# A Review on Blockchain technology for Improving Land Registration System in Malaysia

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# INTRODUCTION

- Land registration is a complicated procedure.
- In Malaysia, Article 76(4) of the Federal Constitution (the country's primary legislation) places land under the state list, giving the state government sole authority to administer and control land-related issues.
- Federal Constitution adopted the National Land Code 1965 (NLC) based on the Torrens system, which emphasises principal registration

- Common pattern for land registration



object (spatial unit)

right (personal rights)

subject (title holder)

HIGH RISK SCALE

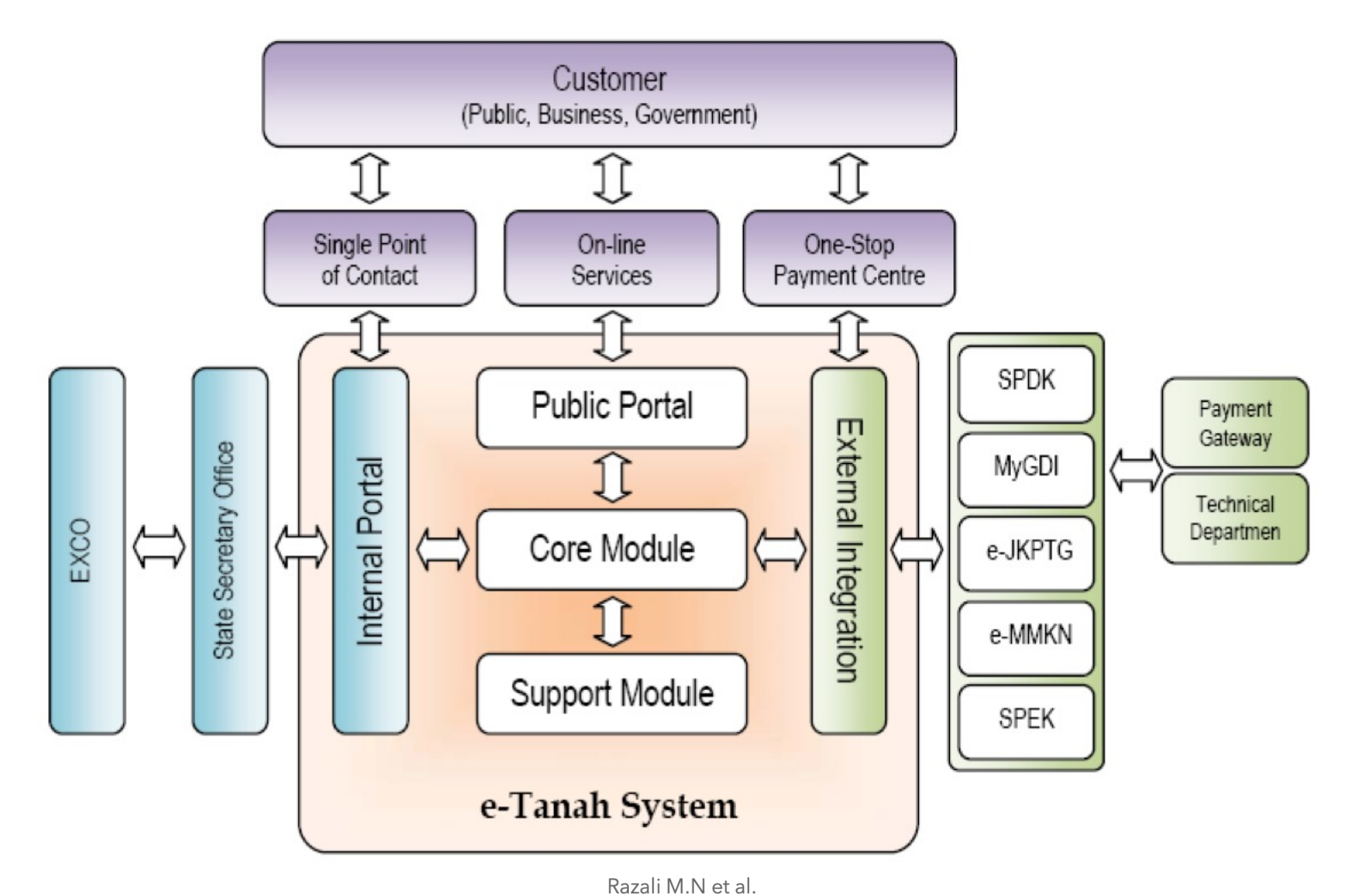
SECURITY LEVEL


# Land Registration System

Decentralised system

- Fraud
- Long Process

# Modernisation
# E- Tanah

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# 5 modules

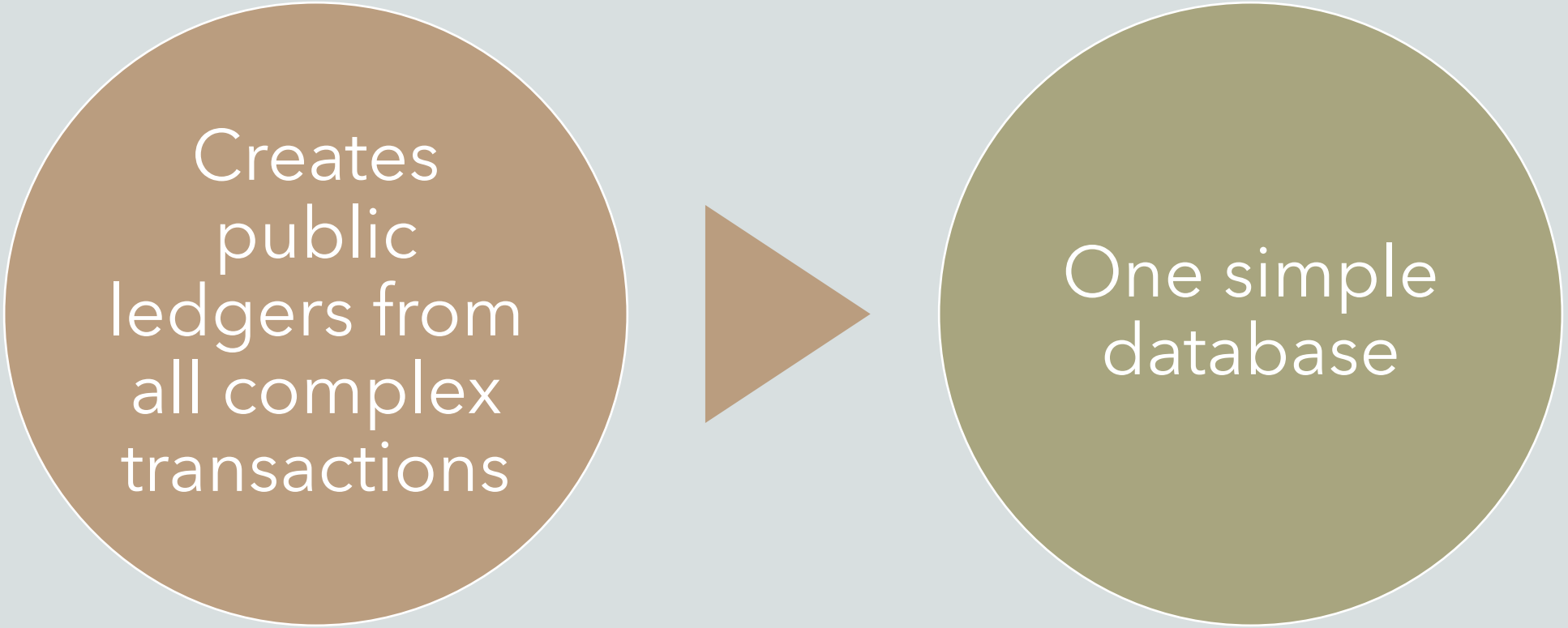
- 1st module
  - Registration
- 2nd module
  - Land Disposal
- 3rd Module
  - Land Management
- 4th Module
  - Land Acquisition
- 5th Module
  - Strata Titles

# Problems

- Need to tightly regulated,
- Decentralised system within the system
- Fraud-proof


brain
genius
creativity
PLAN
WORK
TEAM
search
Time
concept
Team
POWER
success
PLAN
IDEA
PLAN
BUSINESS
Idea
TEAM
WORK
IDEA
PLAN
BUSINESS
WEB


