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About Us

Competitive Advantages of ETUNNEL

- Cutting-edge biometric technology backed by extensive R&D.
- Proven track record of reliability and scalability.
- Compliance with international security standards.
- Customizable solutions tailored to diverse industries.

Mission

"Empowering a secure and seamless world through innovative biometric authentication, safeguarding your identity, privacy, and peace of mind."

Vision

"To be the global leader in biometric security, creating a future where trust and technology converge for a safer, smarter, and more connected world."

Slogan

"Reliable security your trusted partner in safeguarding individuals, businesses, and nations."

ETUNNEL

Company Information

ETUNNEL Inc.

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Trustworthiness

"ETUNNEL delivers dependable security solutions designed to meet the unique needs of individuals, corporations, and government agencies.

By leveraging advanced biometric technology, we prioritize the protection of sensitive data, critical assets, and operational integrity for our diverse clientele."



Innovation

"As a pioneer in biometric technology, ETUNNEL is dedicated to continuous research and development, offering innovative solutions that stay ahead of ever-evolving security challenges.

Through cutting-edge advancements, we empower individuals, organizations, and governments to build a safer and more connected future."



Security

"Protecting data, assets, and infrastructure lies at the core of ETUNNEL's mission.

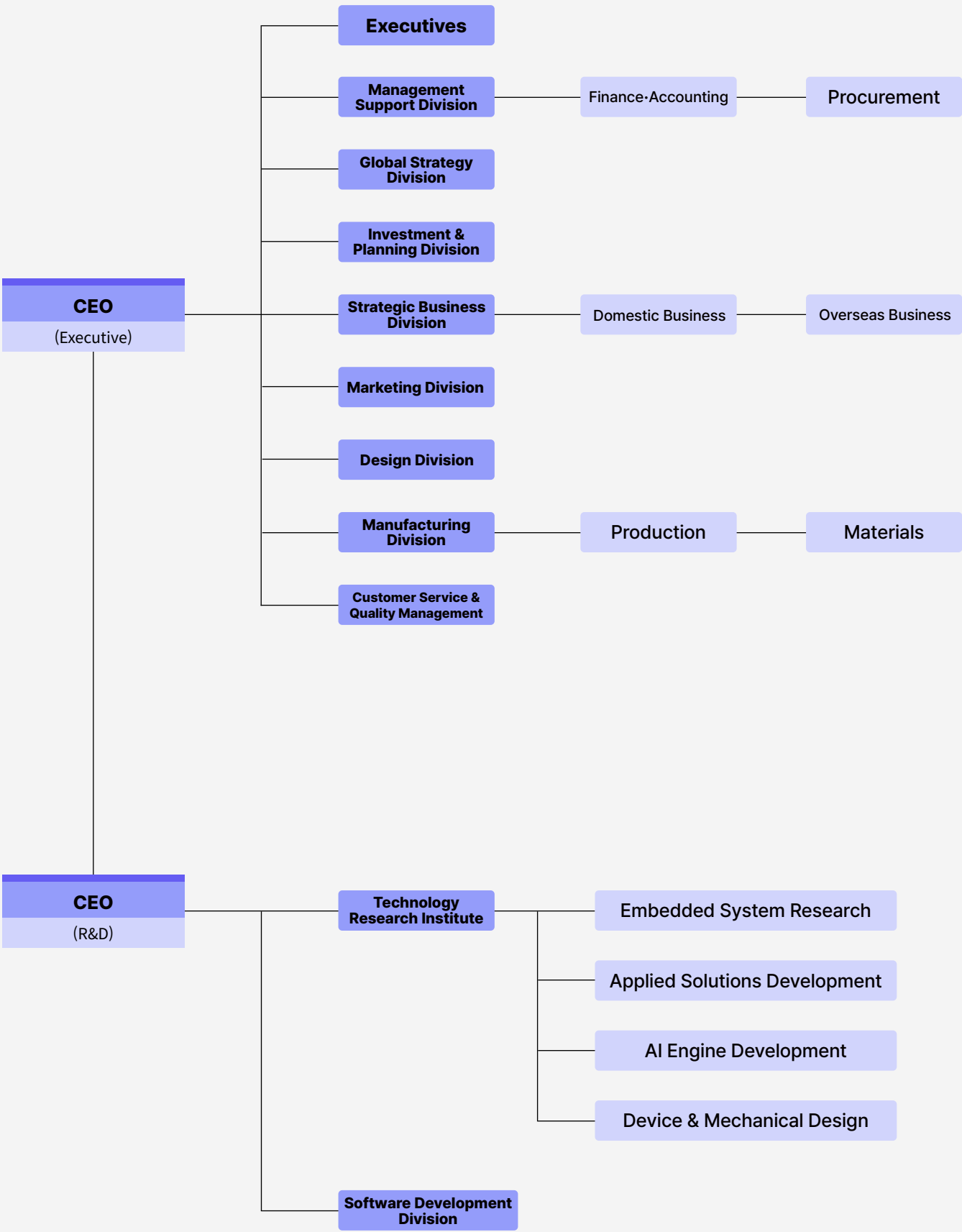
We provide scalable, robust security systems that deliver seamless protection across digital and physical environments, enabling secure operations for individuals, businesses, and public institutions."



