



Safeguarding America Through
Financial Investigations

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Cornerstone is U.S.

Immigration and Customs
Enforcement's (ICE)
comprehensive investigative
initiative for fighting financial
crime.

The Cornerstone Report is a
quarterly bulletin
highlighting key issues related
to ICE Homeland Security
Investigations (HSI) financial,
narcotics and special
operations investigations.



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Virtual Currency

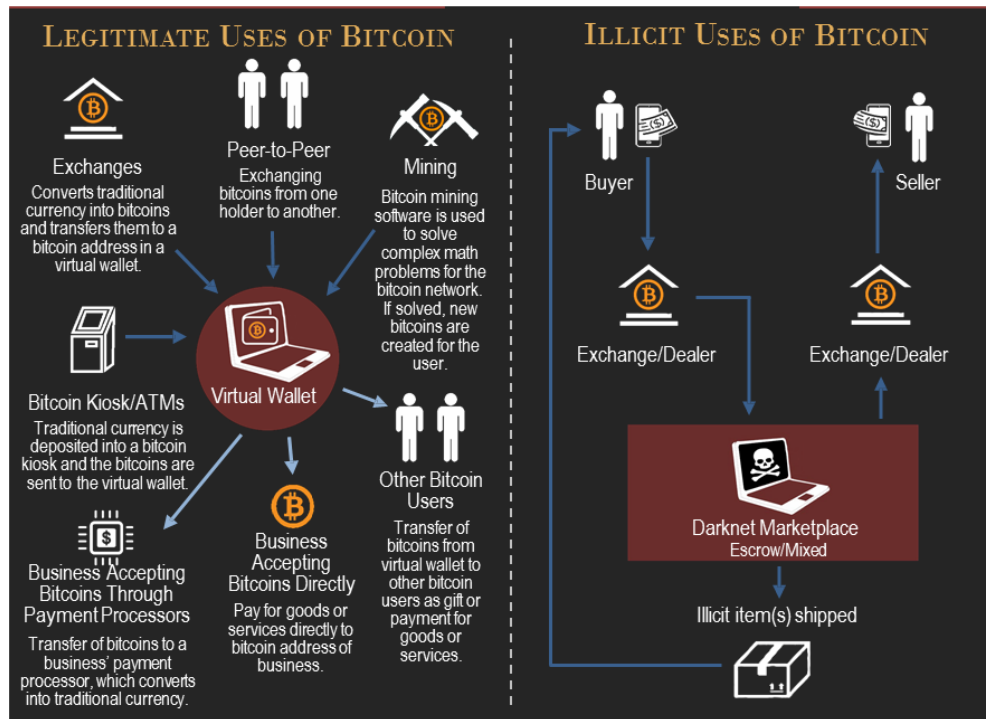
The use of virtual currency is rapidly becoming more accepted throughout the world. Virtual currencies function as a method of value exchange; a peer-to-peer cashless ecosystem that seeks to remove the intermediary financial institution. Bitcoin is the most adopted form of virtual currency with a current market of \$38 billion. In the last several years many companies worldwide have embraced Bitcoin as an alternative payment method. As this virtual form of value continues to gain legitimacy, methods to exploit it for criminal purposes will become more prevalent as well.

Bitcoin use is described as an anonymous transaction because it is possible to send and receive bitcoins without revealing any personally

identifiable information. In reality, bitcoin is actually pseudonymous. Every user has a public address used to buy, sell, or transfer bitcoin and every transaction conducted with bitcoin is recorded on a public ledger known as the Blockchain. Because of this pseudonymity, Bitcoin is a popular manner to buy and sell illicit goods and services found on both the internet, as well as darknet market places.

One area that presents a significant challenge to law enforcement is unlicensed Peer to Peer (P2P) exchangers. Exchangers of currency, including virtual currencies, are considered money transmitters under federal law and are required to register and comply with federal anti-money laundering regulations if they

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Please feel free to send your questions and comments to the editors of the Cornerstone Report at: cornerstone@ice.dhs.gov



HSI Illicit Finance and Proceeds of Crime Unit

The HSI Illicit Finance and Proceeds of Crime Unit (IFPCU) maintains a proactive approach to virtual currency recognizing that virtual currency will become more mainstream as the technology is embraced globally. IFPCU conducts outreach to major virtual currency exchangers operating within the U.S. to clarify and emphasize the need for a collaborative partnership between members of the compliant virtual exchange industry and HSI. During these meetings, HSI special agents discuss the Cornerstone Outreach Initiative, HSI's outreach effort with the financial industry to combat the movement of illicit funds through financial service businesses. The forging of partnerships between HSI and financial sector businesses is beneficial to enhance operational abilities for HSI virtual currency investigations.

