Aston

Decentralized Document Authentication Platform

White Paper

XBC Technologies PTE. LTD.

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Introduction

1.1 Abstract

Most electronic documents are heavily exposed to vulnerabilities. Unauthorized agents may intercept sensitive documents and forge or modify them, altering their original purpose. However, there are very few services that provide reliable and secure electronic document authentication. Recently, blockchain has been offered up as a solution for more reliable and secure electronic document authentication, distribution, and management. While the current blockchain platform is capable of facilitating document delivery and execution, it is ill-equipped to handle the storage and circulation of regularly updated electronic documents at scale.

At ASTON, we provide a decentralized platform for the authentication of documents. Our technology is developed using the existing blockchain platform, with enhancements that result in a cutting-edge security solution. The X-chain technology developed by ASTON resolves the various problems present in existing blockchain systems. We replace the traditional linear blockchain storage method with a multi-dimensional blockchain structure, which makes digital document authentication significantly more scalable. Moreover, the security authentication solution (Smart-PassOn) based on the public key infrastructure (PKI) and the biometric signature authentication (FIDO) ensures an even higher level of document security for users.
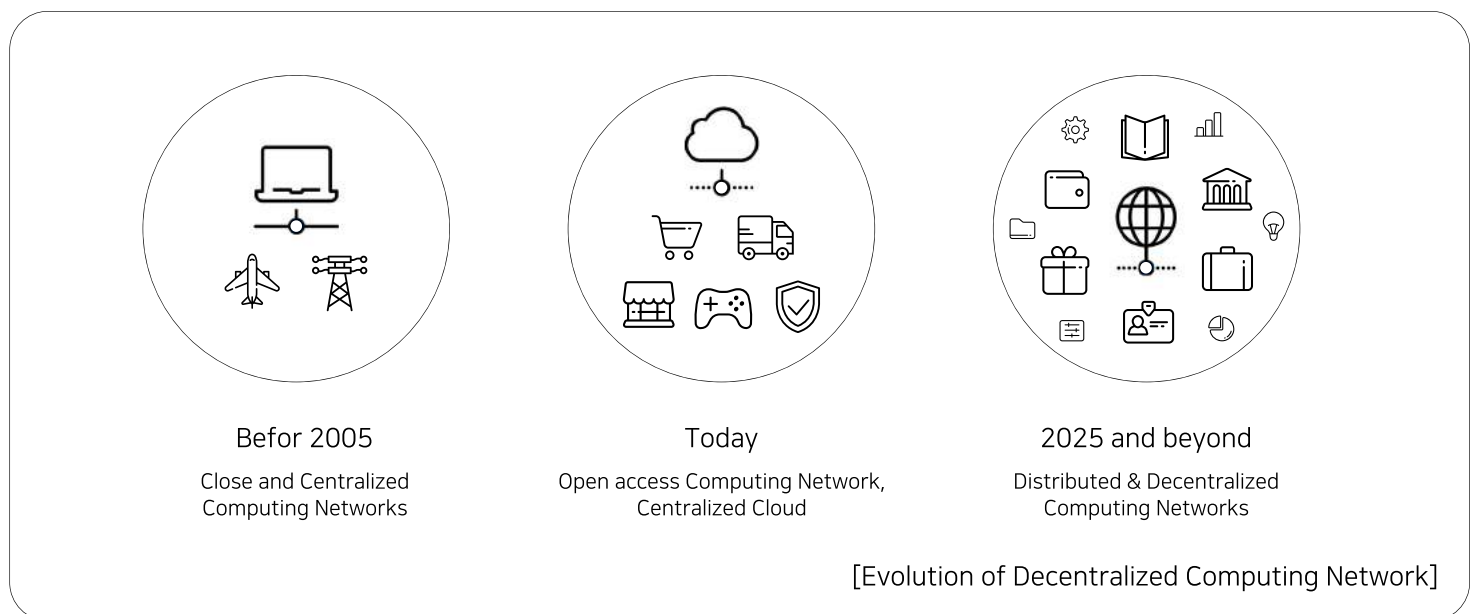
Currently, ASTON works with business enterprises and large hospitals in Korea to pilot its secure electronic document authentication platform. In the near future, we plan to roll out a commercial service for companies and organizations in all sectors. Our X.Blockchain technology will also have broad applications in diversified fields globally because of its ability to outperform existing blockchain technology.

The ATX issued by the sale of ASTON tokens will be used as the means for payment of usage of the ASTON platform (including the platform usage fee, fee for issuance of documents, fee for storage of documents, and so on). Furthermore, ASTON tokens can later be traded freely on cryptocurrency exchanges around the world including Coinlink.

1.2 Background

To confirm the credibility of documents, generally a trusted third-party institution is involved. Government agencies validate birth/death certificates. Hospital databases are used to verify prescriptions for medicine. Business enterprises have a paper trail for every employment offer and every employee resignation. Now, blockchain technology is well-positioned to replace the formerly indispensable traditional third-party trust structure with its distributed ledger. In the 1990s, innovation came when individuals and businesses could begin to create, store, share, and process all of their documents electronically. The move from analog to digital was a major milestone in document **management**. At the end of the 2000s decade, cloud systems made information storage and processing available anywhere around the world, at infinite scale. Today, blockchain technology leads the latest wave of innovation for digital documents, ensuring the credibility and validity of data distributed on its platform. This removes user reliance on trusted third-party institutions to certify documents, and its secure applications may mark a paradigm shift in the global trust structure.

As consumers and businesses increasingly adopt the use and circulation of electronic documents, related services arose too, such as cloud document storage and online notarization. However, several vulnerabilities remained including fraud and unauthorized modification. At ASTON, we recognized these limitations and have been successful in developing a sophisticated platform that addresses these issues and satisfies all users.

Befor 2005	Today	2025 and beyond
Close and Centralized Computing Networks	Open access Computing Network, Centralized Cloud	Distributed & Decentralized Computing Networks

[Evolution of Decentralized Computing Network]

1.3 Vision

These days, important information is well-documented but it isn't always securely managed or stored. Documents have evolved from their analog, hard copy forms to digital, soft copy formats. Of course, as convenience rose in reproduction, storage, and movement, electronic documents came to assume risks including fraud and unauthorized modification. Although online authentication and notarization services cropped up to resolve these issues, they still reinforce the traditional trusted third-party institution structure which most modern documents are tethered to.

TThe world we hope to create through the technology we build at ASTON is one whereby all participants become active authentication agents rather than the simple users of blockchain platforms. We empower our users to validate the credibility of the electronic agreements and documents they use independently, eliminating the need to utilize services from trusted third-party institutions. We do this by combining public and private blockchains. We intend to create a world in which everybody can contribute and participate as a node of the blockchain.