Customer-Centricity

"ETUNNEL is committed to understanding and addressing the unique security needs of individuals, corporations, and government agencies.

Our tailored, user-friendly solutions are designed to inspire trust, build resilience, and deliver peace of mind—ensuring security at every level."



HISTORY

- 2021

12

Established ETUNNEL Inc.
Launched the finger vein authentication security solution “VEIN-X.”
- 2022

01

Started development of finger vein authentication software wallet.

06

Signed an MOU with the 4th Industrial Revolution Special Committee of the Ruling Party of the Republic of Korea.

09

Signed an MOU with WaveOn Cor. for “Strategic business collaboration”
Signed an MOU with Busan for “A Leap from Smart City to Secure City.”

10

Participated in BWB 2022.

11

Won the Grand Prize at the 14th Seoul Success Awards in the field of the 4th Industrial Economy.

12

Participated in the 2022 Korea Enterprise Awards and won the Grand Prize in the field of R&D Innovation.
- 2023

05

Collaborated with a UN-affiliated organization for ITU employee identification fingerprint authentication smart card PoC completion.
Began development of the “P2N2 AI Engine” for integrated biometric algorithms.

09

Received certification from KISA for facial recognition algorithms.

11

Developed “Disposable fingerprint self-enrollment device” for fingerprint payment cards.
- 2024

01

Signed a contract with GKNOT DMCC for the global marketing and supply of ETUNNEL’s biometric authentication technology and security devices.

02

Participated in MWC 2024 Barcelona

06

Participated in Info Security Europe London
Participated in Identity Week Europe Amsterdam.

08

Received certification from KISA for finger vein recognition algorithms.
Selected as a supplier of smart cards for ITU employee by the International Telecommunication Union (ITU) under the UN.

10

Participated in Japan IT Week Tokyo.
- 2025

01

Launched the world’s first finger vein hardware wallet.
Launched a new version of finger vein authentication.
Participated in CES Las Vegas U.S.

07

Signed a Business Agreement with G-Knot for “Global Market Expansion”

12

Signed a Business Agreement with RaonSecure for “Biometric Authentication Platform Collaboration”

Why Biometrics?

01. Security Issues

RFID Access Badges / Leaked ID & Password

02. Access Control

Fingerprint / Facial / Finger Vein Access Control

RFID Access Badges

- **Easy Card Cloning**

RFID access cards can be easily cloned.

- **Risk of Unauthorized Use**

There is a risk of unauthorized use by others if the card is lost or stolen.



Leaked ID & Password

- **Password Breach and Theft**

Over 80% of cybersecurity incidents are caused by the theft and misuse of user passwords.