Expanding the Knowledge Base

- HSI dedicates itself to overcoming the technological obstacles special agents face when they conduct investigations involving emerging technologies such as virtual currency.
- Investigator training is the central element of HSI's multi-tiered approach to virtual currency investigations.
- HSI procures equipment that field offices need to successfully investigate virtual currency violations.
- HSI collaborates with industry leaders to identify and acquire access to the most effective forensic tools available to analyze and identify information through the blockchain.

Virtual Currency Definitions

Virtual currency: The International Money Fund (IMF) defines virtual currency as digital representations of value, issued by private developers and denominated in their own unit of account. Virtual currencies can be obtained, stored, accessed and transacted electronically, and can be used for a variety of purposes, as long as the transacting parties agree to use them. The concept of virtual currencies covers a wide array of "currencies," ranging from simple IOUs of issuers (such as Internet or mobile coupons and airline miles), backed by assets such as gold, and "cryptocurrencies" such as Bitcoin. As digital representations of value, virtual currencies fall within the broader category of digital currencies.¹

Blockchain: A blockchain is a ledger of facts, replicated across several computers assembled in a peer-to-peer network. Facts can be anything from monetary transactions to content signature. Members of the network are anonymous individuals called nodes. All communication inside the network takes advantage of cryptography to securely identify the sender and the receiver. When a node wants to add a fact to the ledger, a consensus forms in the network to determine where this fact should appear in the ledger; this consensus is called a block.

Pseudonymous: meaning that funds are not tied to real-world entities but rather digital currency addresses.

Cryptocurrency: a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.

Fiat currency: currency which derives its value from government regulation or law.

¹IMF Staff Discussion Note- Virtual Currencies and Beyond: Initial Considerations- January 2016



Operation Denial

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The Operation Denial investigation began with a fentanyl overdose death of 18-year-old Bailey Henke from Grand Forks, North Dakota on January 3, 2015. Further investigation by state law enforcement agencies revealed four additional fentanyl overdoses in North Dakota, one of which was fatal. As the investigation continued it was linked to the darknet market site Evolution and a fentanyl vendor who went by the user name PDXBlack. In March 2015, PDXBlack was identified as Brandon Hubbard and arrested by HSI agents in Portland, Oregon. HSI agents seized fentanyl and packages with fentanyl ready to be shipped to additional customers. HSI and DEA investigators learned the fentanyl was coming from various international sources to Hubbard, who at the time of his arrest, claimed he was the largest powdered fentanyl dealer in the United States. At the time of Hubbard's arrest, he had sold approximately 1.5 million U.S. dollars' worth of fentanyl. The international investigation quickly centered on Daniel Vivas-Ceron, a Colombian citizen who was incarcerated in a Canadian prison. Vivas-Ceron ran a continuing criminal enterprise while in prison which included being a major broker for Chinese fentanyl. HSI investigators working in an undercover capacity were able to buy large quantities of fentanyl from Vivas-Ceron using bitcoin as the preferred currency. Vivas-Ceron was the major source of supply for fentanyl for Hubbard's online darkmarket narcotics selling scheme fueled by digital currencies. Vivas-Ceron was deported from Canada to Colombia, but was detained in Panama during a layover and extradited to the U.S. to face prosecution.

Based on information received during the investigation, it is estimated that up to 2 kilograms of fentanyl were purchased from Canada and China using fiat currency and bitcoins. The value of the fentanyl was estimated at 9 million USD over a period of two years. Investigators discovered Hubbard had made bitcoin to fiat currency exchanges via bitcoin ATM and P2P exchangers. Even though investigators believe Hubbard earned millions of dollars running his darknet market scheme, no additional funds were seized. Investigators believe Hubbard was the victim of several money rips.

The sales of fentanyl on the darknet market sites were being conducted using bitcoin as currency to pay for purchases. Operation Denial linked Hubbard to sales on additional darknet markets such as Silk Road and Agora, indicating he was operating for several years undetected.

