RAON

RAON [rɑːɔn]

v. **make IT fun and secure**

www.raoncorp.com

Enjoyable security with stronger safety and convenience—it is RAON's technology that makes it possible.

A place where you can relax and enjoy every moment of your days

by simply checking messages and e-mails as the first thing in the morning,

by easily handling online financial services, and

by building trust with tight security in a business environment where information is an asset.

This is the world that RAON is creating.

CONTENTS

RAON [rɑːɔn]
v. **make IT fun and secure**

Why RAON

The Leader of IT Integrated Security and Authentication

Blockchain	Biometric Authentication	Accredited Certification
Fintech Security	Identification	Non-ActiveX
Account Management	PKI	Keyboard Security
Penetration Testing & Cybersecurity Education	Vulnerability Assessment	ISMS Consulting

We provide appropriate solutions for disruptive world with our advanced expertise and know-how.

Biometric Authentication
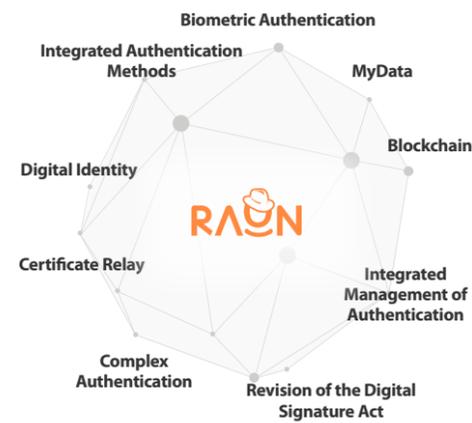Integrated Authentication Methods
MyData
Blockchain
Digital Identity
Certificate Relay
Integrated Management of Authentication
Complex Authentication
Revision of the Digital Signature Act

No. 1 Market share for Decentralized ID

No. 1 Market share for Mobile Security

No. 1 Market share for Biometric Authentication

Established in **2012**

CAGR 16% (recent 3 yrs)

Won in three international hacking competitions **RaonWhiteHat**

FIDO-based biometric authentication **10million+ users**

Biometrics in mobile security solution **No. 1 (MS 80%)**

Mobile antivirus **10million+ users**

Number of Korean Customers **1,000+**

Financial stability and profitability **"Outstanding"**

Share of technical researchers in total workforce **70%**

Ministry of Science and ICT **Minister's Commendation**	Ministry of the Interior and Safety **Minister's Commendation**	Military Manpower Administration **Director's Commendation**
The International Hacking Defense Competition, DEFCON 23, 26 **Two - time Winner**	The International Hacking Defense Competition, HITCON **Three Consecutive Wins**	The International Hacking Defense Competition, CODEGATE **Two Consecutive Wins**

Milestone

2012~2015

2012
12
Launched the mobile digital signature service "MobiSign" together with the Korea Financial Telecommunications and Clearings Institute

11
Established RaonWhiteHat

10
Established RaonSecure

2013
07
Designated as the training agency for Cybersecurity Elite Development Program (K-Shield) by the Ministry of Science, ICT and Future Planning and KISA (2013-2015, for three consecutive years)

05
Launched "USIM Smart Authentication Service" with three mobile carriers (SKT, KT, LG U+)

2014
11
USIM Smart Authentication won Grand Prize at the 14th Mobile Technology Award

07
Received Science, ICT and Future Planning Minister's Commendation at the 3rd Information Security Day Celebration

2015
08
Won DEFCON CTF 23, the international hacking competition held in the U.S (First Korean team to win)

05
"OnePass" acquired the global certification FIDO Certified, for the first time in the world

2016~2017

2016
09
Received "Women-friendly Company Award" from Seoul City

08
Launched FIDO-based "USIM Simple Authentication Service" with three mobile carriers (SKT, KT, LG U+)

Signed an MOU with the US-based RAPID7 for cooperation in security intelligence service

2017
12
Won HITCON CTF 2017, the international hacking competition held in Taiwan (three wins in a row)

06
Signed Global Software Partnership with Intel

05
Appointed as a Board Member of FIDO Alliance
(First Asian information security enterprise to be one)

04
Launched "OnePass Iris Authentication Service" linked to Samsung Pass

2018~2019

2018
11
Received Science and ICT Minister's Commendation for distinguished service to the state's information security industry

09
OnePass acquired the global certification FIDO2 Certified for the first time in the world

08
Won DEFCON CTF 26, the international hacking competition held in the U.S.

Launched "Fingerprint Authentication Service" for the Government 24 public service portal

04
Received Interior and Safety Minister's Commendation for being an outstanding information security company

2019
11
Acquired ISMS Certification

10
Launched "Decentralized ID-based Robo-advisor Service" for the Korea Financial Telecommunications and Clearings Institute by incorporating the OmniOne platform

09
Launched "Card-based Identification Service" with eight credit card companies

07
Established DID Alliance as a founding member

04
Selected as a "Blockchain Public Pilot Participant" by the Ministry of Science and ICT

03
Won CODEGATE 2019, the international hacking competition held in Korea (two wins in a row)

2020

12
Received Prime Minister's Commendation for "Outstanding Job Creation"

11
Received Science and ICT Minister's Commendation at the 3rd Blockchain Grand Week

Launched "Simple Registration and Authentication Service" for NH Nonghyup Bank

10
Won SECCON CTF 2020, the international hacking competition held in Japan (three times)

09
Implemented "OnePass" in the remote working system of a public energy enterprise in Korea

07
Acquired FIPS 140-2 Certification (Key# Crypto v1.3)

Designated as an Enterprise Specializing in Information Security Services

05
Established "Digital Public Service Platform" for the South Gyeongsang Provincial Government

Established "Blockchain-based Trust Platform for Autonomous Driving" for Sejong City

01
Selected as a Youth-friendly Small Giant Company by the Ministry of Employment and Labor

Received Military Manpower Administration Commissioner's Commendation for the successful informatization of military administration

Launched "Blockchain-based Simple Authentication Service" for the Military Manpower Administration by incorporating the OmniOne platform

2021

12
Received Science and ICT Minister's Commendation for distinguished contribution to the blockchain industry in 2021

10
Took 1st, 2nd places at Cyber Conflict Exercise 2021 hosted by the National Intelligence Service (three times)

08
Launched "Bank ID", the OmniOne-based common authentication service for banks, together with the Korea Financial Telecommunications and Clearings Institute

07
Received President's Commendation for outstanding contribution to information security at the 10th Information Security Day Celebration

04
Established ADI Association as a founding member

03
Selected as a "Best Practice of Digital New Deal" by the Ministry of Science and ICT

01
Launched OmniOne-based "Mobile Public Official ID Card" for the Ministry of the Interior and Safety

OneGuard became the first MDM solution in Korea recognized by Google and listed in Android Enterprise Solutions Directory

Won Real World CTF, the international hacking competition held in China

Launched "Simple Login Service" for the Simplified Year-end Tax Adjustment System of the National Tax Service

2022

12
Launched "OnePass 2.0", an integrated authentication platform

11
Launched "OmniOne NFT Marketplace", the Korea's first digital marketplace for utility NFTs

10
Took 1st place at Cyber Conflict Exercise 2022 hosted by the National Intelligence Service

07
Launched "OmniOne Integrated Authentication Service", an integrated digital authentication service

06
Launched "Smart Antiphishing", the phishing fraud prevention service

RaonWhiteHat has merged RaonSNC

Signed an MOU with Chung-Ang University on the blockchain-based innovation service

05
Signed an MOU with CyberLinks Japan on the DID-based digital certificate business

04
Launched Blockchain based "Mobile Employee ID Card" service together with NICE Information & Telecommunication and TimeInOut

Signed an MOU with Financial Security Institute to prevent and response to voice phishing attacks

Signed an MOU with Military Mutual and Association C&C and financial institutes to develop blockchain based contactless service

03
Conducted a project for global standard based digital identity authentication together with Hitachi, Japan

02
Conducted a joint business for a Metaverse based education service together with Globepoint

Launched "Digital Wallet" service for the Military Manpower Administration

01
Launched "Mobile Driver's License Service" for the Ministry of Interior and Safety

Selected as a Youth-friendly Small Giant Company (RaonSecure and RaonWhiteHat) by the Ministry of Employment and Labor

SOLUTION

Safely enjoy various services within your daily lives—
online financial services, issuance of online certificates,
online shopping, and mobile ID cards.

PLATFORM

Provide a blockchain-based DID and FIDO type multi-channel authentication platform, an open, integrated authentication platform and a security platform for smart working and lead the DID industry and the security/authentication market.

OMNIONE Enterprise
A Blockchain-based DID Platform

ONEPass
A FIDO-based Platform for Multiple Channel Authentication

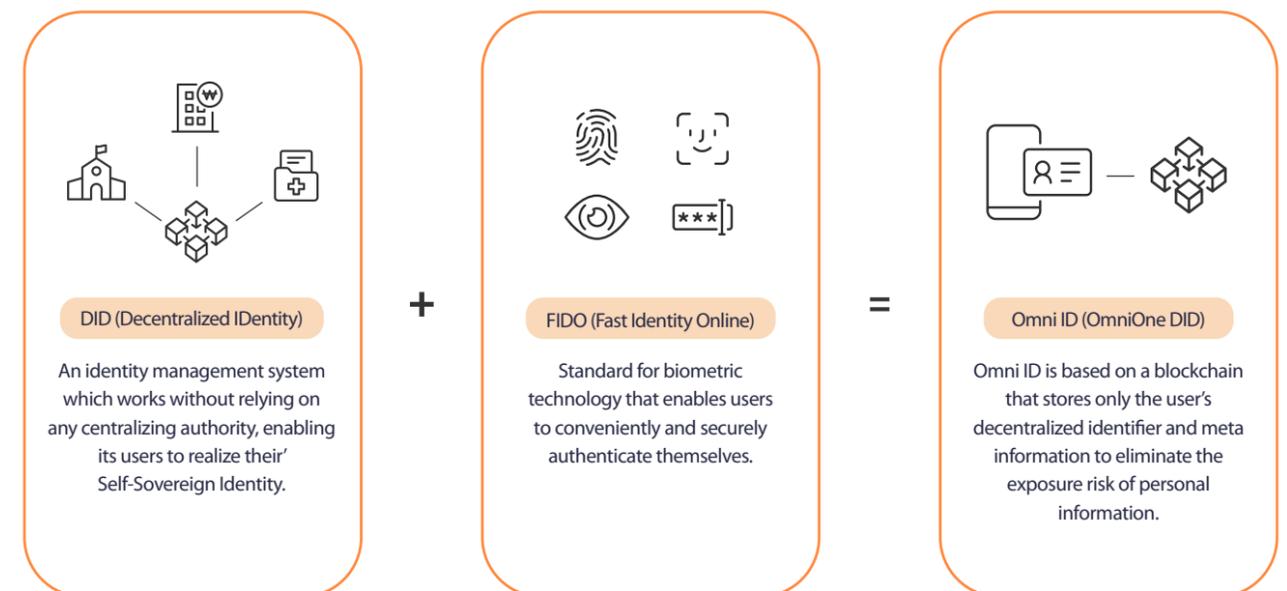**ONEGuard**
A Security Platform for Smart Working

TOUCHEN Wiseaccess
An Integrated Management Platform for Access Control

OmniOne Enterprise

OmniOne Enterprise is a blockchain-based DID platform.
It is stable and easy to deploy as it is optimized for government or corporate-led identification and MyData services.

