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UNION biometrics

Total Biometric Solution Provider



In April 2025, Union Community rebranded as **UNION biometrics**, marking a new chapter built on 25 years of trust, innovation, and advancement in biometric technology.

"UNION" reflects the lasting partnerships we've built, while **"biometrics"** embodies our technological expertise and commitment to global excellence.

Empowered by our comprehensive security platform and tailored industry solutions, we deliver trusted and seamless security experiences, driving a sustainable future and redefining standards in the biometrics industry.

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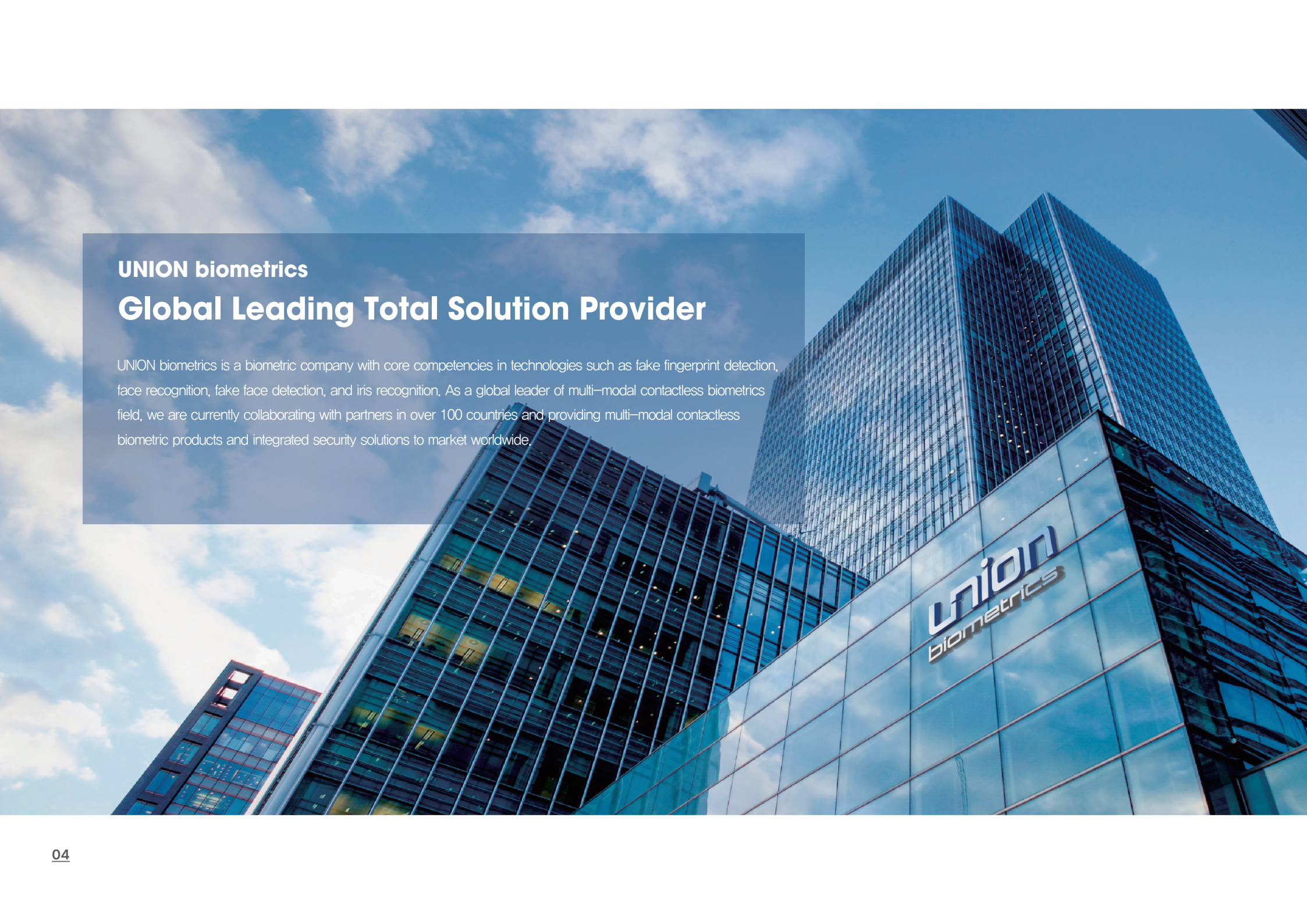
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UNION biometrics

Global Leading Total Solution Provider

UNION biometrics is a biometric company with core competencies in technologies such as fake fingerprint detection, face recognition, fake face detection, and iris recognition. As a global leader of multi-modal contactless biometrics field, we are currently collaborating with partners in over 100 countries and providing multi-modal contactless biometric products and integrated security solutions to market worldwide.



Union

biometrics



Year of Establishment

2000



KOSDAQ Listing

2016



Global Network

100+ (Countries)



Official Partner

150+



Installed Devices

350+ (Million)



IP Rights

180+



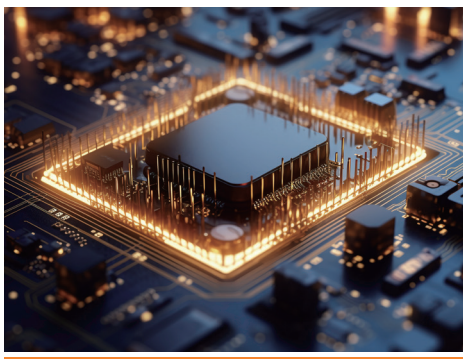
Core Values

UNION biometrics is committed to expanding its scope from innovative product releases to comprehensive solutions, all with the aim of providing customers with the best digital experience.

Core Values

UNION biometrics is committed to innovation, consistently advancing our services to deliver exceptional value to our customers. By standardizing key hardware and implementing high-performance modules, we've unified our hardware structure, establishing a strong foundation for advancing our services. We go beyond producing devices, offering biometric-driven solutions that empower customers to build robust and efficient security infrastructure.

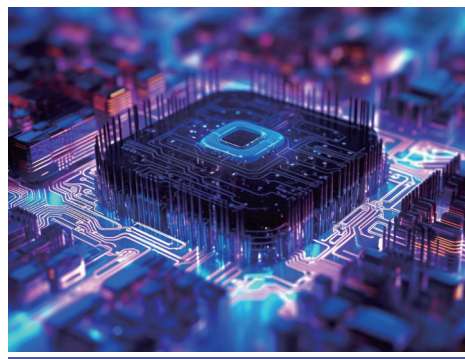
Leap to Innovation



Hardware Innovation >> UBio-X Hardware Platform

Hardware Unification

Our unified, high-performance hardware modules enable precise data capture and real-time, on-device analysis for seamless and secure authentication.



