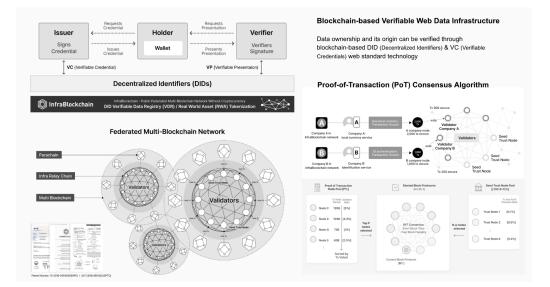
Web3 ai Newnal - Technology 4

InfraBlockchain

The World's only public blockchain that operates without coins.

InfraBlockchain : Cryptocurrency-less Public Federated Multi-Blockchain Network and Verifiable Web Data Infrastructure



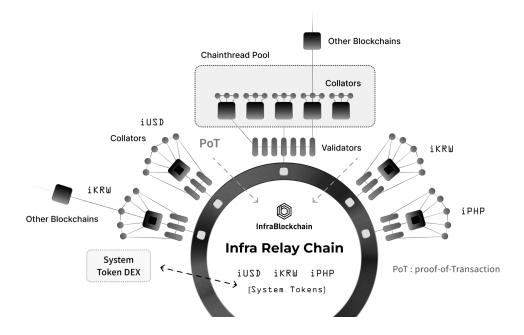
Why InfraBlockchain?

InfraBlockchain is the world's only public multi-blockchain technology without cryptocurrency, designed and developed to build and operate large-scale Web3 services with the participation of trusted entities such as enterprises and government agencies. Our patented technology, the Proof-of-Transaction consensus algorithm, enables a secure implementation of public blockchains without any need for issuance of virtual currencies. Going beyond the limits of a single blockchain, InfraBlockchain is Multi-Blockchain technology that connects various service blockchains (*Parachains*) to a central *Infra Relay Chain*, serving as a hub between blockchains, realizing the

simultaneous and parallel operation of numerous blockchains. By expanding Multi-Blockchain to Federated Multi-Blockchain architecture with interconnected multi-chains, InfraBlockchain provides infinite blockchain scalability. This provides an infrastructure for web-scale verifiable data issuance & verification as well as the issuance & distribution of real-world asset (RWA) tokens.

Cryptocurrency-less Blockchain Network

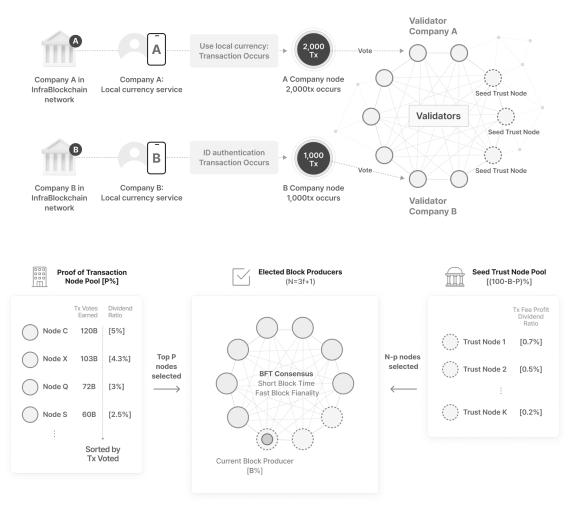
Trusted entities such as government agencies and companies can actively participate in the blockchain network, establishing a public infrastructure-oriented blockchain ecosystem without cryptocurrency. The transaction fees required for the operation of these public blockchains can be covered using Stable Tokens, backed by legal currency guaranteed by these trusted entities. Moreover, through consensus agreements within the blockchain network, certain trusted service providers and users can access and utilize the blockchain without incurring transaction fees.



Public Blockchain Technology based on *Proof-of-Transaction* Consensus Algorithm

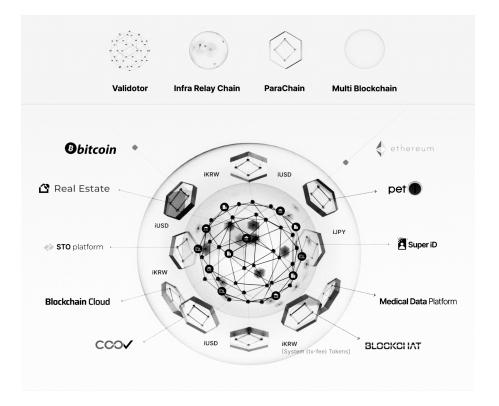
A public blockchain should be accessible to all and must enable the election of representative groups, known as validators, with the rights to create blocks and partake in network decision-making. InfraBlockchain uses a unique Proof-of-Transaction consensus algorithm. This method utilizes blockchain transactions as votes, allowing credible service providers to be chosen as representatives. Such an approach facilitates the creation of a public blockchain where anyone can participate under fair and reasonable terms, without the need for using cryptocurrency.

