

Network Framework with Transparent Access Control

By Zack Nguyen



Problem

The problem that Corelink aims to solve





Solution

My proposed idea



Tools & Methods

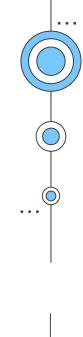
Chosen tools/libraries and how I put them together



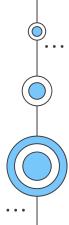
Demonstration

The final product





01 Problem



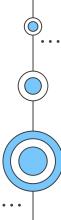


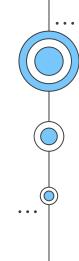




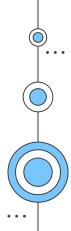
The most well known apps in the world today with the largest users based like Instagram, Snap, TikTok, etc. are built on very big backend system that are inherently centralized. Although these big companies make their best effort to assure us that our data is safe. We would like to know first hand how our data is being interacted with.

. . .





O2Proposed Solution





Understanding the Problem





Centralized model

Messaging Broker, Private data center, etc.

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Security

Users' anonymity need to be ensured

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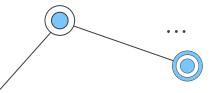


User experience

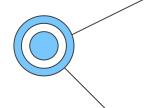
Popular apps and services need to ensure good user experience

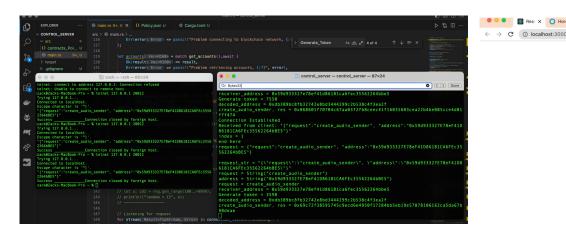
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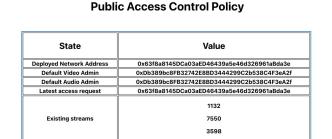




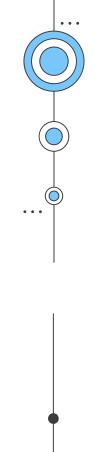
Solution



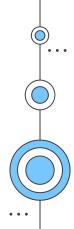


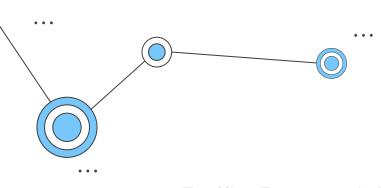


Imposing a transparency standard whereby the access control of the backend architecture is open to the public

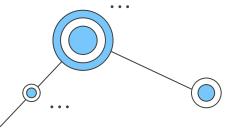


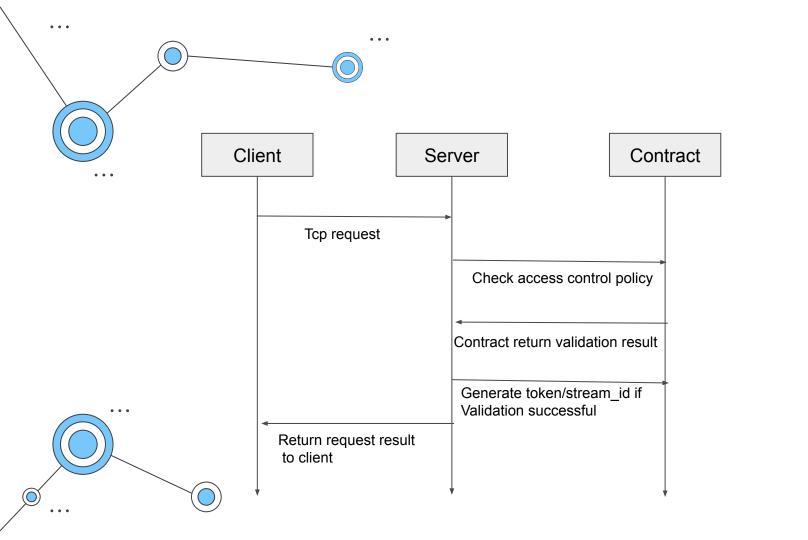
O3 Tools



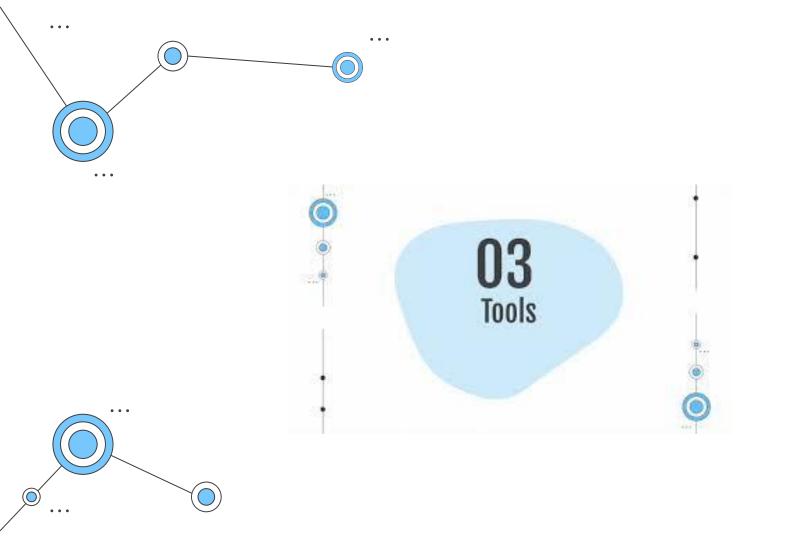


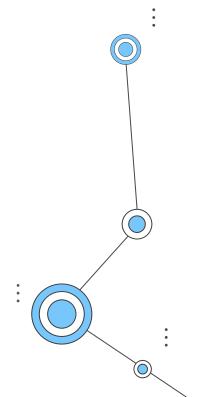
- Truffle: Framework for developing smart contract
- OpenZeppelin: Role based access control
- Rust: TCP Control server
- Rust Crates: web3, serde_json, ...
- React: Building Dashboard
- Web3.js library: interacting with smart contract in js environment
- Ganache: Testing network











Thanks!

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