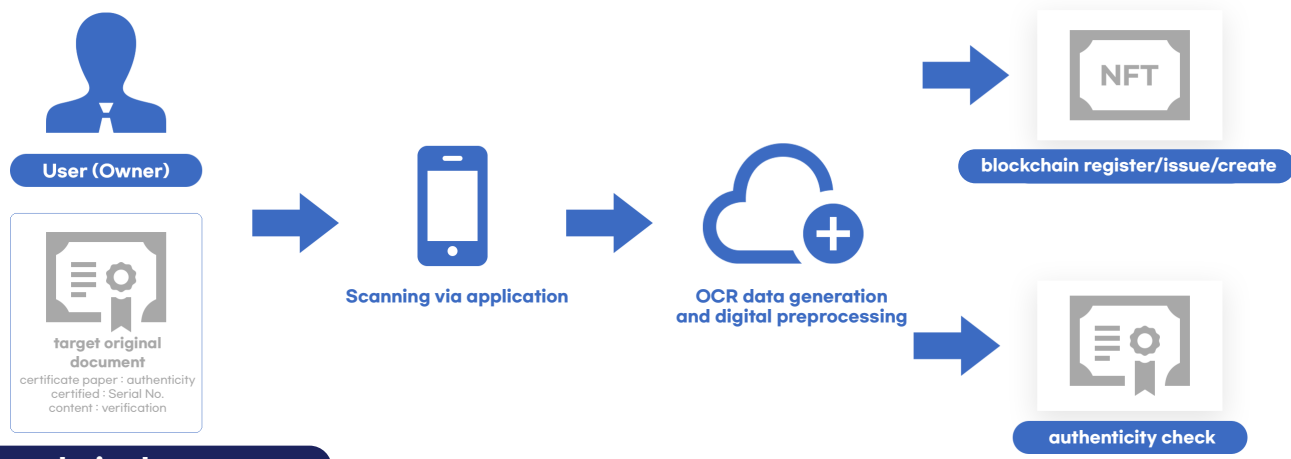




**NFT**

***Blockchain-based  
O2O NFT authenticity  
verification system***

# Blockchain-based O2O NFT authenticity verification system conceptual diagram

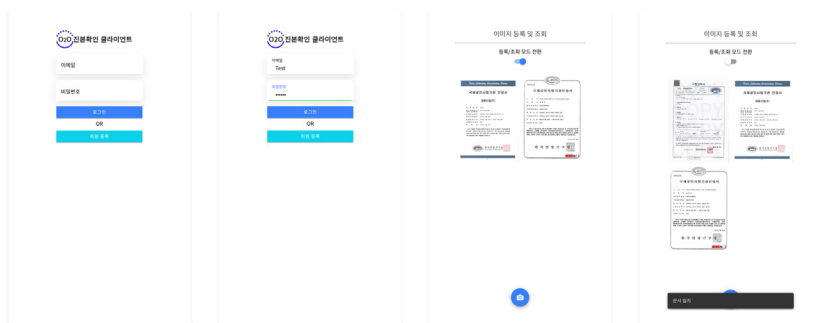


## technical concept

The NFT-based authenticity verification system registers the data from test reports and certificates, then digitally preprocesses the original with OCR. The OCR data, verified for authenticity, is loaded onto the payload of the blockchain and registered in the blockchain. When the registered blockchain is queried, the system is composed to verify the authenticity data by retrieving the payload data from the called blockchain.

## Example of an Authenticity Verification Client Mobile Screen

- (1) Connection page
- (2) Login page
- (3) Activation / Deactivation of Registration and Inquiry Modes



## History



## About Kounosoft

Kounosoft is an IT company specializing in the development of technologies that understand and cater to humans through the recognition and analysis of interactions among people, between people and machines, and between machines themselves, leveraging cutting-edge fields like artificial intelligence, blockchain, security, and the Internet of Things (IoT).