- **Complex Passwords**

Management deficiencies due to the inconvenience of changing/remembering passwords.

Fingerprint Access Control

- **Unique and Secure**

Each fingerprint is unique, making it highly reliable for secure authentication.

- **Fast and Convenient**

Offers quick and easy authentication without the need for passwords or physical keys.

- **Versatile**

Applicable to both physical and digital security systems.

- **User-Friendly**

Simple to use and widely accepted for its efficiency and reliability.



Facial Access Control

- **Convenient**

No need for additional devices or complex passwords, offering a seamless authentication process.

- **User-Friendly**

Enhances user satisfaction and simplifies access control procedures.

- **Accurate**

Advanced algorithms ensure precise matching of facial features.

- **Secure**

Provides reliable and secure access control.



Finger Vein Access Control

- **Highly Secure**

Captures unique finger vein patterns using infrared technology, which are difficult to replicate.

- **High Accuracy**

False acceptance rate is less than 0.1%, minimizing incorrect identification.

- **Anti-Spoofing**

Requires a living finger with blood flow, ensuring resistance to fraudulent attempts.

- **Environmental Resilience**

Unaffected by dust, moisture, or foreign substances, making it reliable in challenging settings.

- **Wide Applicability**

Suitable for industries needing high security, such as banking, finance, and construction.

- **User-Friendly**

Combines security, accuracy, and convenience for effective authentication.

Our Technology

01. Biometrics Technology

Achieved KISA Certification in Biometrics

02. P2N2 Biometric Authentication Integration Module

P2N2 AI Engine

The development of the integrated biometric authentication algorithm "AI ENGINE P2N2" has made a groundbreaking advancement in biometric authentication security technology.

It can be applied to various biometric authentication methods such as finger vein, facial, fingerprint, iris, and palm vein, which have all previously operated with different algorithms, without additional modification.

Through this, the biometric recognition speed and AI learning speed have more than doubled, and the speed and accuracy of the process have also been greatly improved.

AI Core Algorithm

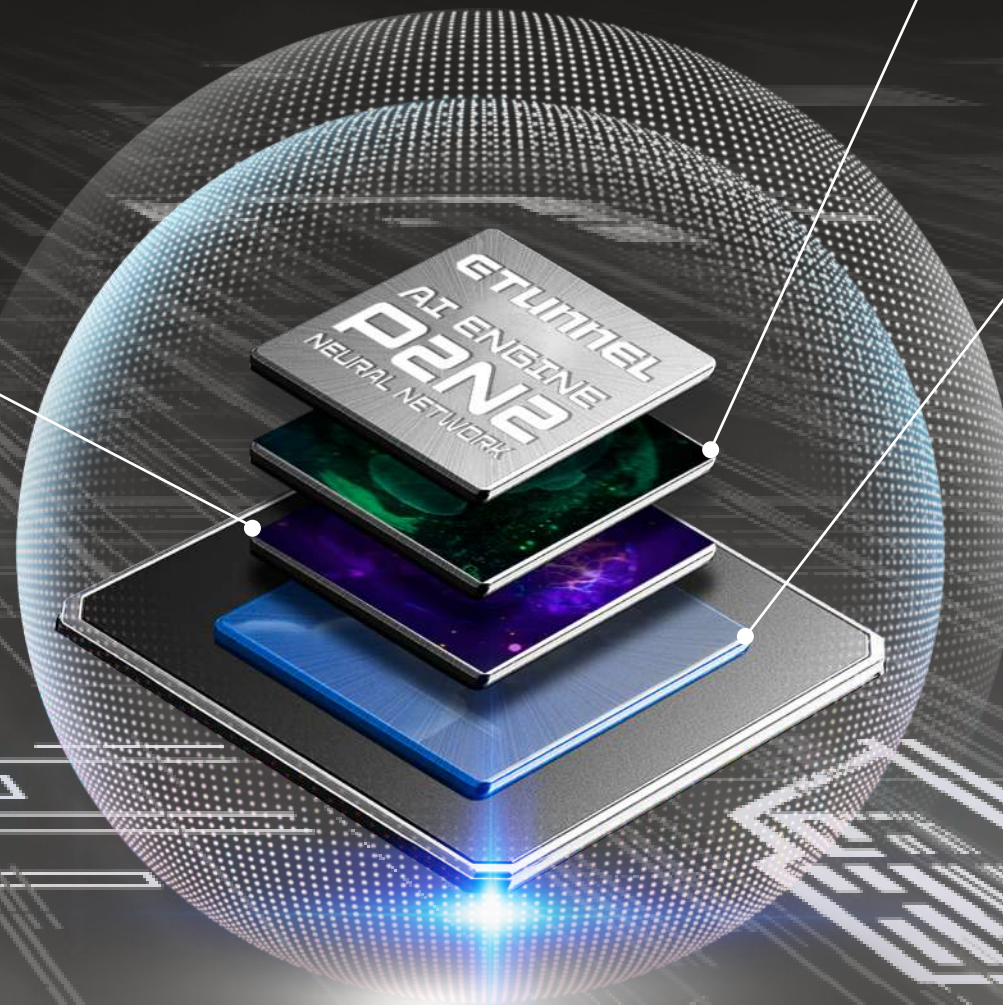
AI learning speed improved by more than 2 times by using the optimization accuracy