Operation Denial found 12 fentanyl-related overdose victims attributable to Hubbard and Vivas-Ceron, four of the overdoses were fatal. Eight more individuals were tied to the investigation as purchasers, money launderers or conspirators in the narcotics distribution network. Operation Denial also shut down one of the most prolific vendors of synthetic opioids on the darknet resulting in an undeterminable amount of lives saved.

On July 13, 2016, Hubbard was sentenced to life in Federal prison after pleading to three charges: 21 U.S.C. § 841-Conspiracy to Distribute Controlled Substances Resulting in Serious Bodily Injury and Death; 21 U.S.C. § 841-Distribution of a Controlled Substance Resulting in Death and 18 U.S.C. § 1956- Money Laundering Conspiracy. Vivas-Ceron's case is ongoing.

More information on the case can be found: <https://www.justice.gov/usao-nd/pr/georgia-man-pleads-guilty-role-overdoses-operation-denial>





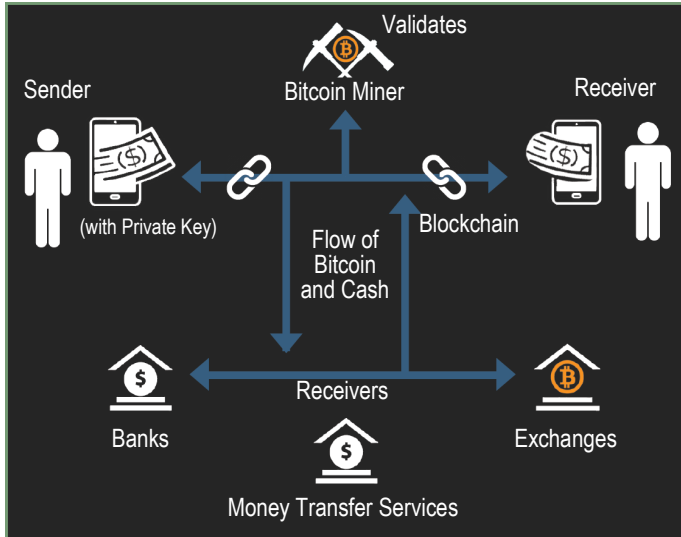
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do substantial business in the U.S. Currency exchangers must also register with the government as a money services business.

Bitcoin and other virtual currencies are the preferred payment method in darknet markets. It is common for unlicensed P2P exchangers to obtain their bitcoin from selling illicit



goods and services on darknet markets. The biggest problem darknet market vendor's face is converting virtual currency into traditional fiat currency. To avoid reporting requirements, illicit vendors turn to P2P exchangers or become P2P exchangers themselves in order to liquidate their virtual currency. Often, for fees of 10 to 15 percent above

what a licensed and compliant exchanger would ask. HSI targets illicit P2P exchangers for money laundering and money services business violations. Investigators can often identify the Bitcoin wallet address of the exchanger and use blockchain analysis tools and techniques to trace the Bitcoin transaction. P2P investigations identify exchangers (both registered and unregistered) who have violated 18 U.S.C. § 1960 – Prohibition of unlicensed (or licensed but non-compliant) money transmitting business and 31 U.S.C. § 5330 – Registration of money transmitting business. P2P exchangers generally market their business on internet sites or virtual wallets with P2P features. This includes websites designed to connect buyers with sellers or mobile applications that identify buyers and sellers near your current location. Properly licensed and AML-compliant entities, including banks and exchangers, attempt to identify virtual currency transactions with connections to darknet markets, which are inherently illicit. If a connection to a darknet market is discovered, the financial institutions will deny the transaction and often close the customer's account. The financial institution will also report its findings to regulators and law enforcement. These leads often include specific and accurate information regarding the identity of the customer, which remove pseudonymity in order to identify targets.

Red Flag Indicators

- ACH Transfers between bank account and bitcoin exchanges and trading platforms
- Unexplained bulk cash deposits
- Unexplained wire transfers from foreign locations or wires to businesses in China
- Blockchain transactions indicating Bitcoin transactions to and from Peer-to-Peer Bitcoin exchange sites

HSI – A Diverse, Global Force

HSI is a critical investigative arm of the Department of Homeland Security and is a vital U.S. asset in combating criminal organizations illegally exploiting America's travel, trade, financial and immigration systems.

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