General Security Considerations for Crypto Assets Custodians

draft-vcgtf-crypto-assets-security-considerations

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Background

- We had many security incident which causes loss of assets.
  - Japan is one of top countries which suffered from cryptocurrency incidents.

Date	Victim	Value of coin loss
Feb 2014	**Mt.GOX (Japan)**	**$450 Million**
Aug 2016	Bitfinex (HongKong)	$77 Million
Apr 2017	Youbit (Korea)	$35 Million
Jan 2018	**CoinCheck (Japan)**	**$535 Million**
Feb 2018	BitGrail (Italy)	$170 Million
Jun 2018	Coinrail (Korea)	$40 Million
Sep 2018	**Zaif (Japan)**	**$59 Million**

Motivations

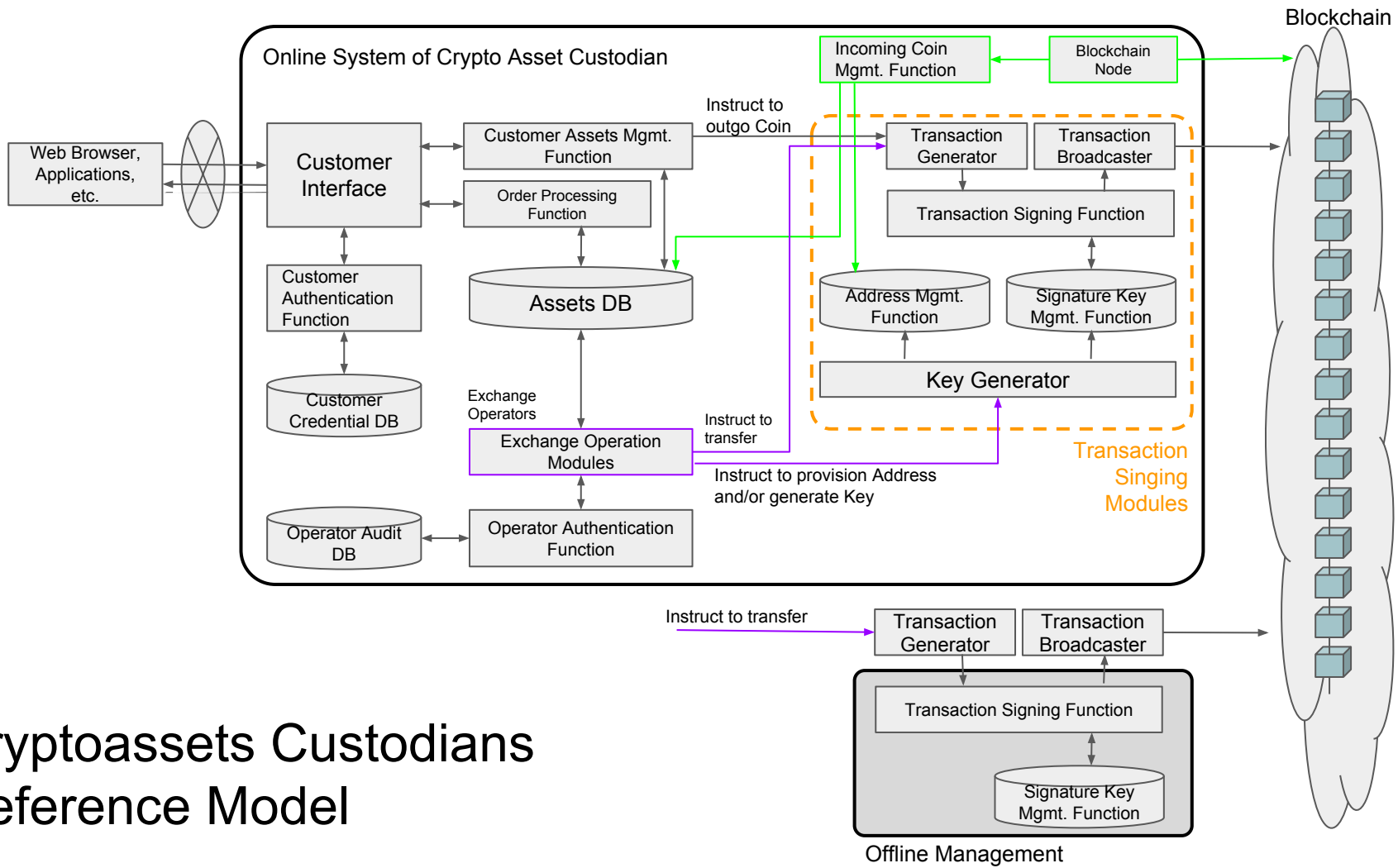
- Build a base document for Crypto Assets custodian’s security (best) practices.
- Share lessons from past incidents without violating a confidentiality obligations (e.g. criminal investigation)

