MK smart
Smart Digital Security

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SMART
DIGITAL
SECURITY

COMPANY PROFILE
MK SMART

mksmart.com.vn

FOREWORD

Dear Valued Customers and Partners,

For over 20 years, MK Smart has proudly led the card industry in Vietnam, providing high-quality products to millions. While many may not realize it, they carry an MK Smart product daily. Our products extend beyond Vietnam, reaching Southeast Asia, Africa, and many other countries, becoming an essential part of daily life for millions. MK Smart stands out not only for its expertise in smart card production but also for its core technology in electronic passports - a field we are heavily investing in and developing significantly.

In Vietnam, many pieces still need to be connected, presenting an opportunity for MK Smart to assert its pioneering role. We are continuously working to connect businesses and build a comprehensive ecosystem to enhance the global competitiveness of Vietnamese companies. At the same time, we aim to overcome the challenges posed by rapid technological changes and evolving market demands.

With a solid technological foundation, MK Smart is committed to staying ahead of new technological trends. We pledge to continue researching and developing innovative products and services, contributing positively to the country's economic and social development and digital transformation.

Sincerely,
MK Smart

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1. OVERVIEW

We want our business to be able to participate in the global core technology supply chain, contributing to the development of Vietnam and other countries. Over 25 years of building and developing MK Group, I have always been steadfast in the philosophy of 'built to last' rather than 'built to sell.' We will continue to realize the goal of 'Manufacturing leadership - Technology ownership - Continuous innovation' with a Vietnamese spirit.

Mr. Nguyen Trong Khang - Chairman of MK Group

2003
Established MK Smart and constructed Vietnam's first smart card manufacturing factory in Quang Minh Industrial Zone, Me Linh, Hanoi

2005
Received three SAS certifications from GSMA, VISA, and Mastercard for chip card production security.
Launched EMV-compliant chip card personalization solutions.
Established an additional plant at the Hi-Tech Park in Ho Chi Minh City

2010
MK Smart launched its chip card production line and established the Research and Development (R&D) Center for card technology

2014
MK Smart became a strategic partner of Dai Nippon Printing (Japan). Established an R&D center in Ho Chi Minh City to research operating systems and applications for chip cards

2015
Achieved JCB card production certification

2017
Attained UPI card production certification

2021
MK Smart was selected to implement the project "Providing Vietnam's Chip-Based National ID Card"

2022
MK Smart's smart card was awarded the 'Vietnam Value' title in 2022

2023
Provided chip inlays for Vietnamese e-passports

2024
Attained two prestigious international security certifications: INTERGRAF ISO 14298:2021 and INTERGRAF ISO 15374:2023

ABOUT MK SMART

Established in 2003, MK Smart Joint Stock Company has emerged as Southeast Asia's leading manufacturer of smart cards and security solutions.

In 2014, Dai Nippon Printing (DNP), a global leader in printing technology from Japan, became a shareholder in MK Smart. Our mastery of core smart card technologies, including financial cards, SIM cards, electronic IDs, and electronic passports, positions us at the forefront of the industry.

Our unwavering commitment to quality, security, production expertise, and innovation is evidenced by numerous certifications from esteemed domestic and international institutions such as NAPAS, VISA, MasterCard, JCB, UPI, and GSMA. We continuously endeavor to deliver high-quality and innovative products and services to our valued clients.

VISION

To become the leading trusted partner for emerging markets in smart card products and security document solutions.

MISSION

- Support MK Smart's customers, partners, and shareholders in achieving sustainable growth in the digital era.
- Build a prosperous community for MK Smart's members, customers and partners

CORE VALUE

We build our core values around 5 criteria:
- Commitment
- Trust
- Respect
- Open-mindedness
- Teamwork

OUR MARKET

We are present in over 20 countries and are proud to be a trusted partner in the global supply chain for smart cards and security documents.

ATLANTIC OCEAN

PACIFIC OCEAN

PACIFIC OCEAN

INDIAN OCEAN

Japan

Bangladesh

Nepal

Bhutan

Myanmar

Laos

Haiti

Philippines

Ethiopia

Nigeria

Cameroon

Campuchia

Burundi

Indonesia

Tanzania

Peru

East Timor

Brazil

Mozamoique

South Africa

2. FACILITIES AND PRODUCTION CAPABILITIES

05 factories
MK Smart owns 4 smart card manufacturing plants and 1 secure printing facility.