Firmware Innovation >> UBio-Core

Sustainable, New Services

With a unified firmware update, we elevate existing devices to multi-performance units, delivering ongoing access to new services.



Software Innovation >> UBio-Alpeta

Expansion of the Security Area

Our scalable UBio-Alpeta platform adapts to diverse work environments, safeguarding users, data, and enterprise assets with flexible, biometrics-driven security management.



Platform Innovation >> UBio-Connect

Server-Based New Solutions

Server-based integration unifies all authentication methods under a single management portal, establishing a stable, scalable security infrastructure across the organization.

Competitiveness in Biometric Technology

UNION biometrics is well known as a global leader in biometric recognition, providing high-performance biometric devices based on next-generation technology, and further incorporating bio-technology to provide a wide range of biometric security solutions.

Fingerprint Recognition Terminals

With global leading fingerprint recognition technology, UNION biometrics has acquired multiple international certifications, including MINEX and FBI.

Our high-speed matching algorithm, Nsearch, processes up to 200,000 templates per second with a false acceptance rate of just 0.0001%, offering faster authentication and enrollment.

Equipped with UBio-X LiveGuard, which combines fingerprint and heartbeat detection, the system effectively detects and blocks spoofing or fake fingerprint attempts.



Product Lineup



UBio-X Slim



AC-5100



AC-5000 IK



AC-2200



AC-2100 PLUS



AC-2000

With our proprietary fingerprint recognition devices, we deliver top-tier security and exceptional reliability:

- High-speed, large-scale matching algorithm (1:200,000) delivers fast and accurate authentication
- Full protection against fake fingerprint registration (15 anti-spoofing technology patents)
- Slim 13.4 mm optical sensor for an optimized digital experience
- IP55/IP65-certified for reliable use in diverse environments

Facial Recognition Terminals

With industry-leading face spoof detection technology, UNION biometrics supports authentication within 0.2 seconds at distance of up to 4 meters.

Our patented AI-based facial recognition update method and system automatically detect changes in registered users' appearance, continuously enhancing recognition accuracy over time.

Equipped with advanced liveness detection and anti-spoofing features, the system completely blocks fraudulent attempts using photos, videos, or 3D masks.

Our fake face detection technology has been recognized with the K-Mark Award, along with multiple patents and certification, strengthening our technological leadership in the market.



Product Lineup



U3io-X Face Premium



U3io-X FacePro



U3io-X Pro2



U3io-X Pro Lite

Facial recognition terminals that deliver outstanding accuracy and rapid performance:

- Recognition range up to 4 meters; supports multi-user (up to 4) simultaneous authentication
- Advanced liveness detection and anti-spoofing to block fraud attempts
- Equipped with mask detection for precise identification in all conditions

Iris Recognition Terminals

UNION biometrics' iris recognition products and solutions, enhanced with the latest technologies and algorithms, deliver both advanced security and user convenience.

With a high-performance algorithm capable of authenticating up to 40,000 templates per second, users can complete verification quickly and efficiently.

The system also provides robust protection by instantly detecting artificial eyes, photos, and videos, effectively blocking any spoofing attempts and ensuring a highly secure authentication environment.



Product Lineup



UBio-X Iris

Leverage advanced algorithms and cutting-edge sensor technology to accurately extract iris templates, delivering consistent authentication results.

- Recognition at distances up to 50 cm
- Accurate identification even when wearing glasses, masks, protective suits, or hijabs
- Proprietary fake-iris detection technology to counter spoofing

Multimodal Terminals

The advanced multimodal authenticational system runs fingerprint and facial recognition algorithms simultaneously within a single device, providing multiple biometric authentication options.

The fingerprint sensor and facial recognition camera precisely capture and analyze use data, while the “And & Or” function allows flexible selection between multi-factor or single-mode authentication.

In high-security environments such as government institutions, the “And” function enables multi-step verification, ensuring an even stronger and more reliable security framework.

*Multimodal authentication is an integrated verification method that utilizes two or more biometric modalities such as fingerprint and facial recognition simultaneously within a single device.



Product Lineup



U3io-X Face Premium



U3io-X Face Pro



U3io-X Pro 2



U3io-X Pro Lite

Our multimodal terminals combine two or more biometric factors for enhanced security and versatility:

- Integrate XScan-FQ/FP or XScan-FQ5/FP5 for dual biometric options
- Configure authentication methods flexibly (“AND/OR”) to meet varying security levels

Card Recognition Terminals

The card recognition device is a practical solution designed for versatile installation across various locations and operating environments, delivering reliable security through RFID.

It supports a wide range of credentials, including SC&RF integrated cards, DESFire, and HID options, which I65/67 and IK08 ratings ensure exceptional durability and resistance to wear and dust, even in outdoor settings.

With the PoE option, installation constraints are minimized in areas with limited power infrastructure, and the slim, compact design allows flexible mounting on various structures, including metal frames



Product Lineup



UBio-X Tag

— Our RFID access devices combine flexibility and resilience:

- Dual SC & RF integrated RFID reader (DESFire standard, HID optional)
- Outdoor-ready: IP65/67-rated, IK08 impact-resistant casing
- PoE compatibility and compact design for hassle-free installations
- ITU certification and proven deployment in major global projects

PetID – Nose Print Identification

Nose print recognition technology is a biometric identification method that uses the unique wrinkle patterns on a dog's nose to distinguish individual animals. Just like human fingerprints, each dog's nose print is one of a kind. When captured through a smartphone app or a dedicated scanner, AI algorithms analyze the pattern and generate a unique identification code. The registered data can then be matched with a database if the dog goes missing, allowing others to scan its nose and help quickly reunite the pet with its owner.

Unlike embedded microchips, this technology ensures animal safety and welfare by eliminating the need for any physical implantation. It also minimizes stress for the dog during identification. Since a dog's nose print remains unchanged over time, the data is permanent and reliable. With just one simple scan, information can be captured easily, offering excellent accessibility and usability.



Product Lineup



PetID

PetID solution identifies dogs using their unique nasal patterns:

- AI-powered pattern analysis registers each dog's distinct nose print, enabling rapid identification of lost pets
- Non-invasive and animal-friendly; no implanted chips required
- Convenient pet registration and management via a dedicated mobile app
- Adopted as an ITU international standard and successfully applied in global projects



Data Privacy Protection

UNION biometrics complies with GDPR (European data protection regulations) and has strengthened security measures for user data through ISO certification, an international standard organization. It also adheres to the AES256 encryption standard adopted by the U.S. National Institute of Standard and Technology(NIST), ensuring strong data encryption measures.