DID (Decentralized IDentity)

An identity management system which works without relying on any centralizing authority, enabling its users to realize their' Self-Sovereign Identity.

+

FIDO (Fast Identity Online)

Standard for biometric technology that enables users to conveniently and securely authenticate themselves.

=

Omni ID (OmniOne DID)

Omni ID is based on a blockchain that stores only the user's decentralized identifier and meta information to eliminate the exposure risk of personal information.

"The platform is very satisfying in that while it maintains trust of identity issuance, the central organization does not interfere with verification and use of the ID."

- Ministry of Interior and Safety

"Users are satisfied with the simplified signing-in process of MMA which we deployed with RAON's OmniOne.
Also as an IT manager, I was pleased to see reduced costs and to address repudiation of civil complaints."
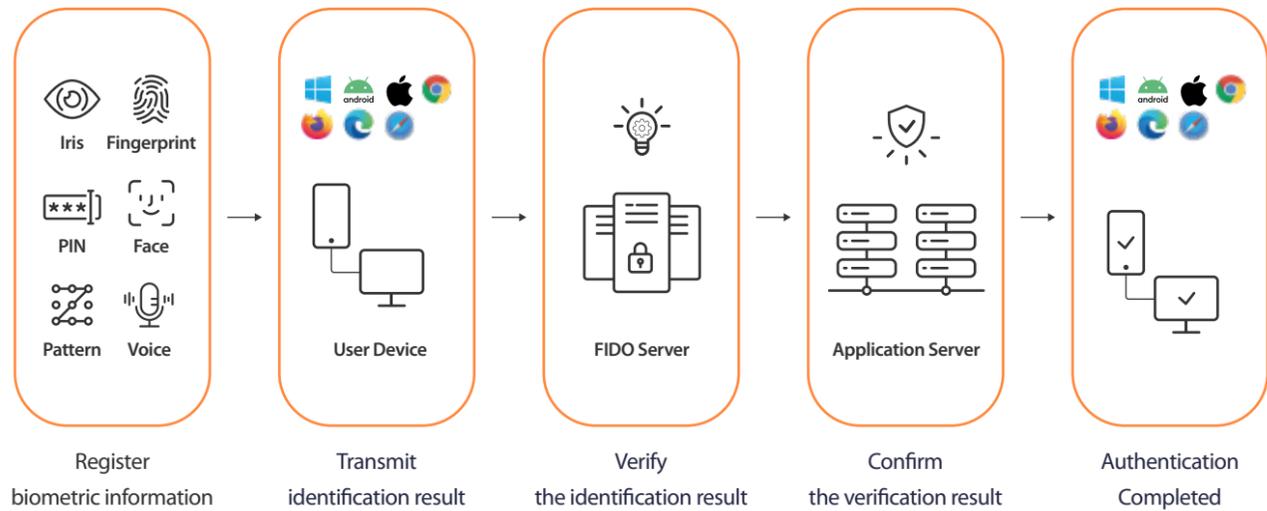
- Military Manpower Administration

· **The first commercial DID in Korea**
Our DID platform is proven with experiences and expertise acquired from projects of public and financial institutions including Military Manpower Administration, Korea Financial Telecommunications and Clearing Institute, South Gyeong- sang Provincial Government, Sejong City, etc.

· **A main driver of international technical standards**
As a foundational platform for Global Architecture for Digital Identity (GADI) of ADI Association, OmniOne is leading the establishment of international standards for DID technology. It complies with VC (Verifiable Creden-tials), DIDs (Decentralized Identifiers) of W3C, 3 SSID Models of ISO TC307, and TTA PG222.

· **The state-of-the-art technology and industry trends**
OmniOne is applying the latest technology and industry trends through active participation in global consultative bodies such as DID Alliance, or Decentralized Identity Foundation (DIF).
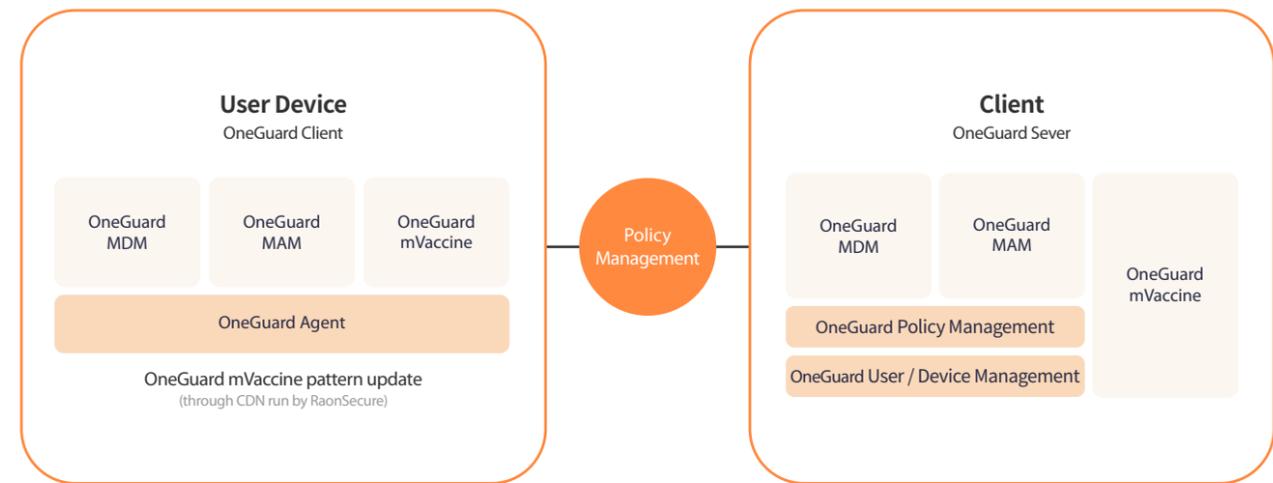
OnePass
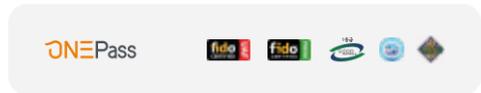
OnePass is a No.1 FIDO-based platform for multiple channel authentication.
It enables convenient and safe authentication as its design can be customized to user environment (mobile, PC, etc.).

Iris	Fingerprint
PIN	Face
Pattern	Voice

User Device → FIDO Server → Application Server →

| Register
biometric information | Transmit
identification result | Verify
the identification result | Confirm
the verification result | Authentication
Completed |

· **The leader of the global biometric market**
  As the first FIDO® CERTIFIED in the world, OnePass leads the market. Also, it is provided by RAON, a board member of FIDO Alliance.

· **Customized designs**
  You can choose the most suitable authentication means for you from fingerprint, PIN, pattern, iris, voice, and face.

· **Quick installation and reliable operation**
  A complete solution package shortens the installation period and supports stable maintenance, based on the rich experience of RAON as an installation service provider.

"RAON is a leading authentication company who was the first FIDO® CERTIFIED entity. With its strong know-how on financial service management, the company clearly understood our needs and provided various technology to meet the demand."

- Shinhan Bank

"We don't have to worry about password leakage by hacking attempts, and we can now safely and conveniently provide internal services for those working in external environment for business trips or work from home."

- Public Energy Institution in Korea

OneGuard

OneGuard is a security platform for smart working.
You can experience all-in-one security with OneGuard, without the hassle of installing different security solutions.

User Device
OneGuard Client

| OneGuard
MDM | OneGuard
MAM | OneGuard
mVaccine |

OneGuard Agent

OneGuard mVaccine pattern update
(through CDN run by RaonSecure)

Policy Management

Client
OneGuard Sever

| OneGuard
MDM | OneGuard
MAM | OneGuard
mVaccine |

OneGuard Policy Management

OneGuard User / Device Management

· **Integrated management console**
  OneGuard ensures integrated management of various features such as user device management, device & app usage status check, etc.

· **MDM / MAM**
  Enhances the security for smart working by managing mobile devices, mobile applications following the security policy with OneGuard.

· **Mobile antivirus**
  OneGuard inspects security environment before a mobile office program is installed.

"After adopting RAON's 'OneGuard' platform, we are having faster and more convenient experience when we establish security policy for each system.
Also, RAON provides timely support for technical issues with devices or OS policy changes with which our employees are highly satisfied. "
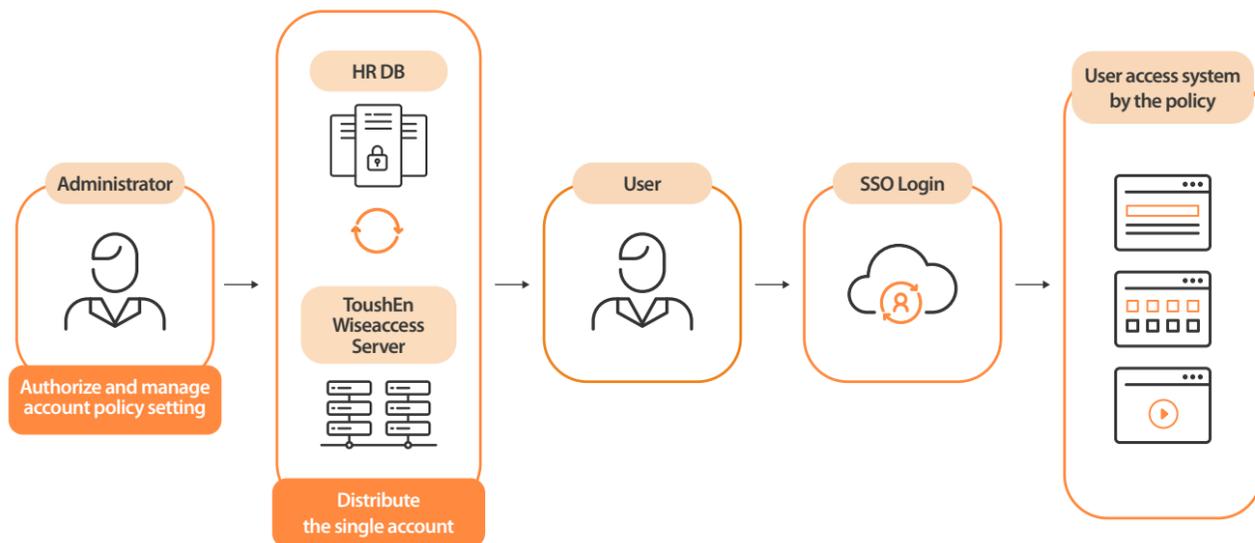
- Hyundai Marine & Fire Insurance

"One of many strengths of 'OneGuard' is that it provides customized security features, not to mention convenient usability. We are using it with confidence not having to worry about security leaks."