600 employees
A team of over 600 specialists and expert engineers.

300 million cards per year
The production capacity of our manufacturing system reaches up to 300 million cards per year, including:
- Chip card production capacity: 34.7 million cards per year
- Inlay production: 2 million sheets of 24 cards per year
- Outsourcing personalization: 37.7 million cards per year

02 R&D centers
2 R&D centers for smart card technology and personalization, located in Hanoi and Ho Chi Minh City.

CERTIFICATES & ASSOCIATION MEMBERSHIPS

MK Smart is the first and only company in Vietnam to hold certification for producing financial cards from major global card organizations such as VISA, Mastercard, JCB, UPI, and NAPAS. We also have the GSMA's SIM S.A.S certification for SIM card production and other critical certifications from card organizations, security printing, and verification bodies, including ICAO, ISO 14000, INTERGRAF ISO 14298:2021, and INTERGRAF ISO 15374:2023.

MK SMART'S CORE TECHNOLOGY
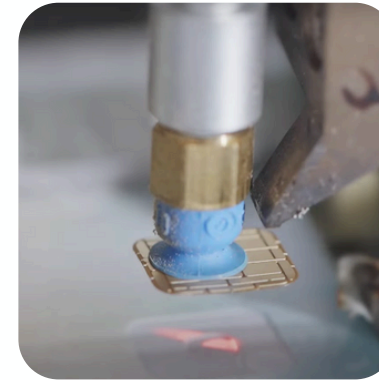
Owning chip operating systems
MK Smart proudly owns two advanced chip operating systems: MKLOTUS and MKCOS. With our proprietary chip operating systems, MK Smart ensures absolute data security for our clients and offers flexible customization of features to meet the specific requirements of each project.

Comprehensive smart card ecosystem
Our comprehensive smart card ecosystem offers a range of solutions, from secure payment authentication and confidential identity verification to record management and enhanced customer experience. We help businesses optimize processes, strengthen interactions, and build customer loyalty.

Printing and Card Issuance Technology
Our sharp printing technology and vivid colors, combined with premium card materials, ensure that our cards remain durable and elegant. We also offer a range of surface effect designs to help you create unique and striking cards.

MKCPS Solution
The MKCPS solution provides comprehensive management of the card issuance process, including encoding, printing, and personalization of cards to meet EMV, ICAO, and transportation standards such as Felica, Calypso, and Mifare. It also supports desktop printing, rapid issuance, and kiosk services, ensuring high security and flexible customization.

Device Manufacturing
With our capability to manufacture devices and software for card issuance, personalization, and quality control (QC), each smart card issued is guaranteed to meet the highest quality standards and specific requirements of each customer.
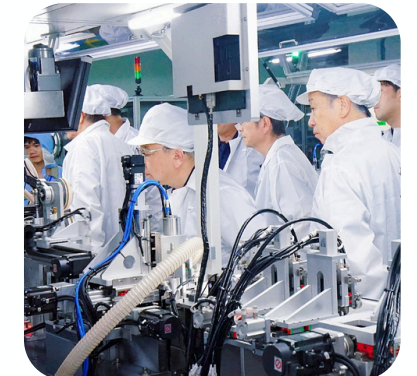
Advanced and Modern Infrastructure
With a modern manufacturing facility, advanced technology, and an internationally certified quality management system, MK Smart is committed to delivering high-quality and reliable products.

3. PRODUCTS AND SOLUTIONS
3.1. SMART CARDS

Diverse Materials and Effects

Card Body: PVC, PC, Composite, transparent materials, metal, wood, leather effect, recycled materials, standard and non-standard ISO sizes.
Card Effects: 3D hologram, metal stickers, UV spot coating, hot stamping, laser engraving, core rainbow, PVC rainbow, scented cards, unique magnetic stripes (small, hidden, colored).
Wearable Payment Devices: necklace, ring, bracelet, tag...

Versatile Card Interfaces

Contact, Contactless, Dual-interface, Hybrid

Multi-Application

We offer smart cards for various applications, including identification, payment (with optional biometric authentication module), SIM/e-SIM, access control, e-ticketing, loyalty cards, and gift cards.

Compliance with Standards

We adhere to the standards set by major global card organizations such as VISA, Mastercard, JCB, UPI, NAPAS, and GSMA. We also hold necessary certifications from card organizations, security printing, authentication, and industry associations.

