InnoBlock Introduction

Blockchain Case Study

2022.04

Innovate your Block, Join the Value Chain

InnoBlock
Innovate your Block, Join the Value Chain

InnoBlock Introduction

Blockchain Case Study
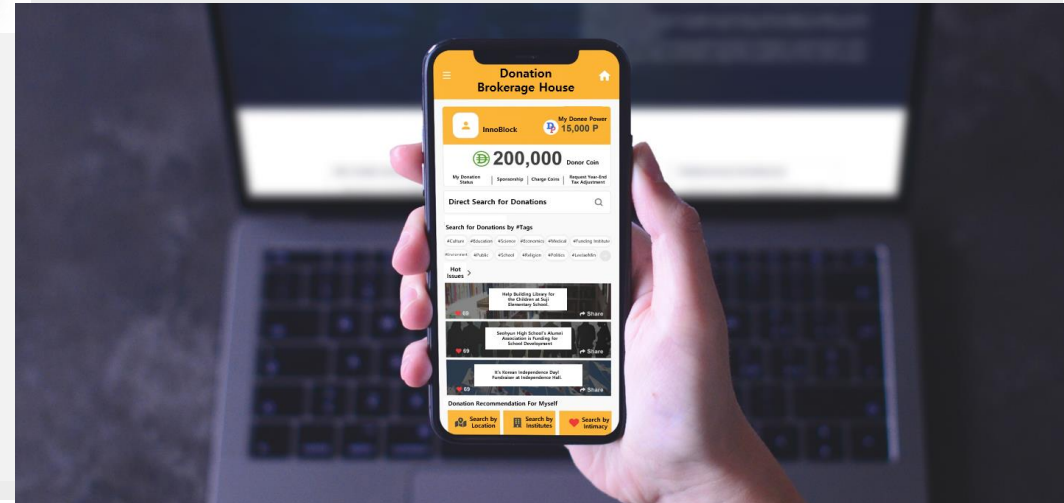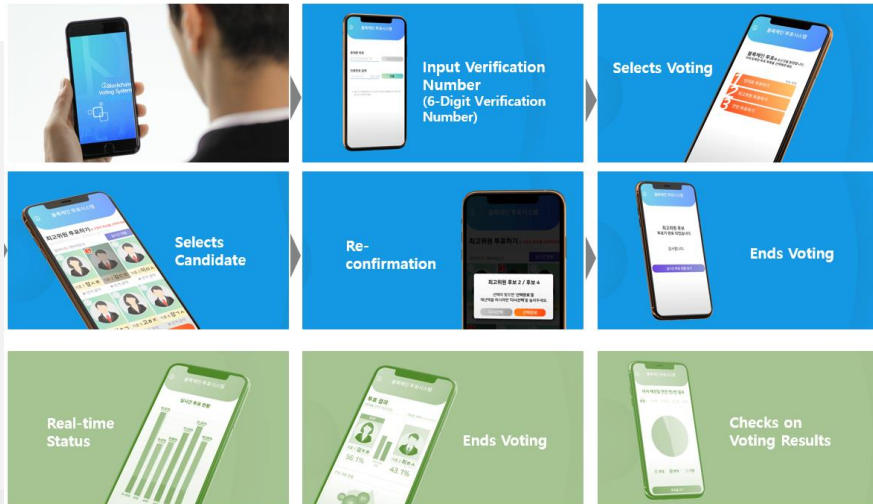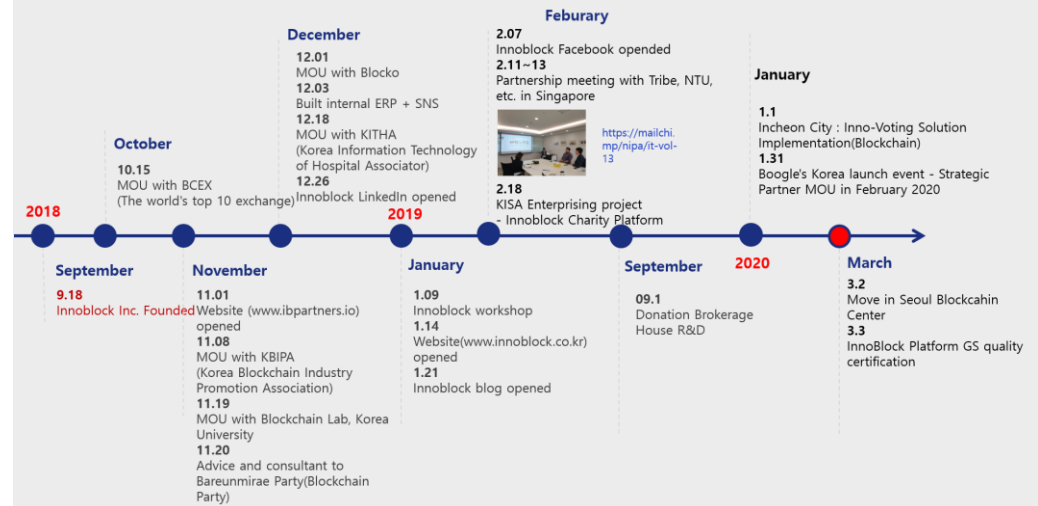
2022.04