- HomePlus (Retail)

TouchEn Wiseaccess

TOUCH**EN** Wiseaccess

TouchEn Wiseaccess is an integrated management platform for access control.
You can access all systems by signing in only once. This leads to enhancement of user convenience and cost reduction.

Administrator

Authorize and manage account policy setting

HR DB

ToushEn Wiseaccess Server

Distribute the single account

User

SSO Login

User access system by the policy

TouchEn Wiseaccess is very satisfying as its proven performance and high reliability operates well in the largest online traffic environment in the public sector with about 30 million users and 20,000 workers.

- National Tax Service

With Single Sign-On(SSO) and Identity Management(IM) functions of 'TouchEn Wiseaccess', we have improved convenience and corporate security through systematic account management.

- Hyundai Department Store Group

· **Single Sign-On (SSO)**
SSO prevents duplicated login and enhances user experience.

· **Extranet Access Management (EAM)**
Experience stronger security with establishment and control of access system.

· **Identity Management (IM)**
Diverse accounts are managed in an integrated manner and enhances efficiency.

· **Web management console**
You can manage authentication status and sessions in real time. Also, there is an audit feature for admin actions.

MOBILE SOLUTION

Provides solutions such as the mobile antivirus solutions, the mobile virtual keyboard solution, the anti-screen capture solution and the anti-tamper solution essential for mobile security to enhance enterprise security.

TOUCH**EN** mTranskey
A Virtual Keyboard Solution for Mobile

TOUCH**EN** mVaccine
Korea's Only Mobile Antivirus with Dual Engine

TOUCH**EN** mOTP
A Mobile OTP Solution for Two Factor Authentication

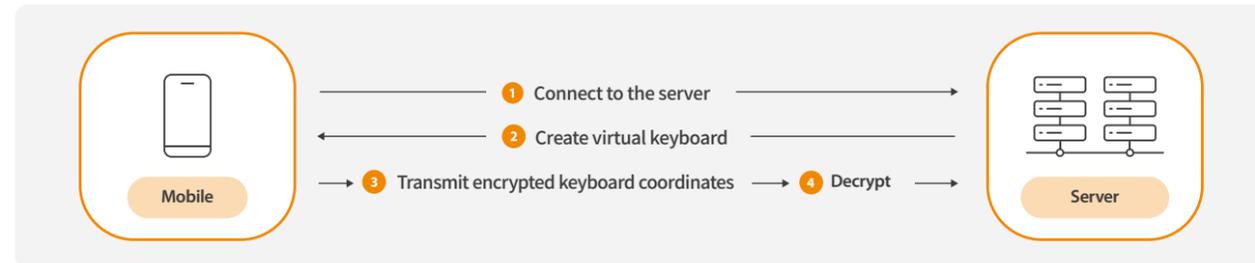TOUCH**EN** Appiron
Mobile Application Tamper-proof Solution

TOUCH**EN** Anticapture
An Anti-screen Capture Solution for Mobile

Key Wireless
A Mobile PKI & Digital Signature Solution

TouchEn mTranskey

TouchEn mTranskey is a virtual keyboard solution for mobile.
Our patented technology effectively prevents any leaks or breaches of your data entered on your mobile device.


Mobile
1 Connect to the server
2 Create virtual keyboard
3 Transmit encrypted keyboard coordinates
4 Decrypt
Server

· **Excellent security**
By using Channel encryptions (E2E) technology, Information is encrypted by putting in image coordinates instead of its original format. Also random keys are provided upon usage to strengthen security.

· **Superior technology**
We have deployed KCMVP (Korea Cryptographic Module Validation Program) encryption algorithm of NIS (National Intelligence Service), the patented source technology for onscreen keypad (No. 0880862, No. 0507712).

· **Full support for various mobile environments**
Customers can choose befitting environments from web, C/S, hybrid and multi-platform (iOS, Android, Windows, etc).

TouchEn mVaccine

TouchEn mVaccine is the only mobile antivirus with dual engine in Korea.
It protects user's smartphone from threats of privacy leakage, data loss, phone cloning, etc.
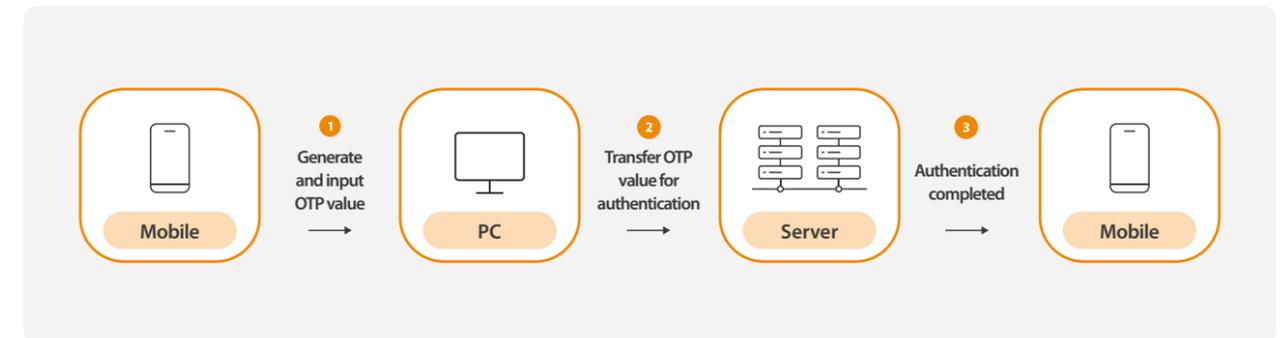

RAON
Dual Detection
Bitdefender
Update patterns
User Smartphone
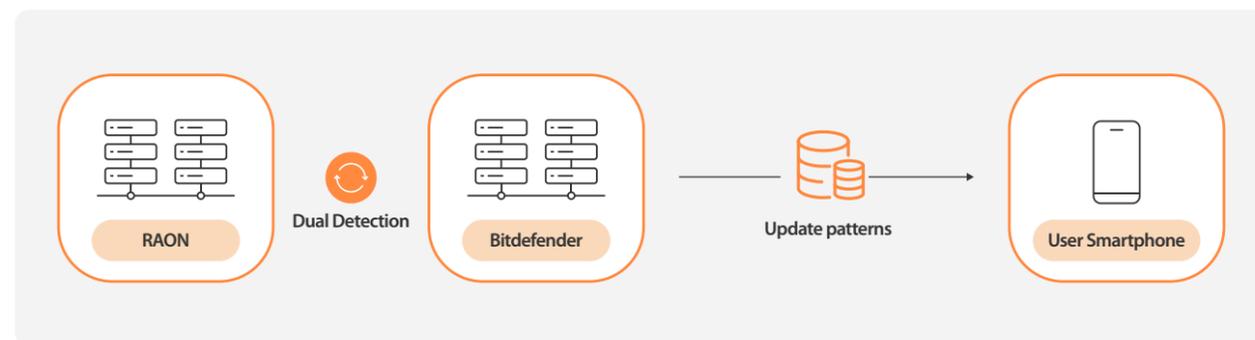
· **Superior performance with dual detection engine**
TouchEn mVaccine is equipped with dual engines—the custom engine developed by RAON White hats and world's famous Bitdefender engine.

· **The only solution in Korea supporting various environments**
As it supports all—mobile web, app and app library, you can choose and apply whatever you want.

· **Safer mobile environment for users**
It is tamper-proof, prevents viruses and malwares, and checks jailbreaking and rooted devices.

TouchEn mOTP

TouchEn mOTP is a mobile OTP solution for two factor authentication.
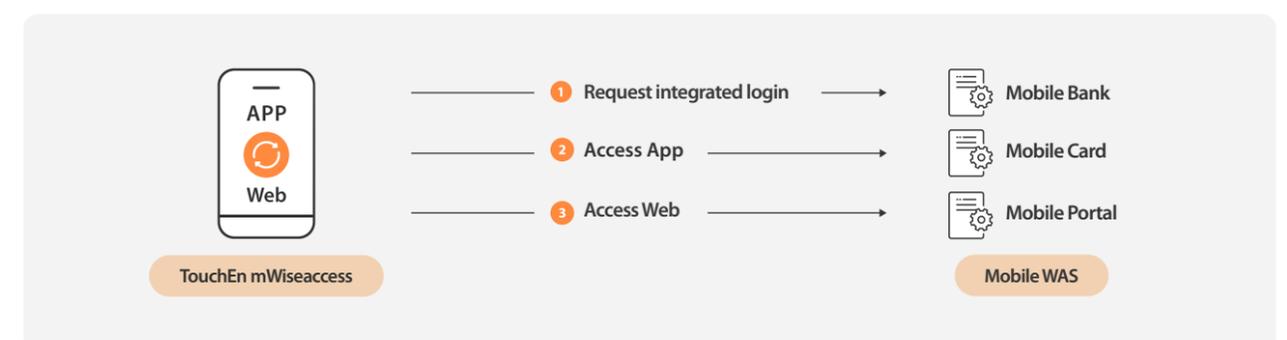One simple download of an app ensures strong authentication.

Mobile
1 Generate and input OTP value
PC
2 Transfer OTP value for authentication
Server
3 Authentication completed
Mobile

· **Easy to build system**
The service is available with a client supporting Android and iOS and establishment of independent server.

· **Safe from security attacks**
It is safe from security attacks including sniffing as the communication between the client and the server is minimized.

· **User and device management**
User registration & tracking, log tracking and login testing are available.

TouchEn mWiseaccess

TouchEn mWiseaccess is an SSO solution for mobile.
It enables single sign-on on mobile and enhances user convenience.

APP
Web
TouchEn mWiseaccess
1 Request integrated login
2 Access App
3 Access Web
Mobile Bank
Mobile Card
Mobile Portal
Mobile WAS

· **Stronger security**
With encrypted token generation and verification, and encryption of user authentication data.

· **User convenience**
Access to various services with Single Sign-On and be logged out automatically after a particular period of time.

· **Easy connection**
Distributed as the SDK with no need for separate installation.

TouchEn Appfree

TOUCH**EN** Appfree

TouchEn Appfree is a digital signature solution for mobile web.
It provides user authentication, data integrity, and non-repudiation for mobile banking,
trading, and commerce services.

Browser calls an app

When digital signature is
needed on mobile Web

TouchEn Appfree,
the digital-signature-only app

Execute Appfree

Data (digital signature. etc) is
directly transmitted to browser

Digital signature completed

Choose certificate(bank)

· **Digital signature creation and its secure transfer**
  Digital signatures are created based on PKCS#7 and data confidentiality is guaranteed with SSL.