Biometric Algorithm

Biometric recognition speed more than doubled

Neural Network

Rapid detection and recognition of biometric features



The P2N2 AI Engine

is a cutting-edge solution capable of handling all types of biometric recognition within a single module.

- **All-in-One Solution**

P2N2 AI Engine handles all types of biometric recognition in a single module.

- **Advanced Technology**

Developed by ETUNNEL Inc., powered by a neural network algorithm optimized for biometrics.

- **High Performance**

Achieves over 2x faster biometric data processing compared to existing technologies.

- **Versatility**

Supports facial, fingerprint, finger vein, palm vein, and iris recognition without modifications.

- **Improved Efficiency**

Reduces learning time by more than 200% compared to traditional neural network technologies.

- **Enhanced Accuracy**

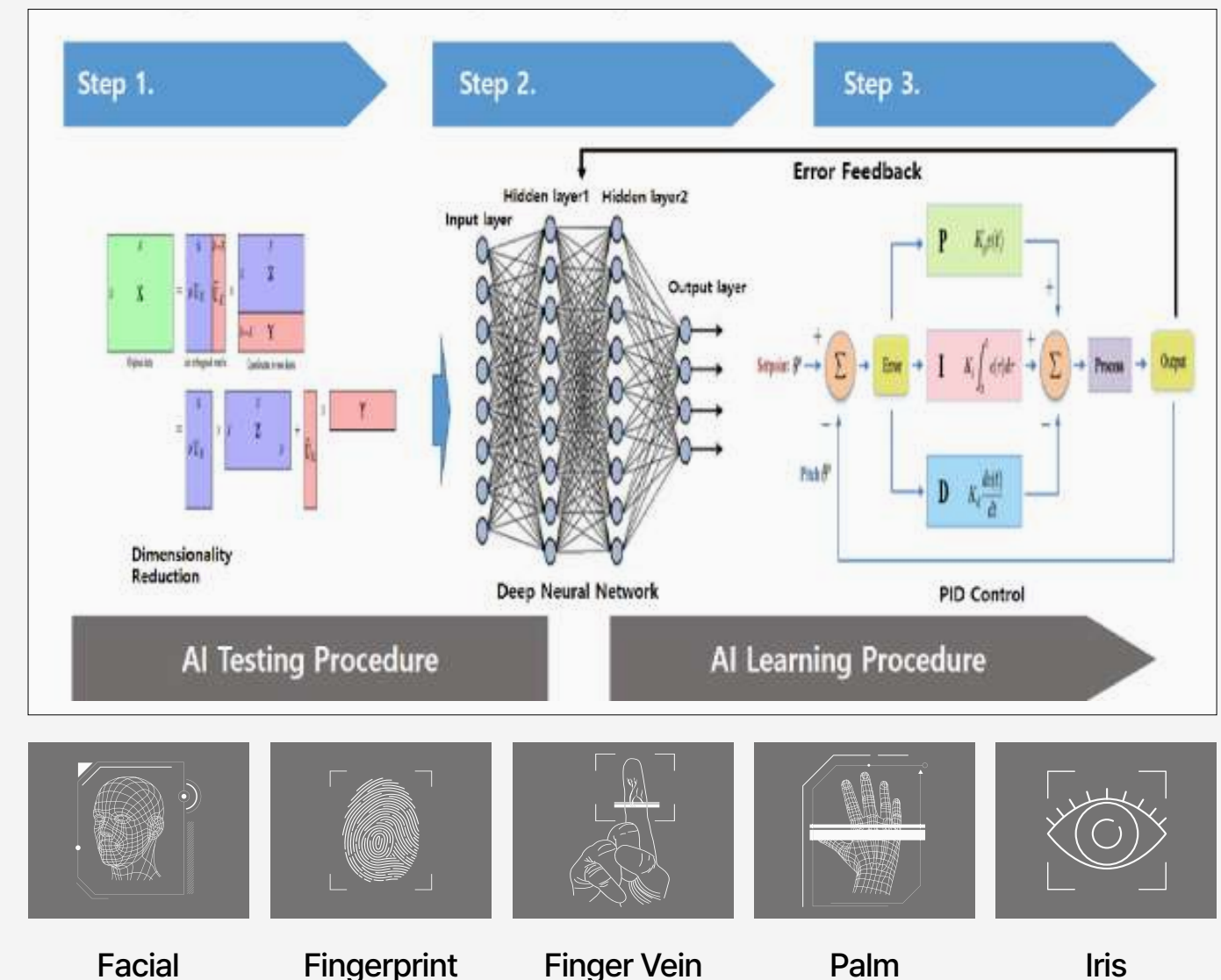
Integrated PIP controller shortens training time and improves recognition accuracy.

- **Adaptability**

Optimized for various authentication methods, including fingerprint, face, iris, and finger vein

P2N2 AI Engine

P2N2 Biometric Authentication Integration Module



Biometrics Technology

"We possess self-developed biometric authentication algorithms for fingerprint, iris, face, and finger vein recognition"



"Achieved KISA Certification in Biometrics"

KISA certification in biometrics proves that the technology is reliable, secure, and compliant with regulatory standards, enhancing its market credibility and trustworthiness.

Our Products

- 01. Fingerprint Smart ID