1.4 Mission

In the near future, the certified hard copies of documents we have long relied on (e.g., school: certificate of graduation, transcripts, certificate of registration and others; medical institutions: waiting number ticket, receipt for medical treatment, prescription of medicines, record of treatment and others; government agencies: certificate of birth, certificates of family/individual resident registration, certificate of family relationship and others; private enterprises: all types of legal contracts, certificate of employment, payroll schedules and others) will no longer be necessary. When a visit is made to the hospital for medical treatment, when an interview is completed for employment, and when a report is submitted for a newborn baby, users will no longer need to prepare anything to verify the corresponding information. The corresponding information will already be available in the ASTON platform, and the data can be accessed using simple authentication through ASTON. All these requirements will be processed in ASTON, the platform predicated on X.Blockchain technology, and each node will come to freely access, use, or change the information without geographical or technological restrictions. This means the X.Blockchain technology we build can be expanded to globally. Furthermore, this technology can be utilized in a more practical way in all types of industries where a mutual trust relationship is required; the immediate application is possible without a third-party intermediary. In the near future, people everywhere will live their lives within the ecosystem created by ASTON and we will continue to innovate to provide more valuable solutions and tools for our users.

[Global Ecosystem for Circulation of Electronic Assets]

Aston

2.1 Definition of Aston

ASTON is a platform for the authentication of documents based on blockchain technology. Though many different types of electronic documents exist, they are generally authenticated offline. If linear blockchains are used, online authentication is theoretically possible but may be impractical in reality. Online authentication would require the storage of large amounts of data, which can be difficult to support for many users. Perfect decentralization with linear blockchains is impossible with a limited number of devices and low storage capacity. To create a better user experience in which documents can be authenticated without the intervention of a trusted third-party institution, the platform we develop must make documents easy to execute on all desktop, tablet, and mobile devices.

The X.Blockchain we apply revolutionize the way documents are managed and information is stored. In order to reach the agreement regarding the information contained in a new block, consensus is necessary only with the relevant blocks but not all blocks leading to a significant reduction in the capacity and speed required for data processing. The result is a grand innovation in the series of processes related to the storage, reference, issuance, and movement of documents. Furthermore, this can be very easily applied for commercial and consumer purposes.

The use of X.Blockchain is crucial in the document distribution infrastructure, and to accurately and easily verify new information inputs, we have created the Smart-Pass-On solution, a biometric signature authentication security technology based on PKI. This helps to expedite the authorization process for digital documents.

Once the ASTON platform is completely developed, users can easily access ASTON through their personal computers and mobile devices. Large enterprises will be able to access ASTON through their ERP, groupware, or cloud systems to deliver and authenticate their documents. The ASTON platform will also carefully connect to each of the nodes without synchronizing the data across the entire blockchain.


[Aston Ecosystem]
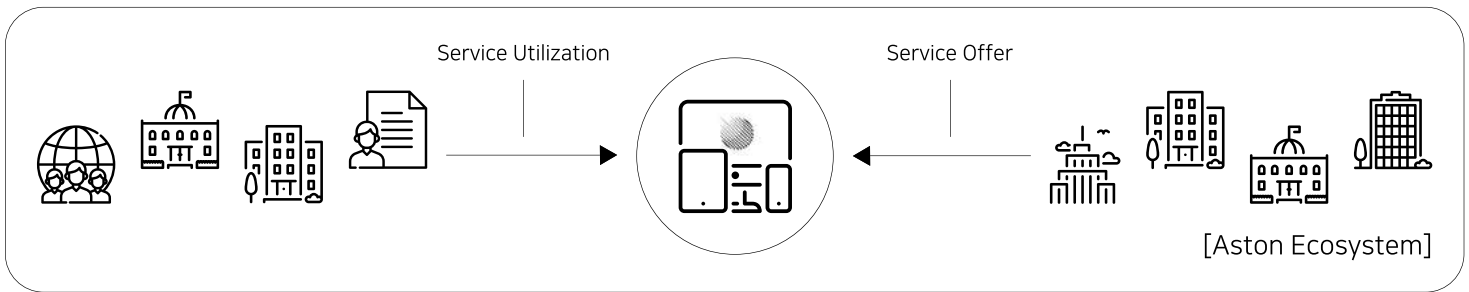
The user who uses the Aston finally completed in its development based on the above components can use all services of Aston by way of the smart device (smart phones, tablet PCs, smart watches and etc.) owned by oneself and this will typically be the enterprise or the government agency which has the need to render the service through the Aston platform. The enterprise or government agency will access Aston through their system currently in use such as ERP, groupware, cloud and other systems to provide/authenticate the documents as required. In this way, the credibility of the documents existing within Aston can be established by the consensus of the nodes directly related to the corresponding information.

2.2 What to expect from Aston

Market Overview

Survey data from reputable research firms suggest market demand for the ASTON platform will grow rapidly in the coming years. According to the Electronic Access Control Systems Market report by ReportsnReports.com, the global market for electronic authentication management systems experienced an annual growth rate of 7% over the past 5 years and reached USD 16.3 billion in 2017.

7% average growth every year

16.3 billion

11.6 billion

2012   2017
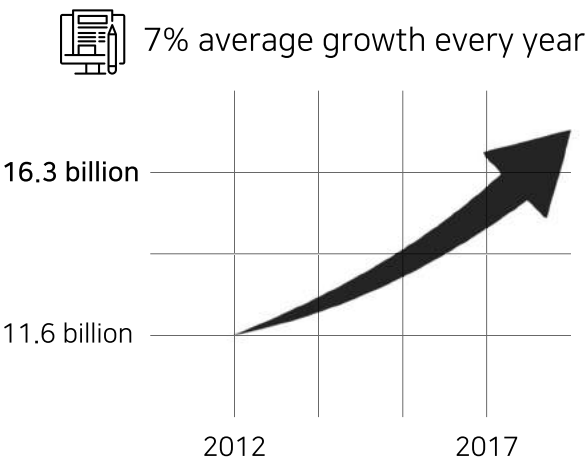
[Market Forecast 1]

Additionally, research from Tractica's biometrics market forecast suggests the global market for biometric signature authentication (FIDO) is expected to grow 22.9% annually from USD 2.5 billion in 2016 to USD 15.1 billion in 2025.