Personal Data Encryption

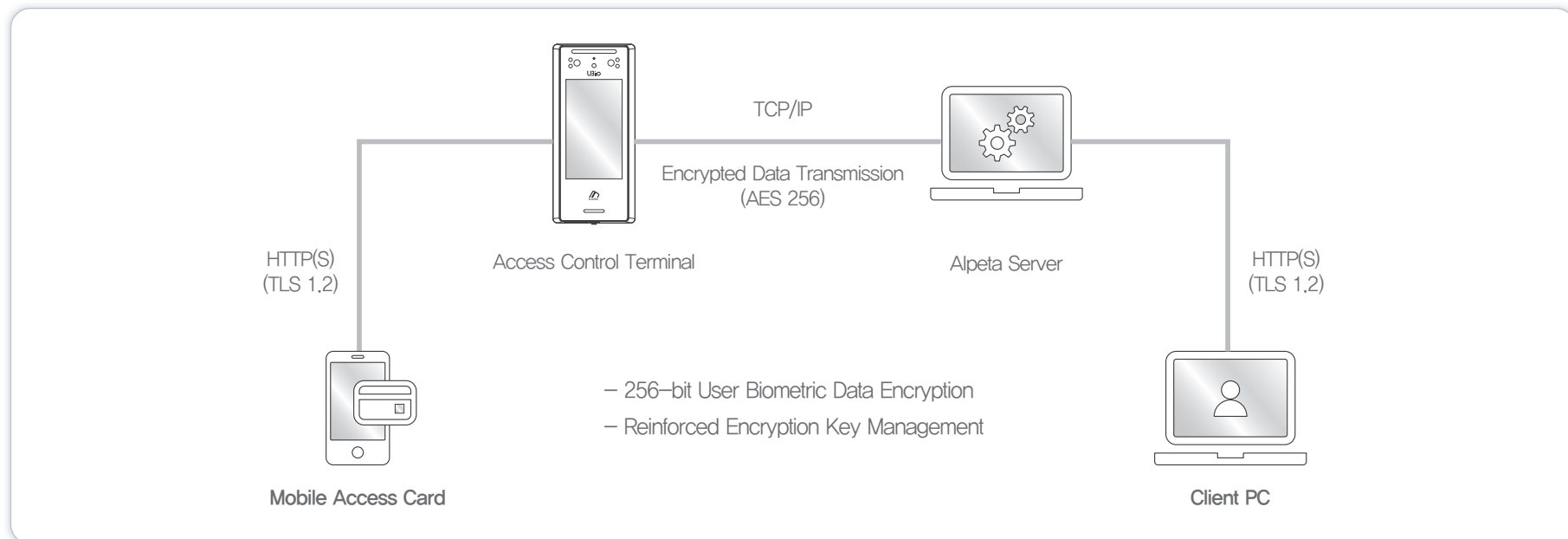
UNION biometrics complies with the European General Data Protection Regulation (GDPR) and has reinforced data security measures for all devices and servers to meet international standards through ISO certifications: ISO-27001 for international Security Management Systems (ISMS) and ISO-27701 for Privacy Information Management System (PIMS).

Furthermore, to maintain a high level of data security, UNION biometrics complies with the NIST-certified AES256 encryption standard. User biometric data stored on all devices and servers is safeguarded against physical data intrusion attempts through robust encryption and decryption processes.

By applying personal data protection laws and international encryption standards, UNION biometrics is committed to providing a secure environment for customers to use our services with confidence.



Application of AES 256 Encryption Algorithm



UBio | Your Bio All the Way
We Connect
Your Valuable Moment

UBio
Your Bio All the Way





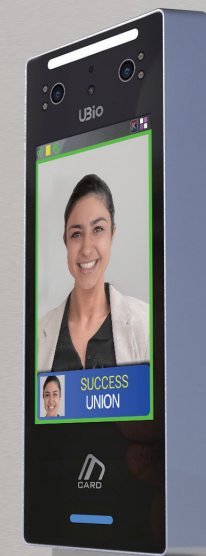
UBio | Your Bio All the Way

“Every space is through you” is a brand new slogan for UBio

We connect every space, putting our customers at the center of every experience and ensuring their safety and assets are protected wherever they are.

UBio stands as a premium biometric security brand, delivering trusted innovation and tailored solutions that ensure long-term security and value beyond expectations.

UNION biometrics is shaping the future of security with trusted, future-ready biometric platforms.



| UBio-X

Hardware Unification through the UBio Hardware Platform

Establishing a unified hardware standard through the UBio Hardware Platform high-performance modular architecture

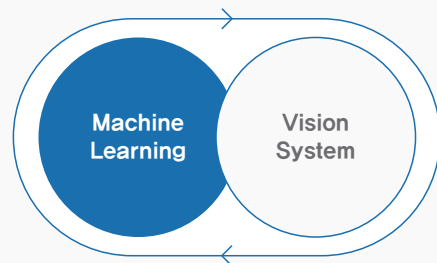
UBio Hardware Platform

We have developed a standardized hardware platform built on high-performance modules, enabling seamless on-device data analysis and system integration.

With a CPU up to 2.4× faster and a next-generation NPU, our platform delivers fast, accurate biometric processing. Advanced multimedia capabilities and high-speed connectivity create a seamless, intuitive user experience.