Proof of Transaction



Federated Multi-Blockchain Technology

InfraBlockchain shows remarkable scalability and interoperability by interlinking multiple service blockchains that run concurrently. These are tethered to the *Infra Relay Chain*, which functions as a hub among blockchains. This multi-blockchain technique transcends the constraints of traditional single blockchains, paving the way for substantial global expansions.

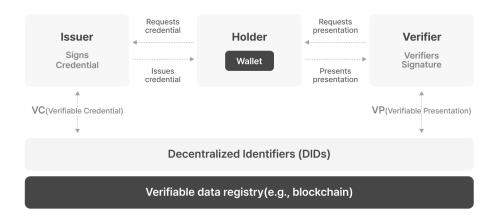


Participants from diverse industries and geographies can convene to set up their distinct independent Multi-Blockchain Networks. This offers limitless scalability that morphs into a Federated Multi-Blockchain structure. Individual Multi-Blockchains ecosystems can be interlinked to establish a more extensive system. This network eventually scales into a Federated Multi-Blockchain structure where numerous multi-chains are interconnected.

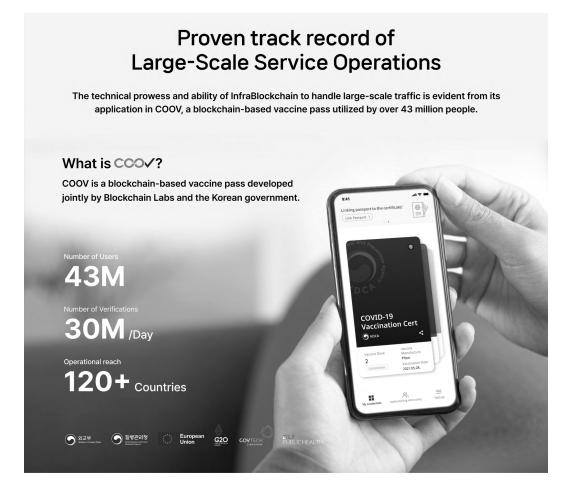


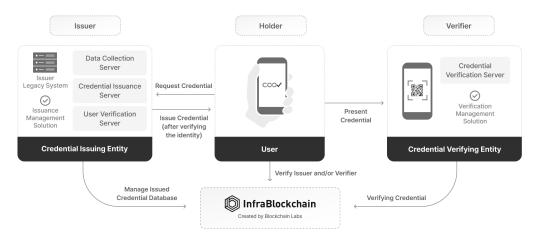
Blockchain-based Verifiable Personal Web Data Infrastructure

InfraBlockchain-based Decentralized Identifiers (DIDs) technology returns the sovereignty of identity & personal data back to individual users. Blockchain technology enables us to generate and distribute verifiable web data. Personal data can be created, stored, and distributed in a way that is tamper-proof. Anyone can verify the data ownership and its origin through blockchain-based DID (Decentralized Identifier) & VC (Verifiable Credentials) web standard technology. The source and integrity of personal data in a data marketplace can be verified through blockchain, and payment & revenue distribution for data transactions are processed transparently and securely using smart contract technology.



COOV : A Showcase of Large-Scale InfraDID Service Operations





* VC(Verifiable Credential) : Digital credential certificate signed by trusted credential issuer

VP(Verfiable Presentation) : Proof of possession from VC holder owning the certificates by signing with the DID private key of the holder when submitting the VCs to verifier

Patents

[USPTO] US-11636450-B2

BLOCKCHAIN SYSTEM TO WHICH PROOF-OF-TRANSACTION CONSENSUS ALGORITHM IS APPLIED, AND METHOD THEREFOR

[WIPO/PCT] WO/2019/182202

BLOCKCHAIN SYSTEM TO WHICH PROOF-OF-TRANSACTION CONSENSUS ALGORITHM IS APPLIED, AND METHOD THEREFOR

[USPTO] US-20240330915-A1

MULTI BLOCKCHAIN NETWORK SYSTEM WITHOUT NATIVE CRYPTOCURRENCY BASED ON AGGREGATED PROOF-OF-TRANSACTION CONSENSUS

[USPTO] US-20240185994-A1

METHOD AND SYSTEM FOR PROVIDING CERTIFICATION OF VACCINE INOCULATION AND POST-INOCULATION MANAGEMENT

[WIPO/PCT] WO/2022/196851

METHOD AND SYSTEM FOR PROVIDING CERTIFICATION OF VACCINE INOCULATION AND POST-INOCULATION MANAGEMENT

[USPTO] US-18/709142

DID AUTHENTICATION METHOD USING SMART CARD AND SMART CARD DEVICE

[WIPO/PCT] WO/2023/085802

DID AUTHENTICATION METHOD USING SMART CARD AND SMART CARD DEVICE

Technical Documentations

InfraBlockchain Technical White Paper

InfraBlockchain-Substrate Multi-Blockchain Developer Documentation

InfraBlockchain-Antelope Developer Documentation





















InfraDID Method Specification

InfraDID W3C DID Spec. Registry (did:infra)

InfraBlockchain Open-Source Technology

DinfraBlockchain

https://infrablockchain.net/en

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Technical Document

Technical Document

