

SIP for Inscribing Immutable Data on Stacks



Stacks Improvement Proposal (SIP) series #53

SIP for Inscribing Immutable Data on Stacks

Use cases such as inscribing business contracts, commitments, National ID, membership, affiliations to companies



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Friday July 21st; 12pm ET



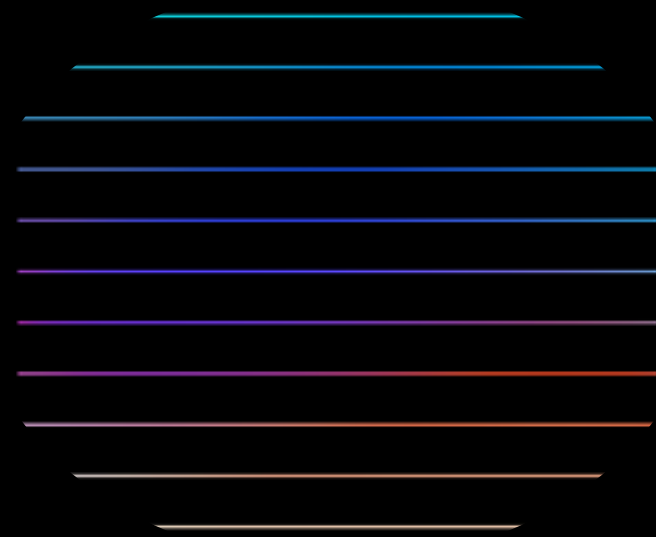
<https://www.stacks.co/explore/events>



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Use cases

**Inscribing business contracts,
commitments, National ID,
membership, affiliations to
companies**



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Immutability is an attribute that Blockchain technology offers to world society

