Trace and alert financial crime

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The issue of money laundering

The problem of money laundering is not a new one. For years, people involved in organised crime have endeavoured to set up bank accounts for the express purpose of moving the proceeds of crime through multiple accounts to obscure their source, fund criminal activities and extract funds, either wholly or in part.

A money mule is an account that is used for the purposes of money laundering. These can be accounts which are either opened or acquired for the express purpose of moving and dispersing illicit funds, or which hide illicit transactions amongst legitimate ones. In some cases, the owner of a mule accounts — whether a business or individual — may participate unwittingly in the transfer of illegally-obtained funds. When multiple mule accounts are linked together, they constitute a 'mule network'.

Until now, getting a complete picture of how these networks operated and how vast and connected they might be was extremely difficult. This is because the number of different financial institutions with accounts involved in a typical illegal transaction, and the total number of payments used to disperse funds, were substantial enough to make piecing together the data slow and impractical.

Part of the reason for the rise and success of money launderers and mule networks is the speed at which modern instant payment systems enable money to be sent and received. People and businesses benefit from the speed and convenience of transferring money 24/7; unfortunately, criminals are also quick to leverage the benefits to fund their activities and launder money.

Money stolen from people, businesses and government departments is quickly moved through mule networks, and the further it moves away from the victim's account the harder it is to trace. As a result, many existing legacy technologies and manual anti-money laundering processes struggle to identify and flag suspicious transactions.

3.6% GDP | 1.6 $Trillion

Estimated amount of money laundered internationally

Source: the UK National Crime Agency

Introducing our capability to trace financial crime across payment networks

Mastercard has overlaid payments data with cutting-edge data science techniques to develop a ground-breaking solution, which traces financial crime across a payments network and alerts on suspect mule accounts to help prevent money laundering.

Our capability to trace financial crime is powered by timely and large-scale payments data from multiple financial institutions, which provides intelligence beyond an individual financial institution's partial view. By applying our advanced data science techniques, which are trained on over 20 billion transactions amounting to trillions of pounds in value, to our network-level view enables financial institutions to work together at an industry level to disrupt organised criminal activity. It meanwhile delivers a significant step-up in fraud decision analytics to complement existing solutions.

The service provides regular suspect mule alerts and visual fund tracing dispersions, as well as monthly intelligence reports and industry benchmarking.

Financial institutions receive actionable insights in three key areas:

1. Identification of suspect mule accounts

Alerts on new suspect mule accounts within each participating FI's customer base;
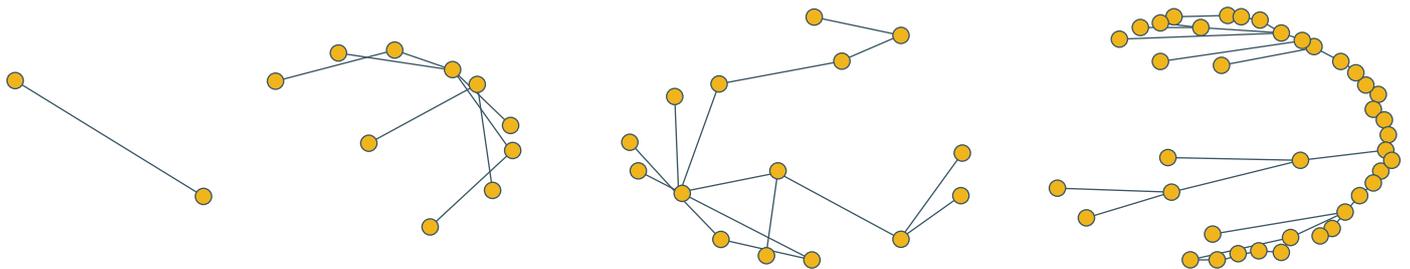
2. Trace funds with dispersion graphics

Visualises and traces funds from source through the payments network;

3. Mule network business intelligence

Provides regular insights and analysis of industry trends to monitor the behaviour of mules

Rapid network growth over time

Illicit funds are moved rapidly through a network of mule accounts

Real insights to enable right decisions

Our solution provides financial institutions with regular alerts and monthly intelligence reports.

