International cooperation to prevent, investigate and prosecute cybercrime using emerging technologies: challenges and opportunities

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About APWG

APWG is a non-profit worldwide coalition aimed at unifying the global response to cybercrime through development of data resources, data standards, model response systems and protocols for private and public sectors.

https://apwg.org | *https://apwg.eu*

Research

- eCrime Exchange platform & Reports
- R+D projects
  - TRUESSEC, VIVET, **LOCARD**
- Events
  - Symposium on Electronic Crime Research
  - EU Symposium on Electronic Crime Research

Education

- Events
  - Symposium on Global Cybersecurity Awareness
- Global online safety awareness campaign: STOP.THINK.CONNECT

LOCARD presents the ultimate solution of accommodating **independent users**, **jurisdictions**, **territories** and **global regulation**, together with **high security** demands.

- 1st May 2019 – 30 April 2022
- 6,843,385.00€
- 19 partners
- H2020-SU-SEC-2018-2019-2020

The LOCARD Project - Boundaries

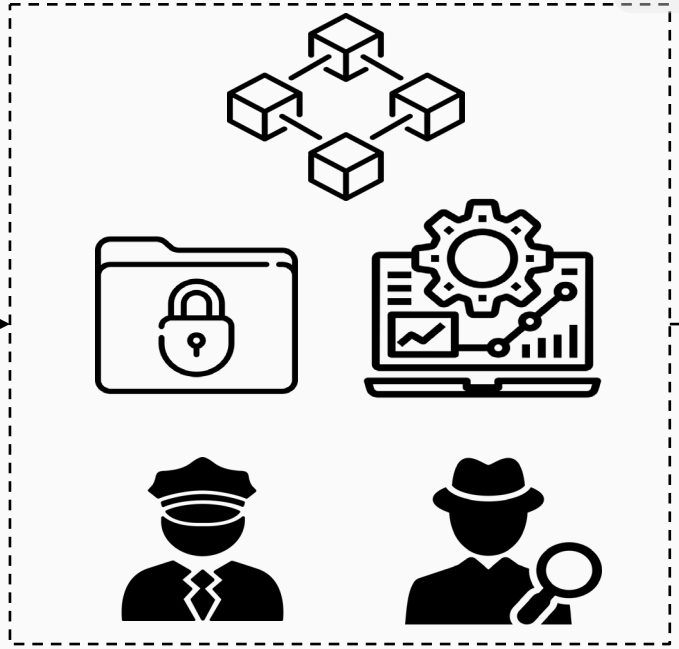
LOCARD

https://locard.eu/

Research on Blockchain: Studying how to support **scalability** and **efficiency** through strong policy management and smart contracts.

Hyperledger Fabric

1- Collection of the Digital Evidence



3- Reporting of the Evidence

Legal-Admissibility: Follows national / international **standards**, **laws** and **methodologies** for the chain of custody

2- Identification and Analysis

Is Blockchain a New Technology?

