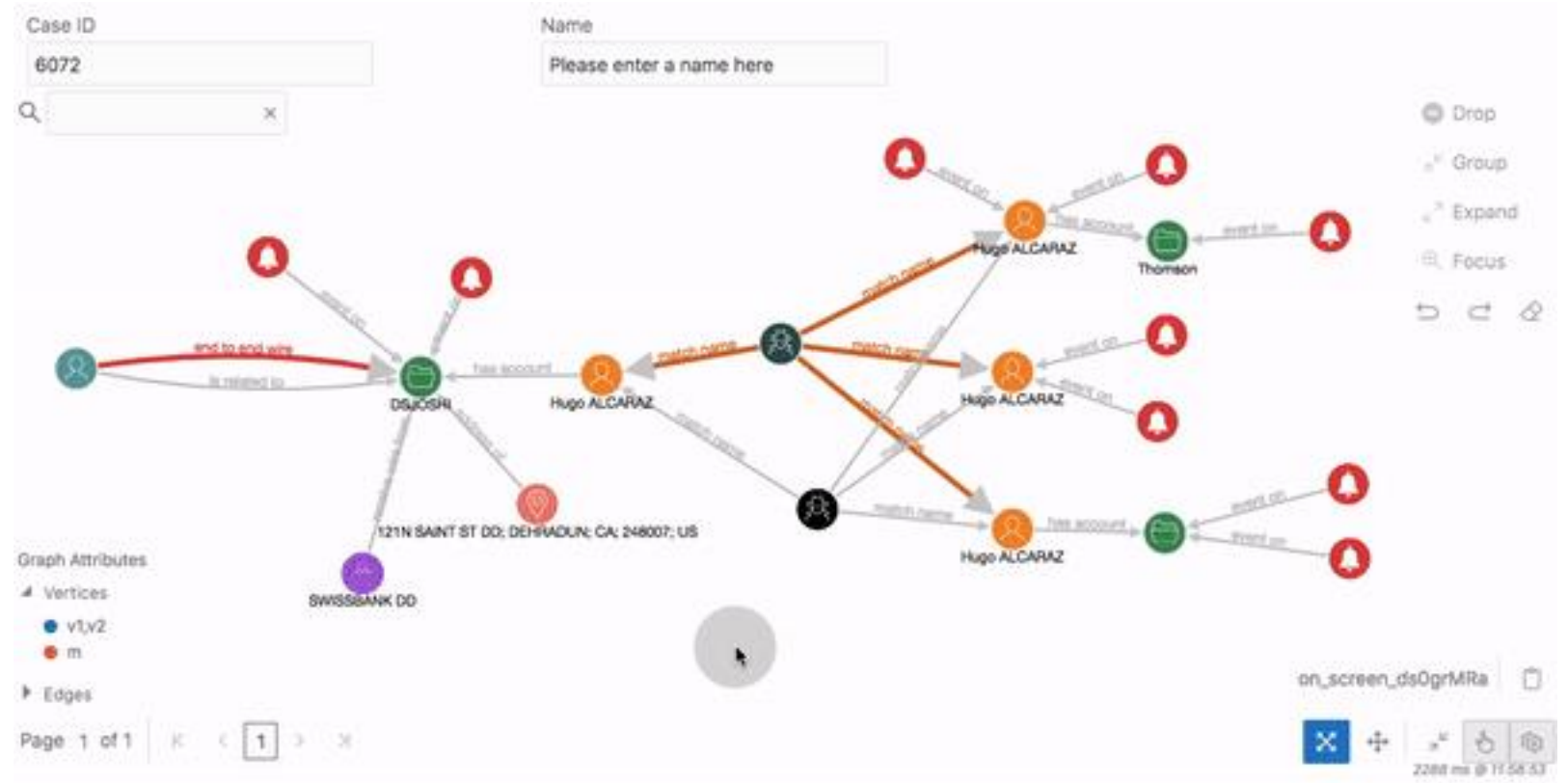
Enhanced Investigations: Graph Analytics

Bringing new discovery tools to financial crime investigations

“I want to see who else is linked to this customer...”

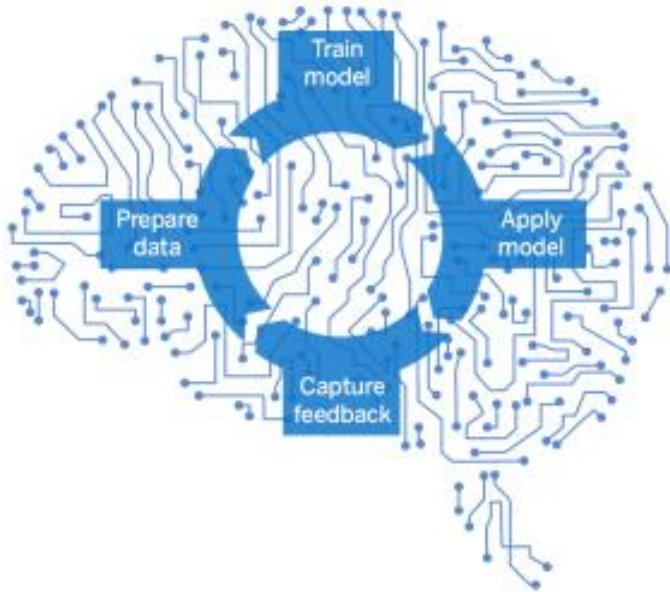
“How can I identify patterns of behaviour that are difficult to detect with scenario driven detection?”