- 02. Finger Vein Authentication
- 03. Multi-modal Authentication Method



Fingerprint Smart ID

Physical Access Control
PC Logon (Data/Program Access Control)

- Approval is granted after verifying that the fingerprint of the ID card holder matches.
- Eliminates the risk of unauthorized use due to loss or theft.
- Allows fingerprint registration using the provided case.
- Fingerprint information is encrypted and securely stored within the card
 - Eliminates the risk of biometric information leakage.
 - Complies with European GDPR standards.
- Compatible with all types of RF readers:
 - Can be used with existing RF systems.
- Currently supplied to the UN International Telecommunication Union (ITU), which sets international standards for communications and security.
- Expected to be adopted by all UN agencies worldwide.



Finger Vein Authentication

Physical Access Control
PC Logon (Data/Program Access Control)

- **Highly Secure**
 Nearly impossible to forge or falsify, making it one of the most secure biometric authentication methods.
- **No Spoofing**
 Requires a live finger with flowing blood, making spoofing extremely difficult.
- **Detection of Inanimate Objects**
 Inanimate objects, such as sausages or other items, cannot be used for registration.
- **High Reliability**
 Unaffected by environmental factors like dust, dirt, and moisture, ensuring consistent performance in challenging environments (e.g., construction sites, warehouses, or outdoor settings).
- **User-Friendly**
 Gains popularity due to its high level of security, accuracy, and ease of use.