Transaction and/or execution of SmartContract
than cannot be altered

Attribute of immutability could be transformed in an inscription service

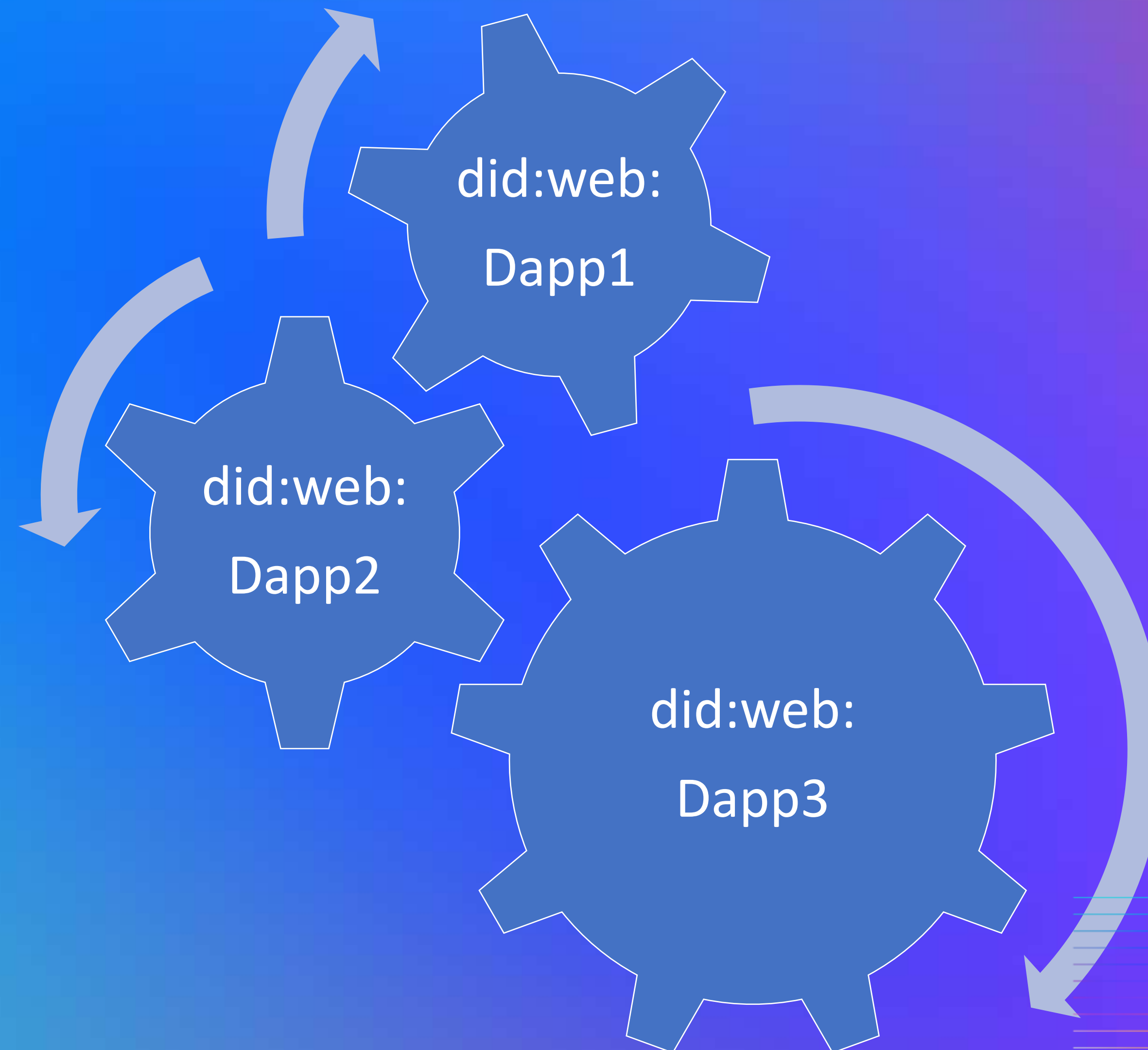
Financial value transfer

Bitcoin Name Service (BNS)