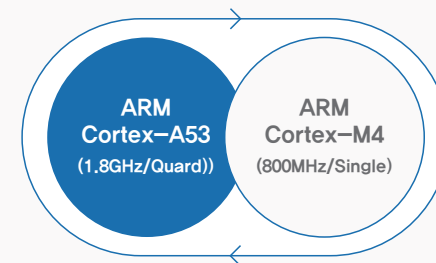
EDGE Computing & Intelligence

- Dual Camera ISP (HDR)
- Neural Processing Unit (NPU) up to 2.3 TOPS



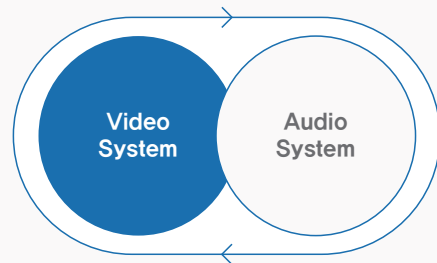
High Real-Time Processing CPU

- **[X2.4]** Up to 21,600 DMIPS (UBio-X Face: 8,000 DMIPS)
- **[+1]** Cortex Complex Off-Loading
- **[X2]** 14nm (UBio-X Face: 28nm)



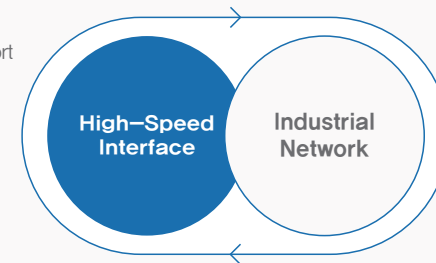
Multimedia Systems on the EDGE

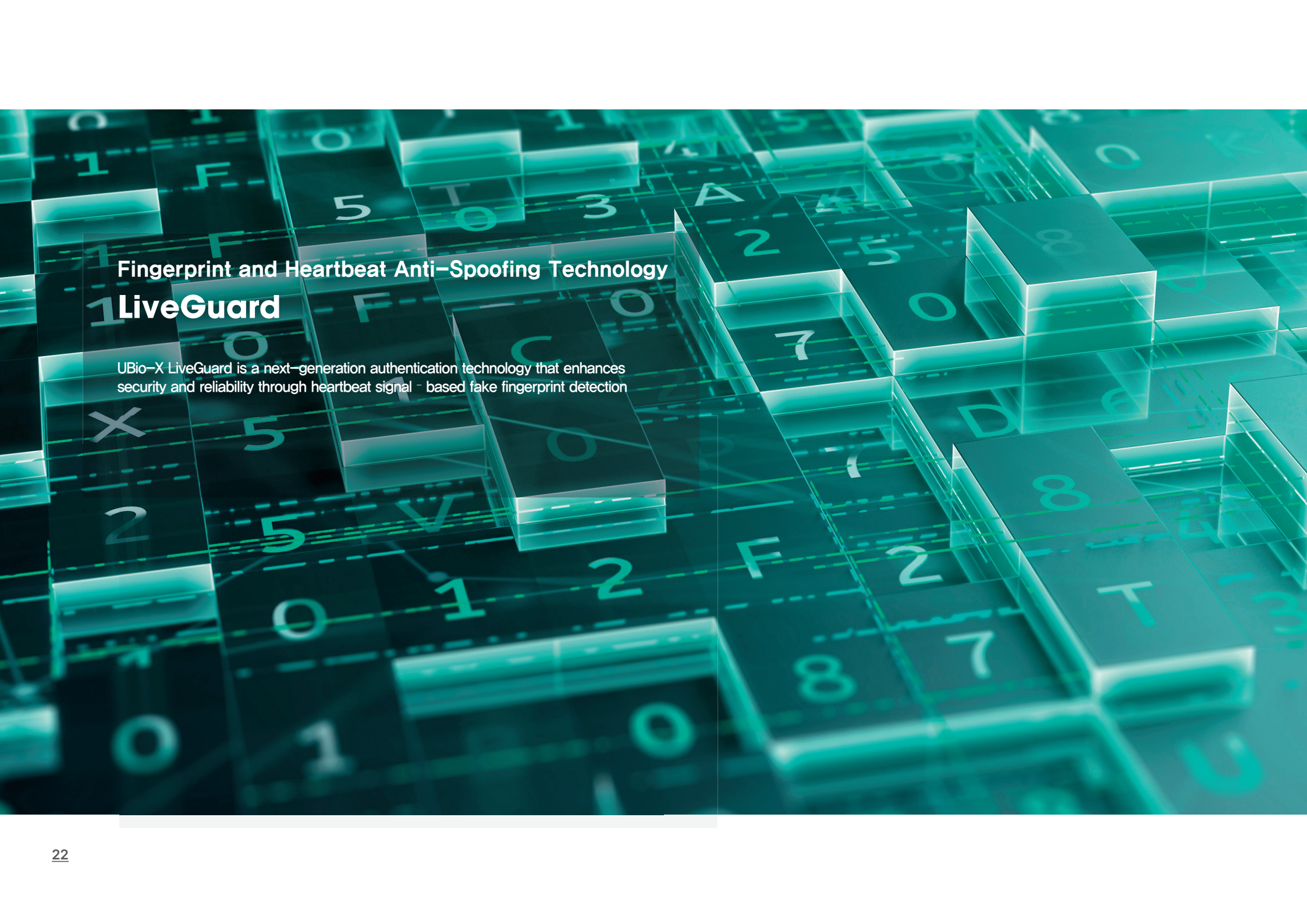
- 2D/3D Graphics Engine Built-in
- 1080p60 Video Encoding/Decoding (H.265, H.264)



Fast Connections & Data Transfer

- MIPI-DSI 1080p60 Display Support
- Gbit Ethernet & USB3.0





Fingerprint and Heartbeat Anti-Spoofing Technology **LiveGuard**

UBio-X LiveGuard is a next-generation authentication technology that enhances security and reliability through heartbeat signal - based fake fingerprint detection

LiveGuard: Redefining the Future of Security

UBio-X LiveGuard elevates hybrid biometric authentication by integrating fingerprint recognition with heartbeat signal detection, effectively identifying and blocking artificial materials including silicone, gelatin, and conductive rubber to deliver an enhanced layer of protection.

Multi-factor Authentication Based on Fingerprint and Heartbeat Signals



Fingerprint and live pulse verification at the same time

KISA K-NBTC Grade 1 - certified for industry-leading anti-spoofing performance



Ideal for high-security sectors including finance, government, and defense

Support Model



UBio-X FacePro



UBio-Core

New Services through Firmware Updates

Beyond simple feature updates, the system enables the expansion of diverse services such as Multi View, Video Intercom, and HealthID at the firmware level, allowing flexible responses to customer needs without any hardware replacement