· **Standard protocols**
  As there are a number of mobile environments, TouchEn Appfree supports all apps and browsers under standard
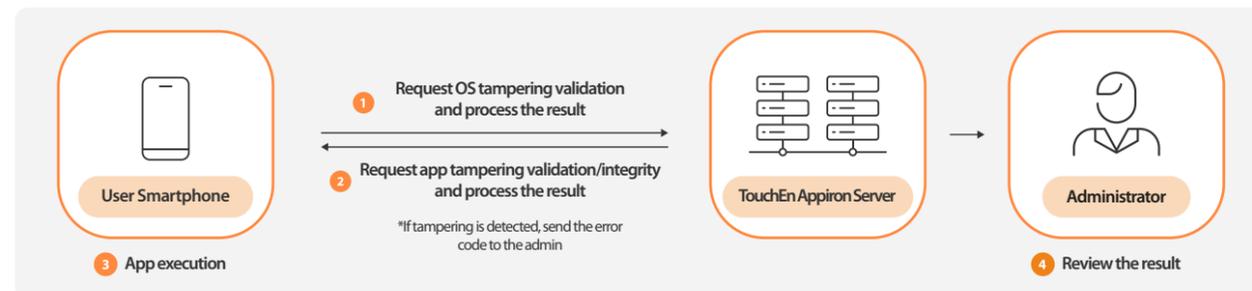 protocols.

· **Outstanding extensibility and security**
  Virtual keypads and mobile antivirus services are also provided in digital signature scope.

TouchEn Appiron

TOUCH**EN** Appiron

TouchEn Appiron is an anti-tampering solution for mobile apps.
It provides a safe environment for executing apps via tampering/integrity validation,
anti-debugging and code obfuscation functions.

User Smartphone

① Request OS tampering validation
and process the result

② Request app tampering validation/integrity
and process the result

*If tampering is detected, send the error
code to the admin

③ App execution

TouchEn Appiron Server

Administrator

④ Review the result

· **OS and App tampering validation**
  Depending on the result of device OS and app tamper proofing, execute an application or not to prevent security accidents in
  advance.

· **Anti-Reverse Engineering**
  Prevent security risks by implementing anti-debugging and code obfuscation and protect important assets.
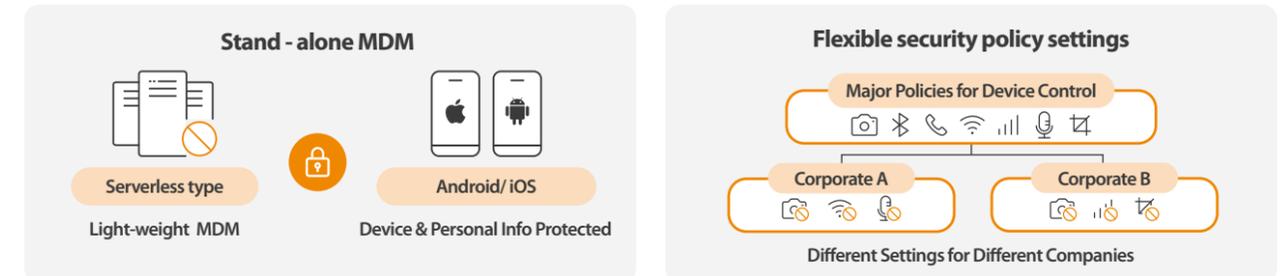
· **Easy Admin monitoring**
  Manage apps in real-time and inquires into history if abnormalities are found through a web-based management portal.

TouchEn MACserverless

TOUCH**EN** MAC Serverless

TouchEn MAC Serverless is a serverless -type visitor management solution.
Security policy settings can be managed in a mobile app without MDM server,
which prevents data leakage and enhances security.

Stand - alone MDM

Serverless type

Light-weight MDM

Android/ iOS

Device & Personal Info Protected

Flexible security policy settings

Major Policies for Device Control

Corporate A

Corporate B

Different Settings for Different Companies

· **Easy access control**
  TouchEn MACserverless enables security control of smart devices without using MDM server.

· **Smart setting of device policy**
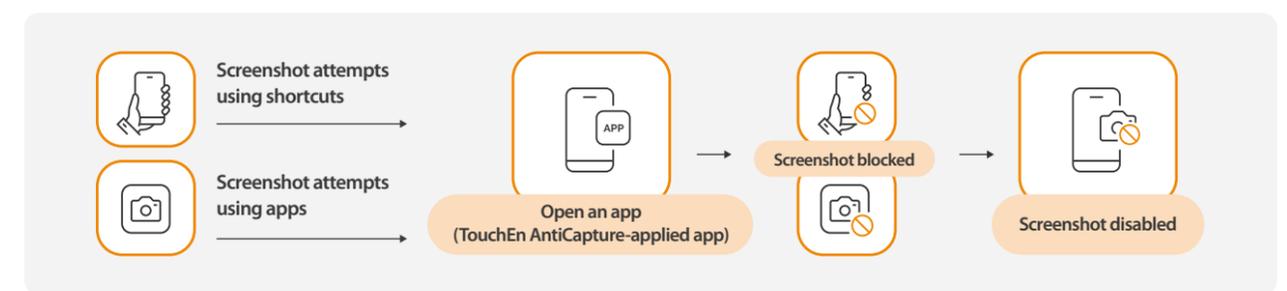 Using mobile app, you can simply adopt necessary device policies.

· **Location-based technology**
  QR, Beacon and GPS allow timely response to different situations including visitors control, undeleted apps, etc.

TouchEn Anticapture

TOUCH**EN** Anticapture

TouchEn Anticapture is an anti-screen capture solution for mobile.
It protects important user data by blocking screenshot attempts from commercial or
mobile office apps.

Screenshot attempts
using shortcuts

Screenshot attempts
using apps

Open an app
(TouchEn AntiCapture-applied app)

APP

Screenshot blocked

Screenshot disabled

· **Serverless type**
  Anti-screen capture is available without a server. Device information is not collected which lowers the risk of
  privacy leaks.

· **Library-type SDK**
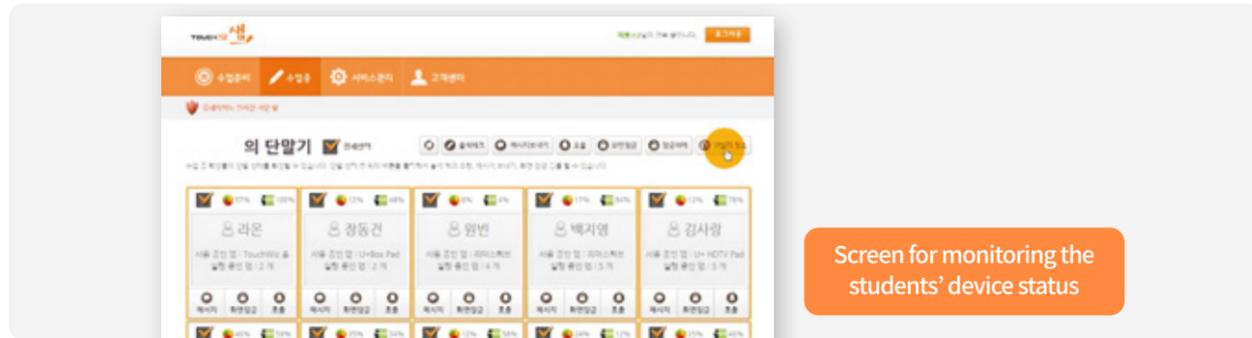 Library-type SDK is provided to be embedded within app services. This minimizes resources for development.

· **Stand-alone type**
  An exclusive module can be applied for an app service without installation of an additional app.

# TouchEn Sam

TOUCHEN Sam

TouchEn Sam is a mobile management solution for Smart School.
It efficiently manages all smart devices for the class.

Screen for monitoring the students' device status

· **Optimized Environment for Smart School**
  It offers a smart education environment for teachers to prepare and teach classes effectively through the main computer.

· **Ultimate Convenience in Class Management**
  Teachers can enjoy great convenience as it allows them to control smart devices directly in a way suitable to each phase of the class, from class preparation to class teaching to class ending.

· **Better Learning Outcomes**
  You can keep students focused in class and enhance their learning outcomes by easily blocking factors that hamper learning.

Key# Wireless
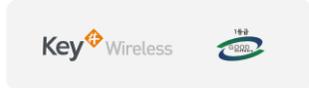
Key# Wireless

Key# Wireless is a mobile PKI & digital signature solution.
It creates a safe mobile communication environment by providing digital signature for mobile, and channel encryption.

Mobile PKI	Certificate Relay (Simple copy)	Certificate Relay (QR code)
Mobile — Server	Mobile — PC	PC — Mobile

· **Compliant with Public-Key Cryptography Standards #7**
  Key# Wireless supports various types of signatures (NPKI, GPKI, DPKI) including digital and abbreviated signatures.

· **Fast and secure encryption**
  Secure and fast mobile communication is available using digital envelope.

· **Simple transfer & copy of certificates**
  Users can transfer or copy certificates using various methods including 12 digit numbers or QR codes.
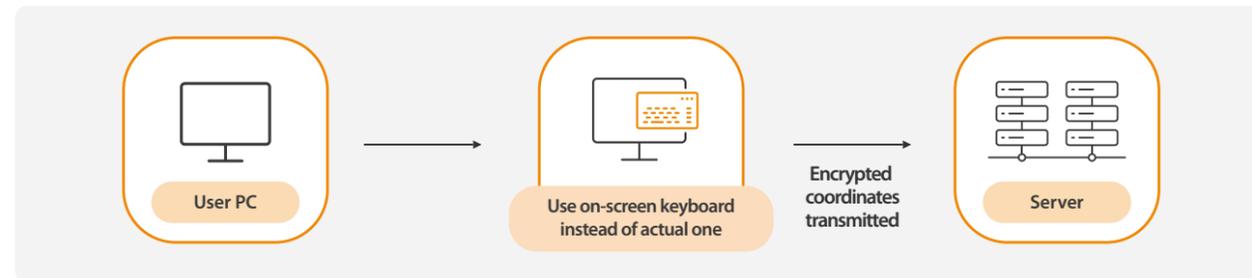
PC SOLUTION

Provides various PC security solutions such as Keyboard Security, web content leakage prevention, integrated security with firewall and antivirus, integrated PKI digital signature and password vulnerability check.

TOUCHEN Transkey
A Virtual Keyboard Solution for PC

TOUCHEN nx Key
Non-ActiveX Keyboard Security Solution

TOUCHEN nx Firewall
An Integrated Security Solution with Firewall and Antivirus

TOUCHEN nx Web
A Solution for Web Content Protection

Key Biz
A PKI & Digital Signature Solution

TOUCHEN Passcheck
A Password Strength Checker

TouchEn Transkey

TouchEn Transkey is a virtual keyboard solution for PC.
Users prevent hacking at source by pressing keys on displayed virtual keyboard using the mouse pointer.