Regular suspect mule alerts

1. Alert on suspect mule accounts and network risks:

Alerts are generated using our patented trace algorithm, which uncovers hidden mule accounts and risks across the network. Alerts consist of any new suspect accounts in a participating FI network or suspect dispersions across a network, plus key features and meta-data, e.g. the number of dispersion trees in which an account has appeared.

2. Dispersion trees

These are produced for every transaction streaming through the network and allows any criminal transaction submitted for tracing to be visualised as a movement of funds, supporting individual FI investigations.

Monthly reporting

1. Industry analysis for various KPIs (e.g. mule volumes, mule generation analysis, dwell time analysis and rate of reuse information);

2. Benchmarking for KPI across the industry;

3. Endpoint hotlist;

4. Monthly special analysis projects.

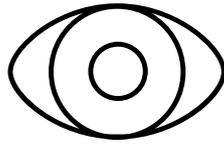**The first view of money mule networks in the UK**
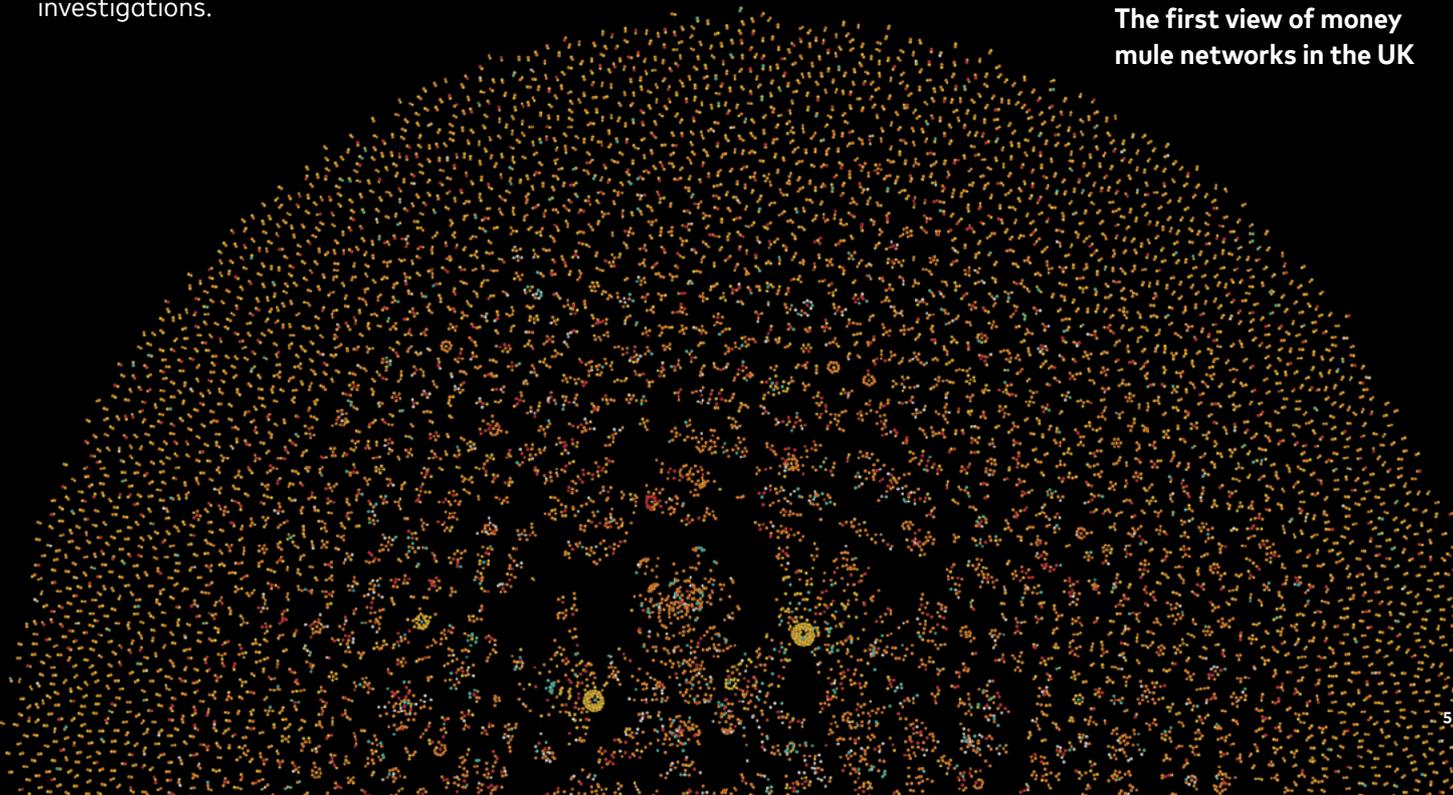
Proven to be scalable and robust

