Benefit the World with Technology
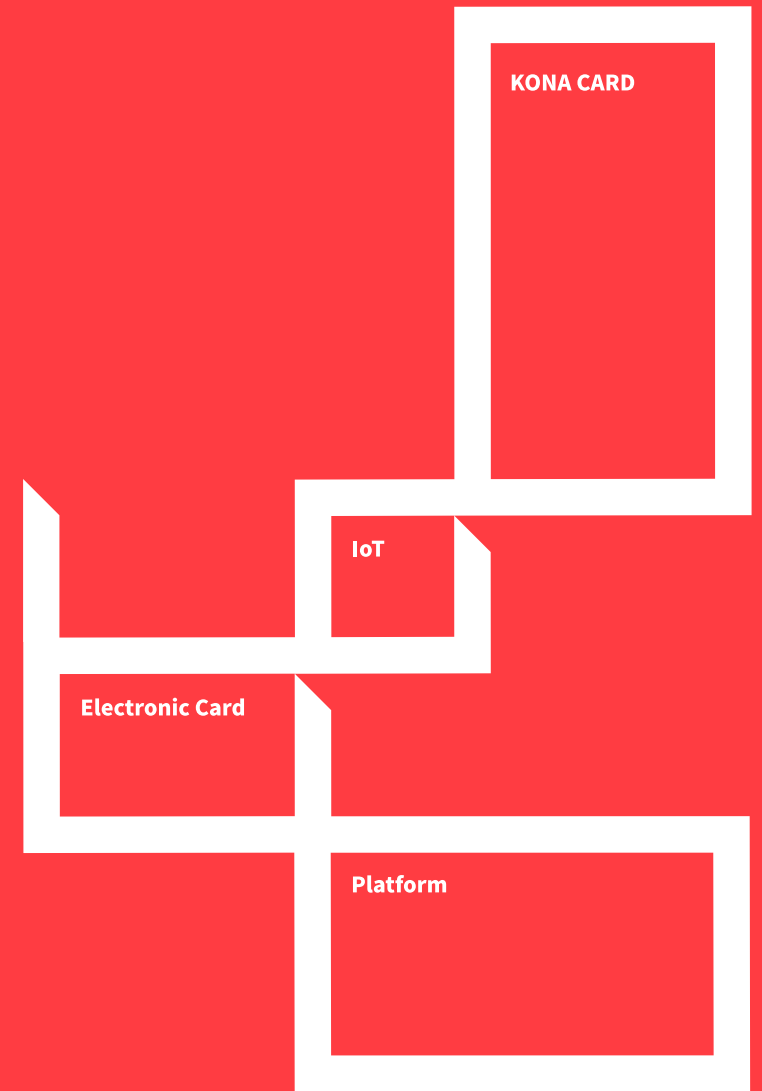
KONA CARD

IoT

Electronic Card

Platform

KONA I

KONA I's challenges and innovation continue on its way to become a global platform corporation

Hello, this is Cho Chung-il, CEO of KONA I. Since its establishment in 1998, KONA I has walked the path of aspiration and innovation.

By developing and commercializing the nation's first-ever bus-subway integrated transportation card system, we have changed the paradigm of public transportation use and entered the smart card business through an internally developed chip operating system(COS), currently supplying IC chips and smart cards to more than 90 countries worldwide. Based on the outcome, KONA I has solidified itself as Korea's leading FinTech company that offers a total solution in the areas of payment, authentication, and security. Refusing to stop there, KONA I took on a new challenge, launching the "KONA CARD", the nation's first-ever rechargeable IC card that can be used for payments nationwide, in 2017. The process of developing the KONA CARD platform was a long journey of over 5 years, not only following the EMV(international payment standard) standards but also enabling issuance, approval, payment, and clearing/settlement of cards. With the KONA CARD, we have entered the card service business for general users, our first B2C business. Through benefits and services that are more innovative than any other card products, the KONA CARD is creating a change in card lifestyles, not only by leading the latest trends of emphasis on practical benefits but also based on its advantage of being able to form planned consumption habits.

Affiliate companies led by KONA I are also promoting various unprecedented businesses. From Veaver E&T in charge of Veaver, a video knowledge sharing platform for companies, to artmining with expertise in the artist promotion business, they continue to secure new business areas and produce remarkable outcomes. KONA Group will continue to create synergy through active cooperation among affiliates.