BLOCKCHAIN IN LAND REGISTRY


Creates public ledgers from all complex transactions
One simple database

Spatial Unit

Rules

Personal Rights

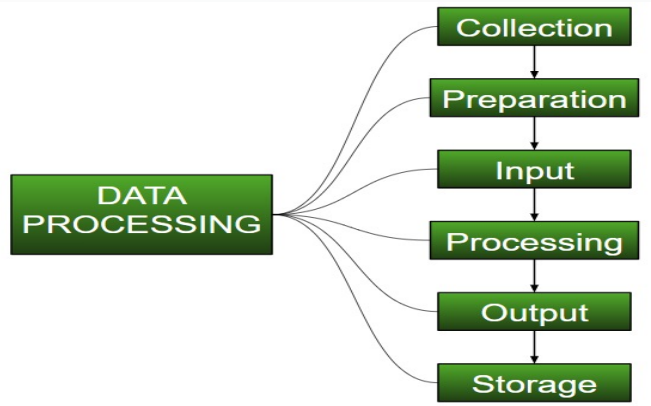
Process

Title Holder

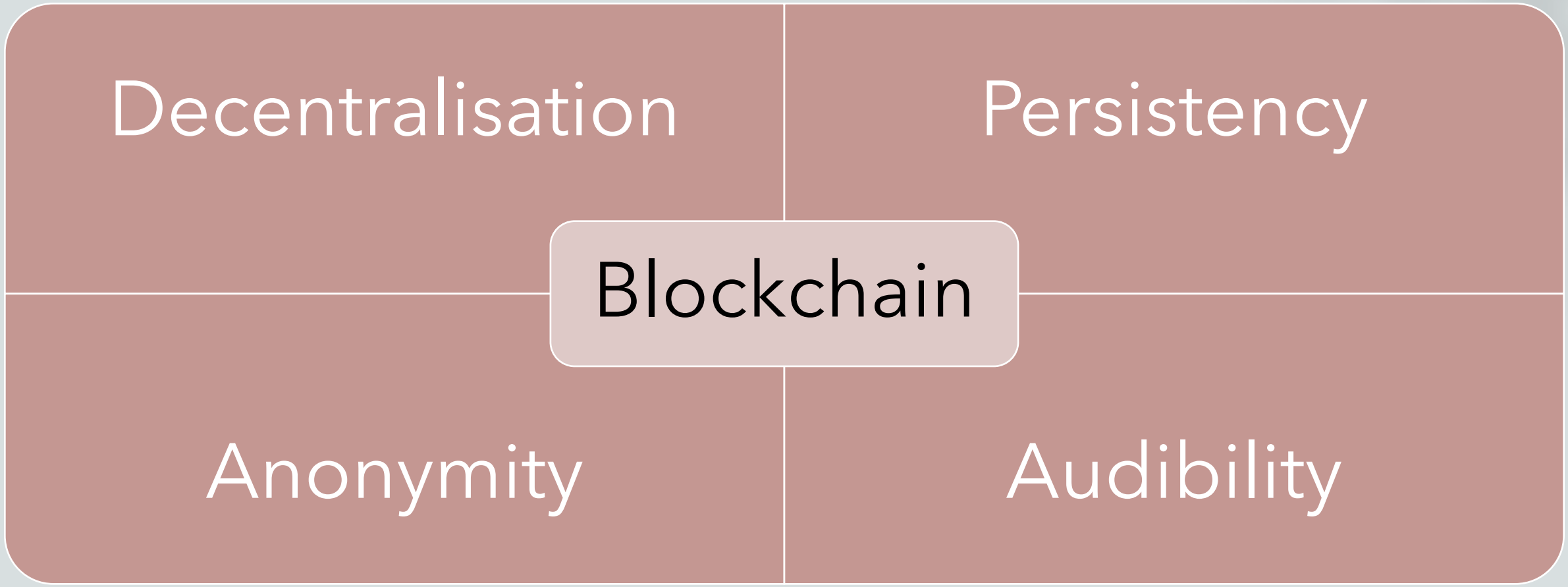
Structure


Creation


Data Management

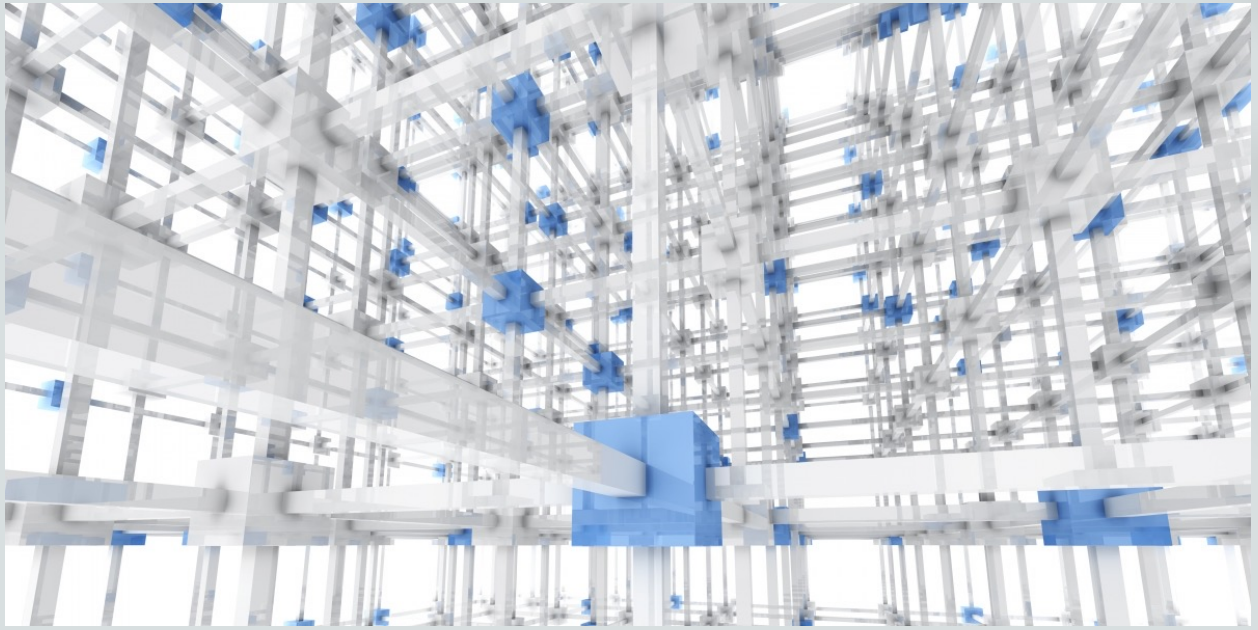



Data Process


Decentralisation
Persistency
Blockchain
Anonymity
Audibility


DECRYPTION
IMPORTANCE
ASYMMETRIC
TYPE
MECHANISM
DATA CENTER
ALGORITHM
KEY
SCIENC
AUTHENTI
YPTOGRAPH
SYSTEM
CIPHER TABLE
SECURITY
SPOSITION
BLOCK HASH
PLAINTEXT
EXCHANGE
CODE
DIGITAL
ENCRYPTION
STREAM
NETWORK
PATTERN
CIPHERTEXT
COMPUTATION