Ⅰ. Company Introduction

InnoBlock

Innovate your Block, Join the Value Chain

Blockchain Specialized Enterprise with Blockchain Success References

Company Introduction

Company Name	InnoBlock,Inc / www.innoblock.co.kr
Representative	DoHyoung, Kim
Registered Fields	Blockchain Reseller Services, Blockchain Provision/Technical Support, Biz Model, Token Economy Consulting, Infrastructure Architecture,
Address	807(8th FL), 78, Mapo-daero, Mapo-gu, Seoul, 04168, Korea
Contact	Tel. +82 2 539 0551 / Fax. +82 2 539 0552
Year of Establishment	Sep 18, 2018
Work Period	Sep 18, 2018 ~ Now

Blockchain Related Records

2018

October
10.15
MOU with BCEX
(The world's top 10 exchange)

September
9.18
Innoblock Inc. Founded

November
11.01
Website (www.ibpartners.io) opened
11.08
MOU with KBIPA
(Korea Blockchain Industry Promotion Association)
11.19
MOU with Blockchain Lab, Korea University
11.20
Advice and consultant to Bareunmirae Party(Blockchain Party)

December
12.01
MOU with Blocko
12.03
Built internal ERP + SNS
12.18
MOU with KITHA
(Korea Information Technology of Hospital Associator)
12.26
Innoblock LinkedIn opened

2019

January
1.09
Innoblock workshop
1.14
Website(www.innoblock.co.kr) opened
1.21
Innoblock blog opened

Feburary
2.07
Innoblock Facebook opended
2.11~13
Partnership meeting with Tribe, NTU, etc. in Singapore
https://mailchi.mp/nipa/it-vol-13
2.18
KISA Enterprising project - Innoblock Charity Platform

September
09.1
Donation Brokerage House R&D

2020

January
1.1
Incheon City : Inno-Voting Solution Implementation(Blockchain)
1.31
Boogle's Korea launch event - Strategic Partner MOU in February 2020

March
3.2
Move in Seoul Blockcahin Center
3.3
InnoBlock Platform GS quality certification

Input Verification Number
(6-Digit Verification Number)

Selects Voting

Selects Candidate

Re-confirmation

Ends Voting

Real-time Status

Ends Voting

Checks on Voting Results

I City Hall – Establishing Blockchain-based Policy Voting

Business Objective	Establishing a 'Two-Way Civil Communication Platform' for the Implementation of the Citizen Special City

Business Scale and Terms

2019(8 months)

