Criminal Exploitation of Digital Currencies
Homeland Security Investigations (HSI)

Established in 2003 with the creation of the U.S. Department of Homeland Security (DHS).

One of the three components of the U.S. Immigration and Customs Enforcement (ICE).

The largest criminal investigative agency within the Department of Homeland Security (DHS). Combine legacy agencies’ statutory authorities.

Over 126 domestic field offices and 72 international offices.
Homeland Security Investigations (HSI)

Criminal Exploitation of Digital Currencies
What is a Virtual Currency?

• An alternative financial value system involving the exchange of funds to purchase precious metals or other value base which can later be used in exchange for products and services.

• Is not registered anywhere and it is not governed by any law other than arbitration private forums.

• Personal data is not required.

• The system focuses strictly on activities of the forum.

• Information stored for two months and then permanently deleted.
Types of Virtual Currencies

E-Currency / E-Wallets

Digital Gold

Virtual World

Virtual Games

Merchants (FB, Amazon)

Crypto-Currencies **
Homeland Security Investigations (HSI)

- Created in 2008 by Satoshi Nakamoto

  - A purely peer-to-peer version of electronic cash would allow payments to be sent directly from one party to another without going through a financial institution….

- Digitally created units of currency.

- Sent from one address to another in the same way you might send cash from your bank account to a friend, but no name would be needed as part of the address.
Instead: human-readable strings of numbers and letters thirty-three characters length, always beginning with the digit one or three. Therefore:

175tWpb8K1S7NmH4Zx6rewF9WQrcZv245W

Might send 1.30000001 BTC to

132tQpb(K1B5NmH8Vx2rewF9AOrcKv215H

The transaction is instantaneous and does not travel through a third party such as a bank.

The owners of the addresses will need to keep in an account known as a wallet (computer or phone).
How To Acquire Bitcoins?

Locate and download to your computer, tablet or phone a **bitcoin wallet**.

Create your wallet account (anonymity)

Used to store and transfer your crypto-currency
How To Acquire Bitcoins?

Purchase a bitcoin from an **exchanger**.

A web-based platform for users to sell and buy crypto-currencies. Domestic (MSB’s and BSA) and Foreign. **Offer anonymity.**

**Send Currency to an Exchanger:**
- Bank account
- PayPal
- Western Union
- Cash
- Money transmitter.

Add bitcoin to wallet.
Buy bitcoins with cash in US Dollar (USD)

LocalBitcoins.com user jdev wishes to sell bitcoins to you.

Price: 107.62 USD / BTC
User: jdev
(feedback score 100 %, see feedback)
Trade limits: 300 - 5000 USD
Location: Baltimore, MD 21230, USA
...or look up other cities in United States

Terms of trade with jdev
Contact hours: 11am-6pm Mon-Saturday
Meeting preferences: Starbucks, chipotle, or something in or around Federal Hill

How much you wish to buy?
USD 300 BTC 2.79

Send trade request

Please log in or sign up to begin trading instantly.
Signing up is free and takes only 30 seconds.
The price of a bitcoin is determined by supply and demand. When demand for bitcoins increases, the price increases, and when demand falls, the price falls.
How To Acquire Bitcoins?
• Block Chain – Shared public transaction log on which the entire BTC network relies. (http://blockchain.info)

• All confirmed transactions are included in the BC-Ensures verification and enforced with cryptography.

• Every 10 minutes a new block is created and 25 BTC are released. By 2017 it will be reduced to 12.5 BTC a halved every four years until the limit of 21 million BTC is reached.
When to File a SAR?
How Criminals Use and Exploit Crypto-Currencies

Bitcoins

Instant Payment - Anywhere - Any time
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Criminal Exploitation of Crypto-Currencies

Virtual Currency Systems & Exchange Makers

“Carding” Forums

Drug Forums

Firearms Forums

Child Pornography Forums
How I Get into the Black Market?

STEP BY STEP GUIDE TO GETTING STARTED ON THE BLACK MARKET RELOADED.

1. Head to www.blockchain.info/wallet and click create wallet.

2. Time to purchase some bitcoins. Bitcoins are the currency used on TSR so head to www.mtgox.com and sign up for a free account. You can come back later to buy the bitcoins once you know how many you need.