15.1 billion

2.5 billion

2016

2025

22.9% average growth every year
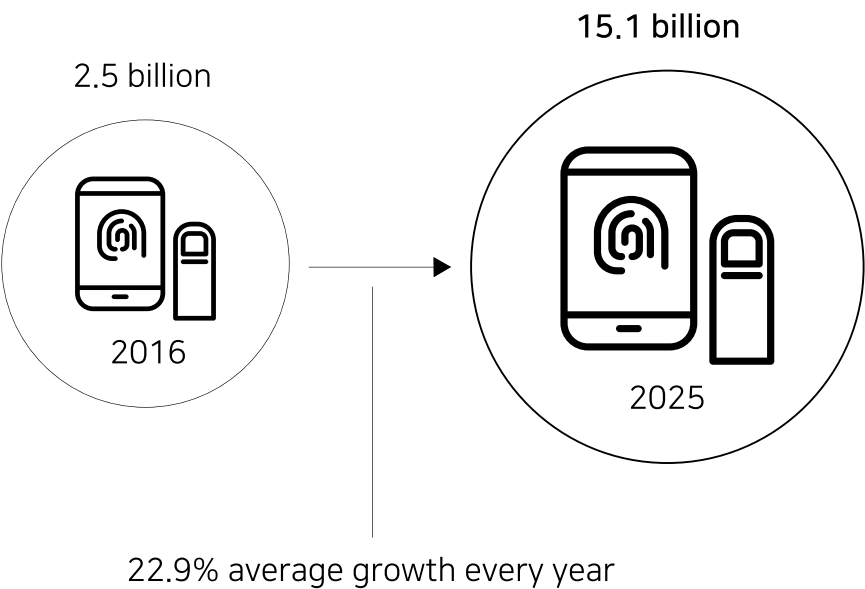
[Market Forecast 2]

2.3 Current Projects & Achievement

ASTON development is in charge of Xblocksystems. XBC Technologies will maintain a close relationship with Xblocksystems which has the state-of-the-art technology, and will ensure that ASTON development and management are in order. Xblocksystems's blockchain technologies have already been completed. (The Project history and Developer introduction listed below, Roadmap includes Xblocksystems's work detailing the core contents of ASTON.)

2.3.1 Doorian

With its development completed in November 2016, the Doorian service automatically creates and stores debt bonds in the blockchain network through the digital signature of electronic documents when the funds are remitted between participants through the platform. This program was completed in partnership with the FinTech Innovation Center at NH Nonghyup. The organization also provided us with special access to its financial API called NH Open Platform. Doorian is the first mobile platform for the authentication of documents in Korea utilizing blockchain technology, which provides users with a high level of convenience and security. Soon, we will be able to expand the use of the Doorian's underlying technology for broader commercial purposes.
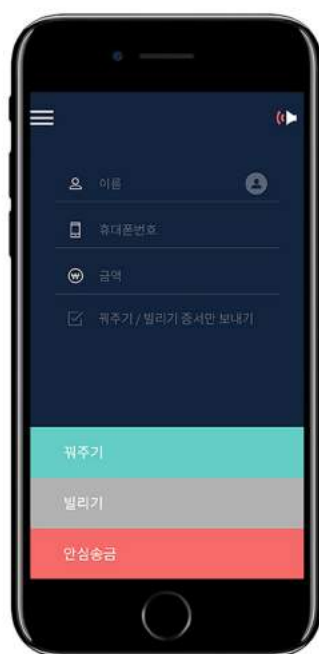

[Doorian App]

2.3.2 Medical Certification Service

At large hospitals, more than one million sensitive medical documents are printed each month for check-ups, hospital discharges, and medicine prescriptions. However, most people fail to properly dispose of all these printed materials effectively, leaving the personal information inside vulnerable. In a move to resolve this problem, we enabled hospitals to issue and confirm medical certificate documents electronically. Hospitals ask patients to use their smartphones to fill out, share, and retrieve their personal information and medical records. By distributing this information on our blockchain platform instead of on hard copy documents, we minimize risks associated with the storage, management, and transfer of sensitive personal and medical information.

Currently, we partner with more than 90 large hospitals in Korea that use our pilot medical certification service. We also plan to commercialize the industry's first medical certification service later this year allowing us to place our technology in more hospitals and other major medical institutions in Korea.


[User Experience]
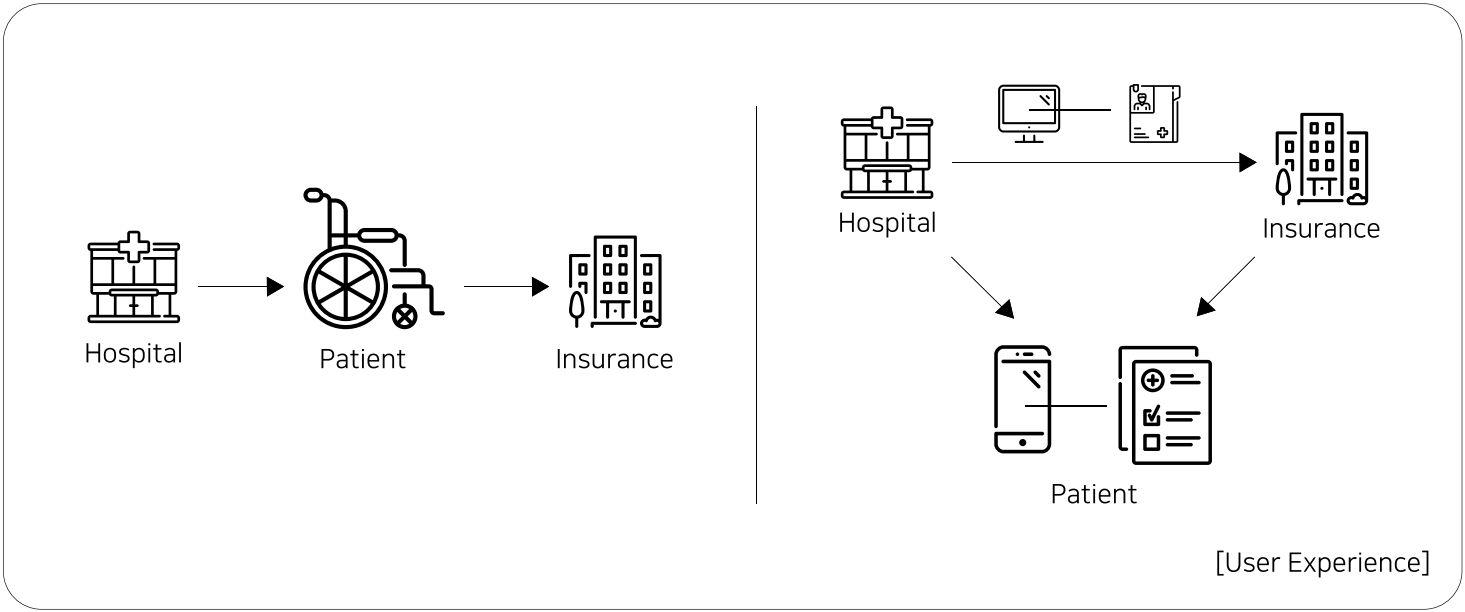
2.3.3. Mobile Smart Platform for Biometric Authentication

Xblocksystems's blockchain-based mobile security authentication service is being developed together with LGU+, one of the top three mobile telecommunication companies in Korea. In the future, our plan is to expand this solution to all domestic mobile telecommunication companies too. At the moment, when users enroll in a new telecommunications service, they have to present a series of materials that verify their identity and authenticate their enrollment. This cumbersome process happens each time they subscribe to a new service. Once we roll out our blockchain-based mobile authentication service, LGU+ users can sign up for all LGU+ services seamlessly after they have completed their initial registration and authentication. Soon, users will be able to use our mobile smart platform for documents beyond LGU+ instances, opening the door for broader application of this technology too.