Amidst a fiercely competitive environment, history and past performance of a company are no longer valid, and companies that do not find new growth engines on their own cannot help but fall behind. Taking on new challenges and securing new capabilities based on generation-leading insight, flexible thinking, and fast execution are what enabled KONA I to reach their current status even through a countless hardships.

Under the foundational spirit of benefiting the world with technology, KONA I will continue to focus on launching new technologies and services, and aim to become a global platform corporation beyond a mere Fintech company. We ask for your interests and support for our continuous aspirations and innovation.

CEO, Cho Chung-il

From Identification to Platform

After the invention of paper, printing technology has contributed to the development of humankind for a long time. Similarly, identification, or encryption technology, based on semiconductors(IC chips) has made our lives safer and more convenient.

As a leader of the identification technology, KONA I has been supplying a total solution of IC chips and smart cards to financial, communications, and public agencies that require authentication and security. The list of clients include 500 companies in 90 countries worldwide.

With the dissemination of IoT, identification has now become a prerequisite for not only credit cards and smartphones, but also for objects and information. KONA I's identification technology can be applied to all objects and information, from home appliances to automobiles.

Through the smart card business and transactions with financial corporations around the globe based on its identification technology, KONA I has naturally turned its gaze to the global payment market. Since then, based on confidence in the competitiveness of its payment platform, it has developed and launched the KONA CARD platform of the EMV standard, which can issue, pay, approve, and clearing/settlement card using its own technology. The KONA CARD is the nation's first-ever rechargeable IC card capable of making payments nationwide, and is actively implementing card services for general users as well as for partnership projects with companies.

From the seed that was identification technology, KONA I has established itself as the leader in the field of IC chips and smart cards, and has furthermore been expanding its areas of business from the IoT platform to the KONA CARD, its independent card brand, thus growing as a global platform corporation.

