Cryptocurrency: Overview and Emerging Threats
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Introduction

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• 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.

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
• 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**

- **Paper Wallets**
  - Malware risk when wallet downloaded or connected to the Internet
  - If offline, more security

- **Hardware Wallets**
  - KeepKey
  - Trezor
  - Ledger

- **Desktop Wallets**
  - Electrum

**Risk of loss or malfunction**

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