- **Blockchain Commercial S/W Platform Establishment**
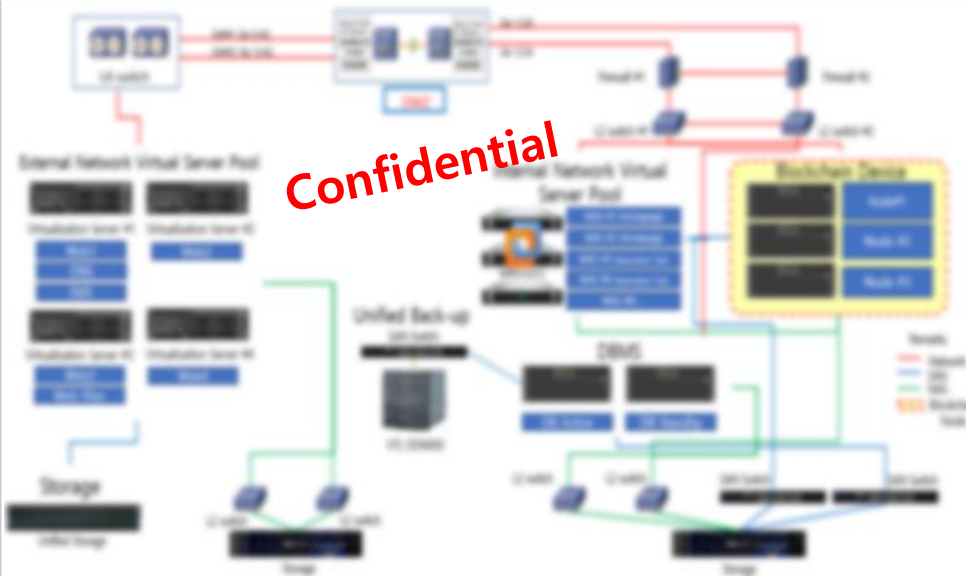- **Integrated Civil Communication Window Establishment**
  - Develop a site where citizen participation is central to all phases (access, execute, decide)
  - Publicize the progress of proposals and petitions, and provide functions of posting comments, SNS sharing
  - Publicize real-time participation status and relevant statistics

- **Online Policy Voting System Establishment**
  - Provide collected opinions from various types(City →Citizen, Citizen →Citizen, City →Employee)
  - Support mobile voting at the site (interview, public hearing, community participation budget, etc.)
  - Confirm on real-time voting results
- **Online Survey Function Enhancement**
  - Reinforce survey completion and survey response management
  - Additional management functions like select participation targets, select and extract winners, and statistics
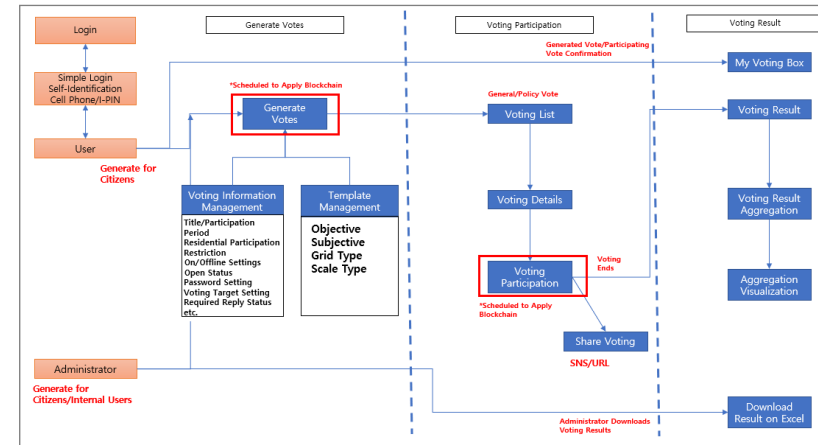
Benefits

- Implementing a two-way communication platform development to implement citizen special city (The policy participation of 70,000 citizens – expected to expand in the future)
  - Implementing online voting issuance/voting/management/participation functions to implement citizen participation
- Promoting citizen's participation in policy through implementing online processes in which citizen's proposal can be realized through policy implications
  - Petition, proposal, empathy, debate, policy vote, proposal, committee, execution