# Autonomous Decentralised Peer-to-Peer Telemetry (ADEPT)



SAMSUNG

IBM

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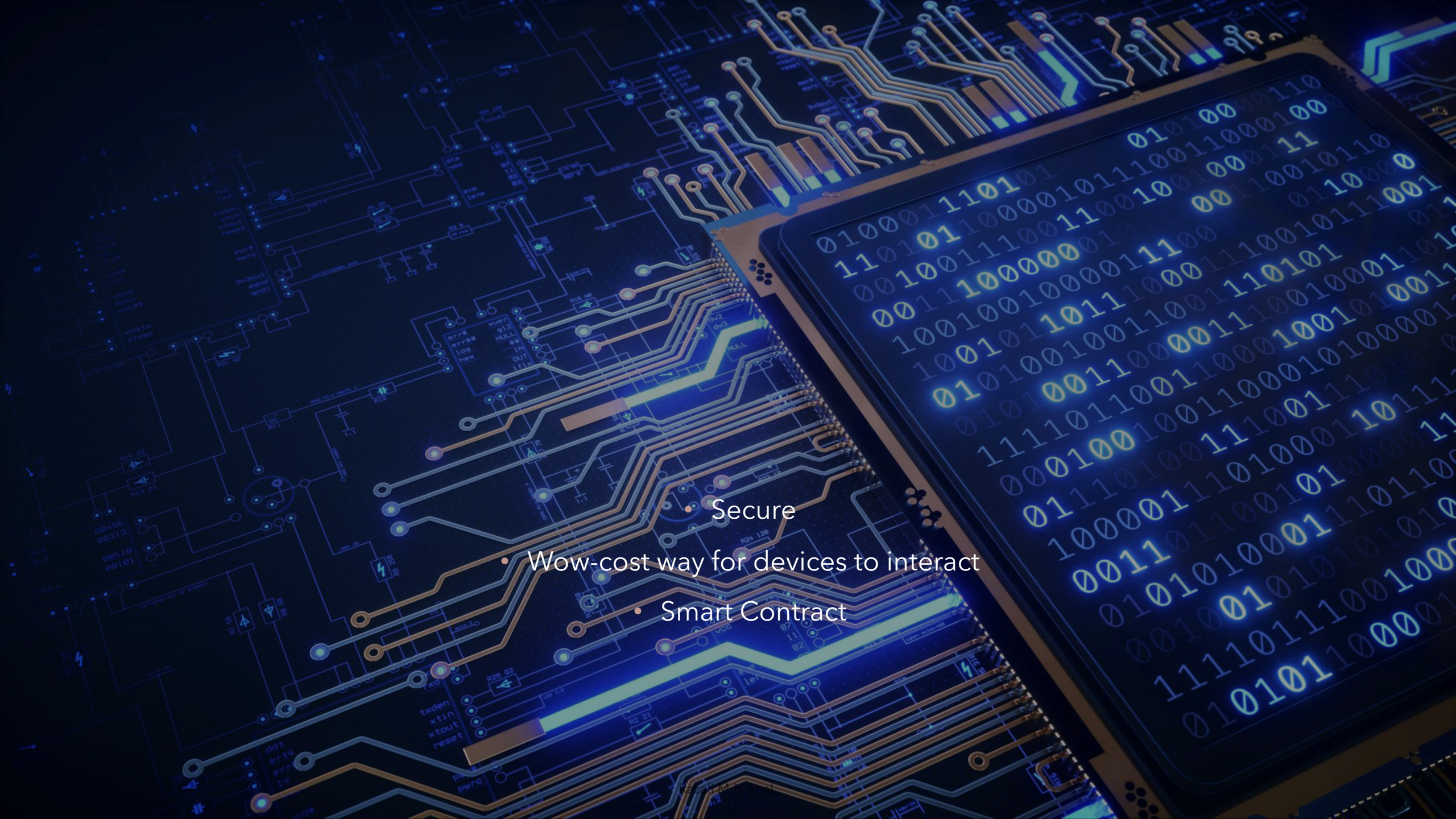
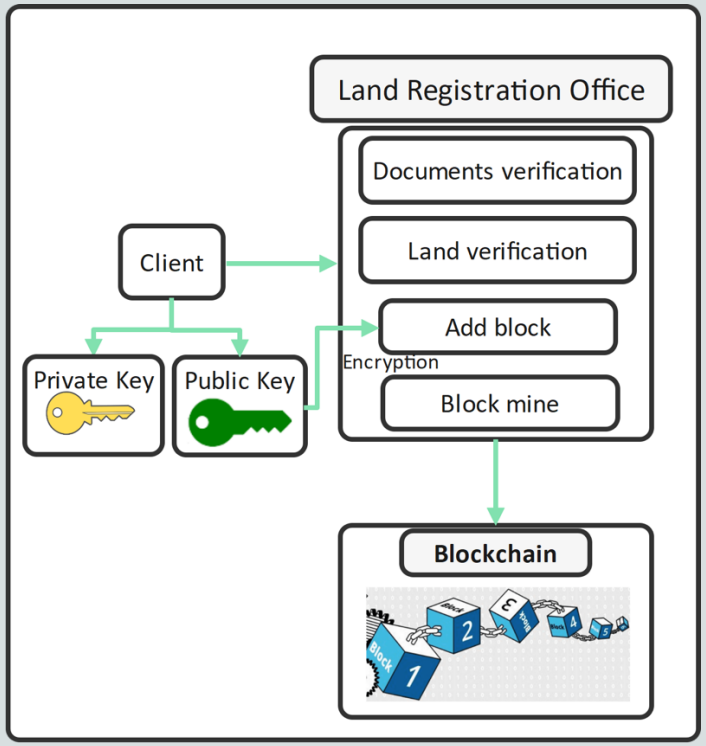
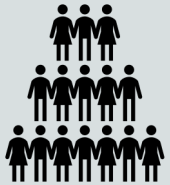