KONA CARD

IoT Platform

IC chips and smart cards, total solution

Identification
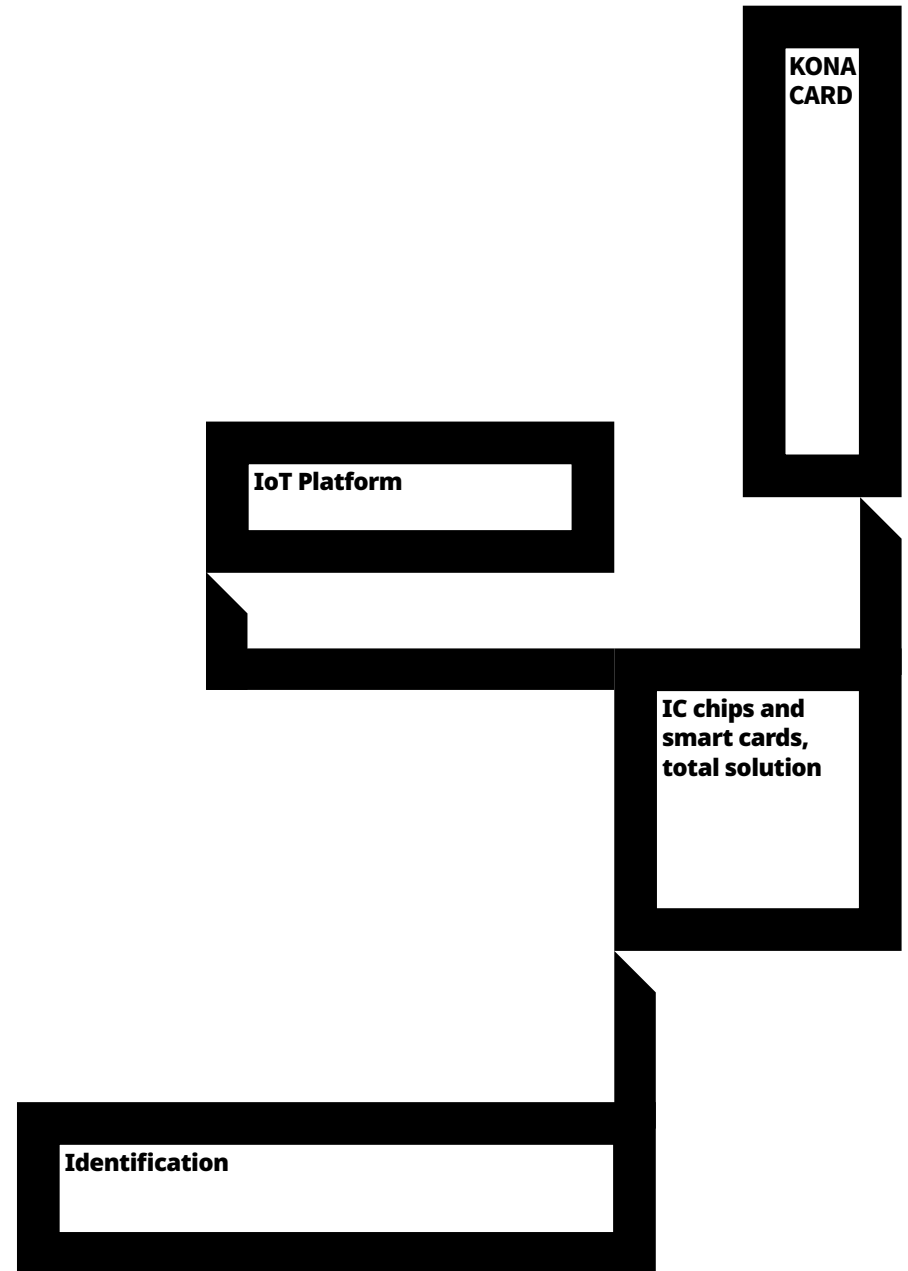
1998
———
2018

Since its establishment in 1998, KONA I has developed and commercialized the nation's first-ever bus-subway integrated transportation card system. Since 2005, it has developed a solution for all areas related to the usage of their internally developed IC chip operating system(OS) and smart cards, and is currently supplying it to 90 countries worldwide under the brand name "KONA". In 2018, it carries out businesses in two areas, which include IC chip-related business for supply to communications, finance, and public sectors, and the platform business to provide solutions related to payment, authentication, security, and video. It is a global hidden champion in IT that was selected as one of the World Class 300 companies by the Korea Institute for Advancement of Technology in 2011 and received the $100 Million Export Tower Award from the Korea International Trade Association in 2014.

━**1998** KEBT(former name of KONA I) founded ━**2000** Commercialized "Hanaro Transportation Card System" which is integrated bus and subway for the first time in Korea ━**2001** Listed on KOSDAQ ━**2003** Developed a global smart card platform ━**2005** Acquired EMV certification ━**2006** Climbed to No. 1 in the domestic smart card industry ━**2007** Developed and commercialized the world's first-ever Combi USIM ━**2011** Selected as World Class 300 corporation by Ministry of Knowledge Economy ━**2012** Changed name of company from KEBT to KONA I ━**2014** Received $ 100 million Export Tower Award/Supplied IC chips and smart cards with in-house COS to 500 clients in 90 countries worldwide ━**2017** Launched KONA CARD, the nation's first open, chargeable mobile/IC card, Launched Veaver, a video knowledge sharing platform for companies ━**2018** Merger of subcidiary KONA C

KONA I forms a group with affiliates that operate their own individual businesses to create synergistic effects.

KONA I www.konai.com
experts in fintech total solution and platform

KONA M www.kona-m.co.kr
experts in smart card manufacturing

KONA S www.konas.co.kr
experts in IoT solutions

Veaver Inc. www.veaver.com
experts in video knowledge sharing platforms

artmining www.art-mining.com
experts in the artist discovery and production promotion businesses
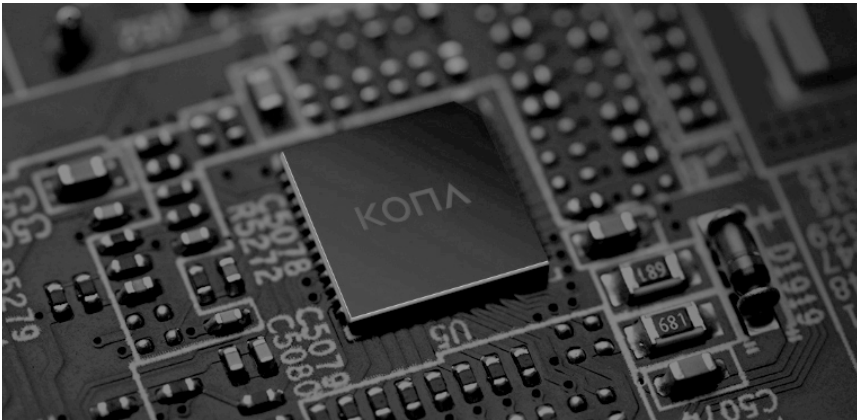
KONA I's factory is located in Gimpo, Gyeonggi-do, and owns the nation's largest smart card manufacturing facilities. Through systematic quality control and security systems, it produces smart cards and electronic cards in the finance, communications, and public sectors.