Advanced Security Printing

Our advanced security printing technologies include tactile impression, UV security printing, micro text, security overlays, laser engraving, holograms, and high-level security patterns.

Modern Manufacturing and Security Technology

We utilize advanced microchip production and embedding technologies, integrating biometric authentication with Match-on-Card (MoC) technology. Our security solutions also include methods such as OTP (One-Time Password), PKI (Public Key Infrastructure), and 2FA (Two-Factor Authentication).

BUSINESS FIELDS

MK Smart owns two proprietary operating systems, MKLOTUS and MKCOS, enabling us to have complete control over our core smart card technologies. This advantage empowers MK Smart to actively research and develop value-added applications that meet the market's and our clients' needs.

01 GOVERNMENT

PRODUCTS
- e-ID Card
- Driver's Licenses
- Health Insurance Cards
- Multi - Application Smart Cards: These cards integrate and support various applications within a single chip, enhancing management and operational capabilities.

SERVICES & SOLUTIONS
- Security Design Services
- Personalization: Utilizing technologies such as thermal printing, embossing, debossing, and laser engraving.
- Card Folding and Packaging Services: Ensuring quality and security throughout shipping.
- Secure Printing Services: We offer security printing solutions, such as holograms, UV printing, micro text, and Kinegram security overlays, to prevent counterfeiting.

02
BANKING AND FINANCE

PRODUCTS

- International EMV-compliant chip cards (VISA, MasterCard, JCB, UPI) and domestic NAPAS chip cards (VCCS)
- Contact, contactless, and dual interface cards
- Multi-application chip cards allow the integration and utilization of multiple applications within the chip (payment applications, digital signatures, biometrics...)
- Smart wearables devices (Payment wearables devices) and EMV-compliant stick labels (VISA, MasterCard)

SERVICES & SOLUTIONS

- Comprehensive issuance, personalization, sorting, packaging, and PIN Mailer solutions
- Chip card personalization using a variety of technologies: thermal printing, embossing, debossing, laser engraving, and digital printing
- Outsourcing services for card folding and packaging
- Card On Demand solutions with specialized technology to ensure quality
- Quality control solutions for cards, packaging, and mailings
- ePIN delivery solutions

03
TELECOM

PRODUCTS

- SIM Cards: SIM, USIM, 5G SIM, PKI SIM, etc.
- Phone Recharge Cards
- M2M/e-SIM developed on the MK smart operating system, used for wireless IoT devices in SIM or IC form for direct soldering onto circuits

SERVICES & SOLUTIONS

- Providing e-SIM remote provisioning systems and services via SMDP for IoT devices using e-SIM, as well as for smartphones such as iPhone, Samsung, Xiaomi, etc., that support e-SIM.
- Integration of SIM cards with PKI authentication applications, biometric verification, and one-time password (OTP) methods.

04
PUBLIC TRANSPORTATION

PRODUCTS
- Public Transportation Tickets (e-Ticketing): Felica, Calypso, Mifare, etc.
- Wearable Devices and stickers compliant with EMV standards (VISA, MasterCard) for wireless payments, applicable to public transportation systems.

