

We engrave your
credentials.

Blockchain Digital Contract Platform

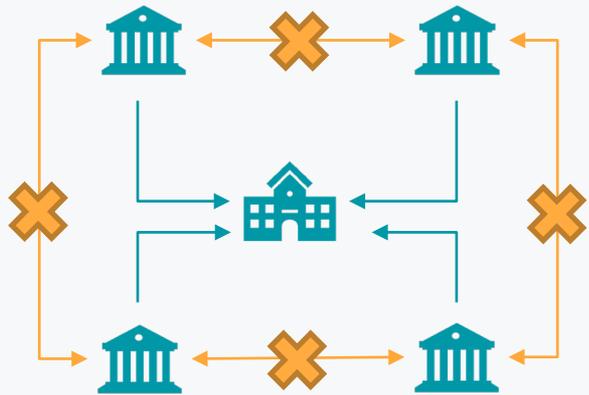


Data Engraver
誠鐫科技

Provides digital contract and signature, sensitive
data transmission storage by blockchain

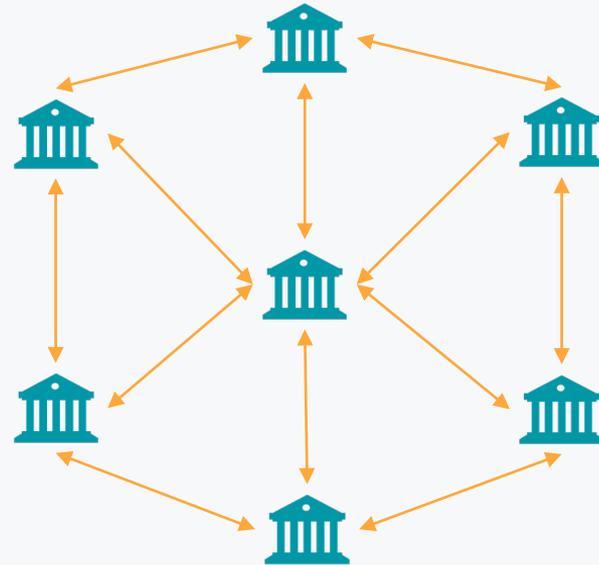
General Database (Centralized Ledger)

- Data is not persistence & changeable
- Data isolated in each point
- Data history cannot be traceable and audited



Blockchain (Distributed Ledger)

- Data is permanent and unchangeable
- Data can be safely shared between parties
- Data history can be verified and notarized



How does “Work From Home” affect the work of civil servants and government service?

政府暫停非緊急服務一星期 有市民未能辦理申請手續

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2020年7月20日 下午1:31



政府暫停非緊急服務一星期 有市民未能辦理申請手續

Difficult to provide government service

- Application that needs signed by a Civil Servants or approves by multiple departments delay
- Decrease work efficiency in dealing with applications



Difficult to sign the contract at home

- Civil Servants cannot sign paper contract at home
- Decrease work efficiency

What if we can provide a safety and secure online contract signing platform provide government to accomplish signing contract and document online?



Blockchain digital contract platform

Be able to sign contracts and documents:



Digital contract/ Digital signature



Full life cycle management of digital contract



Blockchain data storage certificate



Blockchain document depository



Without paperwork

At anywhere

At anytime

- ✓ Improve the efficiency of application approval
- ✓ Reduce the need for civil servants to work in entities

In order to sign or approve reliable digital contracts involving multi-parties efficiently, three problems need to be overcome:



Validity of Contract

- Whether the contract is signed with **the approval of subjective will**
- The possibility of contract being counterfeited
- Does the electronic signature provide a certificate of recognition?

Signing parties sign under their real identity and real wishes



Reliability of Contract

- When there is doubt about the digital contract, can the original contract prove that it has not been tampered with?

The original text and signature of the signed contract is unchangeable



Legality of Contract

- Can the digital contract prove as an evidence when tracking back?