Customer — Blockchain — Service Provider

[Fido Flow]
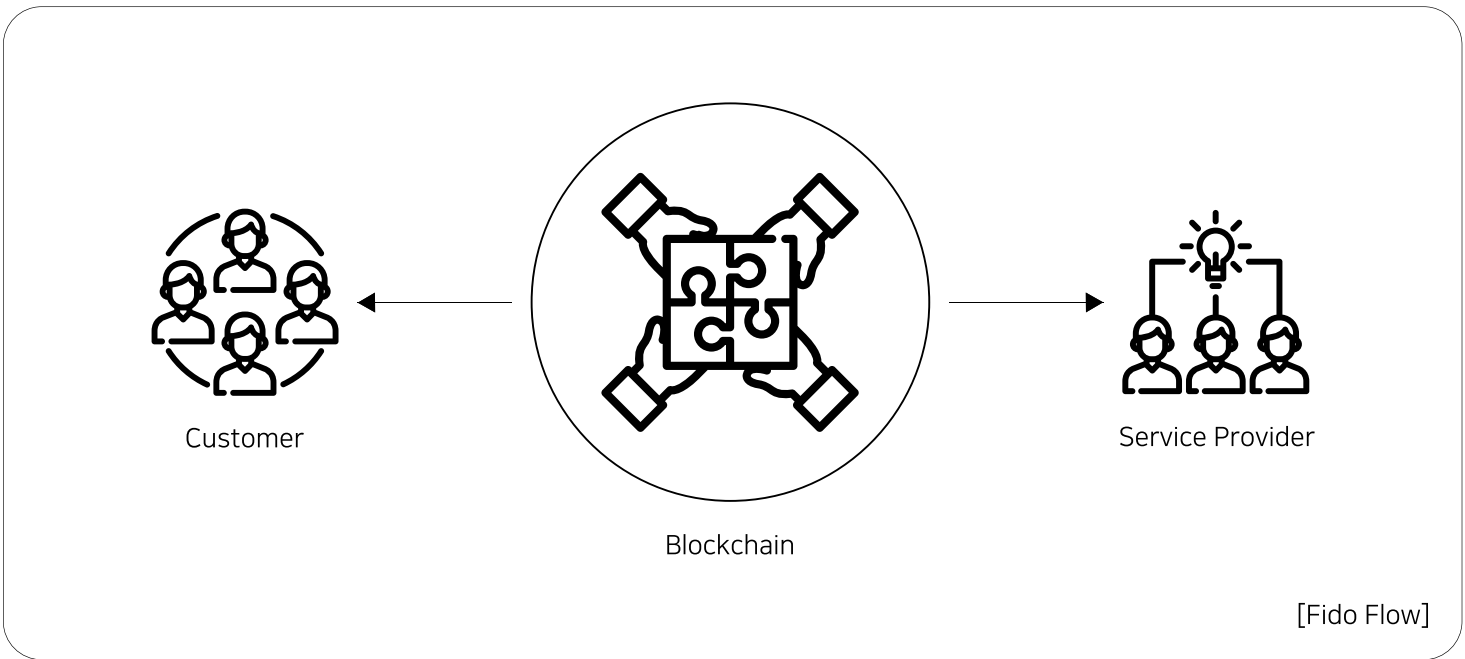
2.3.4 Coinlink (Exchange of Cryptocurrency)

Coinlink is an ultra-secure global cryptocurrency exchange. When we introduced our beta 1.0 service in September 2017, we saw a wide range of coins being traded on the exchange. We plan to launch our global 2.0 service during the first quarter of 2018 and will add support for HTS and APP. Coinlink plans to operate the business through subsidiary companies or alliance companies in different countries around the world.
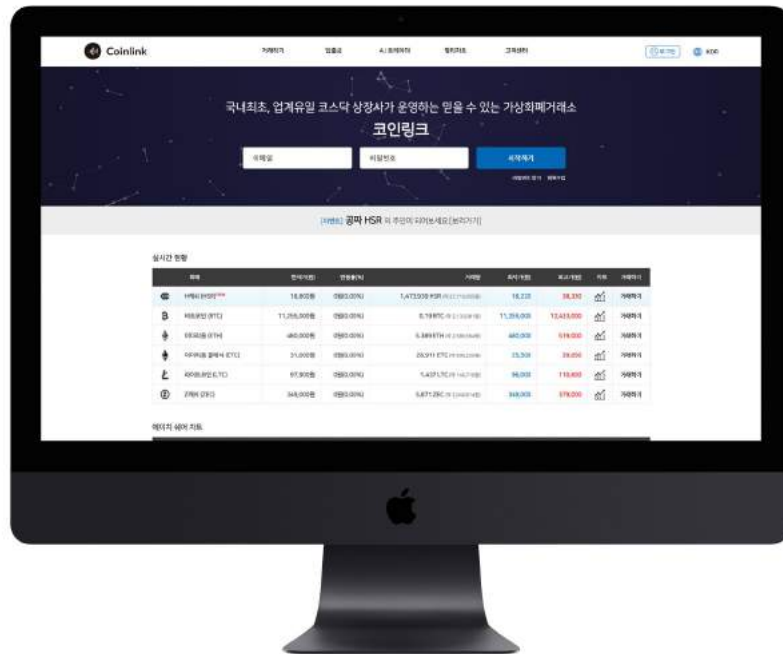
[Coinlink Web]

2.4 Near Future

Our current dependence on trusted third-party institutions to certify and validate documents creates headaches for users. Of course, we at ASTON are eager to provide a permanent solution to that problem. Document management, including preparation, issuance, submission, and delivery, will become significantly easier once we have fully developed our platform for wide commercial use. Our technology will streamline the document execution process too, saving users time since documents are often delayed during the notarization process.

This type of innovation is made possible because of the decentralized ecosystem for document circulation through X.Blockchain. This will also help individuals and enterprises save money because it minimizes costs associated with data administration and security. Since these changes can be applied to all service categories and industries such as medicine, telecommunications, legal, logistics, and education, it won't be long before we can witness a future shaped by ASTON.