Our capability to trace financial crime is live in the UK and proven to support the following capabilities:

Identify networks of suspect money mules

Provide insights on mule behaviours

Trace funds through the financial system

In addition, it is system-agnostic: it can be deployed across any payment network anywhere in the world — including those not operated by Mastercard — enabling global financial institutions to protect both themselves and their customers from money laundering activity.

We have since launched a live service with Pay.UK, protecting UK people and businesses from liability and loss. Since launch, it has achieved considerable results.
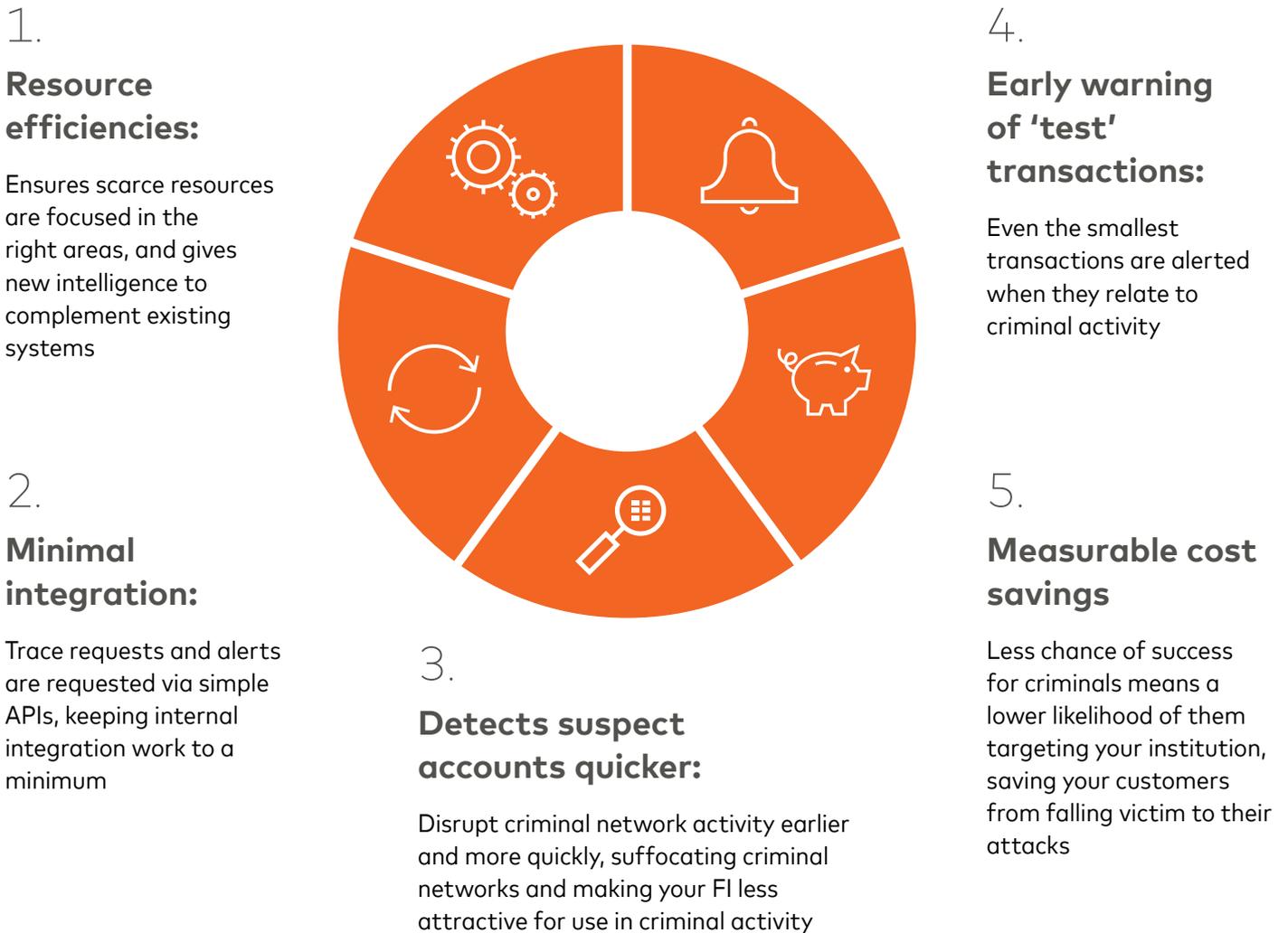
Fraud Dispersion
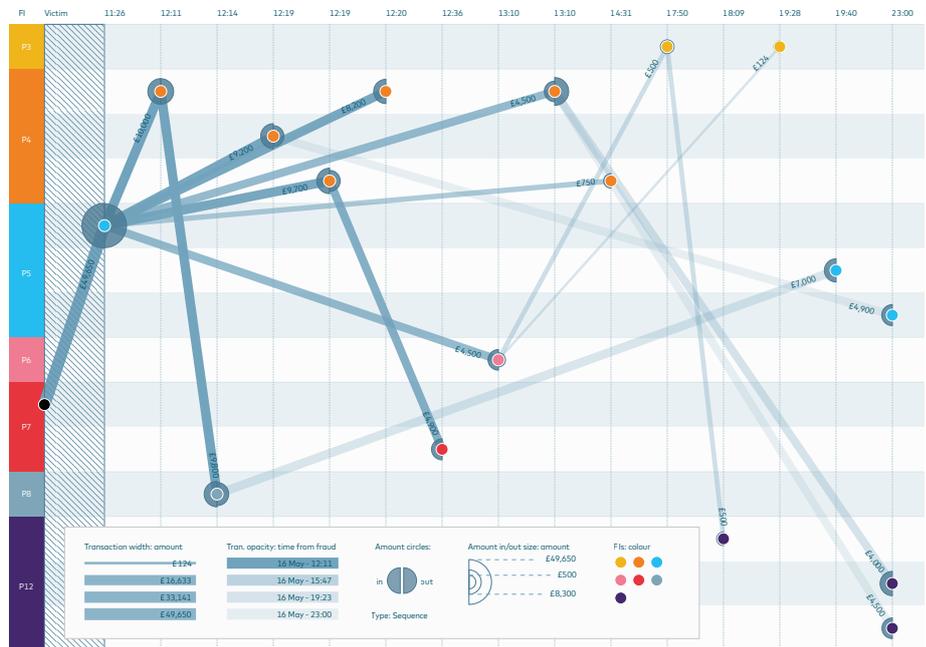
Stolen funds are layered quickly through mule accounts at multiple FIs to obscure their source