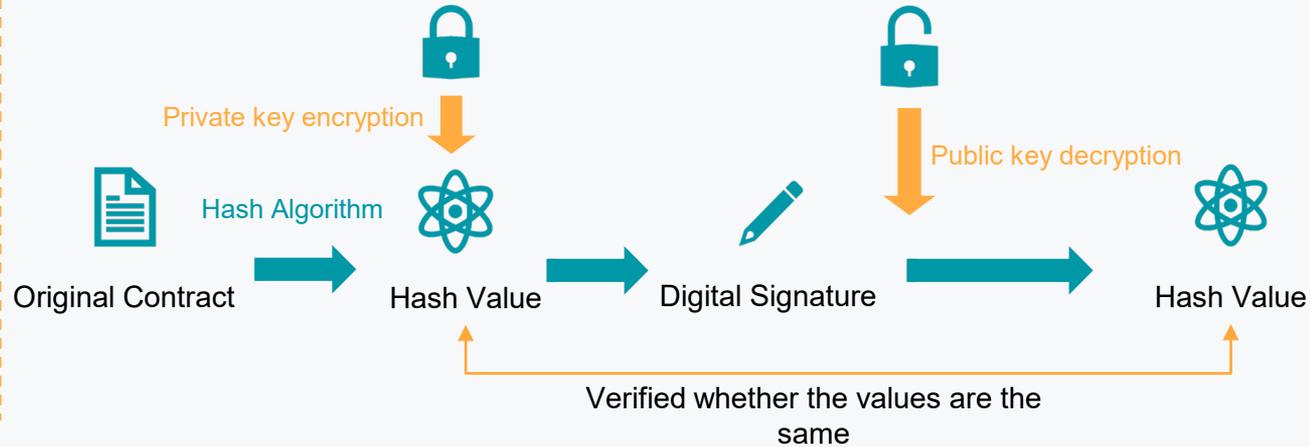
Certificate to prove the digital signature is legal