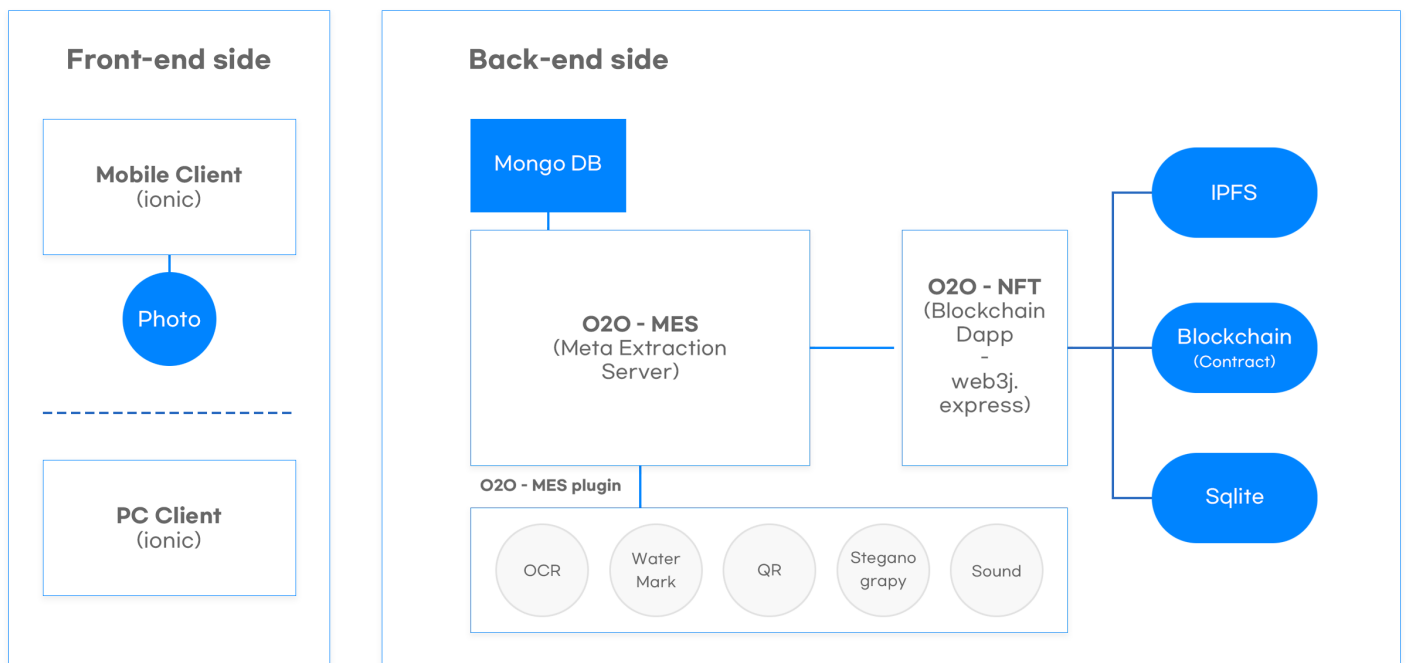
Since its establishment in 2009, Kounosoft has grown into a specialist IT development company through continuous technology development in areas such as IoT, security, artificial intelligence, and blockchain. We are at the forefront of realizing customer value, building on global standards and high-quality IT solutions. Valuing the experience and know-how we've built in collaboration with top-tier companies, and harnessing the power of innovative talents and outstanding products, we have been dedicated to the continuous enhancement of our spatial monitoring IoT solutions through persistent investment in technology.

### Major Research Results

implementation Ministries/Institutions	research and development task	total development period	role
ETRI	Development of quantization-based deep learning inference software	06.2019 ~ 10.2019	Main organization
ETRI	Development of vision-based robot control module	01.2018 ~ 04.2018	Main organization
ETRI	Implement Automotive High Performance Computing module performance prototypes	09.2017 ~ 11.2017	Main organization
ETRI	Development of API system prototype for multi-log raw data retrieval (4 years)	05.2016 ~ 11.2020	Main organization

## Technology Introduction - Blockchain-based O2O NFT authenticity verification technology

### Network Connection by System Component



#### Front-end side

It is composed as a mobile and PC website using Ionic and communicates with the O2O-MES to send and query images.

#### O2O - MES

The front-end side processes the received images according to each function. The functions include OCR analysis, watermark insertion, QR code insertion, and steganography features.

#### O2O - NFT

The image data processed by the O2O-MES is stored in IPFS, then passed on to the Blockchain and saved in the contract. After saving it on the Blockchain, the token is stored in SQLite.