Delivering measurable benefits

Our solution to trace financial crime can be quickly and effectively implemented across payment networks around the world, helping to protect their customers from fraud and scams as well as supporting their regulatory obligations.

Benefits include:

1.

Resource efficiencies:

Ensures scarce resources are focused in the right areas, and gives new intelligence to complement existing systems

2.

Minimal integration:

Trace requests and alerts are requested via simple APIs, keeping internal integration work to a minimum

3.

Detects suspect accounts quicker:

Disrupt criminal network activity earlier and more quickly, suffocating criminal networks and making your FI less attractive for use in criminal activity

4.

Early warning of 'test' transactions:

Even the smallest transactions are alerted when they relate to criminal activity

5.

Measurable cost savings

Less chance of success for criminals means a lower likelihood of them targeting your institution, saving your customers from falling victim to their attacks

The solution suffocates fund dispersion routes, and makes payments better-protected for both people and businesses. It can also support the industry with fund repatriation, subject to local market legislation.

Live service: Tracing financial crime across the UK payment network

Vocalink, a Mastercard company, partnered with Pay.UK to develop a world-first, industry-level solution to detect and shut down criminal activity across the Faster Payments network. We announced the official launch of our capability to trace financial crime — deployed under the name Mule Insights Tactical Solution (MITS) — in Q4 2018 after a successful pilot with scheme participants.

