

## Case study

A client needed help with a bribery investigation involving cryptocurrency payments made to government officials. Using EY Blockchain Analyzer and EY Blockchain Forensic Investigations, the team analyzed efforts by the targets of the investigation who had disassembled and reassembled digital wallets to obfuscate payments and established profiles of parties of interest (POIs) related to possible bribes. The team also produced detailed case findings of POIs and related cryptocurrency activities that enabled targeted remediation aimed at recovering misappropriated funds.

## EY Blockchain Analyzer

The explorer and visualizer tools of EY Blockchain Analyzer provide a simplified and integrated platform to review and analyze transactions on public and private blockchains. It integrates search functionality with visualization technology, allowing users to look for specific transactions, addresses and blocks to gather relevant information and to spot and track in-depth patterns and trends for on-chain data.



## Working with EY Forensic & Integrity Services

- ▶ Decades of experience conducting complex financial crime investigations in 150+ countries
- ▶ Award-winning innovation leader recognized by our clients

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Embedding integrity into an organization's strategic vision and day-to-day operations is critical when managing complex issues of fraud, regulatory compliance, investigations and business disputes. Our international team of more than 4,000 forensic and technology professionals helps leaders balance business objectives and risks, build data-centric ethics and compliance programs, and ultimately develop a culture of integrity. We consider your distinct circumstances and needs to assemble the right multidisciplinary and culturally aligned team for you and your legal advisors. We strive to bring you the benefits of our leading technology, deep subject-matter knowledge and broad global sector experience.

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EYG no. 003123-21Gbl  
ED None

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# EY Blockchain Forensic Investigations

Managing financial crime risks in the cryptocurrency era



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## Complicating the financial crime landscape

With businesses increasingly turning to blockchain-enabled transactions, the ability to investigate wrongdoing in public and private blockchains has never been more critical. Leading-edge technologies are needed to help deliver confidence in financial reporting and identify anomalies in operational activity and performance.

Cryptocurrencies are often used in financial crimes, such as money laundering and embezzlement, making it highly challenging to detect fraud and conduct investigations. Scams made up 54% of all cryptocurrency-related crime in 2020, costing roughly \$2.6 billion, according to the *Chainalysis 2021 Crypto Crime Report*. Ransomware payments made in Bitcoin and other digital currencies tripled in 2020 as the COVID-19 pandemic brought new security vulnerabilities to a remote workforce. Between 2019-2020, the volume of cryptocurrency transactions as a whole nearly tripled. At the same time, according to the Chainalysis report, criminal transactions were only 0.34% of all cryptocurrency activity.

As cryptocurrency use becomes more mainstream, organizations must be able to investigate suspicious transactions just as effectively as they do for traditional currencies. A case management tool that tracks and documents on-chain data systemically enables nontechnical users to identify high-risk transactions, investigate them efficiently and properly document their findings.



## Challenges in conducting cryptocurrency investigations

While it's possible to analyze cryptocurrency flows in the same way as traditional money flows, few investigators are equipped to do so. Limited access to data, lack of understanding of how cryptocurrency works and technological barriers all pose challenges. Knowledge in blockchain technology is critical to pinpoint, investigate and document suspicious transactions. Investigators need to understand the technical process and transaction method used by each cryptocurrency algorithm in order to capture and analyze relevant data.

Investigators also must work with legal and business stakeholders to carefully balance privacy requirements with the need for forensic data. A standard methodology should govern all investigative activities, information flow, stakeholder communication and documentation.

## Introducing EY Blockchain Forensic Investigations

EY Blockchain Forensic Investigations, which is designed to be used with EY Blockchain Analyzer, makes it possible for internal audit teams and forensics accountants to search for specific transactions, addresses and blocks to gather relevant information. Importing on-chain data from EY Blockchain Analyzer, EY Blockchain Forensic Investigations gives investigators the ability to analyze, track and document suspicious activity in on-chain data transactions.

EY Blockchain Forensic Investigations uses a proprietary case management tool specifically configured for cryptocurrency investigation. By highlighting trends and anomalies, it helps investigators improve their capabilities to uncover and analyze potential outliers in on-chain data, some of which may be fraudulent or raise other red flags for analysis.

Built in EY Virtual Analytics Infrastructure (EY Virtual), EY Blockchain Forensic Investigations benefits from EY Virtual's security- and privacy-by-design methodology. It has the flexibility to be deployed on premises or via the cloud, and the scalability to be implemented in multiple locations. It allows nontechnical investigators to:

- ▶ Organize transaction-based investigative processes using "case branches" that systemically track and document on-chain data for suspicious activity
- ▶ Document each case branch with contextual information while linking subsequent transactions
- ▶ Analyze on-chain data with built-in algorithms to detect linkages to suspect addresses provided by the client or contained in our proprietary fraud library
- ▶ Generate consolidated case reports, including hits to known malicious addresses and transaction inputs and outputs

## How EY Blockchain Forensic Investigations works