3. After you've gotten a feel for what the bitcoins will cost you, it's now time to access The Silk Road. To do this you will need the tor browser. The tor browser provides added security to browsing and gives access to websites using the .onion extension. You can get tor from here www.torproject.org

4. With tor installed and the tor browser running, copy this link into the address bar: http://5onwnspjvuk7cwyk.onion
   Click on create user and there you go, access to The Black Market Reloaded :)

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Law Enforcement Sensitive
• Tor stands for “The Onion Router”

• Tor is free & open source software

• Originally designed by the U.S. Naval Research Laboratory for the protecting government communications

• Download from “www.torproject.org”

• Prevents anyone from learning location or browsing habits

• Tor is for web browsers, instant messaging, & remote logins

• Tor works by bouncing your communications around a distributed network of relays run by volunteers
Carding Forums

PakBugs Official Black Market (Darkmarket.lv)
Buy and Sell Odays, Exploits, Server Access, Credit Cards, accounts, dumps, bank login, Cvv, Fullz, paypal - etc Here...

PakBugs Official Credit Card Selling Shop
Buy CVV and Fullz here each Credit card for 2$ Special Offer for 8 days...

PakBugs Announcements
Read About Latest At PakBugs

Welcome to the PakBugs.
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A still from a promotional video released by Atlantis, a drug sales site that uses tools like Tor and Bitcoin to hide users' identities. The ad has since been removed from YouTube.
HSI’s Investigative Approach to Crypto-Currencies

1. Build the capacity of field agents to identify virtual currency exchangers and online black markets.

2. Exploit the financial angle and employ financial investigative tools in all HSI investigations, to include cyber enabled crime.

3. Coordinate Anti-Money Laundering regulations related to virtual currency with FinCEN and Treasury.

4. Engage HSI International Operations Attachés to leverage international counterparts and multilateral organizations to create enforcement actions against and regulate virtual currency exchangers.

5. Continue to enhance HSI’s engagement with academia and subject matter experts in an effort to develop tools and capabilities to combat TCO’s who hide behind online anonymity.
The Real Exploit of Crypto-Currencies & Bitcoins
Liberty Reserve Case Study

LibertyGuard
Services
Service Fees
Buy/Sell LR
Merchants
Downloads
Consumer Alert

Creating Account  Login  Get protected by LibertyGuard

Featured Merchants
Marketiva.com — Popular Forex company!
Instaforex.com — Award winning Forex
Masterforex.org — Award winning Forex

Featured Exchange Services
wm-center.com (English, Russian) — Fast and reliable service 24/7.
e-Naira.com (English) — Reputable exchanger located in Africa.
ExchangeZone.com (English)

Wholesale Exchange Services
eCardOne.com (English, Italian, Spanish, German, Czech) — Authorised wholesaler
Ebuygold.com (English, Chinese) — Authorized wholesaler
SwiftExchanger.com (English) — Official Liberty Reserve merchant

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Law Enforcement Sensitive
Established in Costa Rica on May 8th, 2006 by Arthur Budovsky and others.

Centralized digital currency service that allowed users to register and transfer money to other users with only a name, e-mail address, and birth date. No verification. For .75$ cents the user can hide his/her account information.

Deposits made to third-parties (exchangers located in Russia, Nigeria and Vietnam) using a credit card or bankwire, among other deposit options. NOT DIRECTLY to Liberty Reserve.

Deposited funds were "converted" into Liberty Reserve Dollars or Liberty Reserve Euros, which were tied to the value of the US dollar and the euro or to ounces of gold.

No limits were placed on transaction sizes. They charged a small fee, about 1% on each transfer. Offered shopping cart functionality and other merchant services.
The Merchants at Liberty Reserve

- 19 of merchants involved in selling stolen credit card data or personal identification information

- 7 Websites involved in fraudulent investment or gambling operations

- 5 websites were “privacy” and “security” services used by cybercriminals

- 2 websites were pre-paid credit/debit card sites
Dollar Amount of Liberty Reserve Activity

- $6 Billion dollars laundered
- 55 million transactions
- 1 million users
Indictment charges the seven principal employees, as well as Liberty Reserve itself, with money laundering and operating an unlicensed money transmitting business. The charges were leveled using a provision of the U.S. Patriot Act, since Liberty Reserve was not an American company.
Silk Road Case Study
What is Silk Road?