SERVICES & SOLUTIONS
- Outsourcing Services: Personalize, fold, and package transportation tickets to ensure quality and security during distribution.
- NFC Payment Integration: Embedding direct NFC payment features into transportation tickets allows users to top up and make payments easily when using public transportation.
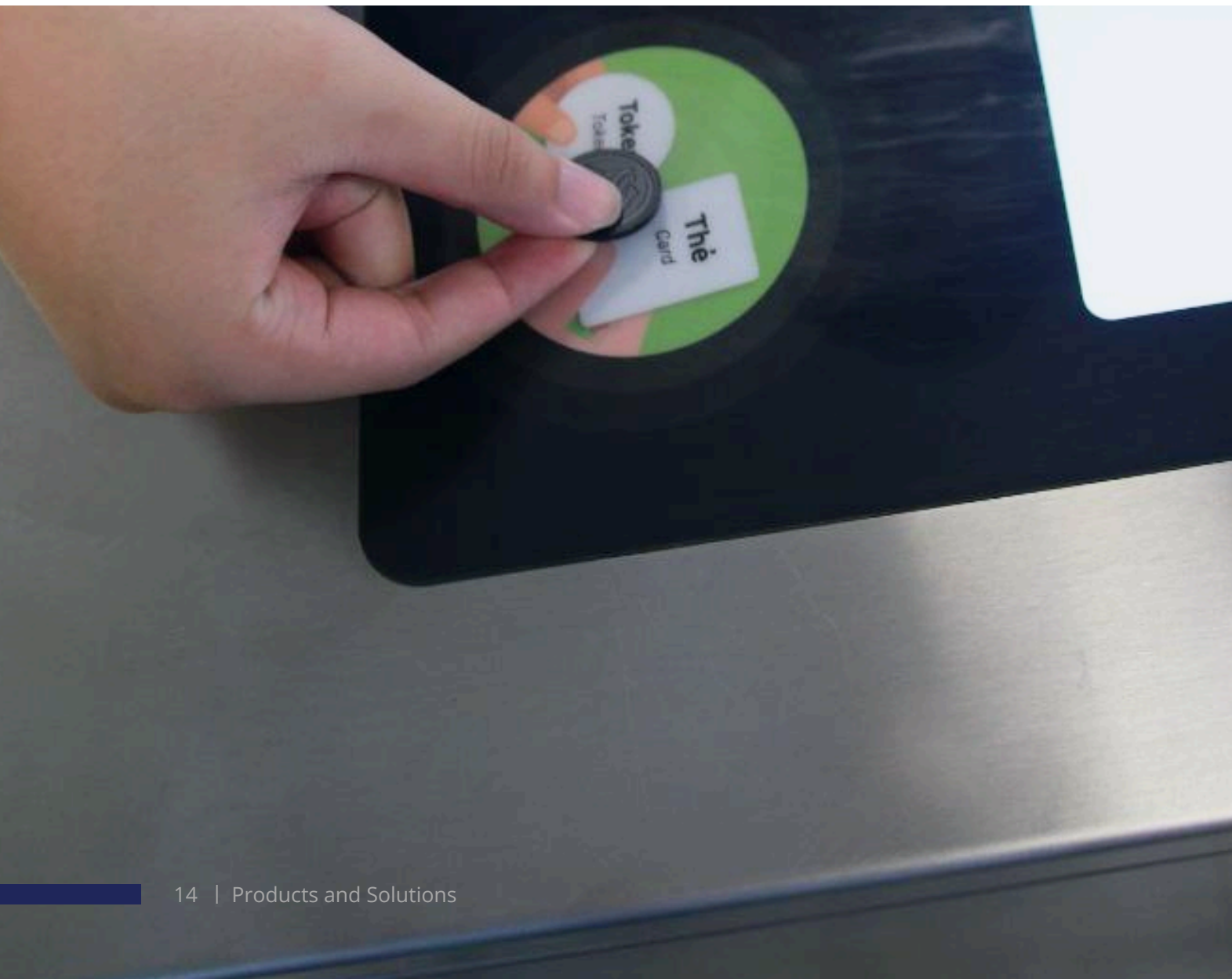
05
BUSINESS, HEALTHCARE, AND EDUCATION

PRODUCTS
- Employee, Student, and Faculty ID Cards
- Time & Attendance Cards, Access Control Cards
- Prepaid Cards, Loyalty Cards, Reward Cards, Warranty Cards
- Amusement Park Cards, Cafeteria Cards
- Medical Cards, Health Insurance Cards
- Parking Tickets
- Scratch Cards (Plastic, Paper)
- Other Smart Card Products: Magnetic stripe cards, contact cards, contactless cards, dual-interface cards, hybrid cards (half-size, 1/3 size)

SERVICES & SOLUTIONS
- Smart School Solutions
- Access Control Solutions (ACS)
- Loyalty and Payment Solutions

3.2. SECURITY DOCUMENTS

With our state-of-the-art security printing facility in Thang Long Vinh Phuc Industrial Park, MK Smart proudly offers comprehensive products and solutions for government agencies.

We are committed to meeting the stringent requirements for security, information safety, and management efficiency and to contributing to the optimal operation and security of governmental institutions.

e-ID card

An e-ID card integrates a chip that stores personal information according to ICAO standards. It includes PKI digital signatures, data encryption mechanisms, and complex design and printing to prevent counterfeiting.

e-Passport

The e-Passport is designed to prevent copying and counterfeiting and supports various applets, including identification applications compliant with ICAO standards, biometric applications, and PKI digital signature applications.

Driver's License

Producing driver's licenses can include integrating smart chips to store and secure driver information.