Infra Config

I City's Online Policy Voting Flow Chart

S Agency

– Service to establish a platform for duplicate supply and demand management of blockchain-based welfare benefits in 2021
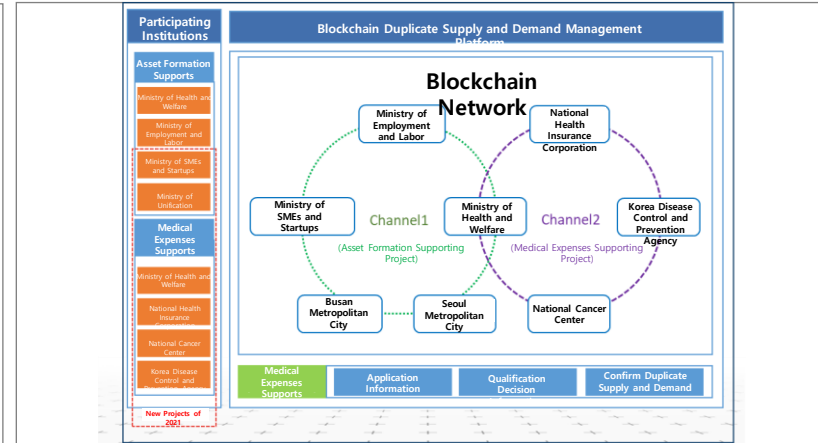
Business Objective

Service to establish a platform for duplicate supply and demand management of blockchain-based welfare benefits in 2021
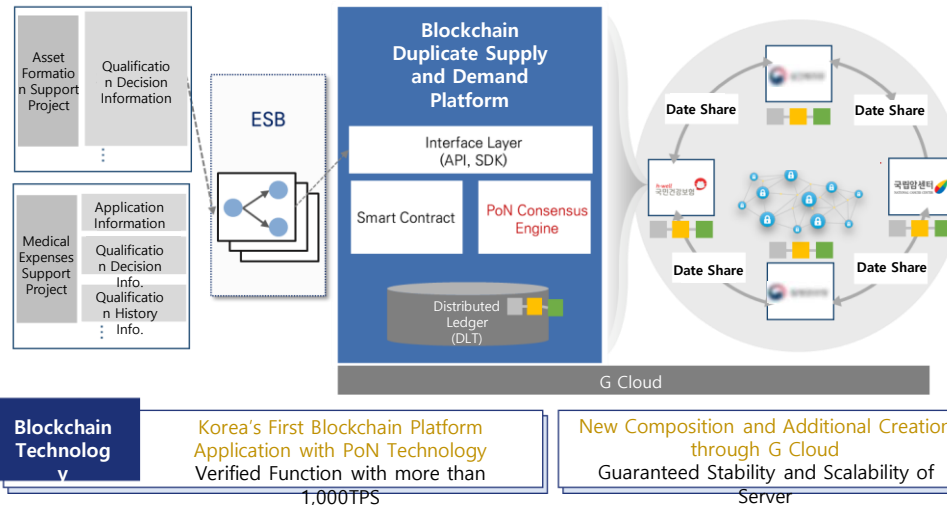
Business Scale and Terms

2021 (6 Months)

- According to the policy stance of an inclusive state that guarantees the basic life of all citizens, welfare benefit payments are steadily increasing.
- Along with the expansion of welfare, the public's interest in effectively using national finances in necessary places is increasing.
- It is necessary to strengthen the management system of similar overlapping and blind spots between welfare programs operated by the central government and local governments.
- Blockchain is expected to be available in areas where multiple stakeholders participate or where information sharing is not smooth and mutual trust is required.

Target System Config

Blockchain-based welfare benefit duplicate supply and demand management platform design

Blockchain Technology

Korea's First Blockchain Platform Application with PoN Technology
Verified Function with more than 1,000TPS

New Composition and Additional Creation through G Cloud
Guaranteed Stability and Scalability of Server

Benefits

- Establishment of a blockchain-based duplicate supply and demand management platform

  - Share information on qualifications and supply and demand history of central government and local government welfare programs to prevent overlapping support and omission

  - Application of a model that is easy to expand or change through a new channel configuration

  - Safe personal sensitivity information management through de-identification of personal information

- Performance analysis and step-by-step spread of services for confirmation and blocking of overlapping supply and demand