User PC → Use on-screen keyboard instead of actual one → Encrypted coordinates transmitted → Server

· **Memory protection from hacking**
   The location of keys changes every time in random and the information typed using this interface is encrypted in coordinates.

· **Prevention of data interception with multiple dummy cursors**
   By having multiple fake cursors randomly moving across the screen, it is impossible for typed information to be screen-captured.

· **Enhanced user convenience**
   TouchEn Transkey is provided in HTML5. As such, there is no need to install certain programs on PC.

TouchEn nxKey

TouchEn nxKey is a keyboard security solution.
With RAON's E2E (End-to-End) encryption, TouchEn nxKey ensures all-round keyboard security from input to transmission.

Enter information → Data transmitted in E2E encryption → Server
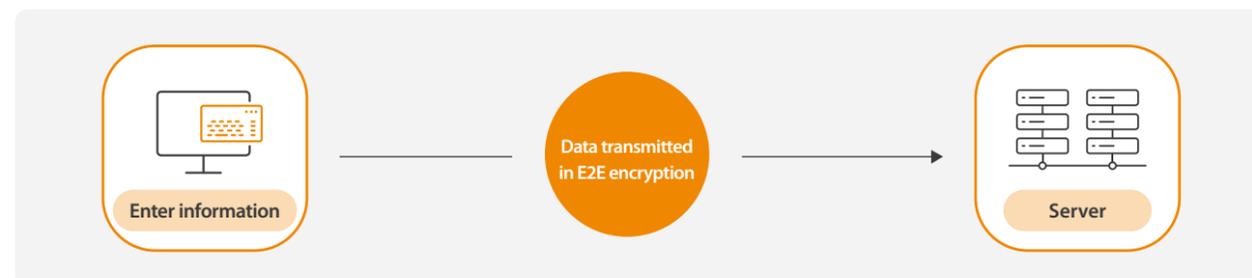
· **Based on RAON's PKI technology**
   By using E2E tunneling security technique, the entire scope from keyboard typing to server is secured.

· **Excellent protection against keylogging**
   TouchEn nxKey can deal with various types of hacking attempts on keyboards including keylogging, capturing, memory hacking and network sniffing.
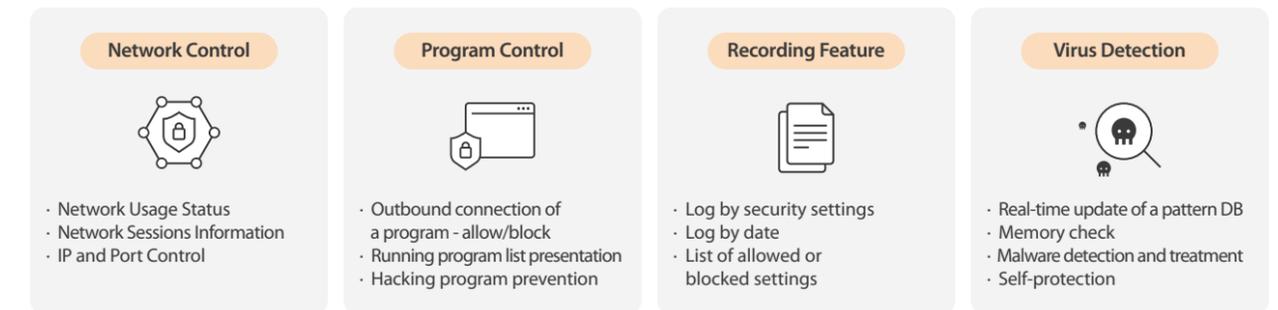
· **Outstanding extensibility**
   TouchEn nxKey supports Windows, Linux, Mac OS and multiple browsers.

TouchEn nxFirewall

TouchEn nxFirewall is an integrated security solution with firewall and antivirus.
It monitors all traffic occurred in kernel and user levels to provide safe internet experience to users.

Network Control	Program Control	Recording Feature	Virus Detection
· Network Usage Status · Network Sessions Information · IP and Port Control	· Outbound connection of a program - allow/block · Running program list presentation · Hacking program prevention	· Log by security settings · Log by date · List of allowed or blocked settings	· Real-time update of a pattern DB · Memory check · Malware detection and treatment · Self-protection

· **Online firewall**
   It automatically detects and notifies attempts of certain programs connecting to the internet so that users can deal with their network status.

· **Smart antivirus quarantine**
   A folder is designated to scan for and repair virus infection, adware and hacking tools. In quarantine area, detected virus can be deleted and files can be restored.
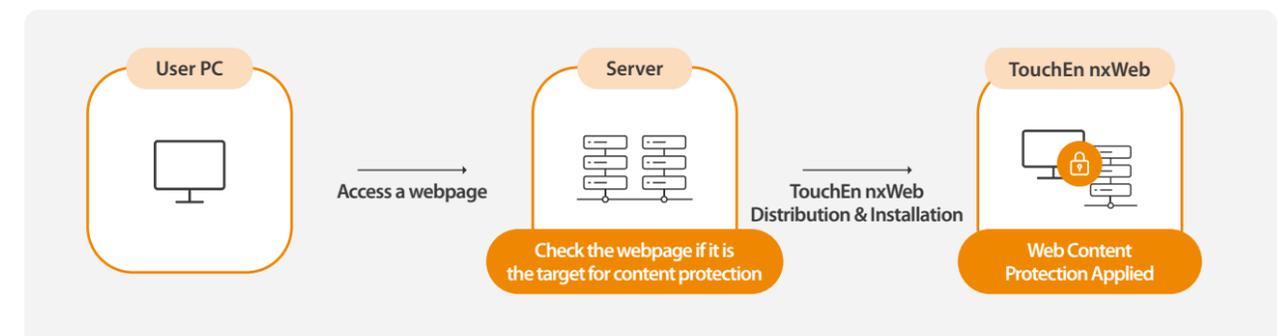
· **Network control**
   Internet communication is managed on PC which makes it possible to track or disable connections to the current network session.

TouchEn nxWeb

TouchEn nxWeb is a solution for web content protection.
It provides a secure web environment which is safe from content theft and screen capture.

User PC → Access a webpage → Server / Check the webpage if it is the target for content protection → TouchEn nxWeb Distribution & Installation → TouchEn nxWeb / Web Content Protection Applied

· **Web content theft prevention**
   Screen capture, printer-related breach and source view are all blocked at its source.

· **High reliability**
   Client operation without load onto the server.

· **Enhanced convenience**
   Usability is improved as it supports multiple browsers. Also, policies can be stretched and modified to be appropriate for web standardization.

TouchEn Passcheck

TOUCHEN Passcheck

TouchEn Passcheck is a password strength checker.
It is a stand-alone password checker developed by RAON's original expertise. As it is a hardware-integrated software, it guarantees efficiency in deployment.
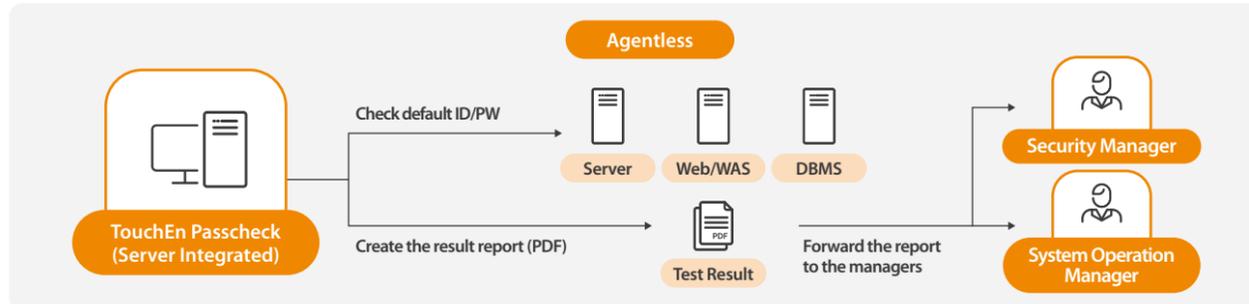

- · **Low-cost & less time for deployment**
  TouchEn Passcheck can be deployed instantly without any agent.

- · **Various environments supports**
  TouchEn Passcheck supports a number of communication protocols (http, https, SSH, FTP and Telnet) and multiple operating systems (Windows7, CentOS 6.0).

- · **Enhanced efficiency for password checking**
  Checking format is automated and statistics of results are provided in report format.

Key# Biz

Key♯ Biz

Key# Biz is a PKI and digital signature solution.
It supports various user clients and effectively deals with threats of information leakage on wired/wireless networks.
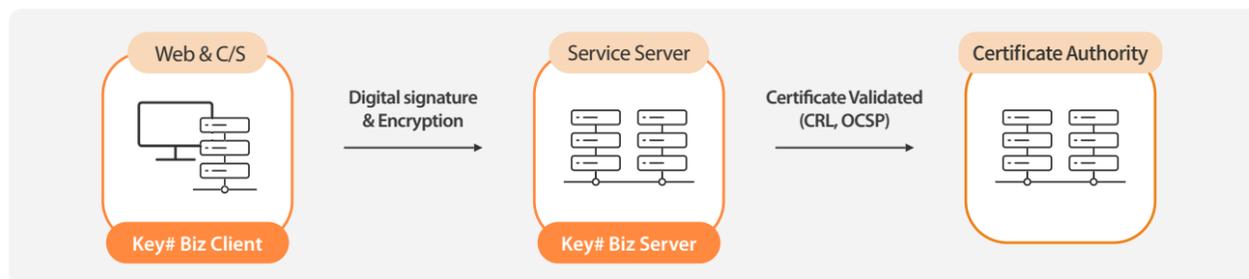
- · **Compatible with PKCS#7 standard**
  Key# Biz supports various types of digital signature including NPKI, GPKI, MPKI certificates and PKCS#1 abbreviated signatures.

- · **Various user client supports**
  Customers can choose from HTML5, Local Web Server(exe), or Extension (Win32 DLL link).

- · **Strong security**
  Key# Biz protects user information with its built-in virtual keyboard and its link with keyboard security solutions.