• Silk Road is a website located on the on an encrypted network Tor. Founded by Ross William Ulbricht AKA Dread Pirate Robert (DPR)

• The website is a digital black market that allows users to purchase illegal drugs using anonymity technology and utilizing a sophisticated user-feedback system like eBay.

• The only currency allowed on Silk Road to be exchanged for drugs/contraband are bitcoins. SR profited charging a fee for each transaction.
Who are the players on Silk Road?

Operators of Silk Road (Admin and Mods)

SR Vendors

SR Drug Users/Buyers

+150,000 User accounts on Silk Road (2012)
Mt. Gox Seizure - $5,032,921

- During the course of investigation Mt. Gox was identified as the Silk Road money exchanger and conducting business as a Money Service Business (MSB). Mt. Gox is the largest BTC Exchange (80%)

- Baltimore Silk Road Task Force executed 3 Federal seizure warrants (Wells Fargo Bank and Dwolla)

- On May 9, 2013 USSS/Baltimore SR Task Force seized $2,117,414

- On May 14, 2013, HSI Baltimore seized $2,915,507
Key Points regarding Silk Road

• Estimated $1.2 billion in transactions on Silk Road

• Over +950,000 user accounts registered

• The largest trafficked website on Tor

• All types of contraband were sold on SR (Firearms, explosives, fraudulent IDs, stolen CC info, & IPR)
On May 1, 2013 JOHN DOE aka DREAD PIRATE ROBERTS was indicted in the by District of Maryland for Use of Interstate Commerce Facilities in Commission of Murder-for-Hire; Conspiracy to Distribute a Controlled Substance; Attempted Witness Murder; Aiding and Abetting

Still Ongoing…

The CEO of a bitcoin exchange and a bitcoin exchanger were arrested this week for their alleged involvement in the black market Internet site Silk Road, the Manhattan U.S. Attorney announced this week.

Charlie Shrem, 24, who ran BitInstant from 2011 to 2013, is charged with running a scheme that provided over $1 million in bitcoins to users of Sil Road, which the feds shut down in October.

Robert M. Faiella, 52, an underground Bitcoin exchanger who went by BITCKing, is accused of running an underground bitcoin exchange on Silk Road from Dec. 2011 to Oct. 2013, selling bitcoins to those looking to buy drugs on the site anonymously.
Forging a New Legacy

Homeland Security Investigations
Illicit Finance and Proceeds of Crime Unit
The Exploitation of Interstate Funnel Accounts
Dramatic increase of suspicious activity reports (SARs) concerning interstate funnel account usage:

- In 2008, banks filed approximately 1,000 SARs which denote funnel account activity in the U.S.
- That figure steadily increased to over 15,188 SARs filed in 2011.
- A check of SAR filings on funnel accounts in the past six months, from November 2012 until May 2013, yielded over 12,000 results.

According to AML officials, interstate funnel accounts are the second most generated SAR, behind structuring.
Interstate Funnel Account is defined as a bank account opened/held by a nominee that receives cash deposits from an out of state, unidentified third party that are readily available for withdrawal from the domiciled account.
Homeland Security Investigations (HSI)

Interstate Funnel Account SAR Activity

80% DTO
20% HSO
### Benefits of Interstate Funnel Accounts

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<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
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<tbody>
<tr>
<td>Rapid movement of funds for little or no cost</td>
<td>Deposits lower denominations while withdrawals are for high denominations</td>
</tr>
<tr>
<td>Criminal organizations avoid highway, airport and parcel interdiction</td>
<td>Withdrawals are free from narcotic smells or residues, less likely to be identified by K-9</td>
</tr>
<tr>
<td>More secure than smuggled cash</td>
<td></td>
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</tbody>
</table>
Interstate Funnel Accounts

Criminal Organization Account Manager

Contacts Depositors (Phone, text message, email, etc.)

Anonymous Depositor

Bank Account #: x-1234

Pennsylvania • U.S.A.

Maryland • U.S.A.

Rhode Island • U.S.A.

Funnel Account Holder

Arizona • U.S.A.

Funds are ultimately transferred to Mexico (BCS or wire transfer) to further conspiracy

Straw Account Holder withdraws and delivers the funds to Account Manager.
Gilberto Figueroa Rios
Section Chief
Financial, Narcotics and Special Operations Division
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San Juan Field Office 787-729-6969
Thank You!!!

Protecting the Borders Against Illicit Trade, Travel, and Finance