'20년(시범사업)	'21년(서비스 확산)	'23년 이후
• 자산형성지원사업 시범적용(4개 기관) • 확산모델 발굴	• 자산형성지원사업 외 타유형의 중복 관리에 확대 적용 (의료비지원사업군)	• 운영 안정화(서비스 품질 제고) • 추가 확산분야 발굴 (예사회서비스사업군)

6

S Agency

– Service to establish a platform for duplicate supply and demand management of blockchain-based welfare benefits in 2021

Targeted organizations and major business contents

Distribution		Main Tasks	Blockchain Link
Ministry of Health and Welfare	National Health Insurance Corporation	Medical Benefits (Self-burden, Compensation, Upper Limit)	Add New Nodes
		Disabled Medical Expenses Support	
		Dementia Treatment and Management Expenses Support	
		Disaster Medical Expenses Support	
Ministry of Health and Welfare	National Cancer Center	Medical Expenses for Cancer Patients (Adult Cancer, Child Cancer)	Add New Nodes
Korea Disease Control and Prevention Agency	Korea Disease Control and Prevention Center	Rare and Intractable Diseases Medical Expenses	Add New Nodes
Ministry of Health and Welfare	Ministry of Health and Welfare	Emergency Welfare Medical Expenses Support	Add New Nodes

ESB <-> ESB Agent Linkage, ESB <-> BC Linkage (SDK, API Linkage)

Business Target

Utilize blockchain technology to prevent and confirm duplicate supply and demand of welfare to establish futuristic system
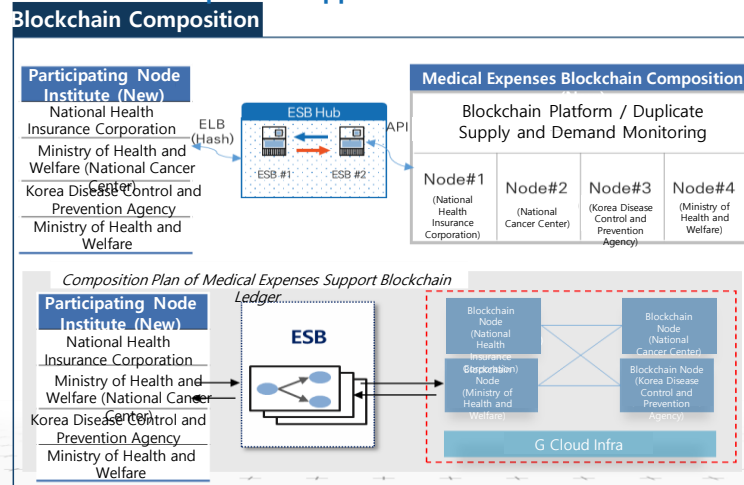
Target System

- Expand duplicate supply and demand management platform to user's base
- Design and develop medical expenses duplicate supply and demand management function
- Prepare guidelines for participating organizations and strengthen personal information protection
- Add infra and supplement business in 2020
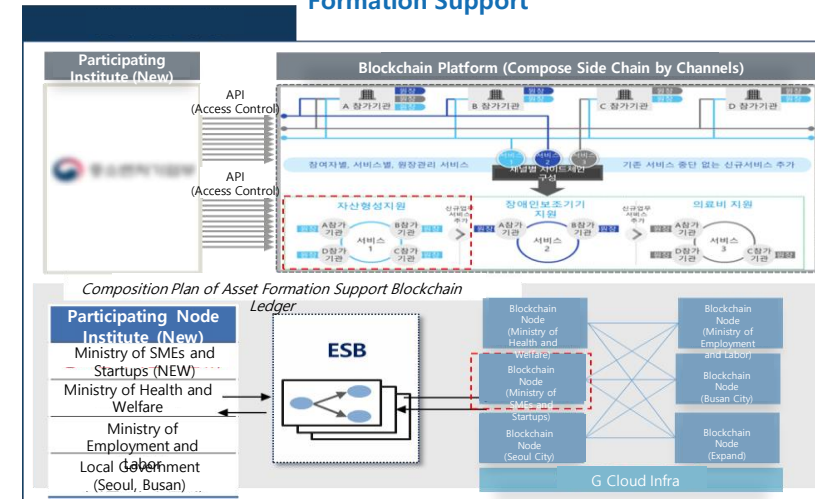
Blockchain Migration