To bring ASTON to market and to develop its ecosystem, we need to focus on building infrastructure such as a perfectly decentralized network and middlewares to connect all the gateways. Also, we will develop decentralized applications (dApps) that can handle the full lifecycle of digital documents hosted on ASTON. These functions include document creation, distribution, authorization, and so on.

We are developing infrastructure and dApps simultaneously to quickly bring our product to market. We also anticipate standalone companies being built that will specialize in the development of dApps in the ASTON ecosystem.

[Cross Device between Aston]

2.4.1 dApps

1) Aston Wallet

The ASTON Wallet application enables individual users to authenticate their identity using their own smart devices, to easily confirm or request the documents they need, and to investigate the activity logs of the documents related to them. This app will be the primary one used among the general population. Its core functions will include authentication of users, issuance of documents, and notifications. Furthermore, it will enable users to create and dispatch the documents. This application is scheduled to be completed during the first half of 2019.

[For Individuals]

2) Aston Business Wallet

The ASTON Business Wallet will serve as our enterprise-level application for businesses and other institutions. Its purpose is to provide the government and enterprise users with a convenient way to access the ASTON Gate ERP software. It will also be accompanied by a diverse array of applications customized to fit the user's particular needs. Its major functions include the authentication of documents, and the dispatch and receipt of documents. This application is also scheduled to be completed during the first half of 2019.
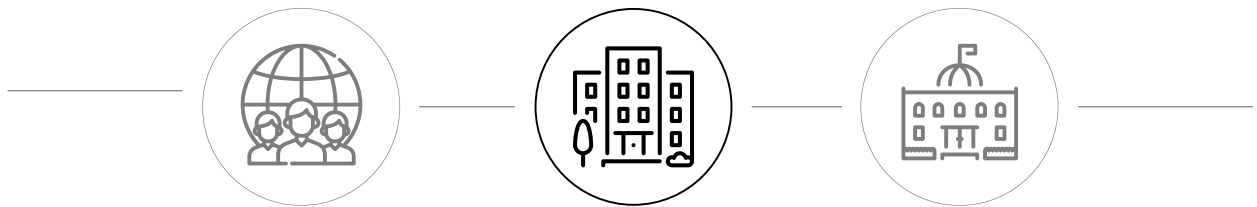
[For companies]

3) Aston Vote

The ASTON Vote app allows users to accurately and quickly cast their vote in situations that require rational and trustworthy decision making. Since votes can be shared simply and safely through smart contracts based on X.Blockchain, the application can be conveniently utilized in diverse areas requiring fast decision making. When paired with the ASTON Wallet app, The ASTON Vote application enables everybody to participate in a ballot easily and rapidly. Currently, ASTON is securing partnerships with democratic countries around the world and is finalizing customer contracts with international companies. The development of this application is scheduled to be completed during the second quarter of 2019.

[For Organizations]

2.4.2 Infrastructure

1) Aston Gate (Aston Management Solution)

This is a software solution that collects information recorded in the DBs of institutions and enterprises and stores it in ASTON. ASTON Gate will be compatible with Windows and Mac OS platforms and will be designed to allow easy use in the cloud. Companies will be able to use ASTON Gate to capture, manage,

and review the data it receives. The solution is malleable, and can be customized to accommodate thepecific needs of our customers in different industries and categories.

2) Aston Factory (Blockchain API host service)

This serves as the API access tool to enable users such as enterprises and government agencies to mutually share documents and to access important information. Our solution aims to establish a one-stop service that manages everything from verification of information to billing. As big data has exploded, the API industry has also experienced rapid growth. However, due to their security vulnerabilities, APIs are seldom used. ASTON Factory is the premier verification and billing tool to overcome the restrictions and risks prevalent among APIs today. ASTON Factory allows businesses to securely handle sensitive personal information from its users.

3) Aston ITP (International Trade Protocol)

At ASTON, we will develop our own standard protocols to ensure documents in our system are received, processed, and executed in a consistent manner, especially internationally. Although the language for monetary transfers is meant to be standardized, we still see a wide variety of terms used between financial institutions and platforms. This inconsistency can complicate and delay the funds transfer process. The goal of ASTON ITP is to be able to securely handle digital documents and provide users with a seamless experience. With ASTON ITP, we can easily imagine a borderless world where your local, neighborhood shoemaker can export his goods to overseas to customers in Argentina, Cambodia, and even South Africa.

Why Aston

3.1 X.Blockchain

The size of blockchains in which the details of all transactions are recorded is bound to grow as the cumulative number of transactions grows. In other words, as time passes, the network will expand to a point when it becomes impossible for all participants in the network to store and manage all the existing blockchains. That is, the systems (nodes) with the capacity capable of the storage and administration of the whole blockchains will progressively diminish in their number. As a result, there is a high possibility that a relatively small group of oversize nodes will form over time. This leads to centralization. In this case, whole blockchains are managed by a relatively small group of nodes; consequently, the credibility of transactions in those blockchains are reliant on that centralized group of nodes. This compromises the fundamental concept of blockchains: decentralization.
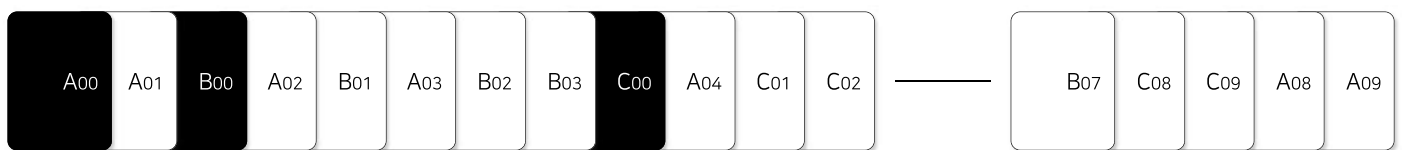
[Blockchain of the Linear Structure]

