New York's Cyber Crimes Task Force

Cryptocurrency:
Overview and Emerging Threats
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Introduction

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Bitcoin Wallets

- Generate and house your keypairs

- Manages your private key(s) which allow you to spend bitcoin.

- Similar to a bank in that it can hold multiple "accounts" aka keypairs

Choose your Bitcoin wallet

Find your wallet and start making payments with merchants and users.

📱 Mobile   🖥 Desktop   🔒 Hardware   🌐 Web

Bitcoin Core   Bitcoin Knots   mSIGNA   Bitcoin Wallet   Airbitz   breadwallet

Bither   GreenBits   Mycelium   BitGo   Green Address   Coinomi

https://bitcoin.org/en/choose-your-wallet

Emerging Threats in Crypto

Emerging Trends

- **Extortion Schemes**
  - Blackmail Scam
  - Property Threat

- **Ransom for Crypto**
  - Kidnapping rings
  - DDoS Attacks

- **Crypto-jacking**
  - Malicious Mining
  - SIM Swap

- **Dirty Exchanges**

- **Hacking - Theft**

- **Ponzi/Pyramid Schemes**

- **BEC**

- **Property Tokenization**
  - Real Estate
  - Art

Mitigation and Best Practices

- End User Account Compromise
  - Customer support scam, sim swap, phishing, lack of security
- DeFi Smart Contract Exploitation
  - Common to see flash loans used
- Rug Pulls
  - Fake projects/exchanges/investment opportunities
- Romance Scams
- Business Email Compromise (BEC)
- Exchange Hacks
  - Network compromise
- Non-Fungible Tokens (NFT's)
  - Account compromises, Hacks, Internet wallet exploits/compromises
- Ransom/Extortion
  - Always in the news but not as common (in volume) as other attacks

Money Laundering

- Criminals using virtual currency need:
  - To obtain it
  - To cash out of it
  - Move their virtual currency in a way that disrupts law enforcement's ability to follow the money

- Exchange
- Peer-to-Peer Exchange
- Cryptocurrency ATMs
- Layering/Chain Hopping
- Dedicated Mixing Services
- Online Gambling
- Initial Coin Offerings
- Crowdfunding
- Debit and Pre-Paid Cards
- Gift Cards

Mitigation and Best Practices

Best Practices:

- Two Factor Authentication
  - Cell Phone vs. Email vs. Authenticators vs. Hard Token
- Key (Seed) Storage
- Exchange vs. Hot Wallet vs. Cold Storage
- Sand Boxing

Mitigation

- iC3.gov
- Contact Law Enforcement
- Contact Exchange
- Alerts

Bitcoin Wallets – Cold Storage

Risk of loss or malfunction

- Malware risk when wallet downloaded or connected to the Internet

- If offline, more security

Desktop Wallets

ELECTRUM

Hardware Wallets

KeepKey

Trezor

Ledger

Paper Wallets

bitaddress.org
Open Source JavaScript Client-Side Bitcoin Wallet Generator

| Single Wallet | Paper Wallet | Bulk Wallet | Brain Wallet |
| Vanity Wallet | Split Wallet | Wallet Details | |

Generate New Address   Print

Bitcoin Address   **Private Key**

SHARE   SECRET

1L8jX4PLr1NFKUDnqoVNAw2ZJu26WoEizs

KymAL7xaJo77Q563QxbcE9f146Us8XeEfiTEdJvdu9zAumhihFFC

Risk of loss or destruction

Questions??