SERVICE

Make difficult things easy and complex things simple.
Use financial or security services without feeling them as a hassle
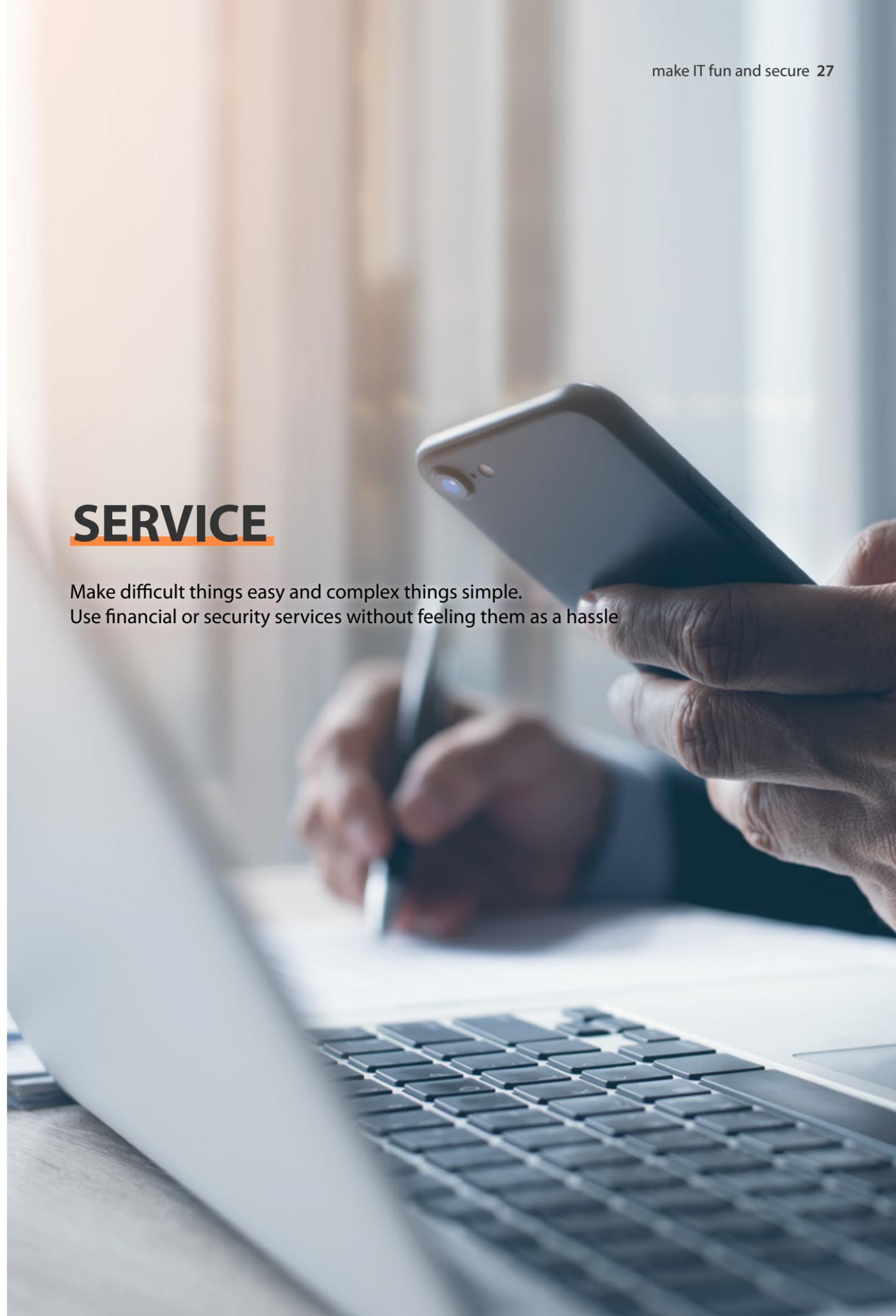
OmniOne Integrated Authentication Service

OmniOne Integrated Authentication Service is an integrated digital authentication service.
It provides various authentication and verification services such as mobile identity, private certificate, digital authentication, etc.
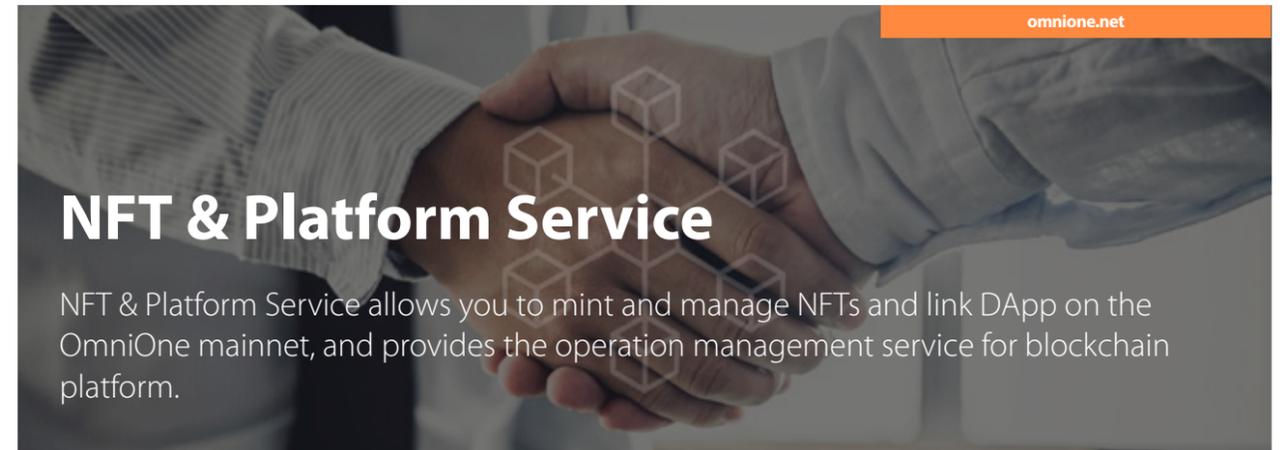
Private Authentication	Mobile ID	Digital Certificate	OmniOne Mainnet
Easily Scale and Manage Various Private Authentication Services	**Identification and Digital Signature**	**Trusted Validation for Certificates and Credential**	**DApp Operation, NFT Bulk Minting and Transfer Ownership of an NFT**
Offers wide options for users to choose any private services including PASS, NAVER and Kakao and easily add new private authentication services at any time	Provides various services including a trusted identification service and a digital signature service for non-repudiation	Provides a trusted verification service for various certificates such as employee card, student card and license issued by government, financial institute, medical center and education facility	Operates DApp in the OmniOne Mainnet Batch mints various certificates such as diploma and license as an NFT and transfers the ownership of an NFT

Key Features & Benefits

· **Easy connection**
  Easily links to OmniOne Integrated Authentication Service as provided as Cloud SaaS⊠Accesses to all mobile IDs, digital certificates and private authentication services via one single contract of integrated authentication service use

· **Higher service accessibility**
  Improve user convenience and service accessibility by early adopting various authentication and verification services

· **Cost saving**
  Significant cost savings compared to linking and operating individual services

· **Wide range of options for uses**
  Offer a wide range of options so that users choose any private authentication and verification service they prefer
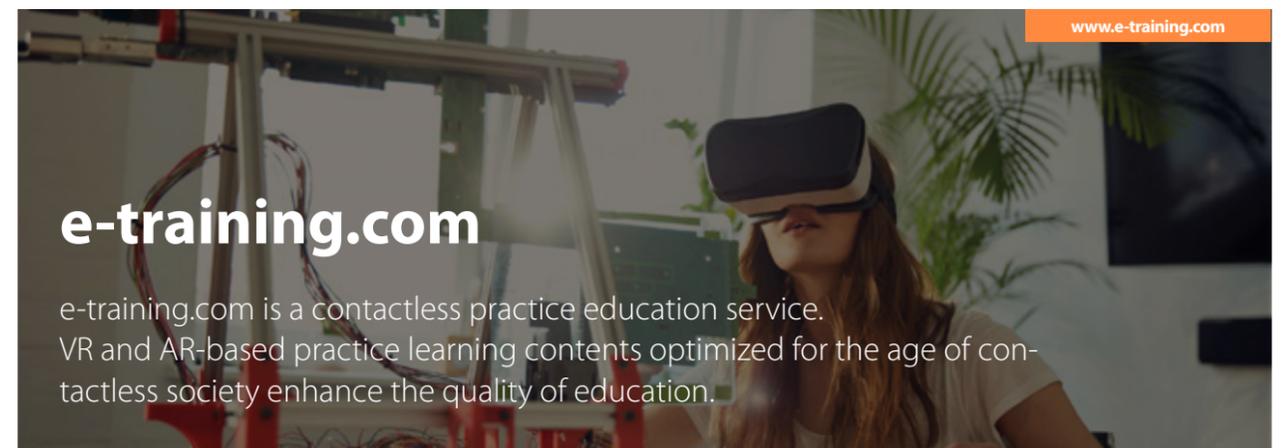
Services

Private Authentication	Mobile Identification	Digital Certificate	NFT
· Kakao	· Driver's License	· Military Service	· NFT for Chung-Ang Univ. Diploma
· NAVER	· Public Official ID Card	· Enlistment Notice	· OmniOne NFT Marketplace
· PASS	· Resident Registration Card	· Reserve Army Training Notice	…
· toss	· The National Honoree	· Copy of a Bankbook	
· PAYCO	· Disability Card	· Balance	
· SAMSUNG Pass	· Gyeongsangnam-do Residents' Card	· Full payment of a Loan	
· KB Mobile	· Employment Card for NICE	· Employment	
· Shinhan	· Chung-Ang University Student ID Card	· Diploma	
…	…	· Certificate of Completion	
		…	

NFT & Platform Service

NFT & Platform Service allows you to mint and manage NFTs and link DApp on the OmniOne mainnet, and provides the operation management service for blockchain platform.

· **DApp(Decentralized Application) Operation**
  Establish and operate the existing service with DApp in the OmniOne Mainnet

· **DID Linkage**
  Link Dapp and OmniOne DID for simple user authentication. DID linkage supports safe and simple log-in. Learners quickly and easily get blockchain-based certificates after completing cources.

· **Operation Management Service**
  Provide the customer-optimized blockchain platform operation service based on the accumulated technical capabilities and operational knowhow by conducting projects with public and financial institutes.

e-training.com

e-training.com is a contactless practice education service.
VR and AR-based practice learning contents optimized for the age of contactless society enhance the quality of education.

· **Practice Education**
  Using VR to provide contactless practice education which is the same as actual practice education.

· **Easy issuance of mobile student IDs and certificates**
  Thanks to DID, easily logs in and rapidly gets certificates after completing the curriculum.

· **Quality Curriculum**
  Provide a new curriculum for security education programs made by world-class white hats.

OneAccess

OneAccess is an open service for integrated authentication.
It standardizes various user authentication methods of each work system and manages them.

· **Solution-based Integrated Authentication**
   Solution-based integrated authentication system complying with OAuth, RESTAPI, FIDO, JWT and SSL.

· **Optimized for working process**
   Enhance user authentication convenience and security with selective applications for authentication policy and authentication device.

· **Flexible transition**
   Easy transition to cloud for scaling up and down authentication gate.

OneAccessCX

OneAccessCX is an integrated authentication reply platform.
Following the Digital Signature Act amendment, you are able to easily and efficiently scale and operate various authentication services.

· **Proven stability**
   The performance and stability of the relay platform have been well-proven by implementing it in various websites for nationwide service such as the Simplified Year-end Tax Adjustment System of the National Tax Service, Government24 and the public petition site e-People (more than 50 government agencies and public institutions have introduced it so far).

· **Easy scalability**
   Provide an integrated authentication widow using standardized API to minimize changes in the legacy environment and shorten the development period.