1. Is the contract subjectively agreed?
→ Authentication



Verified

2. Is the digital signature yours?
→ Asymmetric Cryptography



3. Is the contract signing time correct?
→ Authentication



Timestamp

Hash Algorithm



Hash Value

4. Is the contract forged?
→ Verify the hash value



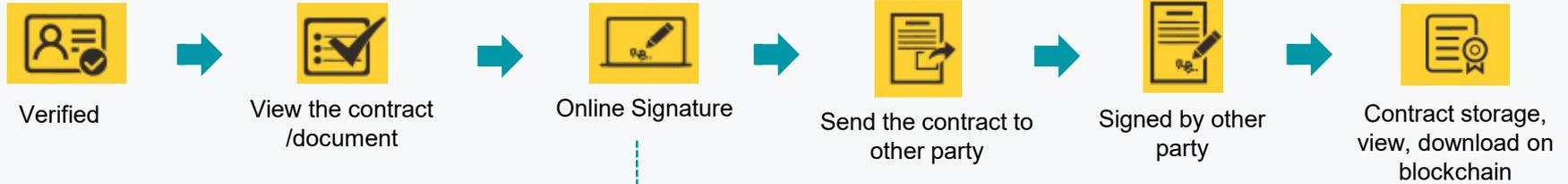
Original Contract

Hash Algorithm



Hash Value

FLOW CHART OF DIGITAL CONTRACT & SIGNATURE



Verify last user's digital signature by his public key



Click to Stamp



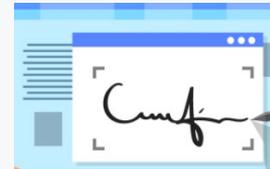
Select Digital Certificate



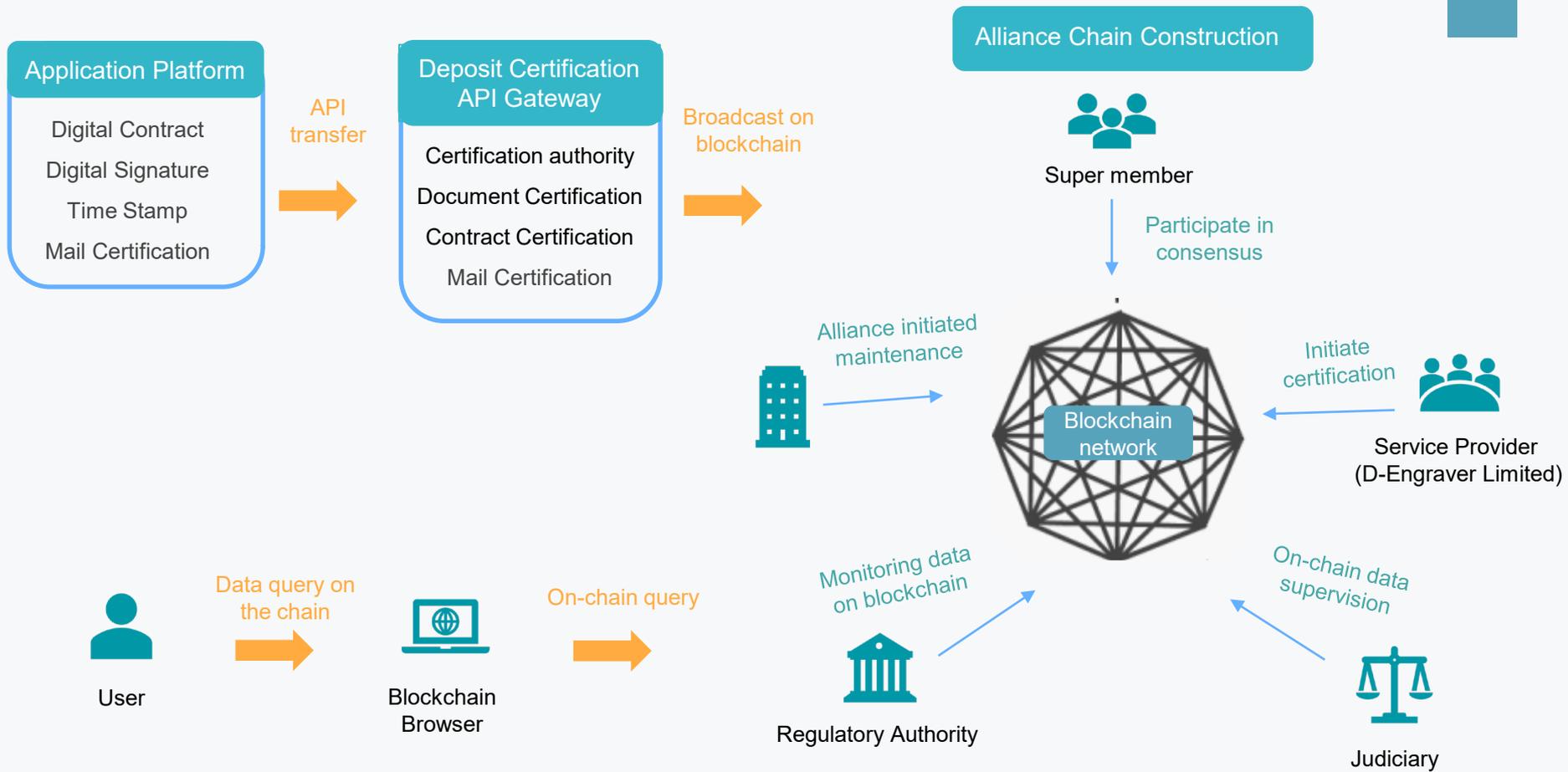
Call the digital signature



Enter the private key password



Write in your Digital Signature to the contract

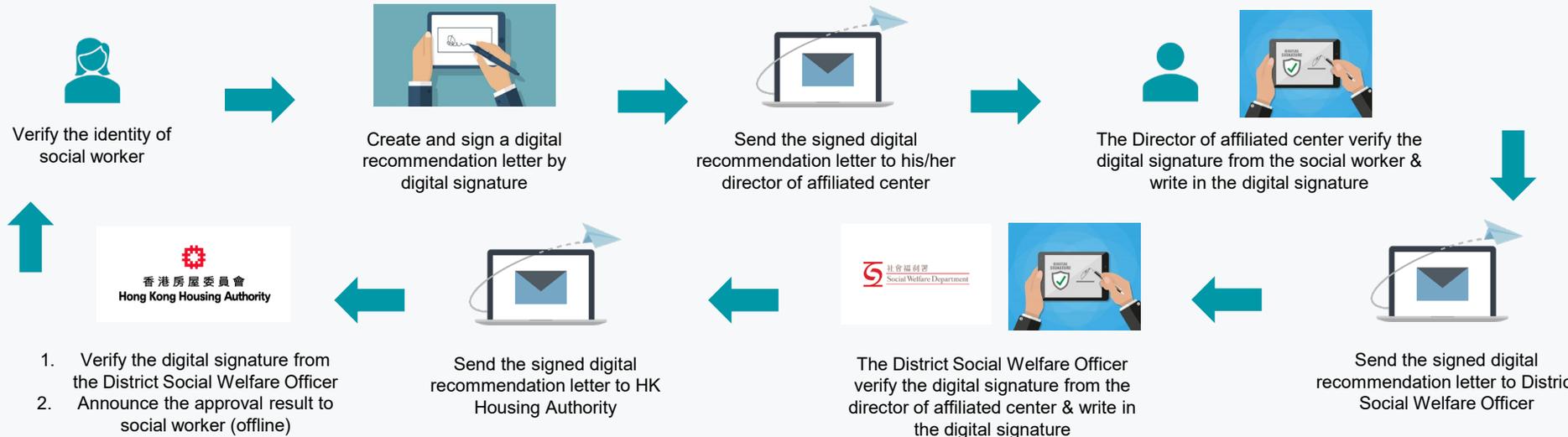


According to the Electronic Transactions Ordinance: Part III Electronic Records and Digital Signatures (Revised in 06/2004)

Give electronic records and signatures the same legal status as their paper counterparts

Why our solutions meet legal requirements?