• Secure
• Wow-cost way for devices to interact
• Smart Contract

# Process



Register

Contain


Public Key
ID
Land Tittle
Land Address

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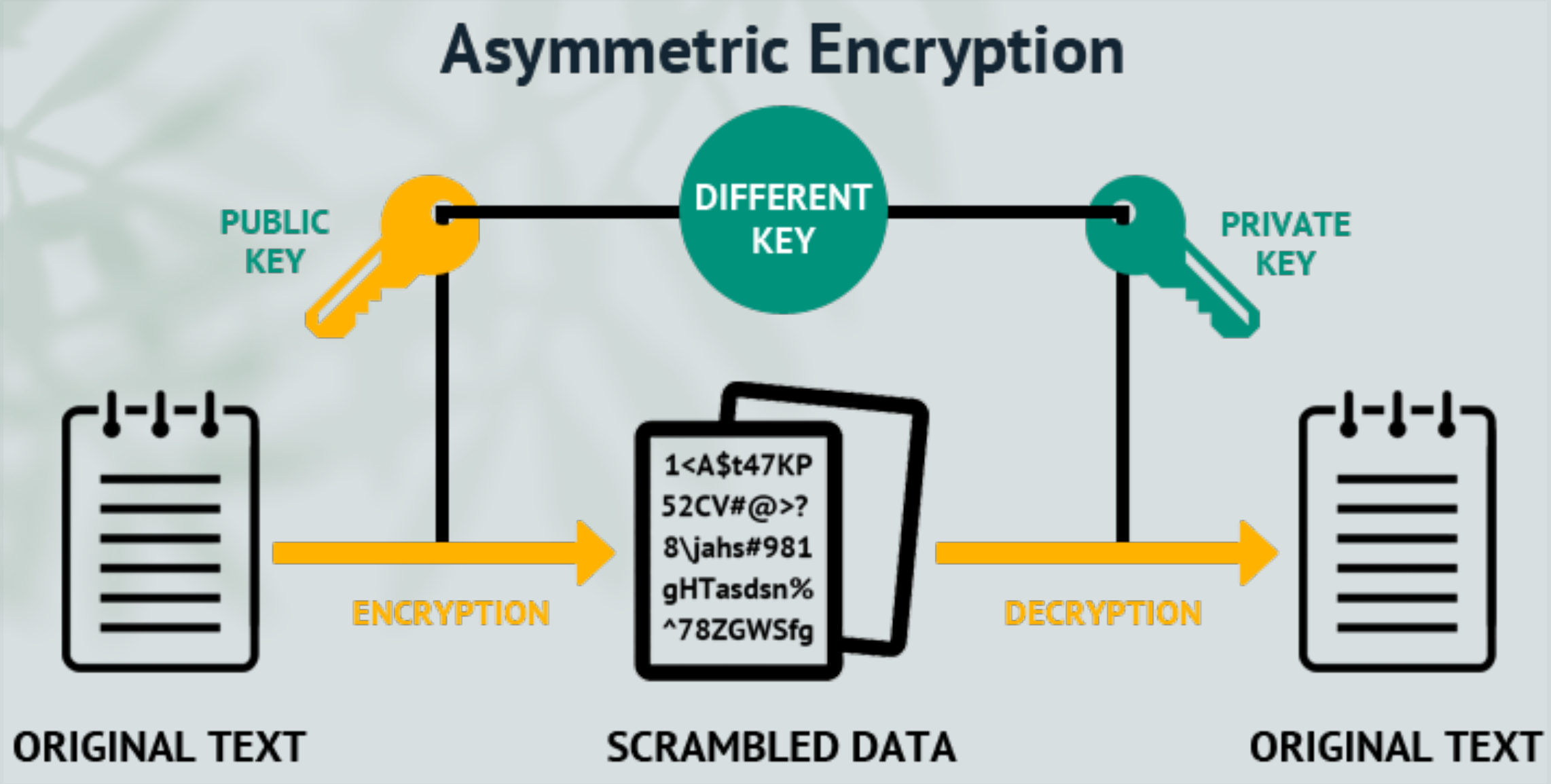