· **Convenient user interface**
   Ensure user convenience by performing authentication via a private authentication service app no need for separate certification or additional management.

OneAccessEX

OneAccessEX is a management service for integrated authentication.
It lowers limits of authentication methods and establishes more extensible environment for total management system of accounts.

· **Account lifecycle management**
   Manage the lifecycle of account such as linkage, creation, distribution, change, password change and deletion through an advanced, integrated management system for account.

· **Integrated authentication system**
   Allow users to manage their authentication methods via integrated authentication portal.

· **Differential control per security level**
   Different authentication methods and access control policy depending on the importance level of service, group and user.

USIM Smart Authentication

www.usimcert.co.kr

USIM Smart Authentication is a USIM storage for certificates safe from hackers.
Accredited Certificates can be safely issued and stored in user's USIM.

· **USIM-based security that was proven by KISA**
   Certificates are saved and managed in USIM, the module which cannot be copied or transferred.

· **No need for additional storage device**
   There is no need for bringing USB or other storage devices to use stored certificates.
   All you need is your own smartphone.

· **Anytime, anywhere**
   As it complies with the standard, you can conveniently use your accredited certificate without limits of location.
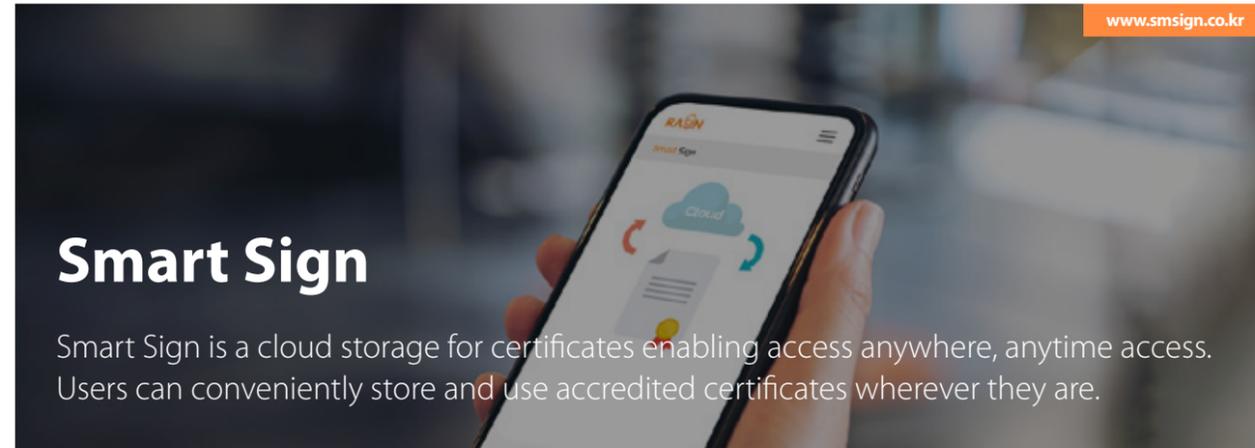
www.smsign.co.kr

Smart Sign

Smart Sign is a cloud storage for certificates enabling access anywhere, anytime access.
Users can conveniently store and use accredited certificates wherever they are.
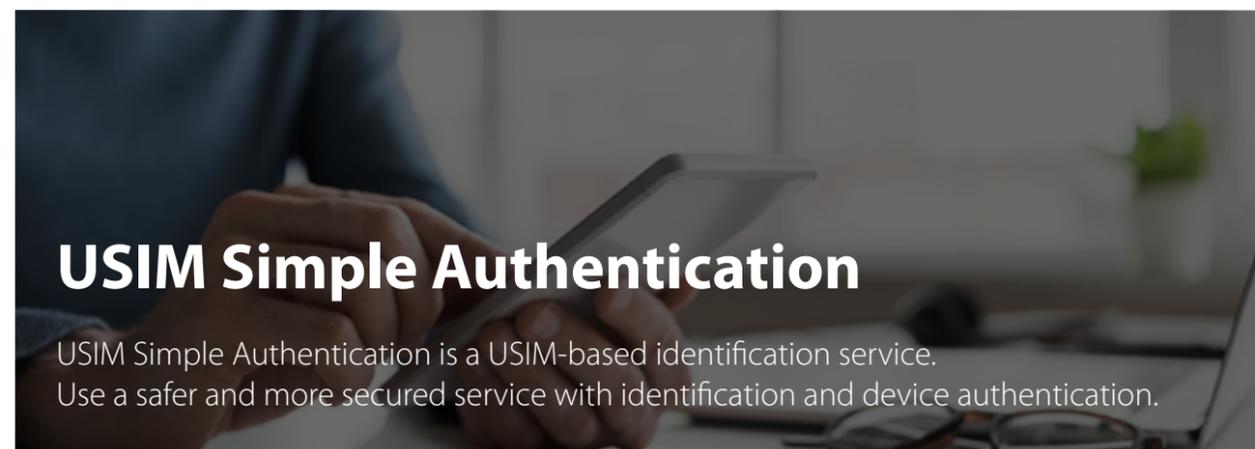
· **Cloud-based service**
  User convenience is enhanced as user's accredited certificates are managed and stored onto the cloud.

· **FIDO fingerprint authentication**
  For accredited certificates, you can login by simply using your fingerprints instead of remembering and
  entering a password.

· **Scalability**
  You can add certificates as many as you want onto your device.

www.yeskey.or.kr

MobiSign

MobiSign is a mobile digital signature service jointly provided with Korea Financial
Telecommunications & Clearings Institute (KFTC).
Enjoy safe digital signature directly from your smartphone without worrying about
accredited certificate leakage.

· **Outstanding reliability**
  MobiSign is jointly provided with KFTC, an institution that examines security and compatibility of government
  agencies.

· **Used in various places**
  With MobiSign, you can enjoy various services that require your certificates such as login, identity verification,
  and payment from banks, and other financial institutions.

· **Strong security**
  Digital signature is performed directly on the smartphone to block the risk of memory hacking in the PC environment.

USIM Simple Authentication

USIM Simple Authentication is a USIM-based identification service.
Use a safer and more secured service with identification and device authentication.

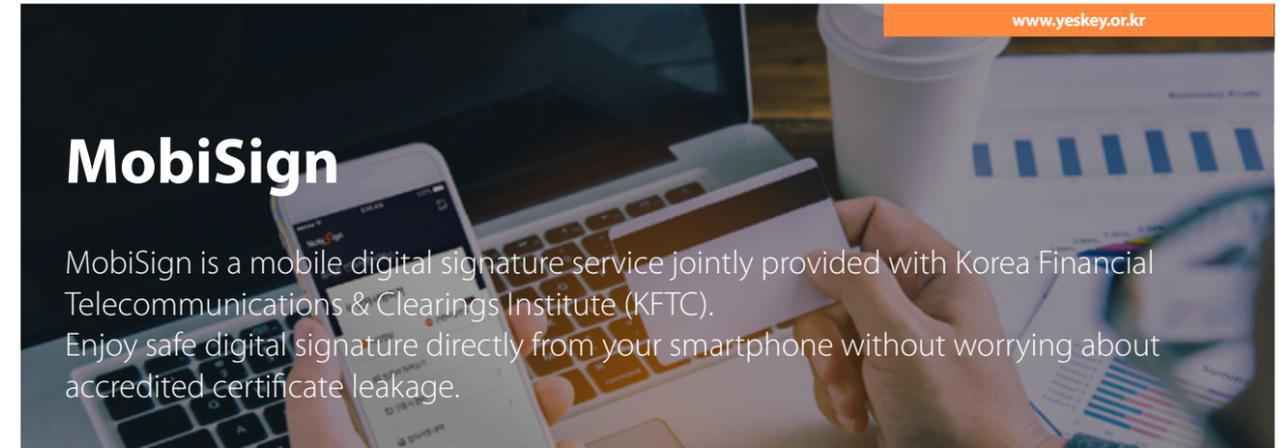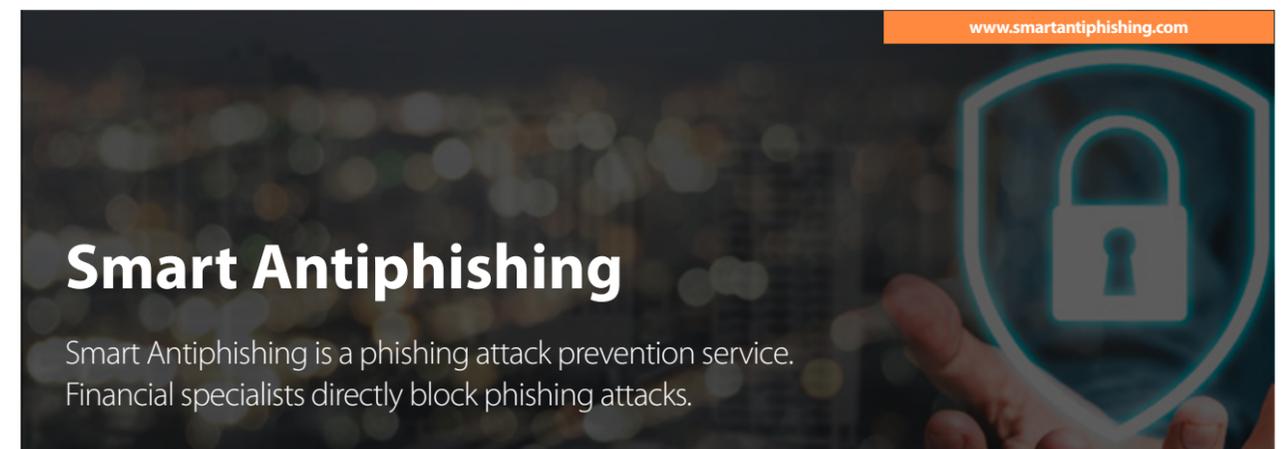· **Identification and Device Authentication**
  Unlike ARS authentication which doesn't require identification and SMS which has theft risk, provides stronger security by
  checking whether the user and the registered holder correspond based on USIM (not applied to corporate phone nor
  overseas direct purchased phone).

· **Background Authentication**
  Unlike similar authentication services including ARS and SMS which require to enter phone number, mobile carrier and
  authentication code, simple authentication consent inputs and proceeds authentication information on the background
  while entering transfer information.

· **User-friendly**
  Stay in the banking application while using the call or SMS application in the middle of transfer. More user-friendly, better
  brand image.

www.smartantiphishing.com

Smart Antiphishing

Smart Antiphishing is a phishing attack prevention service.
Financial specialists directly block phishing attacks.

· **Stronger countermeasures**
  Connect with partnered financial institutes' FDS and establish joint response network for experts to end the
  suspicious phishing calls.

· **Family caregiver service**
  Designated family members or friends end the call from an attacker to prevent damages.

· **Compensation for the loss**
  Provide insurance benefits for the victims of financial fraud up to 2million won.