**Factory scale**   8,682 Land area(㎡) / 9,372 Factory area(㎡)

Production capacity
Chip cards

	Hourly CAPA	Monthly CAPA	Yearly CAPA	Remarks
Contact	9,000	3,960,000	47,520,000	3 Embedding machines, 2 Shifts(20H)
Dual Interface	3,600	1,584,000	19,008,000	4 Combi-Card machines, 2 Shifts(20H)

General cards

	Hourly CAPA	Monthly CAPA	Yearly CAPA	Remarks
MS/RF cards	21,600	4,752,000	57,024,000	Day shift(10H)

Electronic cards

	Hourly CAPA	Monthly CAPA	Yearly CAPA	Remarks
OTP/ fingerprint cards, etc.	1,500	660,000	7,920,000	2 shift(20H)

GLOBAL NETWORK

CHINA

KOREA

JAPAN

USA

BANGLADESH

INDIA

NIGERIA
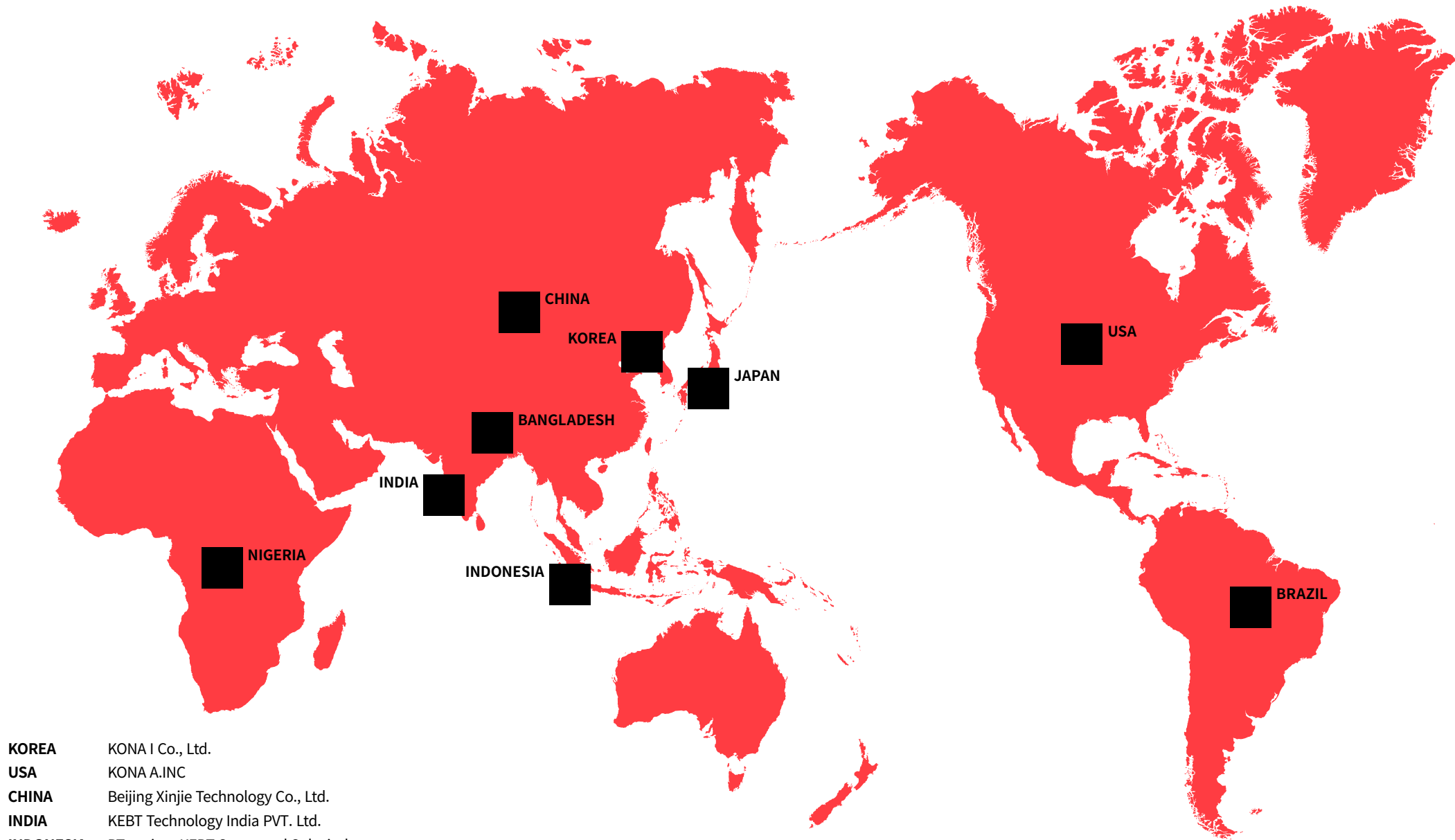
INDONESIA

BRAZIL

KOREA   KONA I Co., Ltd.
USA   KONA A.INC
CHINA   Beijing Xinjie Technology Co., Ltd.
INDIA   KEBT Technology India PVT. Ltd.
INDONESIA PT.optima KEBT Smartcard Solusindo
JAPAN   Japan branch
BRAZIL   Brazil branch
NIGERIA   Nigeria branch

TECHNICAL CENTER
BANGLADESH KONA Software Lab Ltd.

KONA I is a global corporation that operates numerous local offices and technical centers overseas. Through its global network, it speedily reacts to the demands of the worldwide market.

Introduction to Businesses

Banking
ID Cards
Electronic Cards
Telecom
KONA CARD
IoT Platform
Solution

Banking

KONA I offers various payment solutions that financial institutions need based on in-house technology and many years of expertise.

IC chips & Smart cards

Based on an internally developed COS(Chip OS), KONA I currently owns more than 40 domestic and international certifications as well as 300 different product types, supplying its products to 90 countries worldwide.

All KONA I products are based on EMV(international payment standards), and are thus capable of developing and supplying smart card applications tailored to customer needs.

Do N card

Do N card is a platform that enables use of multiple cards and additional services via a NFC-based smartphone and single Combi card. You can select and use a card registered through the app whenever you want. We eliminate the inconvenience of having to carry around multiple cards, offering benefits for both card companies and users alike.

Special cards

KONA I can produce card designs in various materials such as metal, jewelry, mother-of-pearl, and natural wood, and through consulting manufactures and supplies special cards for payment, transportation, public services, etc. to suit different purposes. We gain trust from many global corporations and public agencies by supplying customized smart cards of the highest quality.