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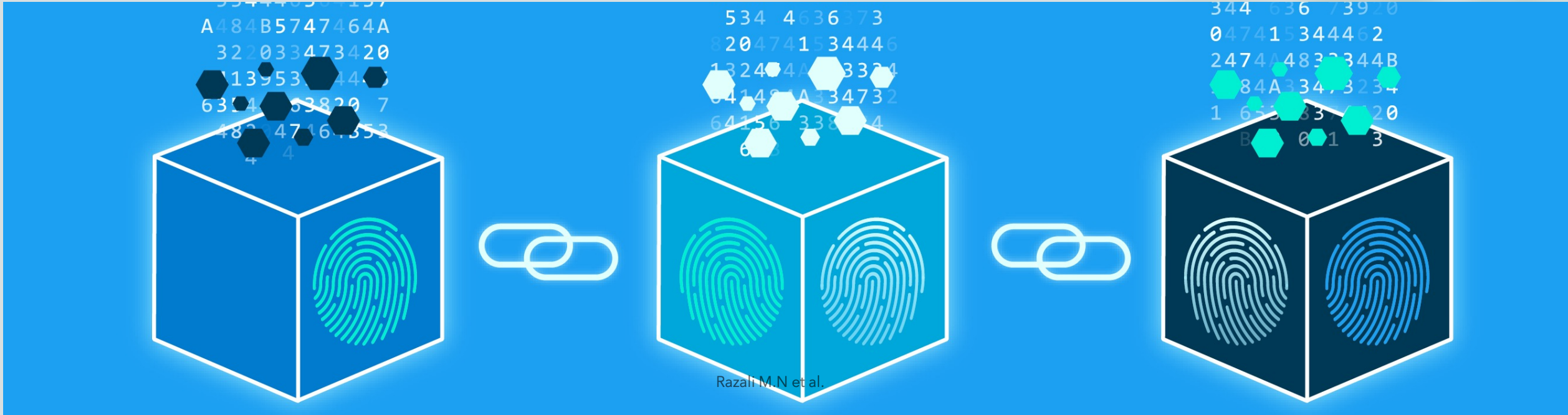
The blocks are mined after the land is registered.

The mining process is distributed among peers. Whichever peer mines it announces it to other peers. Mining is used to secure and verify land transactions. Mining involves blockchain miners who add land transaction data to the global public ledger of past transactions.



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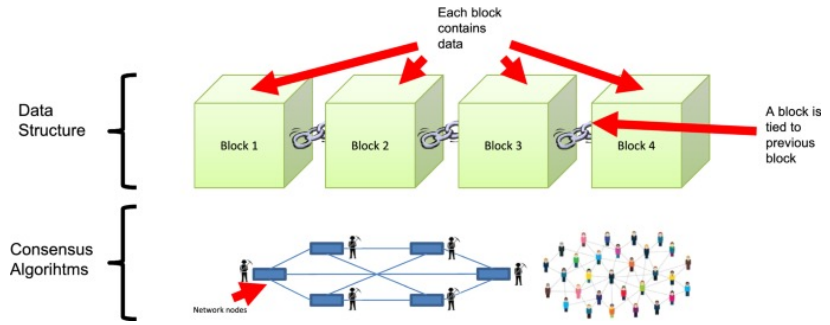
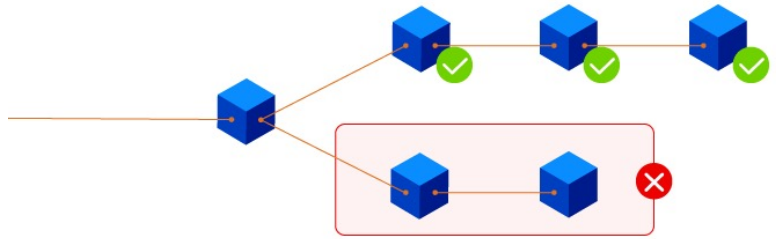
The announcement is made to all the peers and all other peers.

