Casper AIBC 2021 Workshop

Smart Contracts -> Smart Lawyers

Use Case
Document Notarisation

Use Case

Actors

Law Association

Law Firms

Lawyers

Legal Clerks

Use Case

Overview

- Notarisation of submissable evidence
- Multiple Signatures (clerk -> partner)
- Decentralised Document Archive
- Publish Checksums + Metadata

Workflow

- Step 0: Set document checksum / metadata
- Step 1: Start test network
- Step 2: Initialise accounts, keys & thresholds
- Step 3: Install smart contract
- Step 4: Set multi-signature deploy
- Step 5: Publish deploy to ledger
- Step 6: Verify

Step 0

Set Document

- Document -> submissable evidence
- Sourced by clerk
- Reviewed by lawyer
- Acknowledged by partner
- Checksum + Metadata

Step 1 Network Setup

- Start local CSPR network
- 5 nodes logically isolated
- Initialised with accounts
- Await block production

Step 2

Accounts

A = Law Association

B = Legal Clerk

C = Lawyer

D = Partner

Step 2 Account Permissions

- Law Association -> contract operator
- Member(s) -> contract user(s)
- Association authorises Members
- Association assigns keys & thresholds

Step 2

Account Permissions

ASSOCIATED KEYS

Access Control

Weight By Public Key

ACTION THRESHOLDS

Dispatch Deploys

Manage Keys

Step 3 Smart Contract

- Law Association -> installs contract
- Await installation confirmation
- Cache contract identifier (hash)
- View on-chain account (A)

Step 3

Contract Lifecycle

Installation

Upgrade

Execution

Decomission

Step 4

Set Deploy

User-B

- creates
- approves
- emails -> user-C

User C

- approves
- emails -> user-D

User D

- approves
- sends -> blockchain

Step 4

Set Deploy

Header
(metadata)

Session
(execution)

Payment
(fees)

Approvals
(authorisation)

Step 6

Verification

- Recalculate checksum
- Query ledger
- View metadata
- Assert validity

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