1. An electronic signature of the signer generated by the transformation of the electronic record using an asymmetric cryptosystem and a hash function
 - ✓ **Our Solutions: Asymmetric Cryptography (Private key and public key) + hash algorithm**
2. Electronic record is accessible to be usable for subsequent reference : the information which enables the identification of the origin and destination of the electronic record and the date and time when it was sent or received, is retained
 - ✓ **Our Solutions: Record all the information on blockchain with contract initiator, signing time, contract receiver and contract content**
3. Avoid any endorsement or any change which arises in the normal course of communication, storage or display
 - ✓ **Our Solutions: All the data in blockchain is unchangeable**
4. Digital Signature should be supported by a recognized certificate
 - ✓ **Our Solutions: Apply the certificate from Hong Kong Post by government itself**



- ✓ Sign the document remotely (even when "Work From Home")
 - ✓ Stored and proceed through blockchain
- ✓ Reduce the time of compassionate rehusing approval

Mission

To eliminate the crisis of trust in the information sharing process



A Blockchain Based Asset Management Company with IoT Solutions

- Founded by HKUST Alumni & Professor
- Shortlist company of TSSSU 2019-2020



Strong Research Background

- Very strong consultant team from HKUST
- First private company invested by HKUST



Incubatee of Incu-tech program of HKSTP

Based in Hong Kong

- Founded and based in Hong Kong
- Star Enterprise of Hong Kong Science Park



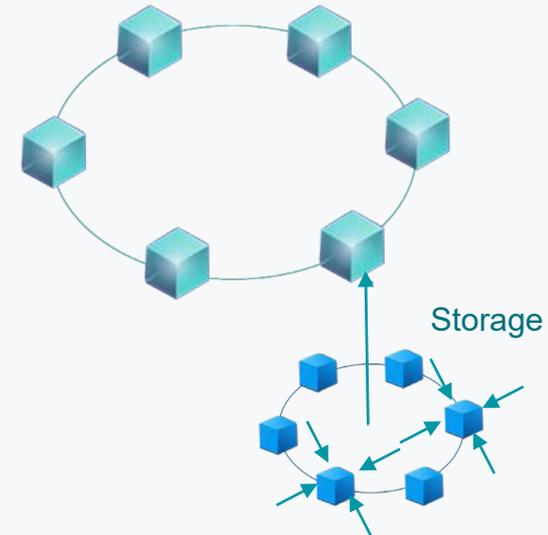
Patents in Blockchain Technology

- Granted several patents in blockchain algorithm and data encryption method
 - Minimum investment (cost of maintaining the system) + Maximum output (providing speed and security of the entire network)

The single node accounting and multi-node backup anti-tampering mechanism

Based on our bottom-chain, a patent about the **single node accounting and multi-node backup anti-tampering mechanism based on distributed network** has been conceived.

	Consensus	Transaction per second (TPS)	Smart contract
Bitcoin network	POW	7~8	Using script, though multiply signature and Timeclock, simulate asset lock and unlock processes
Ethereum network	POW	15	Directly write the smart contract into the code with Turing completeness
D-Engraver chain network	POW + Low level of consensus	Ten Thousand times faster than Bitcoin	A smart contract with single-person accounting in low level of consensus, with Turing completeness, focusing on describing more complex data processing processes and ensuring that they are not tamper-evident.



Preparation by Civil Servants



According to the Electronic Transactions Ordinance (Chapter 553)

- Digital signature issued by a recognized digital certificate is in compliance with the legal requirements for signatures



Apply through the central management communication system

Implementation Flow



BLOCKCHAIN Digital Contract Platform

When there are multiple departments / parties involve and remotely working condition cannot ensure the authenticity of digital documents and signatures, we can help you:



Digital contract/ Digital signature

✓ Reliable digital signature and contract



Full life cycle management of digital contract

✓ A secure platform to transfer sensitive data between multiple departments



Blockchain data storage certificate

✓ Data are unchangeable and traceable



Blockchain document depository



VISION

To breakthrough the information isolated and create irreversible certification in any topics by engraving important credentials

MISSON

To eliminate the crisis of trust in the information sharing process