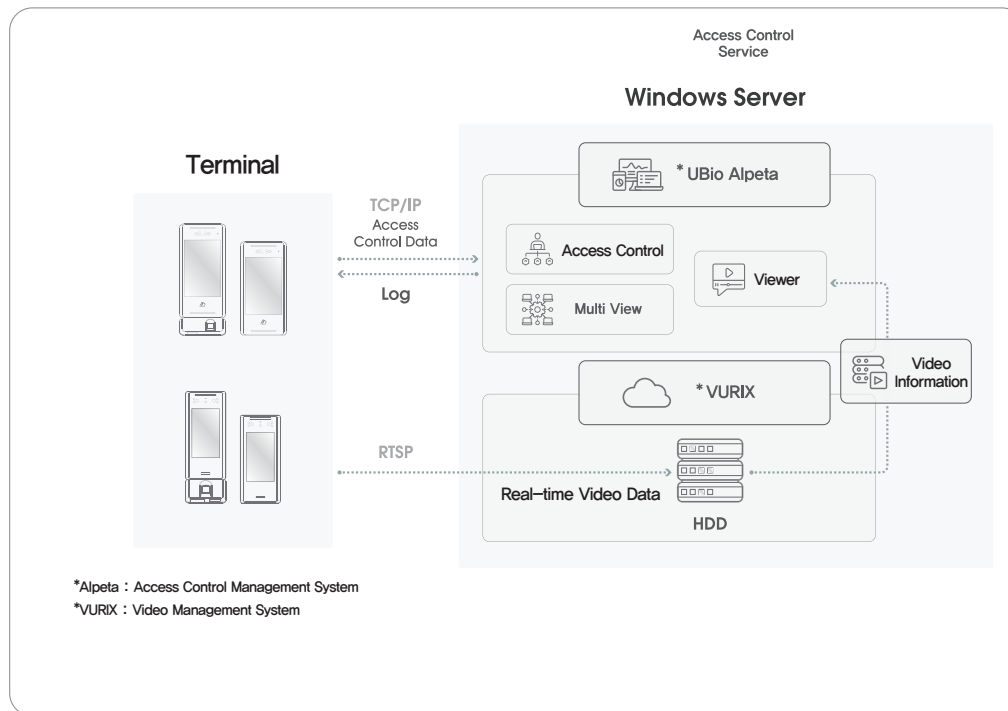
UBio-Core: Advanced Platform for Intelligent

With the Multi View feature, users can monitor the surroundings of the device in real time and securely collect and manage authentication events and video footage. The Video Intercom enables instant communication between administrators and visitors, strengthening both security and efficiency on site.

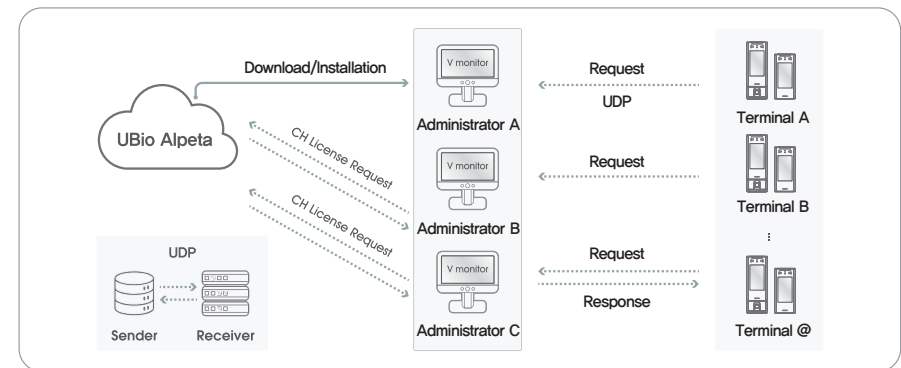
The HealthID feature analyzes subtle changes in skin tone through the camera to extract key health indicators such as heart rate, stress, and fatigue levels. This data is integrated with the UBlo-Alpeta platform, allowing organizations to monitor overall wellness through a unified dashboard while supporting personalized health tracking for individuals.

Key Features:

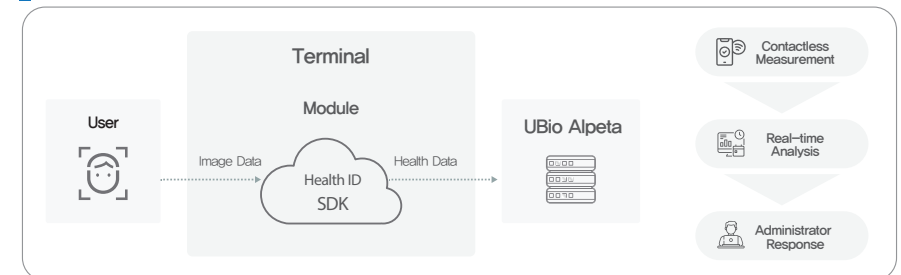
Multi View



Video Intercom



HealthID



A photograph of three people in a modern control room. On the left, a man in a light blue shirt looks at a large video wall. In the center, a woman in a dark blue blazer also looks at the screen. On the right, a man with glasses and a beard, wearing a blue denim shirt, points at the screen. The video wall displays multiple camera feeds: a hallway with people, a close-up of a smiling woman with a white bounding box around her face, and other indoor scenes. The background is dark with some blurred lights.

Enhancing Security Through Monitoring and Communication

Multi View & Video Intercom

UBio-Core Multi View and Video Intercom offer a complete solution for visual monitoring and real-time communication

UBio-Core: Multi View & Video Intercom

UBio-Core is an access control solution that enables video monitoring and management through its integrated device. It offers three main features: Door View, Event View, and Video Intercom. Door View provides real-time monitoring around the device, while Event View securely records and manages authentication and event videos. Video Intercom allows real-time video communication between visitors and administrators, enhancing both security and convenience. UBio-Core delivers a more intuitive and powerful security experiences with the key features.

Door View



1. Real time monitoring

- Monitoring of live streaming data from the device's perspective in real-time

2. Authentication Log

- Real-time tracking of authentication status, including success, failure, and errors

3. Event List Log

- Real-time monitoring of abnormal logs, such as temperature alerts and device connectivity issues

Event View



1. Precise Situation Diagnosis via Video

- Capturing video data for 5 seconds starting from the moment of authentication attempts for accurate assessment

2. Intuitive Situation Diagnosis with Three Distinctive Colors

- Recorded videos are highlighted with three different colors for an effective event assessment

Video Intercom



1. Two-way Communication Channel

- For external visitors, there's a button on the device for easy and fast communication with administrators

2. Admin Convenience

- When a visitor tries to connect from the device, a pop-up appears on the administrator's PC for quick confirmation and communication

Health Management Solution HealthID

UBio-Core HealthID is a next generation healthcare solution that measures key health indicators such as heart rate, cardiovascular index, and stress level— analyzes the data through a simple facial scan



UBio-Core: HealthID

UBio-Core HealthID detects subtle skin color fluctuations to measure blood flow and derive key health metrics.

Collected health data is securely stored and visualized in UBio-Alpeta, allowing both enterprise-wide monitoring and individual wellness tracking.



