

# **Bitcoin and blockchain from a policing perspective**

Inger Marie Sunde  
Professor  
[ingsun@phs.no](mailto:ingsun@phs.no)

---

## Some sources

- Europol Report: The International Organized Crime Threat Assessment 2015 (IOCTA 2015)
  - UNODC/ITU Report: Understanding cybercrime: Phenomena, challenges and legal response, november 2014.
  - Politidirektoratet (the Norwegian Police Directorate): Omverdenanalyse, 2015.
  - Criminal Trends Report 2016-2017, Oslo Police District (2016)
-

## Questions

1. The relevance of BC to policing: how is BC relevant to policing (crime prevention)?
  2. What kind of problem(s) does BC represent to policing?
  3. A broader perspective on BC – Is BC really something new under the sun?
-

# SURFACE WEB

Wikipedia Google Bing

Academic Information  
Medical Records  
Legal Documents  
Scientific Reports  
Subscription Information

# DEEP WEB

Multilingual Databases  
Conference Proceedings  
Government Resources  
Competitor Websites  
Organization-specific  
Repositories

Illegal Information

# DARK WEB

Drug Trafficking sites

TOR-Encrypted sites

Private Communications

## Background information

- BC is common currency on the Darknet. «Silk Road»: Illegal trade for USD 200 million/year in BC, until take down by US law enforcement in 2013.
  - BC is establishing itself as *the single common currency* among cybercriminals in the EU.
  - «Bullet proof» hosting sites facilitate the illegal trade.
  - BC may also be used for illegal money movements outside the Darknet. Simply by using the BC-app.
-

# 1. Relevance of BC to policing

- BC has an impact on crime, and in turn, on policing. Indirectly.
  - Reasons: **Anonymity**, **irreversible** payments, **cheap** and **swift** transfer. Also ideal to **obfuscate financial transactions**.
-

BC in 1/3 of V-payments

BC in 40% of All identified C2C payments

Payment Purpose	Payment For	Common Payment Mechanisms	Example
Victim Payment	Extortion	Bitcoins, Bank Transfer, paysafecard	Payment extorted as a result of a ransomware or DDoS attack.
	Fraud	Bitcoins, Bank Transfer, Western Union	Loss to an online fraud/scam.
Criminal to Criminal Payment	Counter AV	PayPal	Testing of malware against commercial AV products.
	Data	Bitcoins, Ukash, Western Union, WebMoney	Purchase of compromised financial data such as credit cards.
	DDoS	Bitcoins	DDoS services for hire.
	Hosting	Bitcoins	Purchase of hosting (including bulletproof).
	Malware	Visa, MasterCard, WebMoney, PayPal	Purchase of malware such as RATS and banking trojans.
	Trade on Hidden Service	Bitcoins, Ukash, paysafecard	Purchase of drugs or weapons.
Payment for Legitimate Service		Bitcoins, Bank Transfer, Visa, MasterCard	Hosting, hardware, software, travel, accommodation, etc.
Money Movement		Bitcoins, Bank Transfer, Western Union	Movement of money to maintain control of funds, or hide/break a financial trail, including 'cashing out' of compromised financial accounts. This also includes exchange to, from or between virtual, digital and fiat currencies.



## Victim payment - extortion

**Your personal files are encrypted.**

**Payment required.**

Server accepts payment in Bitcoin (BTC) only.

1. Pay amount of 0.2 BTC (about of 24 USD) to address:  
1E4jsfwFpKVaAVFNfrnGVgDY1HRU8qf7PV
2. Transaction will take about 15-30 minutes to confirm.

Decryption will start automatically. Do not: power off computer, run antivirus program, disable internet connection. Failures during key recovery and file decryption may lead to accidental damage on files.

If you have no Bitcoins press 'Exchange'.

71 31 33 [Exchange >>](#)

These instructions are also saved to file named DecryptAllFiles.txt in Documents folder. You can open it and use copy-paste for address and key.



## 2. Problem to policing (crime prevention)

- BC: Anonymous payment.
  - Bullet proof hosting/TOR network: Anonymous communication.
  - A problem of **attribution**.
  - Prevents one from getting good estimates of criminal activity / plausible threat assessments.
-

### **3. BC something new under the sun?**

- **BC is a cross cutting crime enabler**
  - Together with
    - Bullet proof hosting
    - Illegal trading sites on teh Darknet
    - Money mules/money laundering services
    - Criminal expert online forums
  - And: Geographical distance – transnational crime
-