ID Cards

Through powerful security solutions, KONA I provides IC chip-based ID cards and all related solutions to satisfy the security requirements of public organizations.

KONA ePassport

Manufactured according to ICAO's MRTD specifications with the highest security grade based on global technology, and can be used anywhere in the world.

KONA National ID

Conforms to the specifications required by each country's national identification and driver's license, and can install various additional services for user convenience.

KONA Health Card

Health information of individuals can be managed more safely through recording of emergency information and linking with medical records.

KONA ID Platform

Offers an environment where various applications related to ID/Public can be created and managed, and where the life cycle of cards can be safely controlled based on a powerful security feature.

Electronic Cards

KONA I electronic cards are equipped with electronic circuits, batteries, various modules, displays, etc., with identical size and durability with existing cards.

Fingerprint Card

Fingerprint cards identify the fingerprint of the card owner through a fingerprint recognition device embedded in the body of an existing smart card.
These cards can be broadly applied in all areas requiring authentication and security including finance, ID, and security.

Display OTP Card

Display OTP is a card-type OTP that creates single-use passwords through an encryption algorithm instead of using fixed passwords.
KONA I owns various OTP cards and servers through which necessary features such as transactions, transportation, and identification can be added.

Dynamic CVV Card

CVV is a security code written on the back of a credit card next to the signature section, and a 3- to 4-digit fixed value to identify the person with the possession of the card.
D-CVV cards create random CVVs each time, and change them after each use rather than using fixed values, which helps prevent wrongful usage for online, non-face-to-face transactions.

Telecom

The company that successfully commercialized NFC USIM for the first time in Korea, KONA I currently supplies USIM products tailored to the demands of its clients to various domestic and international telecommunications providers.