“How can I discover and model connections between my internal customer data and external risk sources?”



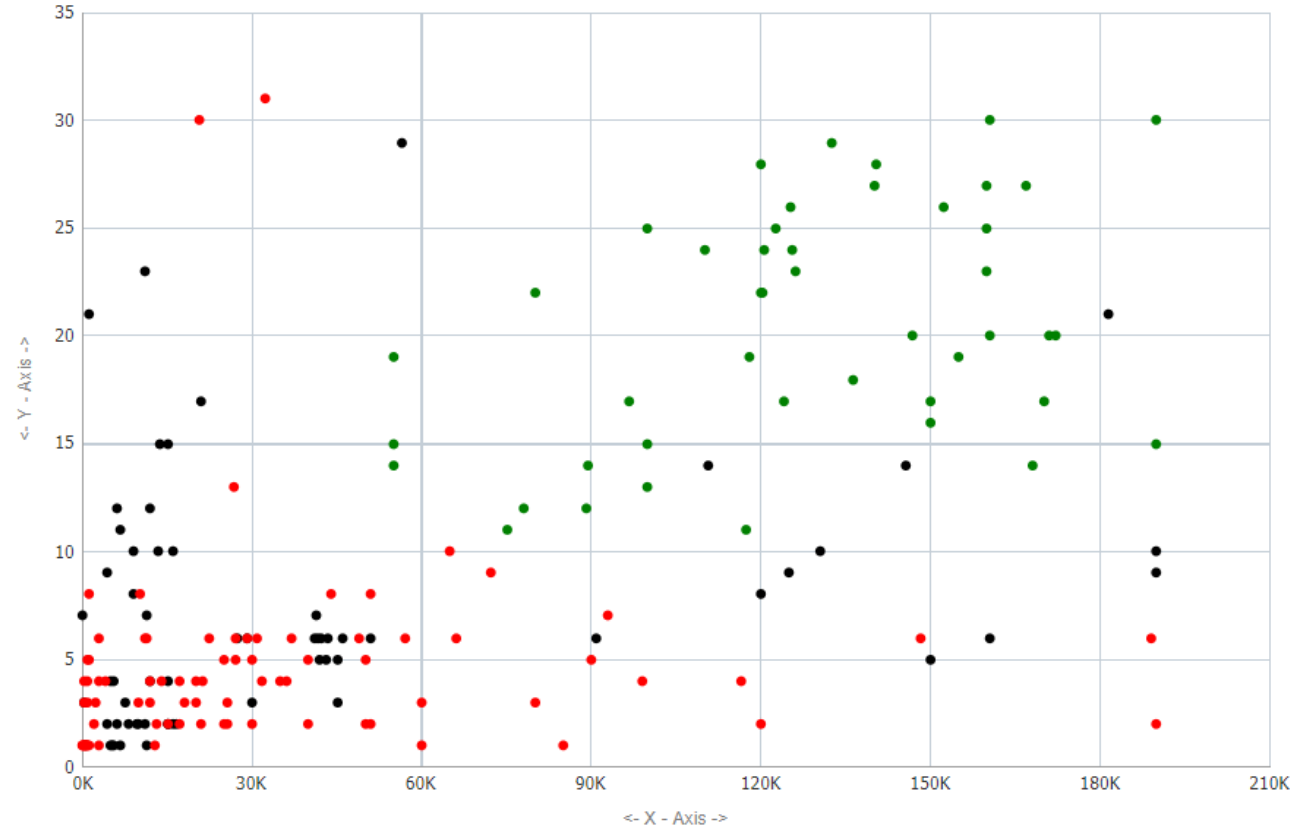
Leveraging Machine Learning

Using historic decisions to predict future outcomes



High Risk Transactions - High Risk Counter Party(EN)

X Axis : Tot Trans Amt
Y Axis : Tot Trans Ct



■ Productive ■ Non Productive ■ Indeterminate

Conclusions and Q&A

Graph is a more natural, intuitive and expressive way to represent a case or investigation

Firms/regulators are seeing the benefits of Graph based augmentation for human AFC investigations / analysis (if transparent and explainable)

Lower cost of Anti-Financial Crime Investigations/Analytical Support

Investigator productivity can be greatly increased with visual exploration and navigation of the case graph and by bringing all the data TO the investigator

“...if there are methods, innovations, or technologies that help... combat crime...do not be afraid to move first”

Margaret Megan Butler, Director of Supervision (Financial Conduct Authority)

Integrated Cloud

Applications & Platform Services

ORACLE®