Our solution alerts financial institutions to suspect money laundering accounts within their portfolios, so they can act to avoid potential losses, fines and reputational risk. It does this by tracing suspicious payments as they move between bank and building society accounts regardless of whether the payment amount is split between multiple accounts, or those accounts belong to the same or different financial institutions.

It provides intelligence beyond an individual financial institution's partial view, enabling the industry to work together to shut down mule networks and disrupt fraud and money laundering, which amounts to millions of pounds annually.

"This new initiative is a significant milestone in the UK's fight against financial crime, giving the industry the potential to trace the flow of illicit funds on a greater scale and with more speed and accuracy than ever before.

"The effective introduction of [this solution] can help to tackle money-laundering practices head-on and further disrupt criminal activity... We believe this project can play an important role as one of the first stages in a cross-agency effort to disrupt the criminals who are responsible."

— Paul Horlock, Chief Executive of Pay.UK

Within a few weeks of going live, the following results had been achieved:

- Thousands of UK accounts were subjected to further investigation due to suspicious activity — a significant percentage of which were subsequently identified as mules.

- Multiple, large, well-concealed money laundering rings were uncovered — where money was being moved between networks of accounts and institutions.

- Hundreds of mule accounts previously completely unknown to authorities were identified.

- The insights offered by the new tracing service further reinforced banks' fraud prevention processes, reducing the time necessary to identify and take action against suspected accounts.

Our solution provides yet another barrier to fraudsters and is a further step towards the industry's wider goal of reimbursing victims of fraud who have had their money stolen. This marks a vital step forward for the industry in the fight against organised financial crime, as well as an opportunity to help reduce the impact of fraud on financial institutions and their customers.

'Rising Star Award 2018'
Corporate Entrepreneur Awards

Case studies

The power of our capability to trace financial crime is demonstrated
by initial case studies from the UK:
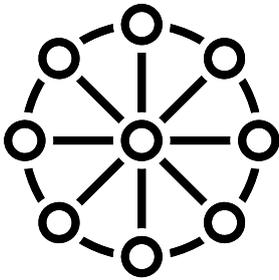
Case 1 – Network of traced funds

After a bank received a notification from a customer that they were a
victim of fraud, details of the fraudulent transaction were traced across
the payment network. It was discovered that the account was a fourth-
generation mule account within a complex network.

The account activity was typical of a mule: receiving a large volume of
funds and rapidly paying them out. The majority of funds were being sent
on to another account within the same bank, which upon investigation
was also found to be receiving large volumes of funds and distributing
them further.

As investigations progressed, a fraud ring of over **70 active accounts** was
uncovered and shut down.
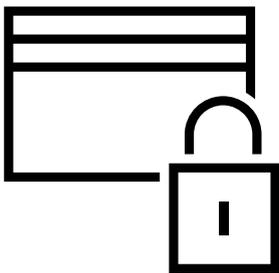
Case 2 – The business account

Following an initial alert that raised suspicions regarding a business
account it was blocked. However, the account holder did not make contact
to find out why raising further suspicions. Upon profiling the account, the
bank found an unusual number of credits from different sources that in
no way matched expected account activity for the business.

Using our solution the bank checked where the account had been receiving
the credits from and who else had been receiving or sending funds to
these accounts, which revealed the business account was participating in
a fraud ring.

Investigations are ongoing, but so far **29 active suspect accounts** have
been identified.

Case studies
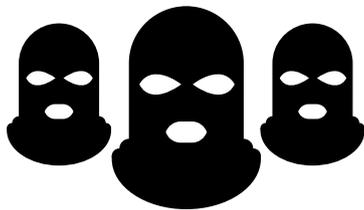
Case 3 – Organised crime ring

One account highlighted as a suspect mule by our solution was linked to a further **15 accounts** that appeared to be part of the same organised crime ring. There was evidence of payments being cycled between some of the accounts.

All accounts have now been blocked.

Financial crime solutions

Our award-winning financial crime solutions help our customers better verify payment requests and recipients and prevent financial crime before it occurs. Our network-level solutions allow us to trace illicit funds across the payments network and alert financial institutions to suspect mule accounts so they can investigate and close them down. They can be engaged either at individual bank or scheme level, or across entire payment networks anywhere in the world.

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