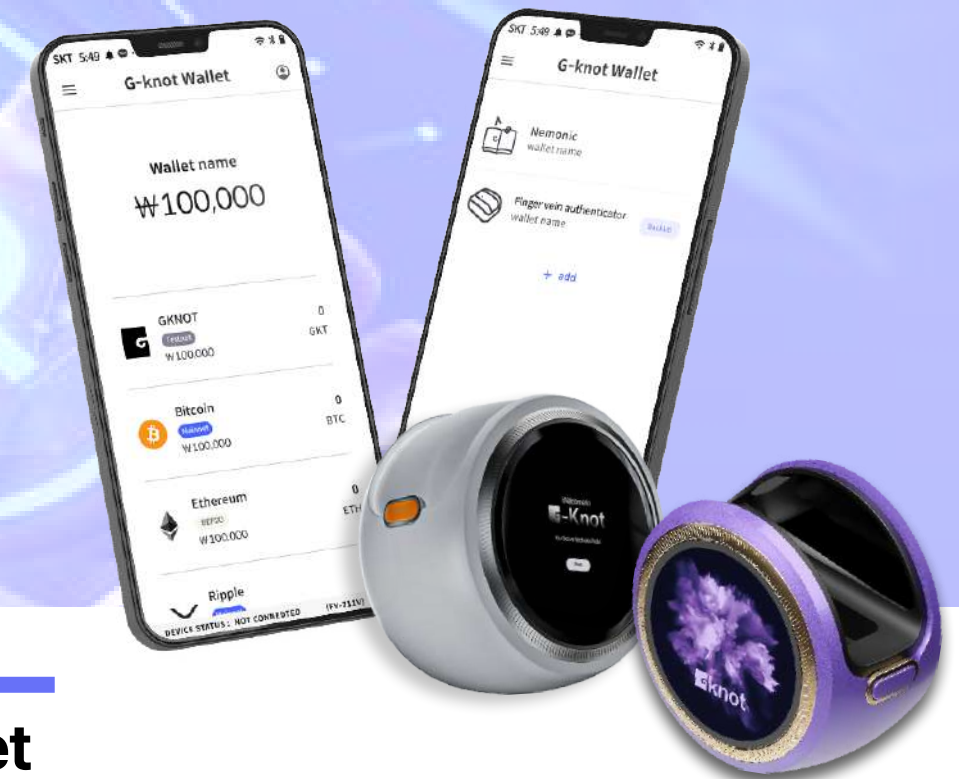


Multi-modal Authentication Method

The multimodal method using the P2N2 AI Engine
(biometric authentication integrated module)

- **Enhanced Security**
 Combines multiple biometric authentication methods (e.g., fingerprint, finger vein, facial recognition) for stronger identity verification.
- **High Accuracy**
 Reduces false positives and negatives by cross-verifying multiple biometric data points.
- **Spoof Prevention**
 Difficult to bypass or fake due to the combination of modalities, ensuring greater reliability.