High-performance camera for precise health analysis



Six key health indicators
(Heart rate, cardiovascular index, stress, fatigue, body temperature, and alcohol level)



Real-time health monitoring enables instant assessment of the user's condition



Detailed analysis of health trends across the organization and for each individual



Full compatibility with exiting access control system



Stable operation in diverse environments

Applications:

Construction, hospitals, offices, factories, and warehouses



Construction



Medical



Office



Factory/Warehouse



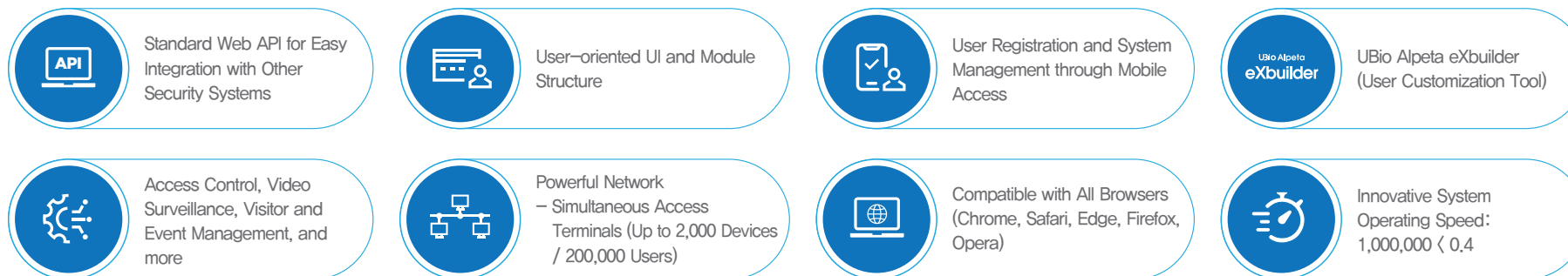
UBio-Alpeta

Comprehensive Security Management Platform

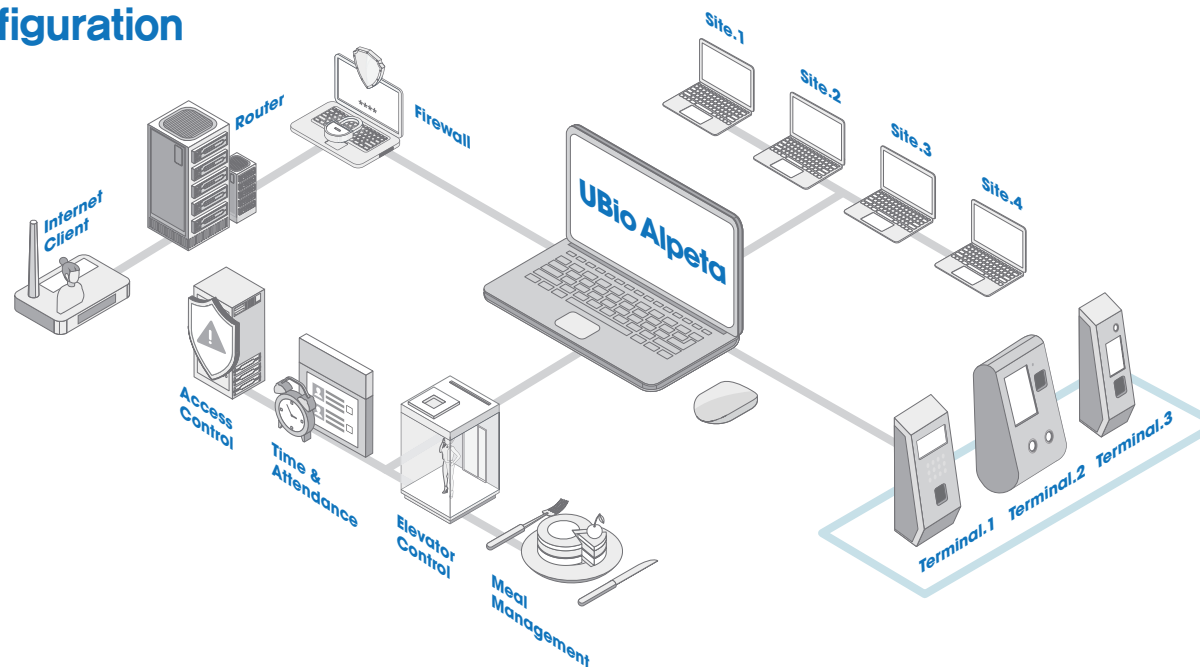
UBio-Alpeta is a comprehensive security management platform, unifying access control, time and attendance, dining, and more into a single platform

Key Features of UBio Alpeta

The intuitive interface, flexible customization options, and mobile registration tools simplify administration while open web APIs allow seamless integration with existing systems.



System Configuration





ACCESS CONTROL

Key Functions of UBio Alpeta

UBio Alpeta offers a comprehensive security solution that includes access control, attendance management, meal management, contactless visitor management. Furthermore, it supports various features such as elevator control and video surveillance. Through integration with third-party security systems, it allows for the control and management of elevator access and enables real-time video monitoring and recording for effective security management.



Access Control



Contactless Visitor
Management



T&A
Management



Meal
Management



Elevator Control



Parking
Management



Video
Surveillance



Contactless Visitor and Event Management

The contactless visitor and event management feature allows visitors to apply for entry in advance using their mobile devices. Administrators can then approve these requests, facilitating convenient access.

- Remote Visitor Application: Enable visitors to request entry remotely using their mobile devices
- Mobile Registration: Visitors can use their mobile devices to provide basic information and choose their preferred biometric authentication methods
- Seamless Integration: Seamlessly integrate with existing access control system
- Visitor Access Record: Ensure convenient and precise visitor access record keeping

Elevator Control

UBio Alpeta seamlessly integrates with third-party security systems to provide floor-level access permissions to specific users based on biometric recognition.