- Execute migration of Hyperledger fabric based on existing blockchain
- Develop SDK/API for composing ledger based on Ethereum
- Change existing chain code to smart contract base

Establishment plan for medical expenses support and asset formation support

Expansion & Composition Plan of Medical Expenses Support Blockchain Node

Migration & Add New Blockchain Node for Asset Formation Support

Ⅲ. R&D
Case Study

InnoBlock
Innovate your Block, Join the Value Chain

D University – Donation Brokerage House
(Blockchain-based P2O Donation Brokerage Service for non-professional fundraising organizations)

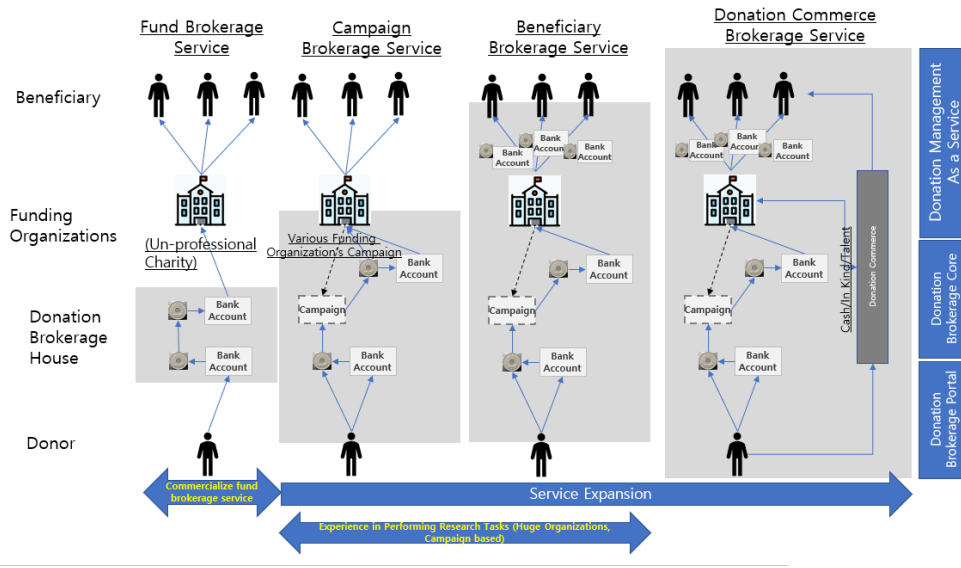| Business Objective	Funding Brokerage Service Using a Donation Platform that Enables Easy Donation of Small Amounts

Business Scale and Terms
2019~2020(6 months)

- **Blockchain Consultation Donation/Support Management Technology**
  - Developing a donation system using a blockchain-based digital virtual currency
- **Blockchain-based Payment System Technology**
  - Developing blockchain-based payment technology that returns lower fees and benefits to customers compared to current payment methods

- **Track/Manage Donations**
  - Developing a system for tracking and managing donations using blockchain
- **Double Payment Prevention Technology**
  - Developing a donation cryptocurrency transfer system based on SmartContract
- **Apply Blockchain Platform Technology**
  - Blockchain encryption, ledger management, transaction verification and agreement network technology
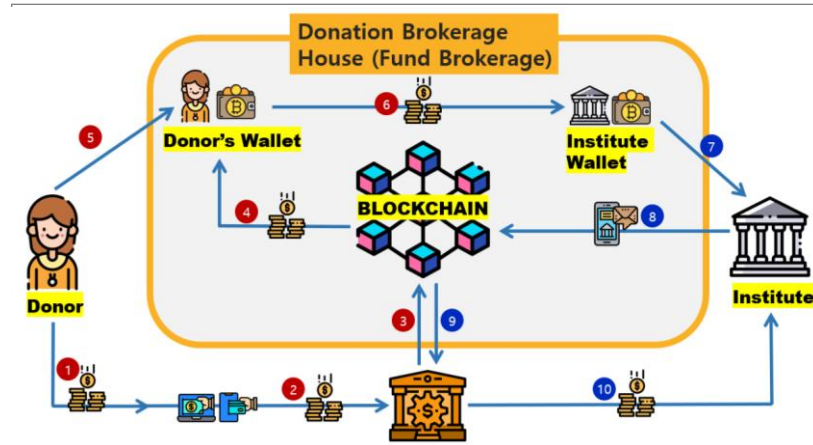
Benefits

