# **AMO** Blockchain

Blockchain for the CAR DATA Market

The Vision for AMO

AMO is a blockchain infrastructure for the efficient exchange and sharing of all CAR DATA powering the next generation of automobiles. For car users, manufacturers, and relevant service providers, this means that data will no longer be under the centralized control of specific companies, but rather become public assets that allow for valuable services to be made available.
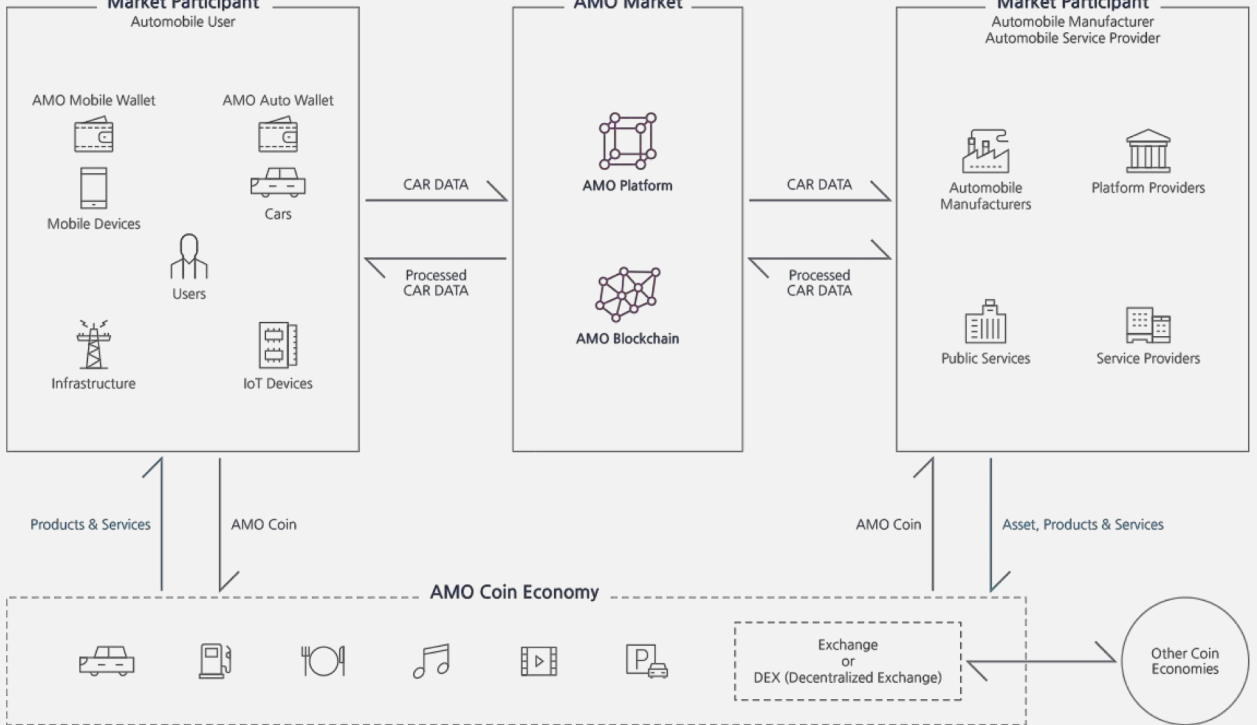
Current Challenges

Lack of information and management infrastructure

The reality is that cars are evolving into intelligent, smart platforms that connect with a variety of devices and everyday objects to collect and process information. With the rising trend of the connected car, electric car, smart car, etc. the car is becoming a hub of information. This information includes "V2X data," which is data communicated between the car and external objects like roadside units, "In-car data" or data within the car itself, and "User data," which is data from the various vehicle-based applications collected in the car. Such data is communicated continuously, leaving an enormous data trail that car users exercise no control over. Manufacturers or service providers also have no way of obtaining that data, save for insurance carriers who can sometimes manage accident histories or manufacturers who can obtain a small portion of the vehicle's data.

Absence of system sustainability due to lack of ICO-related experience

A car is not different from a complex organism. It has tens of thousands of parts and over 100 million lines of software code written into it. Yet, in order to manage the storage and dissemination of CAR DATA securely, blockchain technology promises great efficiency — if a successfully competent architecture can be achieved. Moreover, in terms of reliability and security, building and developing a blockchain is no simple task. Combining those two issues together, an ICO in the automotive industry needs to have foundational skills in automobile and transportation infrastructure, technology to handle sensitive information within the automobiles, and ability to develop a comprehensive security system. The blockchain ecosystem can realize its vision only when its needs are met. Yet, most ICOs are only made up of drafted blueprints, lacking experience or ability. These blockchains become a mere investment attraction without significant technological actualization.

The Solution

Accurate collection and sharing of CAR DATA

AMO will collect and store all car data the user chooses, and store it within the blockchain. The V2X data, In-car data, and User data will be delivered to the blockchain network utilizing the AMO Data Collector™, V2X device, car-embedded software, and in-vehicle applications.