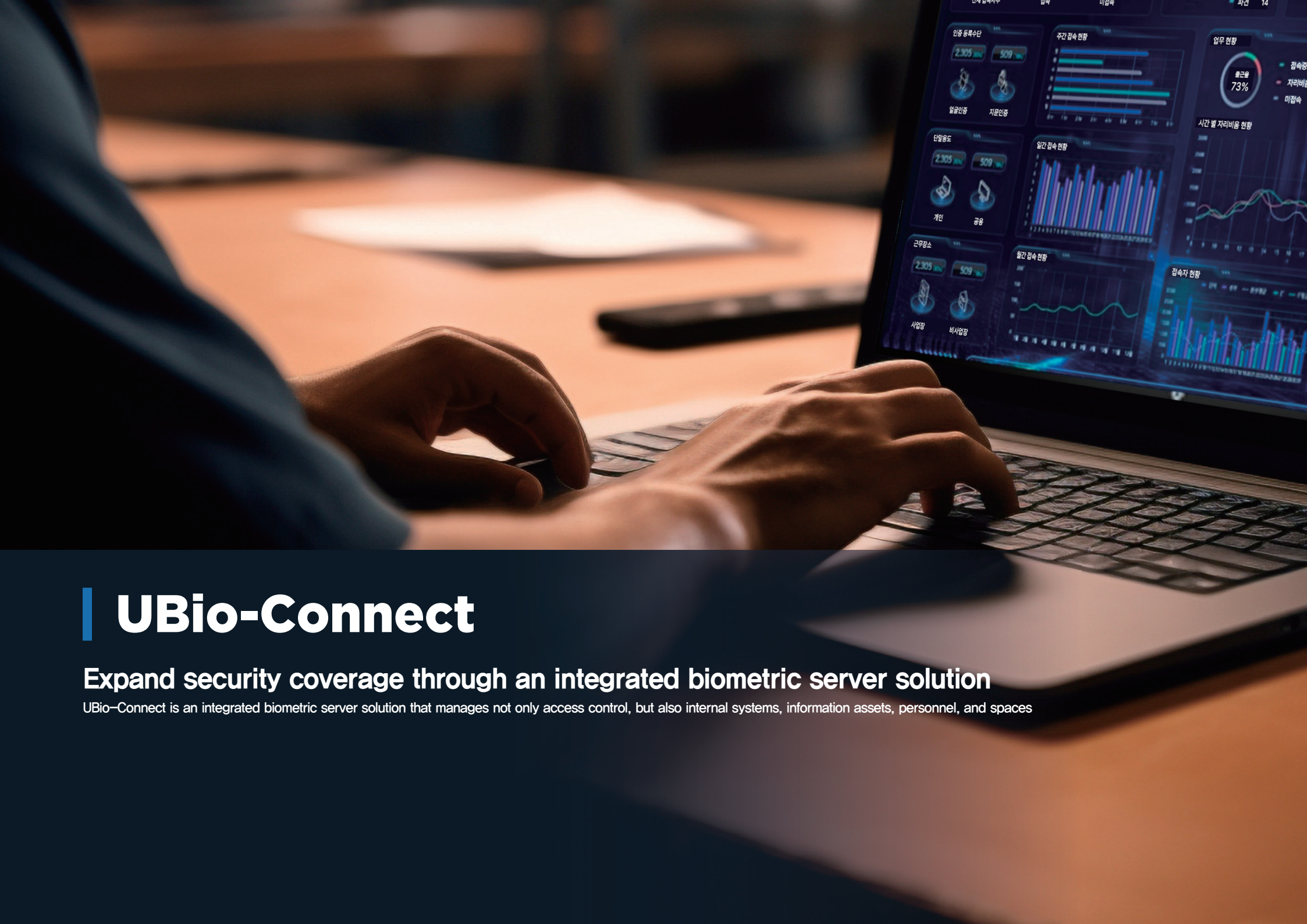
- Biometric Recognition: Grant floor and group access permissions to specific users through biometric recognition
- Convenient Entry: Removing the necessity for issuing physical keys or cards
- Enhanced Security: High level of security through biometric authentication methods



Video Surveillance

By integrating with third-party security systems, UBio Alpeta provides real-time video monitoring and access authentication record retrieval

- Real-time Video Recording, Monitoring, and Management
- Video Motion Detection
- View Specific Event Recording
- Tracking the Movement Path of Specific Users
- Video Retrieval Functionality Provided



UBio-Connect

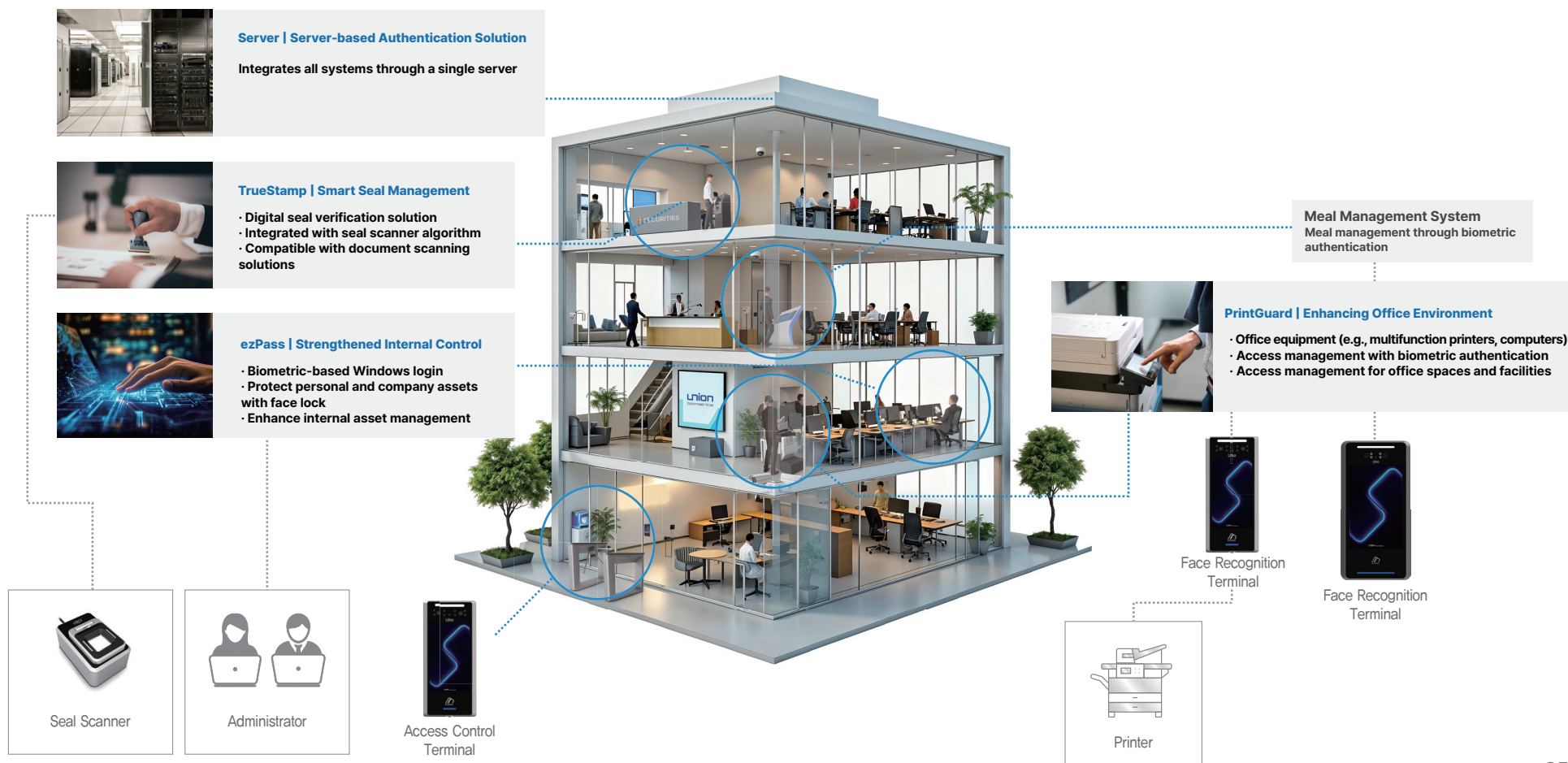
Expand security coverage through an integrated biometric server solution