1991

Stuart Haber

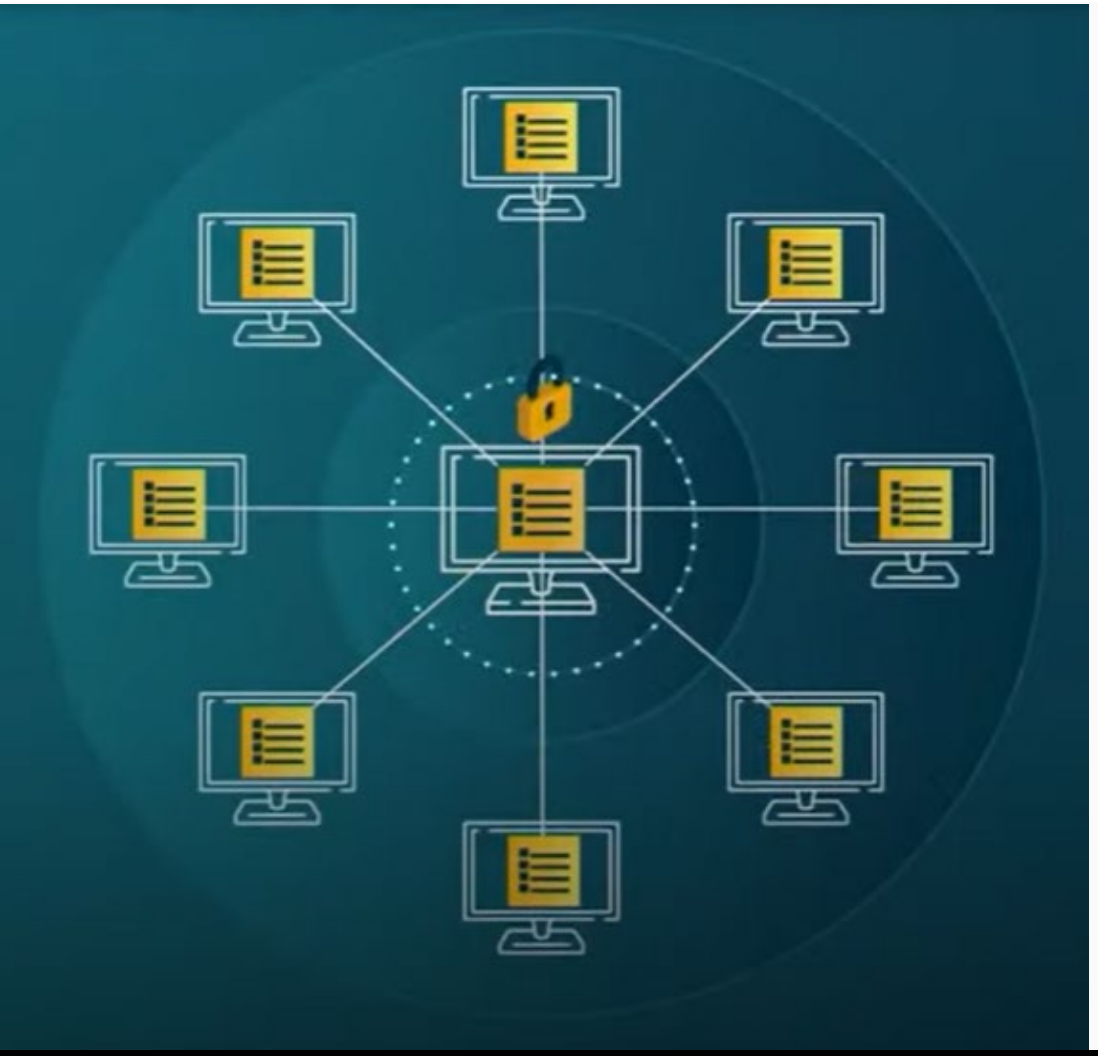
Scott Stornetta

Proposed a system to prevent timestamps on documents from being modified.

2009

Satoshi Nakamoto deployed the first public blockchain when he invented Bitcoin in 2009.

Smart contracts



An smart contract is a tiny computer program that is stored **inside a blockchain**. They are like contracts in the real world but completely digital.