- We are not making a regulations, practices and guidelines.
- Document should be open and globally applicable. (Economics, Regulatory domain free)

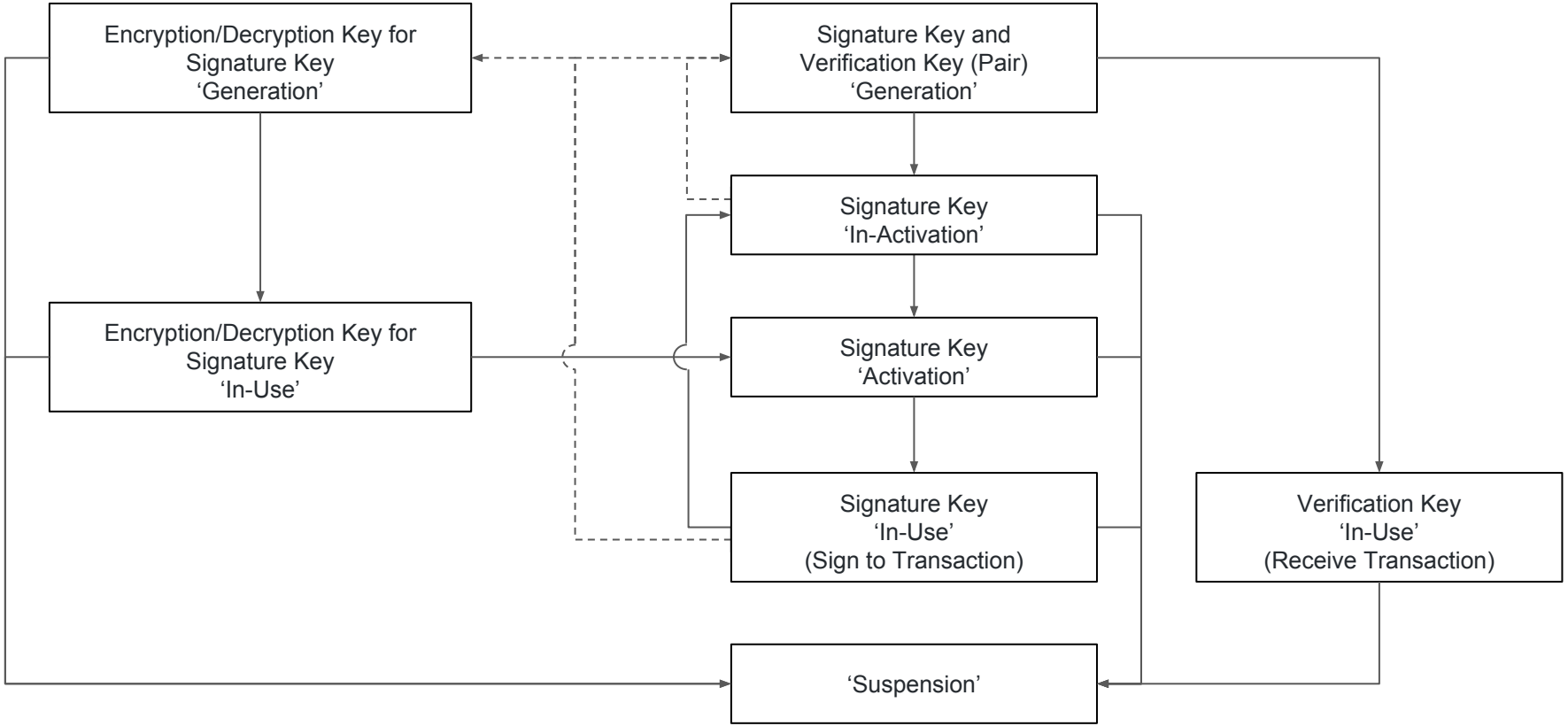
Current Document Structure

- Online systems of crypto assets custodian
  - Reference system model including functional components.
  - Transaction Flow
  - Taxonomy of key management
  - Characteristics of blockchain and distributed ledgers
- Objectives for security management
- Security controls
- Risk Analysis
  - System risk
  - External factors
  - Financial Crime risk

Cryptoassets Custodians Reference Model



Key Lifecycle Model of Crypto assets



Discussions

- IETF is a right place to discuss those issues?
  - If yes, which area/wg is a right place?
    - Sec Area? Or DINRG?
    - Looking for more input (especially from cryptoassets exchanges)
  - If not, are there any alternative places?
    - ISO could be a candidate. But we can’t publish a document until the process has been completed.