(The information about the document created and the history of reference, modification, approval, and more is organized serially in a chronological order to form the blockchain. While in possession of the whole blockchain from A00~A09, the document administrator B has to check all blocks subsequent to A04 except for B02 in order to verify the integrity of B02.)
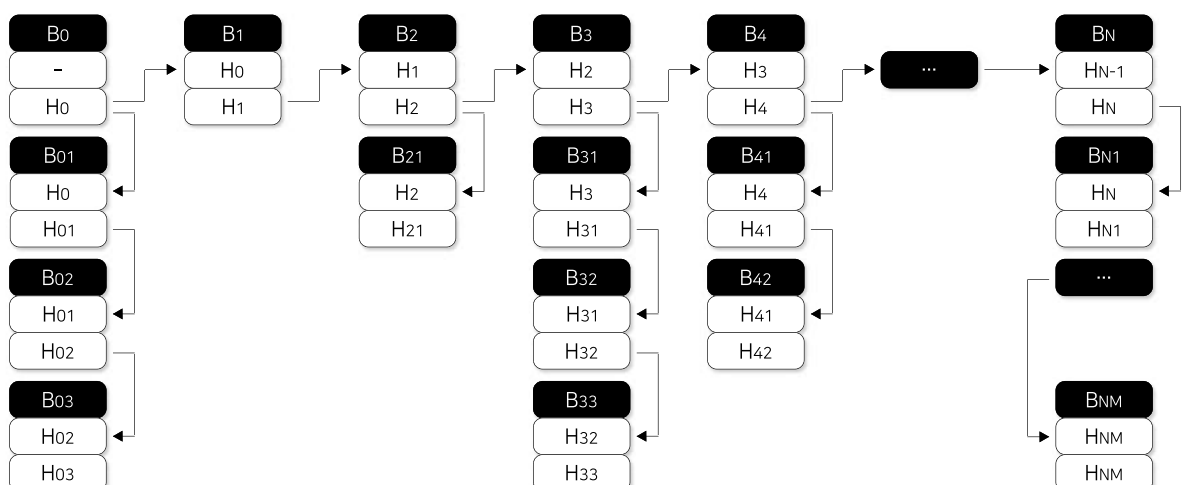
[Format of a Blockchain with 2 dimensions]

In reflection of the characteristics of the electronic documents mentioned previously, the X.Blockchain categorizes the records (transactions) related to a document based on the 'document' or the other equivalent criteria rather than linking them in a single linear structure. And by implementing multiple chains based on the same criteria, the multidimensional blockchain is conceived. For example, when the document is used as the criteria, the 'first creation' of each document is recorded in the blockchain (main-chain) of the same linear structure as the existing blockchains. However, the additional records (transactions) which occurred to the specific documents recorded already in the main-chain such as the modifications are recorded in the sub-chains which are the other blockchains created on the basis of the related block in the main-chain as a genesis block rather than in the main-chain.
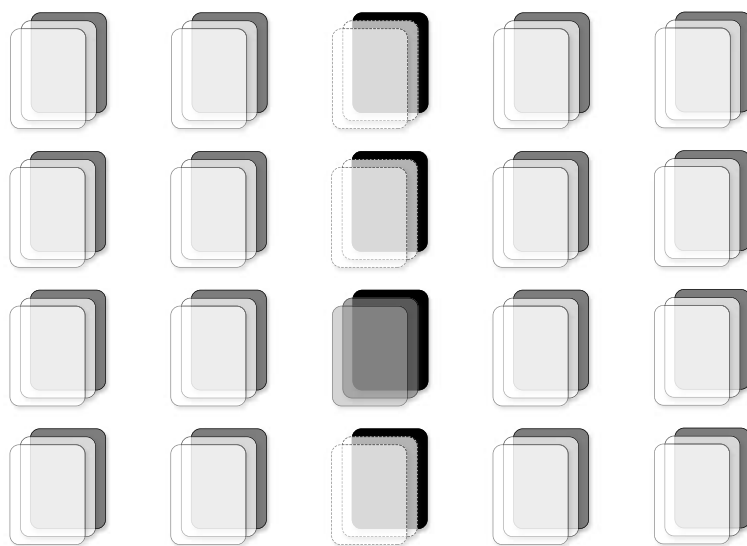
[Format of an X.Blockchain of a Multidimensional Structure]

The full nodes responsible for mining the new blocks in the X.Blockchain still collect information about all blocks. However, when clients just want to evaluate the validity of a document rather than the mining of it, they shouldn't have to observe the whole block. Each user can verify the credibility of the target document to a sufficient level by only acquiring the sub-chain containing the document that requires verification and the main-chain at the next higher level without the need of a trusted third-party institution. Here, the full nodes only undertake the role for mining rather than as the trusted third-party institution to confirm the credibility of the documents. (For details, please refer to the X-chain white paper posted in the homepage. https://aston.company) ASTON currently holds 2 domestic patents on X.Blockchain, and the PCT international patent is pending.

Patent 1. The Method to Manage the Data by Utilizing the Blockchain System and the Blockchains
Patent-2017-0059270 (PCT/KR2017/010017)

Patent 2. The Method for Creation of Blockchain System and the Blockchains
Patent-2017-0059276 (PCT/KR2017/010020)

3.2 Smart-Pass-On

The Smart-Pass-On feature is a solution aimed to provide an easy and convenient security authentication solution. Our target customer is FinTech businesses. The Smart-Pass-On is implemented using PKI private authentication, biometric signature authentication (FIDO), and blockchains. When the Smart-Pass-On solution is utilized, the diverse solutions for authentication, identification, security, and data administration are consolidated. Enterprise users will no longer have to implement each solution individually and, instead, can access all of the Smart-Pass-On features in a bundled package for a readymade out of the box solution.