NFC USIM

·USIM, supporting NFC feature(supports SWP)
·Supports mobile payments: VISA, Mastercard, etc.
·GSM, WCDMA, LTE, etc. Supports all network types

eSE with NFC Control

·Packaging NFC controller and SE in one
·Supports mobile payments: VISA, Mastercard, etc.
·Designed to be embedded in handset and M2M module

Micro SD

·SD card interface driver
 : communicates via customer support Android
·Form factor can be defined by user
·Supports NAND Flash memory
·Multi SE installation possible

Multi USIM

·Up to 3 phone numbers can be used on a single smartphone.
·Unlike multi-number services by telecommunications companies, it has the same effect as replacing USIM cards so that there are no restrictions for each number on use of additional services.
·Phone numbers can be easily changed through a smartphone app.

KONA CARD

The first card brand launched by an IT company, the "KONA CARD" is a rechargeable card developed by KONA I in 2017 that can be used as cash in stores nationwide. The nation's first-ever EMV-based rechargeable IC card can be experienced through the KONA CARD app.
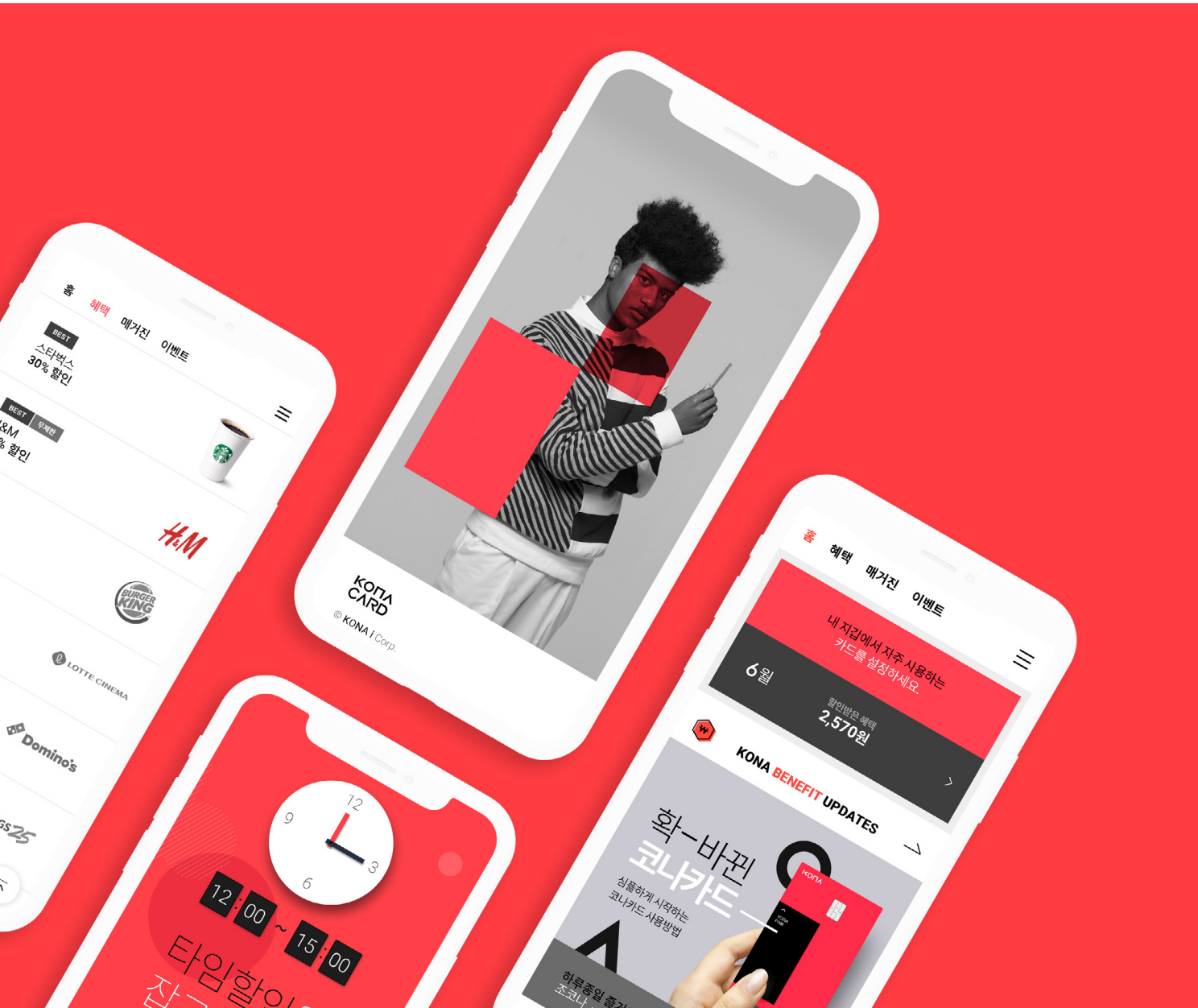
Consumer usage services