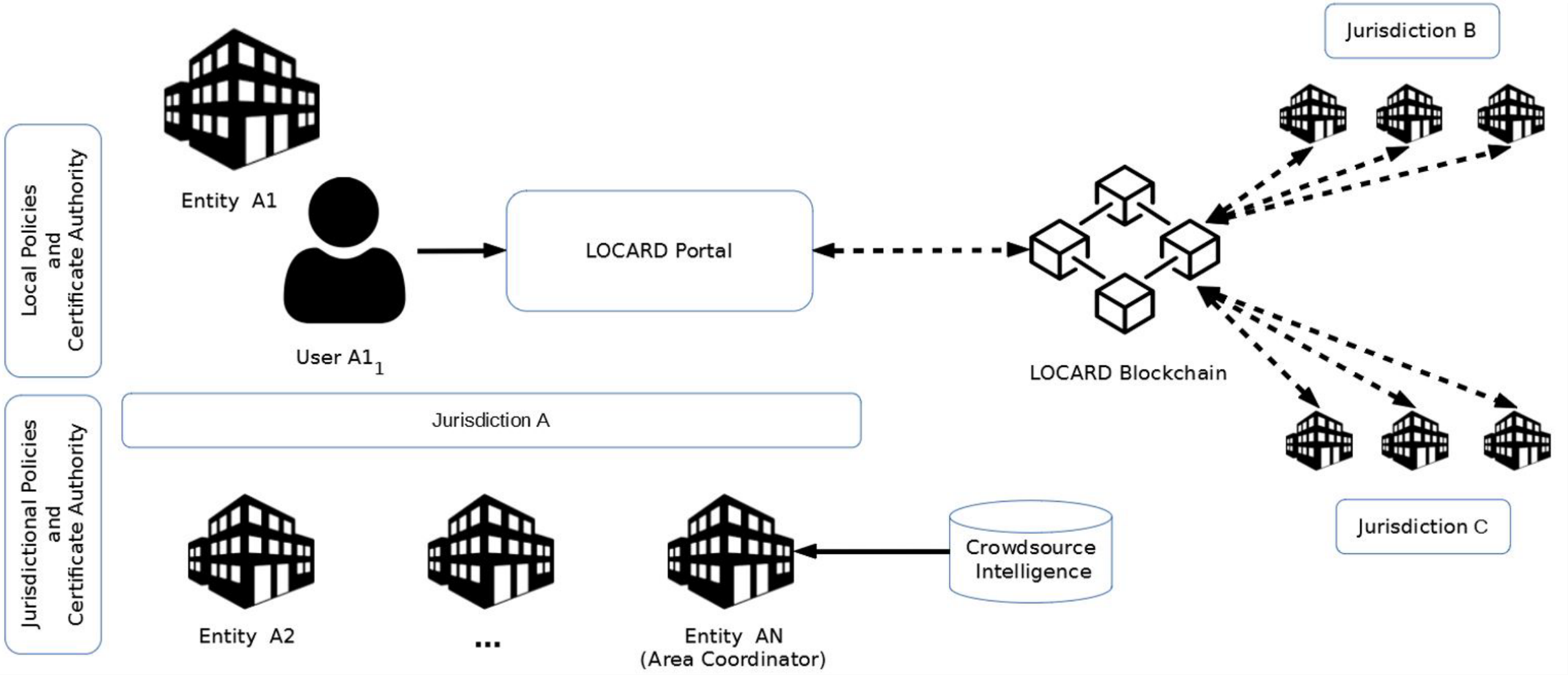
Immutable: it can never be changed

Distributed: the output of the contract is validated by everyone

The LOCARD Project - High-level Architecture

LOCARD

https://locard.eu/



The LOCARD Project - Forensic Flow

LOCARD

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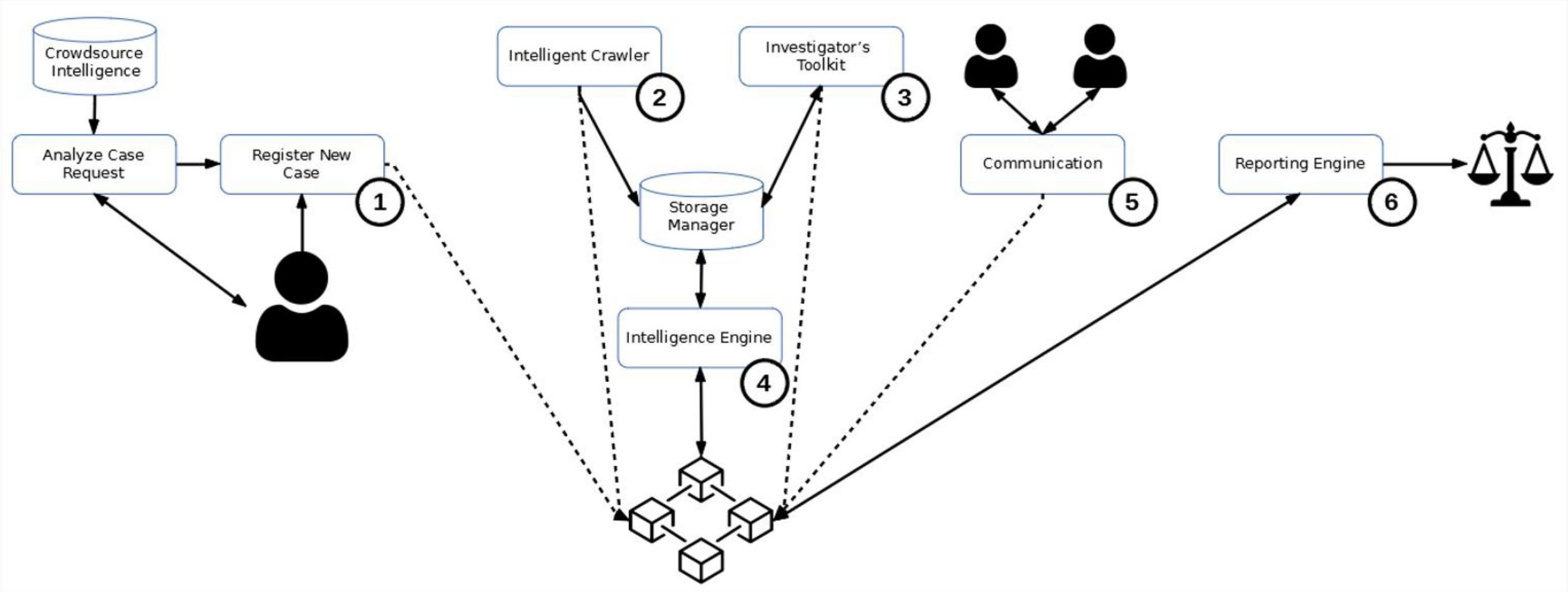

The LOCARD Project - Tools

https://locard.eu/

- Device Message Hijack Investigation
- Spyware
- SMS-Based Forge ID
- Vulnerable App Identification
- DNS Data Exfiltration
- Harward OS
- Deviant Behaviour

Use of Machine Learning to detect potential pedophile behaviour in Social Networks.

https://locard.eu/outcomes/training-material/

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