Other Security Documents

We provide certificates, birth certificates, marriage registration documents, and other legal papers with advanced anti-counterfeiting and security features.

SERVICES & SOLUTIONS

Security Design Services

MK Smart develops intricate security designs to prevent counterfeiting and fraud. Design elements such as security patterns, microtext, holograms, and other complex security features enhance document safety and authenticity.

Security Printing

MK Smart utilizes advanced printing technologies to ensure the highest level of security for documents, including security patterns, micro text, Optically Variable Inks (OVI), complex Guilloche security elements, security overlays, dithering screen printing, contour screen printing, Aura effects, UV printing, Rainbow printing, laser engraving, and other intricate security features (such as Art screen, dash-X, Maze, Kscope, Eclipse).

Personalization Solutions

Modular architecture with the latest security printing technology, which allows issuers to choose from high-volume personalization systems for centralized card issuance or desktop personalization machines for distributed card issuance

Quality control solution

The post-personalization card quality control system is ideal for fully personalized smart card checking in various industries, including financial and identity cards. It is also suitable for card programs that require quality control of personalized data on the chip or surface printing.

Other applications

Security documents with integrated chips verify and identify citizens in various sectors, including public administration services, financial banking, telecommunications, healthcare, and insurance.

3.3. OTHER PRODUCTS AND SERVICES

Invoice and form printing services

- Folded invoices (for EDC payment acceptance machines, receipts/expenditure/inventory records, PIN code envelopes for accounts, product warranty forms, delivery notes, advertising letters, envelope registration forms, employee salary sheets...)
- Rolled invoices (ATM automatic withdrawal machines, ATM receipts/logs, POS machines, automatic queue machines/item deposit lockers/lottery ticket printers...)
- Transparent window envelopes.

DTP – Desktop Publishing

- Design and processing services for pre-printing materials such as products, catalogs, flyers, notebooks, and digital documents.
- Image cropping and editing services utilizing specialized software

BPO – Business Process Outsourcing

- Processing various types of customer data based on data provided by customers. Including:
- Data classification services
- Information verification and sensitive information masking services
- Data validation services
- Data entry services

4. WHY MK SMART?

Experience

With over 20 years of in-depth experience in the smart card and security industry, MK Smart is committed to partnering with customers and partners to provide high-quality products and solutions that meet diverse market needs.

Mastering Core Technology

Thanks to our mastery of core technology, MK Smart can innovate and customize solutions flexibly. This ensures that each product is tailored and optimized to meet each customer's specific needs.

Professional Services

MK Smart provides professional services, including expert consultation, tailored solutions, and high-quality customer support. Our specialists ensure that every client receives dedicated and practical assistance, addressing their unique needs and requirements precisely and efficiently.

Highly Qualified Team

MK Smart boasts a highly qualified team of professionals with extensive smart card technology and expertise in security solutions. Our skilled workforce is committed to delivering exceptional service and innovative solutions, ensuring that we meet and exceed the expectations of our clients and partners.

Global Partner Network

MK Smart has established a robust global partner network, enabling us to collaborate with leading organizations and stakeholders worldwide. This extensive network supports our international operations, enhances our service delivery, and helps us provide comprehensive solutions tailored to diverse markets and regions.

5. SOCIAL RESPONSIBILITY

We prioritize and integrate social activities as an essential part of our annual operations. MK Smart's social initiatives focus on supporting students and teachers in remote areas, aiding victims of natural disasters domestically and internationally, and participating in various meaningful volunteer activities.

These efforts not only help MK Smart build strong relationships with the community but also reflect MK's positive cultural mission, which is passed down through generations.

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Smart card factories

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Ho Chi Minh City: Lot I3-3, N2 Rd., Saigon Hi-tech Park, District 9, Thu Duc City | Tel: (+84-28) 37361446

Ethiopia | MK Digital Security Solutions PLC
ICT Park Factory, Bole, Woreda 11, Addis Ababa, Ethiopia | Tel: (+251) 91 121 5100

Brazil | Alterosa MK
City of Contagem, State of Minas Gerais, Av. Tom Jobim, no. 2700, Cidade Industrial

Security printing factory
Vietnam | MK Smart Vinh Phuc Joint Stock Company
Lot C-1A, Thang Long III Industrial Park, Thien Ke Commune, Binh Xuyen District, Vĩnh Phuc Province, Vietnam