·Offers benefits updated monthly without annual fees
·Issues and charges cards, and manages list of discounts on the KONA CARD app
·Chargeable card for planned consumption
·Card design selection according to taste
·Offers 30% income tax deduction benefits identical to debit cards

Partnered brand services

·[Benefits partnerships] Offers benefits of partnered brands for KONA CARD members
·[Card issue partnerships] Jointly plans and issues partnership cards with additional benefits and identities of partnered brands
·[Platform partnerships] Establishes and operates the brand's own pre-payment services
·[Marketing partnerships] Plans and operates joint promotions utilizing the cards

IoT Platform

KONA I's identification technology, together with IoT, is creating new value for objects and opening up a safer, more convenient world.

KONA DM & FOTA

KONA DM & FOTA conforms to the DM global standard specification enacted by OMA, and offers stable services to countless devices around the world. KONA's DM & FOTA Solution combines an IoT element known as "CARDS"(Connectivity, Autonomous, Real-time, Data, Security) to provide unique value for mobile phones and all other devices.

IoT Security Platform

IoT services are offered in various forms, from massive IoT platform bases such as AWS IoT, MS Azure, and IBM Watson to small-scale systems.
KONA I's IoT security platform can be applied to all TLS/DTLS based IoT services, and guarantees IoT devices and platforms to install safe credentials.

KONA Things Platform

KONA Things is an Open API IoT platform based on the international standards of oneM2M and LWM2M(Lightweight M2M). Through KONA Things, new value can be given to objects, with greater value and more benefits to be offered to customers.

Solution

KONA I offers the complete solution required for issuance and management of smart cards as well as security and authentication solutions tailored to each customer.

CPS(Card Perso System)

KONA CPS is a new solution for issuance of IC cards that can manage the entire life cycle of IC cards and applications.
It allows the use of all cards from open source platforms(JAVA, Multos) to closed source cards, and can be used in both large and small scale card issuing machines.

K-CCS

K-CCS(Chip to Cloud Server) refers to storage designed to safely store and utilize important information in the SE Array via H/W format as SE increases in capacity and performance.

SCMS

KONA SCMS is a smart card integration management system that enables the safe and efficient use of data. It allows banks, card companies, telecommunications companies, and any card issuer who wishes to issue smart cards to register and issue smart cards for distribution among general customers, and, to encourage continuous use, supports downloading of new programs inside the chips for safe and efficient usage of data.

KONA Authentication Service

KONA Authentication Service is a COMBI Card based service equipped with a certificate inside its IC chip and through which electronic signatures can be provided safely and conveniently via NFC.

TSM(Trusted Service Manager)

TSM is a term which encompasses the entire system infrastructure, providing services using the NFC payment environment to end-users in a consistent and stable manner. SP(Service Provider) and MNO(Mobile Network Operator) can construct a TSM system on their own or consign the service provision rights to a TSM business for provision of NFC service to end users. KONA TSM Solution has been created in accordance with the global standards, and is capable of establishing a stable system in a short amount of time while also managing all types of SE(UICC, embedded SE, micro SD, IC Card, etc.).

FIDO U2F

FIDO U2F is a safe and convenient means of authentication. As one of the component models of FIDO, U2F is a secondary authentication that is safer and more convenient than existing secondary authentication methods. It can provide both USB type and NFC card types as form factors.

CA System

A solution that conforms to domestic and international standards and provides CA, RA, OCSP, and API to offer PKI services under various environments. CA manages authentications, RA manages users or devices, and OCSP provides real-time authentication status information.

PKI Security Token

PKI, based on identification solutions, enables purchase of Java Card applet, PKCS Microsoft CSP Middleware, and Certificate Management Tool, etc. all in one package, and customized production is also possible to fit customer needs.

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