RAON CTF

RAON CTF is a practical cybersecurity education program developed by RAON white hats.
It provides a package of three-step learning and learning management service.
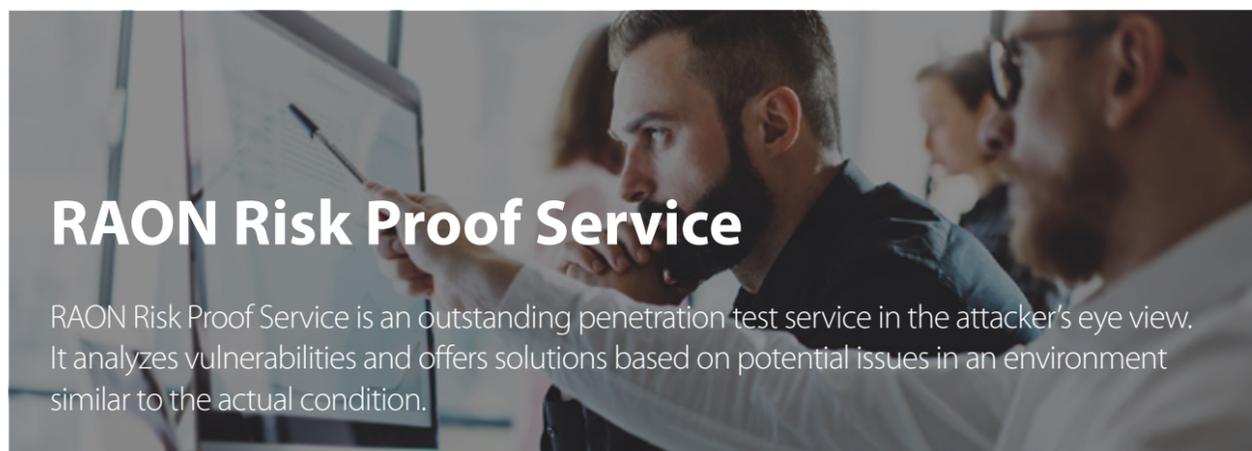
· **Three-step learning**
  RAON CTF provides a systematic education service from theory learning to practice which
  consists of three steps—basic, problem solving and evaluation.

· **Learning management system**
  RAON CTF provides useful materials including training packages for students and instructors and
  booklets about problem solving skills, which can be leveraged in schools and universities.

· **Phased practices and tests on attack techniques**
  RAON CTF motivates learners and increases their motivation by providing appropriate phased tests
  on attack techniques.

RAON IS Consulting

RAON IS Consulting is a consulting service for information security certification award and a
vulnerability assessment.
For customers, it supports the establishment of an appropriate information protection
management system and analyzes and evaluates vulnerabilities.

· **Consulting for certification award**
  We support establishment of an appropriate Information Security Management System (ISMS) for our clients by ensuring
  to keep legal requirements regarding information protection. Also, we provide services to make sure our clients comply
  with revised authentication standards or policies so that they can fulfill their responsibilities of information protection.

· **Solutions and service inspection**
  We provide comprehensive vulnerability assessment service and counterplan for protection based on cybersecurity
  knowledge and know-how accumulated through years of penetration testing.
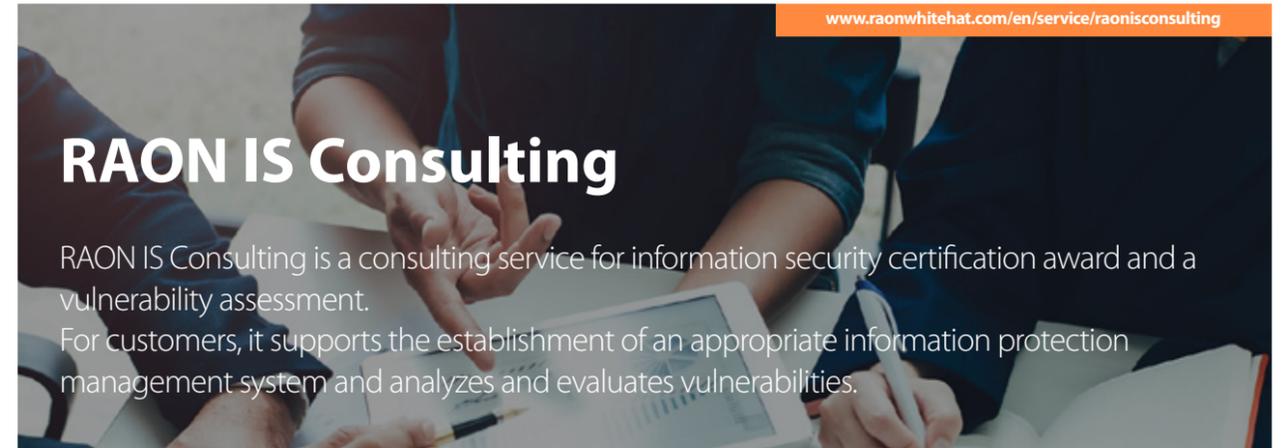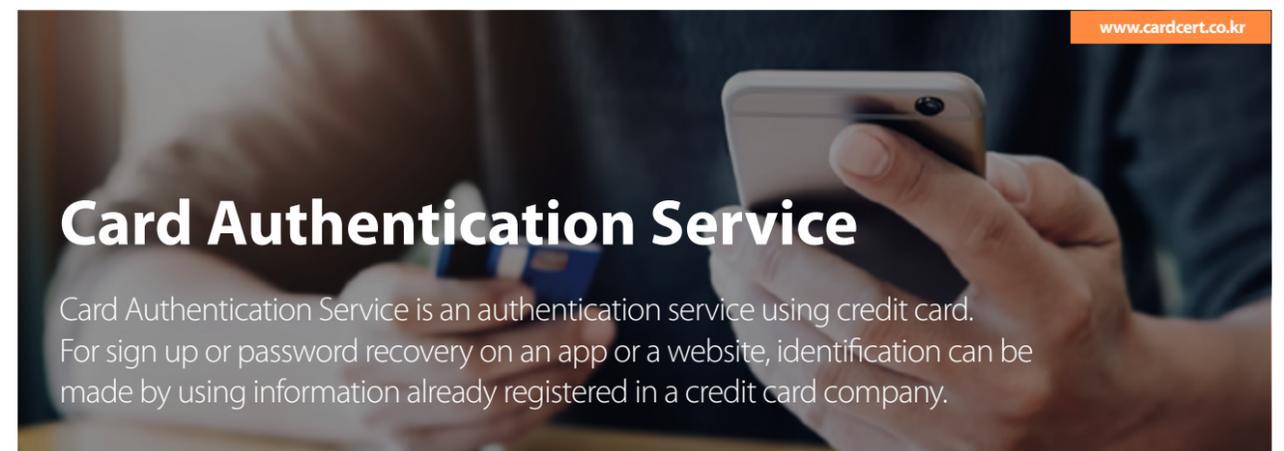
RAON Risk Proof Service

RAON Risk Proof Service is an outstanding penetration test service in the attacker's eye view.
It analyzes vulnerabilities and offers solutions based on potential issues in an environment
similar to the actual condition.

· **Premium penetration testing**
  It is a corporate-specific penetration testing service that evaluates any potential security weaknesses in a realistic,
  higher-level environment.

· **Solutions and service inspection**
  By applying WhiteHat's original methodology for solution check which is based on software development theory, it
  evaluates potential vulnerabilities of entire steps from development to operation and suggests an integrated counterplan.

Card Authentication Service

Card Authentication Service is an authentication service using credit card.
For sign up or password recovery on an app or a website, identification can be
made by using information already registered in a credit card company.

· **Simple Authentication**
  For those who joined the credit card app with a smartphone under their name, biometric authentication (PIN,
  fingerprint, iris or face recognition) can be used for password while using the app card service.

· **General Authentication**
  For feature phone holders or unregistered users of credit card app, they can go through authentication by putting in
  their phone number and then last eight digits of credit card number. There will be ARS authentication process too.

· **Homepage Authentication**
  For those without mobile phone, users are to enter ID and PW of their credit card company website on the pop-up
  window for the Homepage Authentication login. Then, put in expiration date, CVC, and payment password number
  upon request.

RAON Mobile Security

RAON Mobile Security is a white hacker-made security keeper on your smartphone. It ensures a safe mobile life with malicious app detection and security card wallet functions.

· **Secure financial transaction**
Protect your security card for financial transactions from hackers by saving it as an encrypted image.

· **Mobile device optimization**
RAON Mobile Security manages the RAM and battery of your Android phone to make it faster and longer to use.

· **Lighter and faster use with one touch button**
Just one touch allows you to use various features of RAON Mobile Security from antivirus to cleaner.

CLIENTS

We are leading the security sector at the forefront thanks to the trust of **over 1,000** customers who have been with us for years.

Financial institutions

BANK OF KOREA	Shinhan Bank	KB	WOORIBANK	Industrial Bank of Korea
Hana Bank	citibank	NongHyup Bank	BNK Busan Bank	KFTC
BCcard	Hyundai Card	SAMSUNG FIRE & MARINE INSURANCE SAMSUNG	KYOBO	Hyundai Insurance
DB Insurance	ORANGELIFE	Korea Investment & Securities Co., Ltd.	Shinhan Securities	MIRAE ASSET

Public institutions

National Tax Service	Ministry of Foreign Affairs	Military Manpower Administration	Ministry of the Interior and Safety	Ministry of Employment and Labor
Korea Disease Control and Prevention Agency	Ministry of Health and Welfare	Ministry of National Defense Republic of Korea	SUPREME COURT OF KOREA	PROSECUTION SERVICE
KNPA KOREAN NATIONAL POLICE AGENCY	KOREA POST	NHIS	Incheon Airport	LH KOREA LAND & HOUSING CORPORATION
Let's Run	Korea Employment Information Service KEIS	KISA	NIA NATIONAL INFORMATION SOCIETY AGENCY	kotra

Enterprises

kakao	NAVER	SAMSUNG	LG Electronics	CJ CHEILJEDANG
SK telecom	kt	LG U+	LOTTE	HYUNDAI
ebay	INTERPARK	GS Retail	KG Inicis	NICE Information Service Co., Ltd. NICE
Dunamu	banksalad	SNUH SEOUL NATIONAL UNIVERSITY HOSPITAL	SHINSEGAE	Homeplus

and more...

Global **RAON**

RAON is expanding throughout the global market.

RAON Family
RaonSecure
RaonWhiteHat

Partners
4LIT
BeeTechnology
HB Solution
HealthConnect
Invision
Jointree
Maru IT
Nadosoft
SEG
Snetworks
Yoopung
Youngwon I&S

Partners
EXGEN NETWORKS Co., Ltd.
NetMove Corporation

RAON Family
Digital Trust Networks

NORTH AMERICA

KOREA

JAPAN

SINGAPORE

RAON Family
OmniOne Ltd.