All data from the first registration of the vehicle, driving habits of the driver, accident history, purchase of services, to even scrapping of the car will be recorded in a standardized manner, making it possible to build an infrastructure independent of location/country or vehicle type.

Those who participate in this ecosystem and share their car's data will be compensated with coins. Shared data will improve the quality of services like vehicle maintenance and used car sales, and will enable a variety of vehicle-based services for IoT environment. As the number of participants increases, the beneficial cycle structure of manufacturers, users, and service providers will become increasingly evident.

Confirmation of ICO performance and technology sustainability

With more than 20 years of experience, Penta Security Systems has the capacity and experience in order to build the AMO infrastructure. The comprehensive collection and management of information related to automobiles requires a deep understanding of the infrastructure. Additionally, as the next-generation automobile will operate as an IoT platform, the ability to develop and optimize an IoT platform will be crucial. Therefore, the logical choice would be to place trust in a company that has already had the experience of developing a blockchain, rather than in a company that have declared an ICO and are only planning to implement the blockchain technology after.

Penta Security specializes automobiles and transportation infrastructure: as part of Intelligent Transport System (ITS) development efforts, Penta Security has been running the AutoCrypt® project since 2007, working with both the Korean government and major automobile manufacturers. Following the successful construction and operation of autonomous vehicle complexes in Sejong, Yeoju and Hwaseong, the project will be expanded to constructing similar smart roadways in Seoul, Jeju, and Daegu.

Successful experience in the IoT environment is needed to build and operate a stable infrastructure between cars and intelligent objects. Penta Security's AuthentiCA®, a cloud-based certificate authority service for automotive, factory, energy, home, etc. verifies its optimized development ability for IoT environment.

Using blockchain technology, Penta CryptoWallet™ and AMO Data Collector™ have already been developed.

Not simply a plan in the works or an empty vision, roadmaps with proven results and technology are already underway.

AMO Team

With proven experience in automotive technology and the blockchain, the AMO team has the ability and passion to make this vision a reality.

SangGyoo SIM
• CEO, AMO Labs
• Chief Software Architect & Cryptographer
• Creator of AutoCrypt
• Ph.D in Electrical Engineering, POSTECH

Daniel ES KIM
• Chief Strategy Officer, AMO Labs
• Creator of D'Amo
• B.S. in Physics, POSTECH

SungKyoon CHUNG
• Head of R&D, AMO Labs
• Creator of Penta CryptoWallet
• GRock Information Founder, SK Telecom
• M.S. in Electrical Engineering, POSTECH

KiHo JOO
• Head of Automobile & Software Engineering
• Ph.D in Materials Science and Engineering,Seoul National University

DS KIM
• CTO, AMO Labs
• Cloudbric Co-Founder
• XBrain Founding Memeber & Advisor
• M.S. in Electrical Engineering, POSTECH

Jaeson YOO
• Security Evangelist & Head of Biz Dev., AMO Labs
• B.A., Occidental College

Niyikiza AIMABLE
• Software Engineering Specialist
• B.S. in Electrical Engineering, KAIST

Esther JEOHN
• Communications Director
• B.A., Duke University

Jeiff KIM
• Head of Business Development
• HSketch Founder, LG Electronics
• M.S., Korea University

GH PAK
• Head of Marketing & Communications
• B.F.A., Korea National University of Arts

Anna AMINOFF
• Marketing Manager
• B.A., Yonsei University

Roadmap

2018.05	• [Completed] Public sale and token distribution
2018.3Q	• [Completed] AMO Mobile Wallet v1 Launch (AMO Token Transfer) • [Completed] AMO CA v1 Launch (Beta)
2019.1Q	• Testnet Launch (AMO Blockchain Beta Launch) • AMO Data Collector Launch • AMO Mobile Wallet v2 Launch (Communication with Data Collector) • AMO CA v2 Launch • CAR DATA Open Specifications Release
2019.2Q	• AMO Auto Wallet v1 Launch • AMO Mobile Wallet v3 Launch (Communication with Auto Wallet/Testnet) • AMO Foundation Established
2019.3Q	• Mainnet Launch (AMO Blockchain v1 Launch) • AMO SDK v1 Launch • AMO CA v3 Launch (Commercial) • AMO Asia Expo Open
2020.1Q	• AMO Auto Wallet v2 Launch (Communication with Mainnet) • AMO SDK v2 Launch • Payment using AMO Wallet
2020.3Q	• AMO Client for Service Provider v1 Launch (AMO Data Manager, GUI for SDK)
2020.4Q	• AMO Blockchain v2 Launch • AMO World Expo Open
2021.2Q	• AMO Blockchain v3 Launch

Awards

Asian Cyber Security Vendor of the Year	The first and only CCEAL4 certified WAF	No.1 WAF Vendor in the APAC region	ICSA Labs Certified WAF	Recognized on the Gartner WAF Magic Quadrant	SC Magazine Europe Best SME Solution	PCI DSS Compliance	Hot Company in Web Application Security for 2016	Cybersecurity Excellence Awards