Finger Vein Crypto Wallet

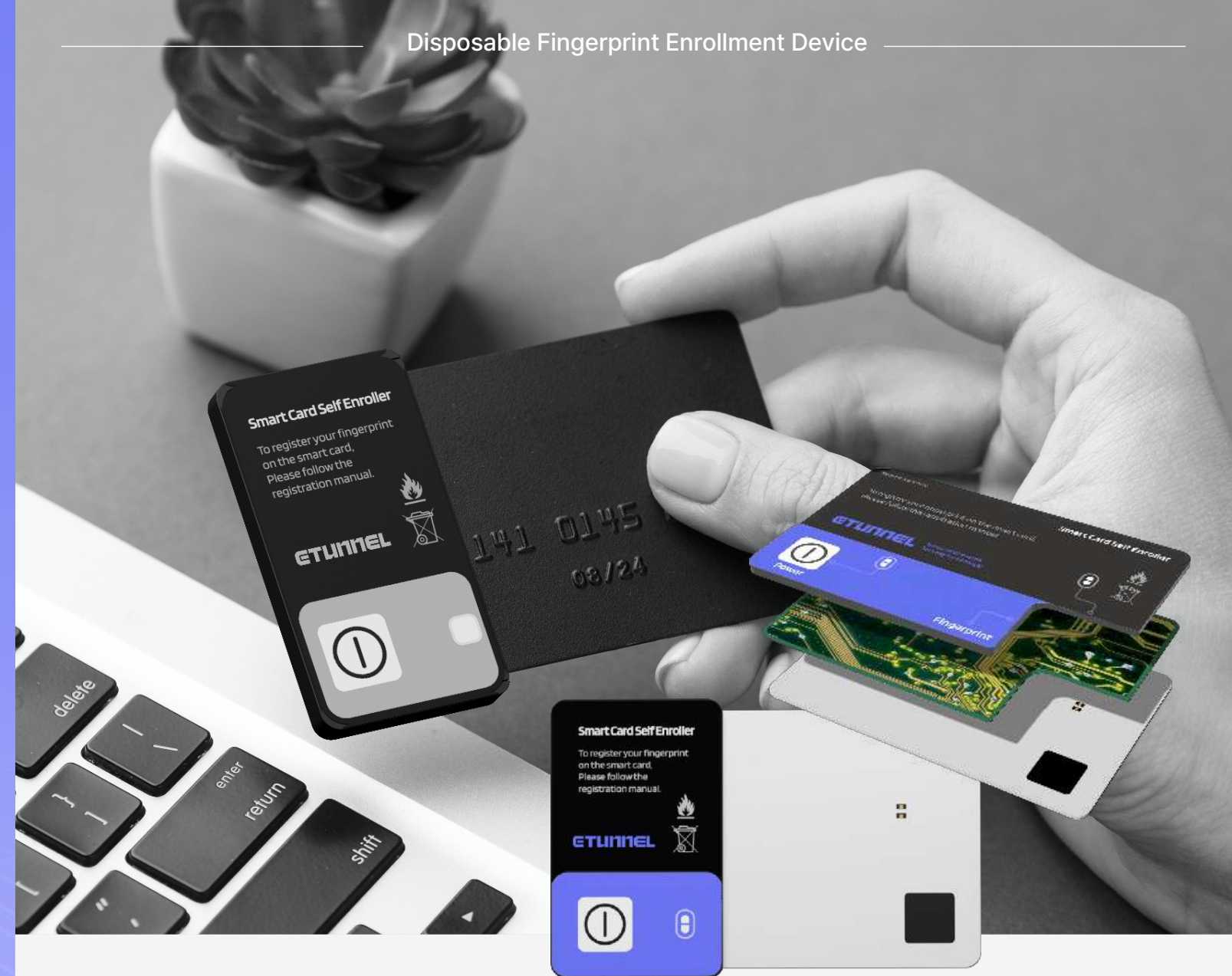


G-KNOT Wallet A Revolutionary Decentralized Digital Wallet

The G-KNOT Wallet leverages advanced finger vein technology, offering secure and innovative digital wallet functionality.

- **Simple Wallet Creation**
Private keys are seamlessly generated from the user's unique vein pattern by scanning their finger.
- **No Mnemonic Phrases**
Users no longer need to remember or store complex recovery phrases, as the wallet creation process is entirely biometric-based.
- **Enhanced Security**
Every transaction requires finger vein authentication, ensuring robust protection against unauthorized access.
- **No Private Key Loss or Theft**
Private keys are generated and securely stored using the user's biometric information, making leakage or theft nearly impossible.
- **Easy Recovery**
Even if a hardware wallet is lost, users can effortlessly recover their wallets using biometric authentication, ensuring uninterrupted access.
- **No Hacks or Asset Loss**
Unauthorized access is prevented, even if the wallet device is acquired by someone else, as finger vein authentication is mandatory.

