CRPL: Architecture

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1 .NET service architecture

Auth service user authentication.

1. Auth

Wallet service user ethereum wallet/account management.

1. CRUD

Issuing service registering new copyrights to the blockchain.

1. Register

Verification service verifying the authenticity and originality of a work.

- 1. VerifyWork
- 2. Hash
- 3. SignWork (maybe in the issuing)

General query service querying the whole system mainly used for UI, copyright index and search.

- 1. Get all
- 2. Search
- 3. Get my work
- 4. Get work

Rights management service modification, transfer of ownership.

- 1. Transfer ownership
- 2. UnRegister
- 3. ConvertRights

Dispute service filing and resolving copyright disputes.

- 1. FileDispute
- 2. Resolve
- 3. Cancel

Contract management deployment and monitoring of systems contracts

Ping service work "use" tracking

- 1. Ping
- 2. GetPings

Payment distribution service

2 API

• /user

 \mathbf{GET} /auth

CRUD /wallet

• /cpy

POST /submit/#application-id (mint once the application has been accepted)

• /forms (all applications and forms)

GET /#application-id

DELETE /#application-id

GET /all

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POST /cpy/register
POST /cpy/unregister
POST /cpy/transfer
POST /cpy/convert (convert copyright type)
POST /dispute/file
POST /dispute/resolve
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• /work

POST /upload

• /q

GET /#id
GET /all
GET /search
GET /me

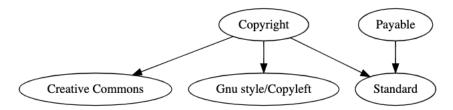
GET /#id/work (users work)

• /dispute

POST /file/#application-id (submit application)POST /resolve/#application-id (submit application)DELETE /cancel/#id

• /p

3 Copyright smart contract



- 4 Database
- 5 Angular
- 6 Copyright registration flow