- Implementing a trust society by supporting various kinds of non-professional fundraising organizations, online applications/approval/documents for donations, and establishing a platform for donation centers which transparently manages the funding size and status of donations.
- Contribution to donation's activation through donation app (dApp) considering the convenience of small donors.
- Promoting the image as a donation social great powers through activating donation alienated groups

Infra Config

Applied Process of Food Distribution Blockchain

H Agency – Decentralized Donation Platform

Business Objective	With Decentralized Donation Platform, Contribution to Activate Donation Culture Through the Reliability of Donation Organizations and Transparency of the Donation Fund Operation

Business Scope — 2019 (8 months)

- **Establishment of Proof Environment based on Blockchain**
  - Consortium blockchain platform
  - Public blockchain anchoring
  - Android/iOS/web service
- **Operation of Decentralized Donation Platform**
  - Planning and operating campaigns
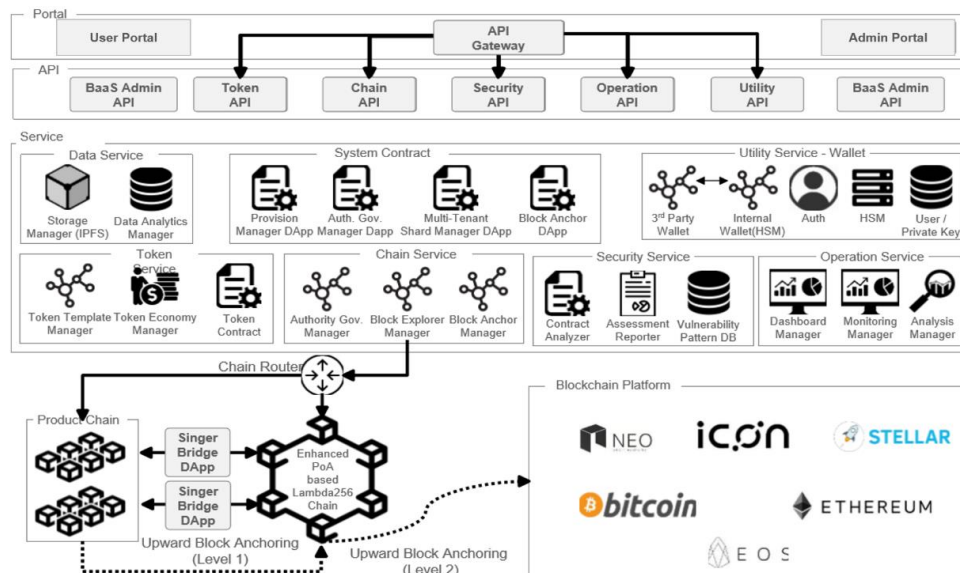 - Operating donation service

- **Development of Decentralized Donation Service**
  - Demonstrate open campaign system
  - Donation commerce pilot operation
  - Demonstrate campaign governance
  - Demonstrate campaign curation
  - Implement L2S2 Ledger POC
  - Implement Oracle payment POC

Benefits

- Not only does the increase of donors results in direct distribution of wealth of beneficiaries, but it also contributes to a healthy and sustainable donation culture via revival of donation industry itself
- Contributing donation services which are available for all citizens to participate immediately to vitalization of donation ecosystem
- With actual use of decentralized donation platform, contributing popularization of blockchain technology

Infra Config

Decentralized Donation Platform Blockchain Applied Process