Disposable Fingerprint Enrollment Device



Fingerprint Self Enrollment Device for Credit Card

Eliminates the inconvenience of fingerprint registration

- Customers can self-register their fingerprints without visiting the bank, and only users

Why fingerprint Credit Cards?

- Eliminates the inconvenience of NFC card payment methods that require PIN entry for high-value transactions due to illegal payments made with payment terminals in public places like buses and subways.
- Reduces the risk of payment fraud related to theft, loss, and misuse.
- Banks and financial institutions can reduce costs associated with loss and theft.
- Skimming is impossible because the secure element is only activated when it matches the encrypted fingerprint template.

Delivery History

Delivery History



- Currently supplied to the UN International Telecommunication Union (ITU)
- Expected to be adopted by all UN agencies worldwide.

Client

• Public Sector



KOICA

DAEJEON
UNIVERSITY



• Private Sector



Delivery Type	Project Description	Client	Source Code Included	Remarks
Solution Development and Joint Project	- Joint development of a gate inspection system (AnyclickSCAN). - Development of a solution to monitor and inspect the security status of personnel visiting an IDC.	UNET Systems Co., Ltd.	No	
Solution Development and Supply	Development of a security gateway between hospital servers and public agency servers, installed at the National Health Insurance Service.	Korea Certification Authority	Partial	Includes technical components.
Solution Product Supply	- Delivery of full-stack solutions for Windows PKI (Public Key Infrastructure). - Development of Certificate Authority (CA), Registration Authority (RA), and client software.	Coretrust Co., Ltd.	Yes	
Solution Development and Supply	Development of a Windows-based PC One-Time Password (PC OTP) system for the security of gaming clients.	INITECH Co., Ltd.	No	
Solution Product Supply	Supply of a PKI-based Key Management Server (KMS) for secure storage of entry keys in electronic attendance systems.	Korea International Cooperation Agency (KOICA), Daejeon University, Industrial Cooperation Foundation	Yes	Includes contracts executed through AISITE.
Solution Development and Business Transfer	Development of a pattern-based monitoring solution to detect hacking tools (e.g., Web Shell) on servers.	U&Me Co., Ltd.	No	

Delivery Type	Project Description	Client	Source Code Included	Remarks
OEM Solution Development and Maintenance	Development, supply, and maintenance of PKI-based site authentication and long-term user management solutions.	LG Electronics, LG Chem, LX Hausys, KB Securities, etc.	Partial	Includes contracts executed through AISITE.
Service Development and Joint Operations	- Development and operation of a PKI-based service to securely store private keys on user devices for authentication. - Operated jointly with Korea Certification Authority from 2008 to 2021.	Korea Certification Authority	Yes	Successfully operated for 13 years.
Solution Development and Supply	Developed and delivered a certificate issuance server for encryption needed in the electronic bidding system.	Korea Trade Network Co., Ltd.	Partial	Excluding some libraries Jordan and Iraq : 2 countries
Solution Development and Supply	Developed and supplied a security framework to replace Active-X, enabling the use of security tokens or local file systems in web browsers on Windows environments.	Korea Trade Network Co., Ltd.	Yes	Jordan and Rwanda: 2 countries
System Development and Maintenance	- Developed a fingerprint security token app integrated with the Public Procurement Service's Smart Narajangteo and an administrator system. - Ongoing maintenance of Smart Narajangteo.	Public Procurement Service	Yes	
SI Development	- Upgraded and redeveloped the Audit Information Sharing System. - Enhanced the Audit Information Sharing System operated by the Ministry of Science and ICT.	Ministry of Science and ICT	No	

Patents and Certification

[Overseas]



[Domestic]



[Certification]



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