Major Features

1. Biometric Signature Authentication (FIDO)
The API is provided to enable the implementation of an identity authentication service by utilizing the biometric information unique to individuals such as the fingerprint, iris, face, voice, and more for identity confirmation.
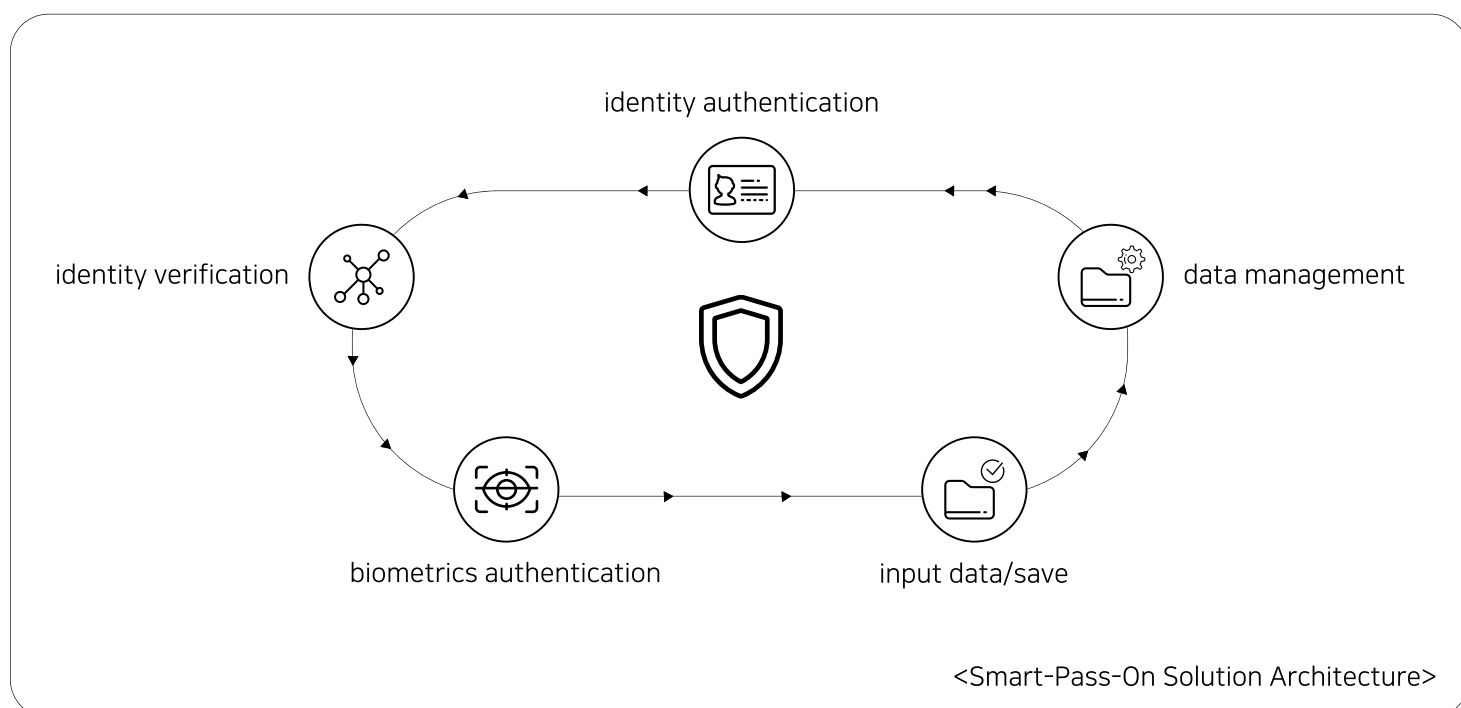2. Identity Verification for Registration/Identity Authentication after Registration The API is provided which is necessary for electronic authentication by utilizing the private certificates and the authentication institutions based on the public key infrastructure for the identity verification of individuals for registration necessary when they use the service for the first time, and the identity authentication of individuals after registration
3. Operation and Administration of Electronic Documents
All of the APIs provided are needed for the operation and administration of the electronic documents and the interface to corroborate the format of the electronic documents. These facilitate encryption, data compression, and more for rendering documents that require digital security and authentication.
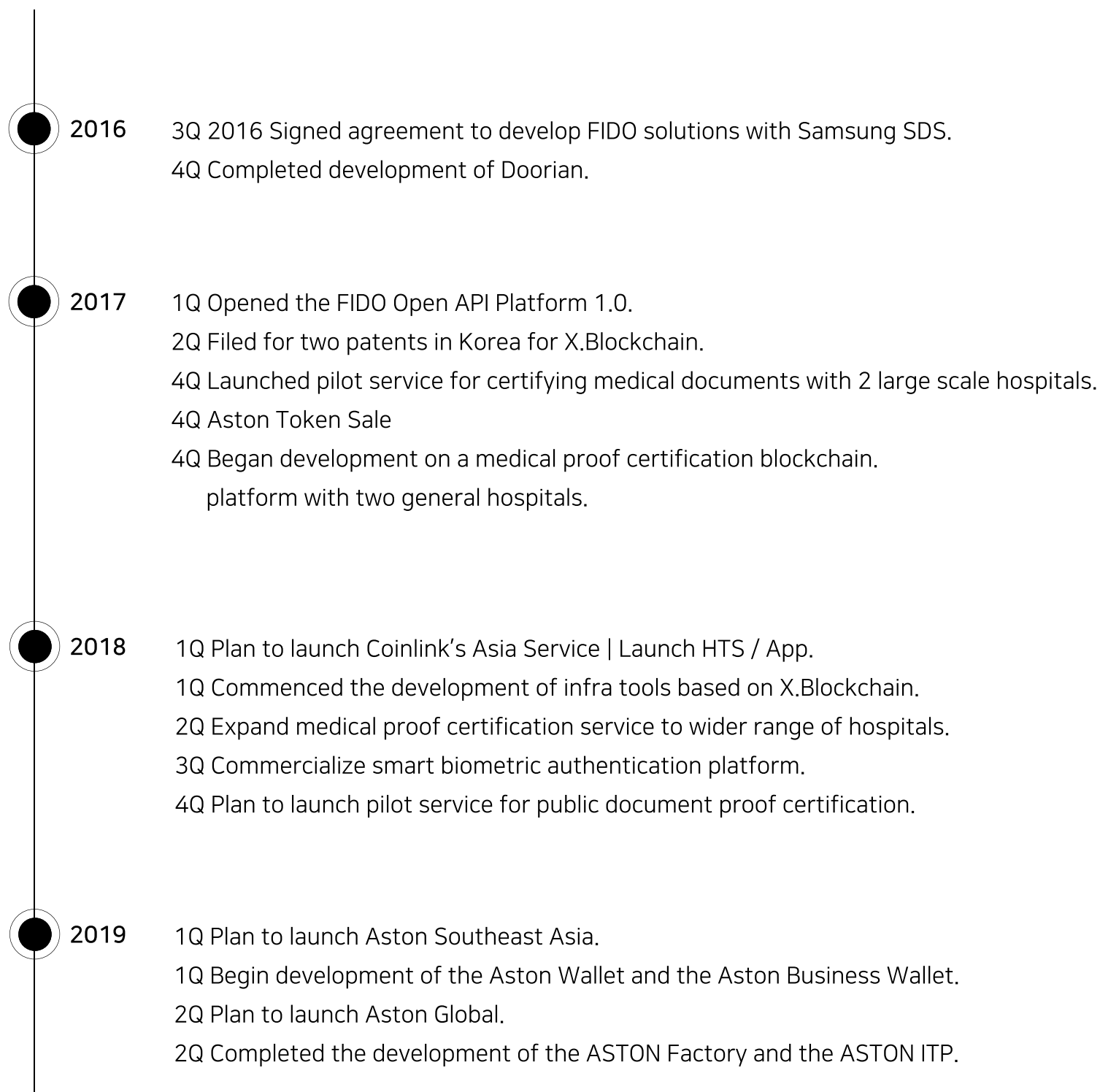4. Blockchain System
Our system converts existing blockchain technology to formulate a new paradigm for the storage of information electronically.

<Smart-Pass-On Solution Architecture>

Roadmap

4.1 Overall Roadmap

2016
3Q 2016 Signed agreement to develop FIDO solutions with Samsung SDS.
4Q Completed development of Doorian.

2017
1Q Opened the FIDO Open API Platform 1.0.
2Q Filed for two patents in Korea for X.Blockchain.
4Q Launched pilot service for certifying medical documents with 2 large scale hospitals.
4Q Aston Token Sale
4Q Began development on a medical proof certification blockchain.
   platform with two general hospitals.