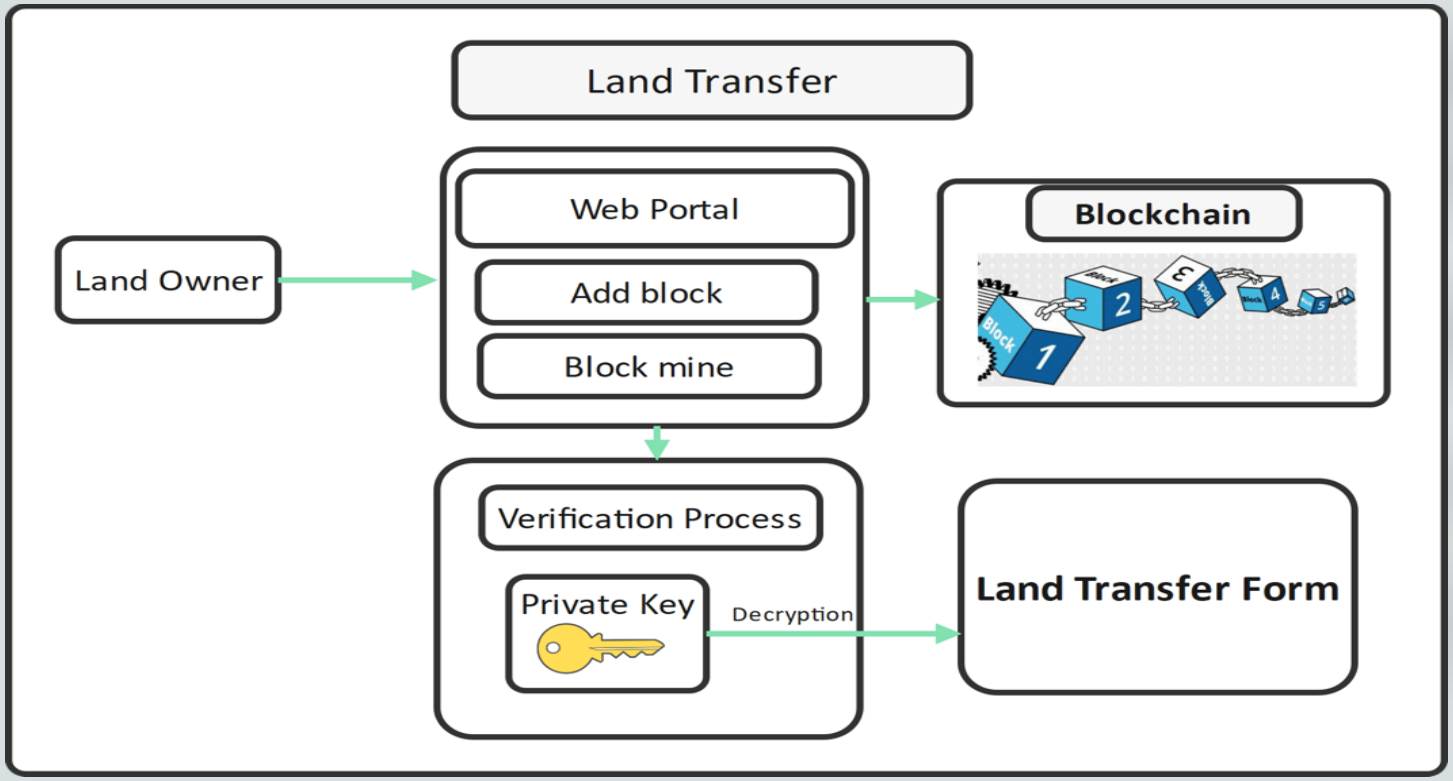

Validation




Validation



The block is added in the pier blocks as well.