Non Fungible Tokens (NFT) inscriptions



Model

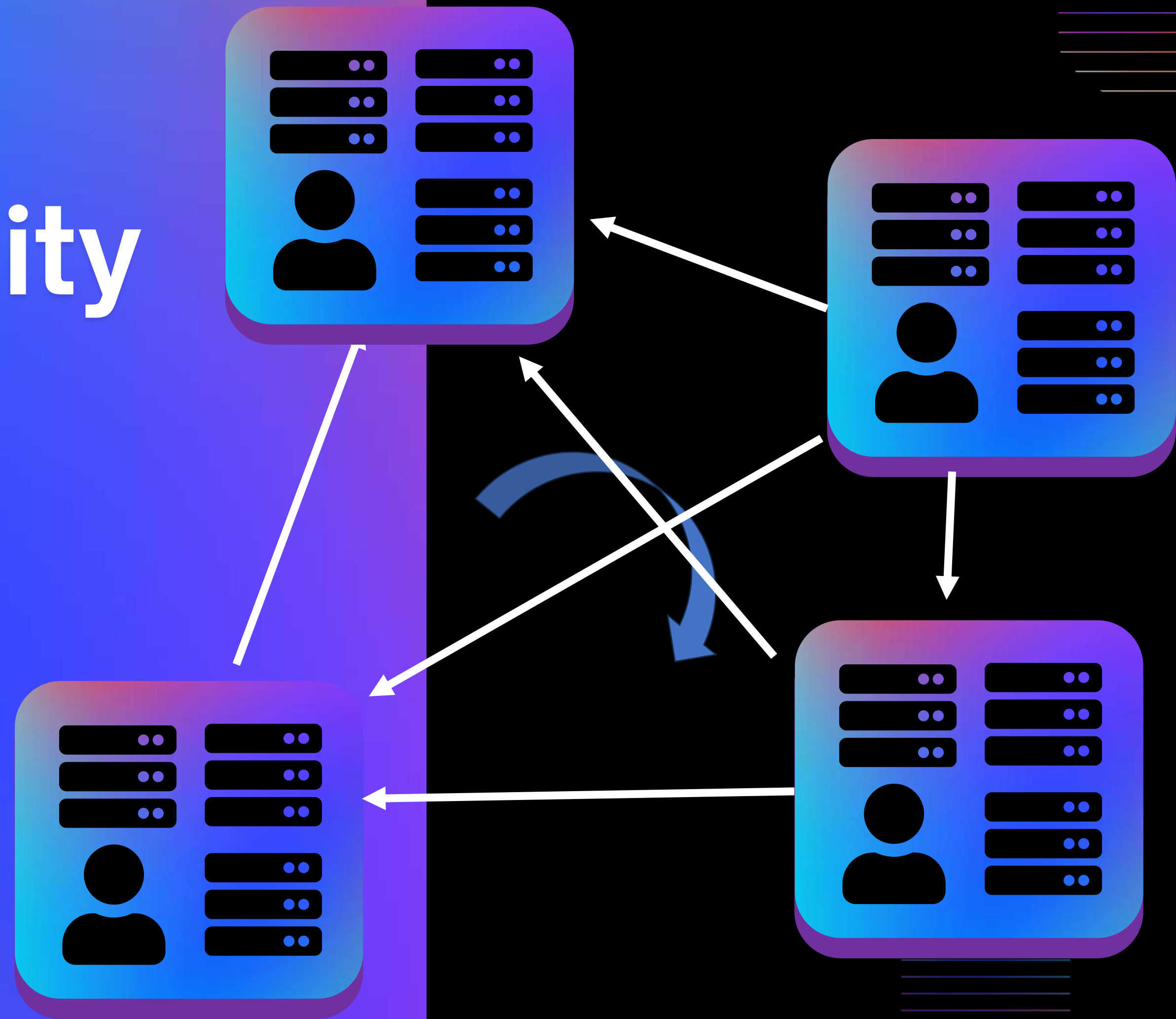


Non transferable Inscriptions could be leverage with the use of did:web for the users, and apps. Accessed publicly by a web service

Social Identity

Means:

- Humans and their relations

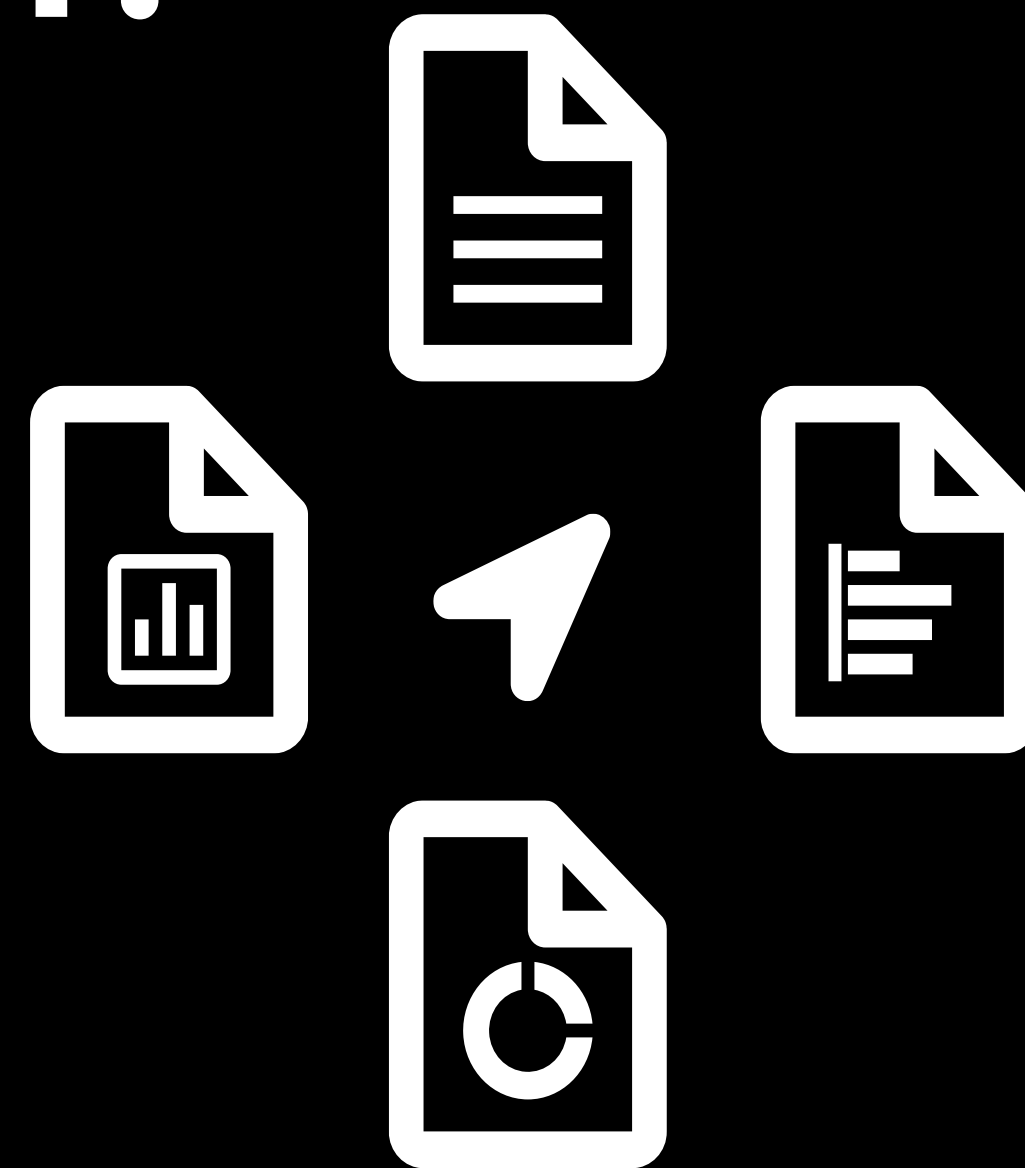




Decentralized Society to encode trust could consider:

Commitments

Credentials

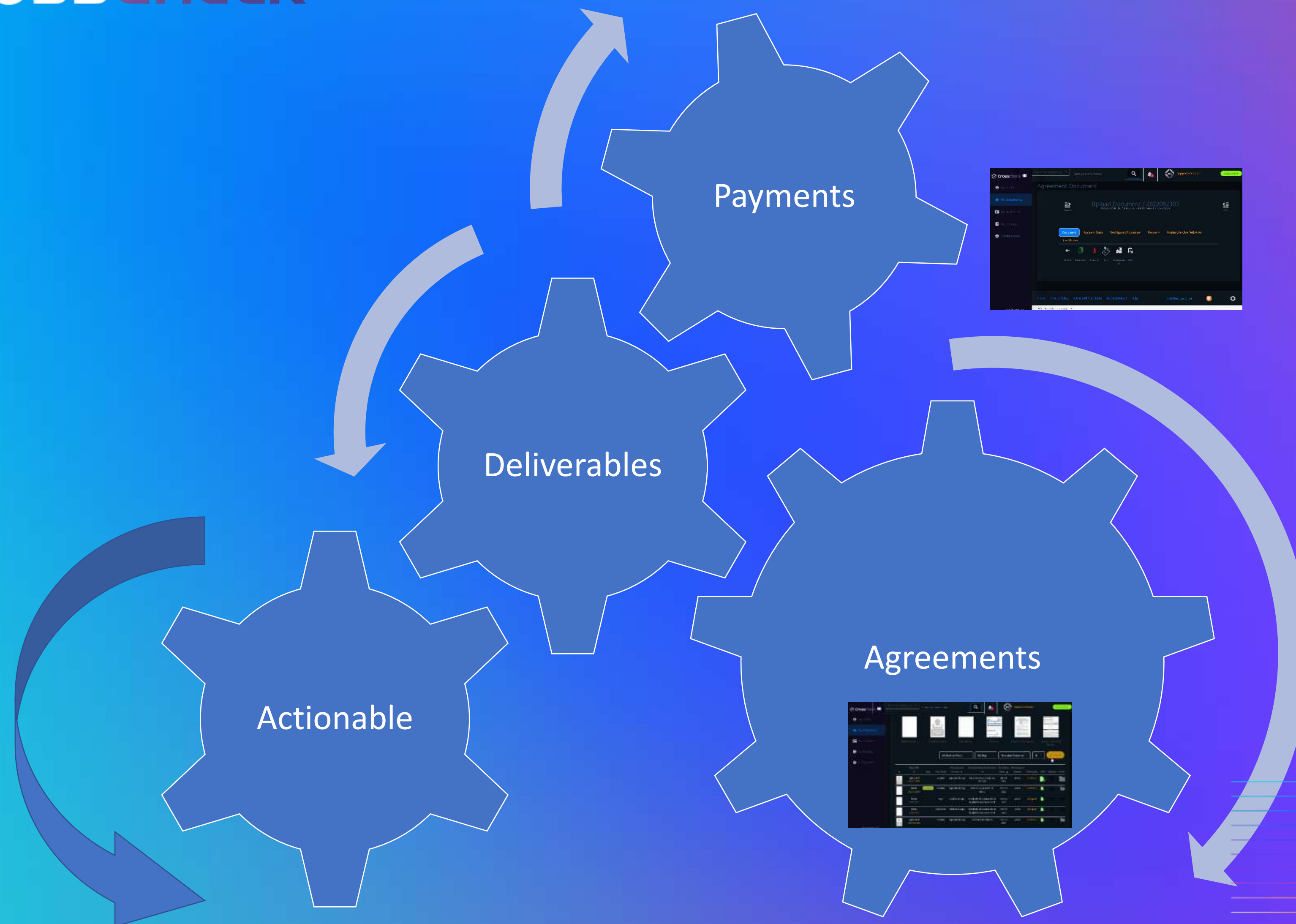


Affiliations



Private and secure data stored in a distributed database

1. Inscription of Commitments



In a secure way do digital agreements, make/receive digital payments, digital delivery, and make them actionable with other entities or customers

2. Inscription of Credentials

Social Identity

Tied to a validated National ID document with proof of life.



Credentials are a part of our daily lives

3. Inscriptions of affiliations

To organizations, companies, institutions, and others.



1. Clarity Trait of Commitment Inscriptions

```
[[[ XCK-inscription-trait-v1.clar M X history.txt •
xck-inscription > contracts > [[[ XCK-inscription-trait-v1.clar
You, hace 1 segundo | 1 author (You)
1 | ((define-trait commitment-inscription-trait      You, hace 1 segundo • Uncommitted changes
2 | (
3 |   ;; Last inscription ID, limited to uint range
4 |   (get-last-inscription-id () (response uint uint))
5 |
6 |   ;; the human readable name of the inscription app service
7 |   (get-inscription-app-name ()
8 |     (response
9 |       {chain-id: uint,  name: (string-utf8 256), version: (string-utf8 50)} uint)
10 |  )
11 |
12 |   ;; URI for metadata associated with the inscription service
13 |   ;; Example did:web:w3c-ccg.github.io:user:alice
14 |   ;; delimited by colons rather than slashes
15 |   (get-app-did-web-uri () (response (optional (string-utf8 256)) uint))
16 |
17 |   ;; the type of document that was inscribed
18 |   (get-type-of-inscription () (response (string-utf8 50) uint))
19 |
20 |   ;; URI for metadata associated with the NFT token
21 |   (get-token-uri (uint) (response (optional (string-utf8 256)) uint))
22 |
23 |   ;; Owner of a given inscription identifier
24 |   (get-inscription-address (uint) (response (optional principal) uint))
25 |
26 |   ;; Owner of a given inscription identifier
27 |   (get-inscribing-address (uint) (response (optional principal) uint))
28 |
29 |   ;; retrieving a specific inscription by index
30 |   (get-inscription-reference (uint) (response (optional (buff 32)) uint))
31 |
32 |   ;; retrieving a specific inscription by data hash
33 |   (get-inscription-reference-by-hash ((buff 32)) (response (optional uint) uint))
34 |
35 |   (verify-inscription-hash (uint (buff 32)) (response bool uint))
36 | )
37 | ]])
```



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✕ Stacks

<https://github.com/paradigma-cl/unreplaceableDigitalID/blob/main/sip-proposals.md>

Future Actions

1. Form a committee (send message Discord or email did:web:phillip.xck.app)
2. Assessment of Stacks Dapps impacted by SIP
3. Develop a consensus
4. Evaluate Dapps compliance to SIP
5. Implement SIP

✕ Stacks