2018
1Q Plan to launch Coinlink's Asia Service | Launch HTS / App.
1Q Commenced the development of infra tools based on X.Blockchain.
2Q Expand medical proof certification service to wider range of hospitals.
3Q Commercialize smart biometric authentication platform.
4Q Plan to launch pilot service for public document proof certification.

2019
1Q Plan to launch Aston Southeast Asia.
1Q Begin development of the Aston Wallet and the Aston Business Wallet.
2Q Plan to launch Aston Global.
2Q Completed the development of the ASTON Factory and the ASTON ITP.

Token Sale

5.1 Abstract

Schedule

Pre-sale : 6 December 03:00 UTC ~ 10 December 15:00 UTC
Crowdsale : 11 December 03:00 ~ 17 December 15:00 UTC

If the target amount is not attained during the period of the crowdsale, the additional crowdsales (the period for each crowdsale is restricted to a maximum of 1 week) can be carried out up to 7 times and the particulars are planned to be announced through the homepage (https://aston.company) 24 hours before each of the starting dates.

ATX Token Sale

A total of 1,000,000,000 ATX tokens are issued through the pre-sale as well as the crowdsale and 20,000 ATX tokens are planned to be issued for each unit of Ethereum. However, if 10,000 ETH is not collected after the maximum 7 times of crowdsales, the Ethereum collected will be returned in full.

Participation in the ATX token sale is restricted to use of Ethereum only. The distributed ATX tokens are delivered directly to your individual wallets.

The ATX tokens issued through the ATX token sale cannot be in the form of equity or debt securities and do not guarantee any type of income to the contributors either.

Under the current circumstances whereby international attention is raised regarding ICOs, there is a possibility that the regulations on ICOs may appear abruptly in each country. If any damages are expected to be caused to the participants due to the ICO regulations during the period of ATC token sale, the refund procedure will commence for the participants from the corresponding countries after posting the announcement through the ASTON website.

XBC Technologies PTE. LTD. is a corporation established in accordance with the Singapore law and has complied with the legitimate ICO procedure by Singapore law. However, regulations on ICOs differ from country to country, and individual regulations may be applied depending on the country of the participant. Residents or nationals of the United States, China or other countries may not participate in the ASTON Token Sale in order to remove the illegal elements according to the nationality of the participants. Residents or nationals of other countries are obliged to comply with the laws and regulations of their respective countries.

In addition, if ICO regulations can be abruptly enforced, and if there is a possibility that ICO will not be able to proceed objectively due to the regulation, or that the participants may be harmed, XBC Technologies PTE. LTD. will notify the details through the website (https://aston.company) You can then stop the ICO. This information will also be sent individually to the e-mail address that was filled in when participated in ICO, and the procedure for returning the ETH paid will proceed without delay.

Token Holder's Benefit

ATX will be used as the means for payment for all services provided by ASTON and it will not be supplied any more after the completion of the crowdsale. To issue additional ATX, an agreement must be made by the owners of ATX and there must be a 70% or higher consensus.

Bonus Policy

Pre-sale : 30%
Crowdsale : 15%

If additional crowdsales up to the seventh are in progress, bonuses for each period are as follows. (The ETH amount is based on the Tx Hash.)

Token Sale	Less than 300 ETH	Less than 6,000 ETH	Less than 8,000 ETH	Less than 10,000 ETH	More than 10,000 ETH
Pre-Sale	30%				
Crowdsale	15%	20%	25%	25%	30%
1st additional sale	10%	15%	20%		
2nd additional sale	5%	10%	15%		
3nd additional sale	0%	5%	10%		
4nd additional sale	0%	5%	10%		
5nd additional sale	0%	5%	10%		
6nd additional sale	0%	5%	10%		
7nd additional sale	0%	5%	10%		

Since ATX is issued as a verifiable cryptocurrency, the ATX holder aims to have ATX own value. Therefore, ATX holders have no right to demand equity or obligation to XBC Technologies PTE. LTD. and third parties for their token holdings, and the value of ATX after the ATC has been sold and distributed, except when the initial sale of crowd sale is restricted. You may not claim to return ATX to XBC Technologies PTE. LTD. in cash or other cryptocurrency for any reason, including ATX price fluctuations

5.2 Token Allocation

Pre & Crowd Sale[1]	70%
Marketing	10%
The Team[2]	10%
Early investor & Advisor	10%
Total	**100%**

1) Pre-sale is only available to institutional investors and Angel investors in consultation with Aston. Bonus rates can be set up to 50% through individual contracts.

2) The following prohibition period of sales will be applied to the ATX's distributed to the Team.
Within 6 months – 20% of the quantity of token distributed can be sold.
After 6 months ~ within 1 year - 30% of the quantity of token distributed can be sold.
After 1 year ~ within 2 years - 50% of the quantity of token distributed can be sold.

5.3 Use of Proceeds

Use of proceeds	Percentage	Explanation
Development	50%	System and infrastructure development expenses
Marketing & Promotion	30%	Marketing & Promotions expenses for our services
Operation	20%	Operation expenses including legal

Who We Are

6.1 The Team

CEO | Seungki Kim

CEO at Xblocksystems and Givtech

Board member of Korean Blockchain Association

Blockchain Committee member in Minjoo Party
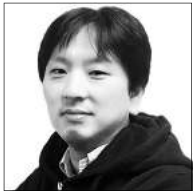

CEO | Kyungok Park

CEO at Xblocksystems

CFO at Senex Technology

Chung-Ang University, Business School

CTO | Yongseok Kwon

CTO at Xblocksystems, X-Chain Architect

CTO at Givtech, Head of Blockchain R&D Center
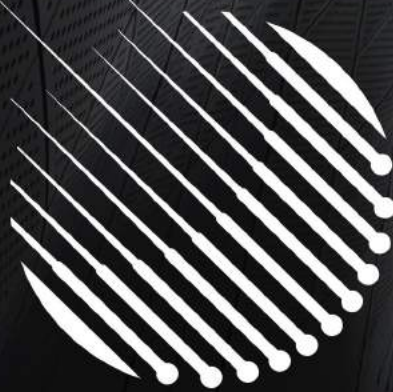
SW engineer at Samsung Electronics R&D Center

CSO | Youngjun Cho

CSO at Xblocksystems

CEO at Changjaeso, Fintech startup company builder

System Engineer at IBM and NHN

Aston

Be a part of Auto Doc Ecosystem Now!

Disclaimer

This white paper is intended for general informational purposes only and the specific terms and conditions of sale of the ATX will be governed by the separate contract or purchase terms. Nothing in this whitepaper shall be construed to define the terms and conditions of a particular company or individual, and XBC Technologies PTE. LTD. assumes no liability for any third party conduct (such as third party transactions) that does not form a legal relationship with XBC Technologies PTE. LTD.