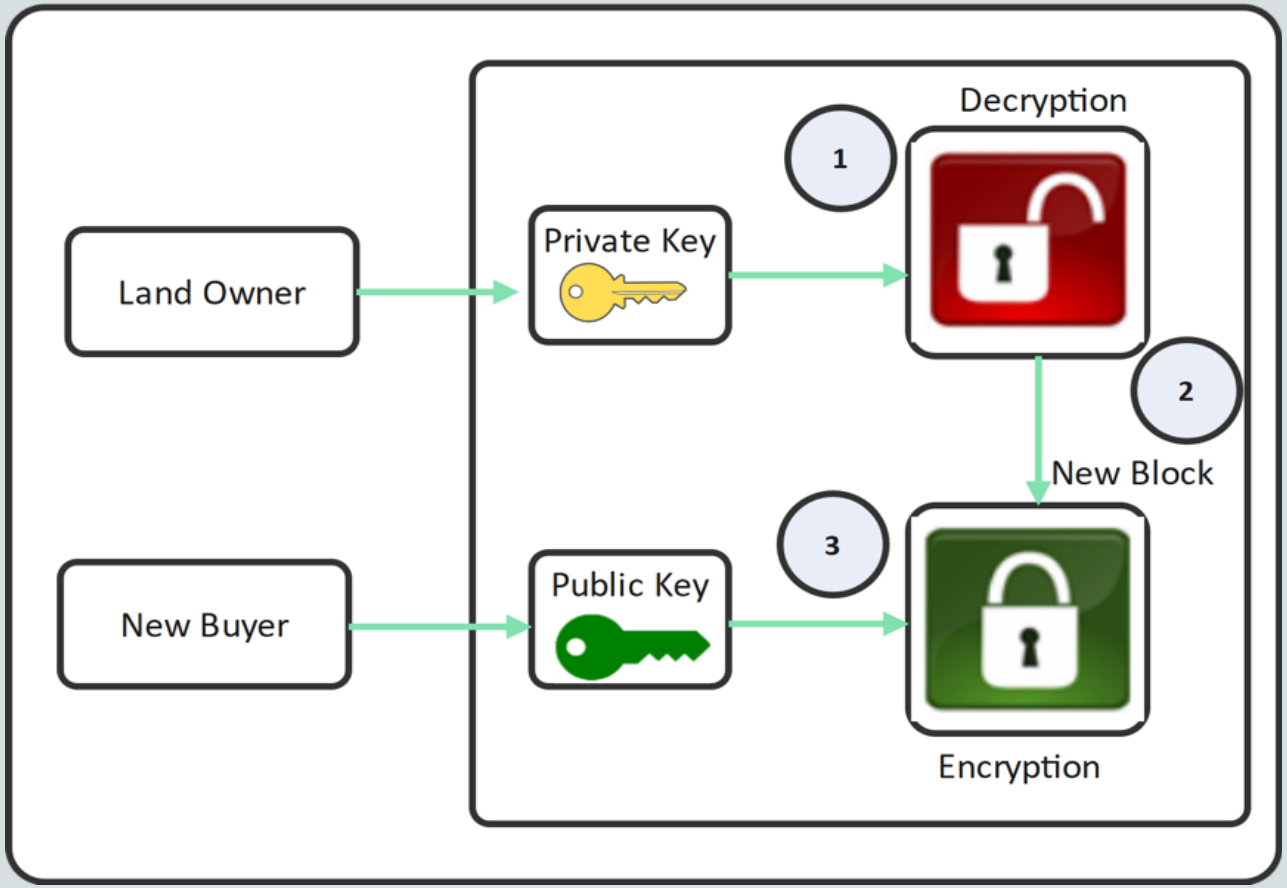

Secure Land Transfer Using Blockchain

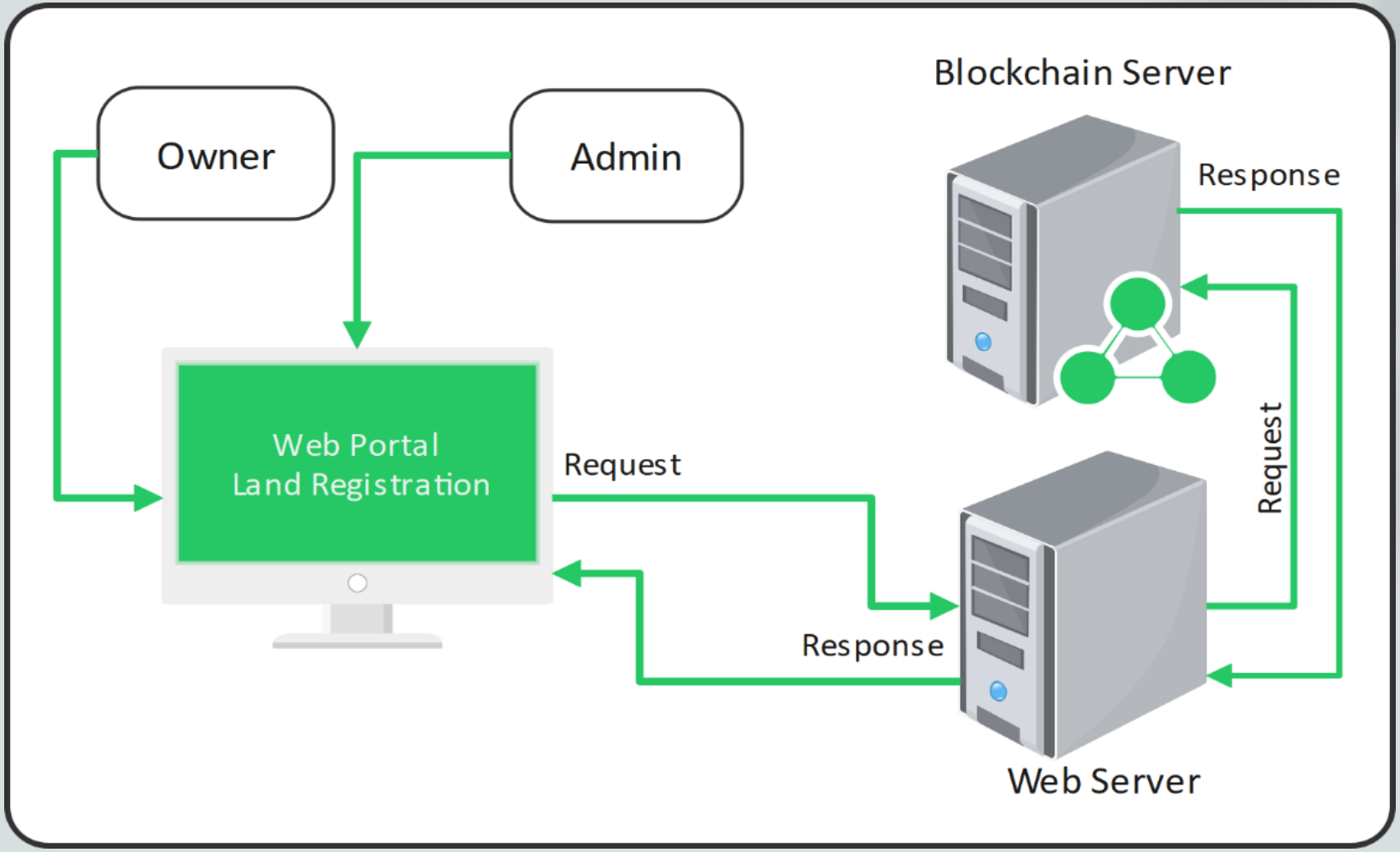
i. The land record must be the latest one.

ii. The owner must provide their private key file.

iii. The new owner must provide their public key file.

- Secure land transfer process






Overview of the proposed design

# Conclusions

- The transparency and decentralisation nature of blockchain has helped us to secure data.
- In terms of secure data, storage is achieved by the asymmetric cryptography of public and private keys. These keys make sure that only the original owner can transfer ownership securely and effectively

This reduction in data will help reduce network traffic.

Asymmetric keys such as elliptical curve cryptographic algorithms.

# THANK YOU

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