UBio-Connect is an integrated biometric server solution that manages not only access control, but also internal systems, information assets, personnel, and spaces

UBio-Connect: Unified Biometric Platform

UBio-Connect unifies all authentication credentials across an enterprise into a single biometric sign-on platform. The server-based architecture delivers centralized, streamlined management for both digital and physical access.

System Configuration





Internal control with biometric authentication **ezPass**

UBio-Connect ezPass is a robust security solution that prevents data and asset leaks through facial recognition PC login and access control device authentication

Software Innovation: UBio-ezPass

Server-based facial authentication for PC login and access control, granting access exclusively to authorized users
ezPass integrates seamlessly with existing security infrastructure for unified management.



Attendance Dashboard

Provides a dashboard for intuitive and easy tracking of attendance status, divided into total users, working hours, and location



Decentralized Biometric Data Storage

Stores user biometric data with automatic encryption algorithm updates for enhancing data security



Face Recognition Biometric Solution

Prevents data and personal information leaks by eliminating the need for passwords through face authentication

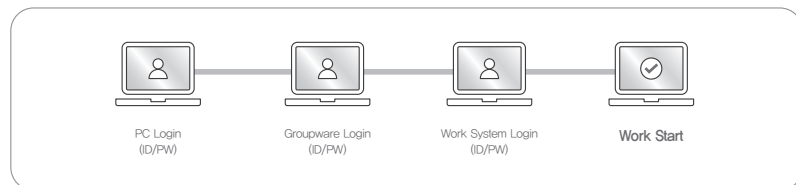


Unauthorized Access Prevention

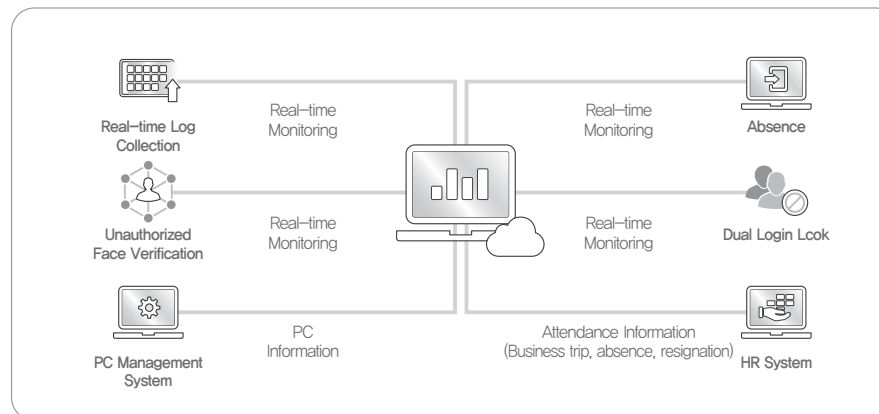
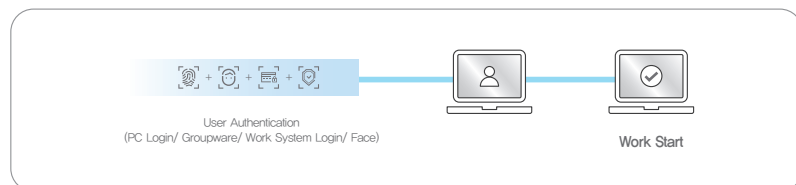
Real-time face analysis and automatic PC lock on unauthorized detection to prevent data exposure

System Configuration

As-Is



To-Be



A hand in a white shirt cuff holds a blue rubber stamp with a gold-colored base, poised to stamp a document. The document features several colorful pie charts and some text. The background is blurred, showing what appears to be an office setting.

Digital Seal Security Solution **TrueStamp**

UBio-Connect TrueStamp is a digital seal security solution that strengthens facial security by preventing forgery and tampering through seal verification using its proprietary seal authentication algorithm

Key features of TrueStamp

TrueStamp verifies seals and signatures using a patented scanner and built-in recognition algorithm.

Integration with digital stamping and document management solutions enables instant, secure document verification, with results stored in UBio-Alpeta.



Precisely verifies forgery using seal authentication algorithm embedded in a patented seal scanner

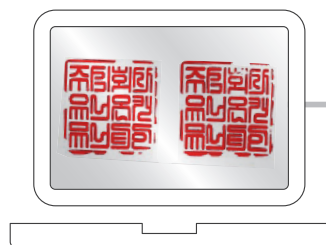


Unified solution for seal registration, authenticity verification, and document certification

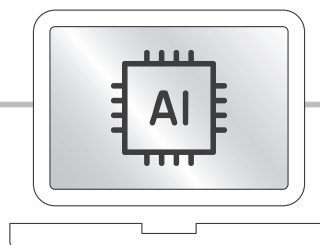


Optimized for financial institutions to reduce risks of document tampering and data leak

Process



1. Visual inspection



2. AI analysis of digital images



3. Final decision on results

Integrated biometric facility access solution

PrintGuard

UBio-Connect PrintGuard is a server-based biometric solution that controls office equipment usage and prevents document leaks through facial and card authentication



Key features of PrintGuard

PrintGuard prevents unauthorized document printing via built-in facial recognition for printers and MFPs. User-specific print logs are tracked in UBio-Alpeta for complete auditing and compliance.



Printer and multifunction device access management through facial recognition

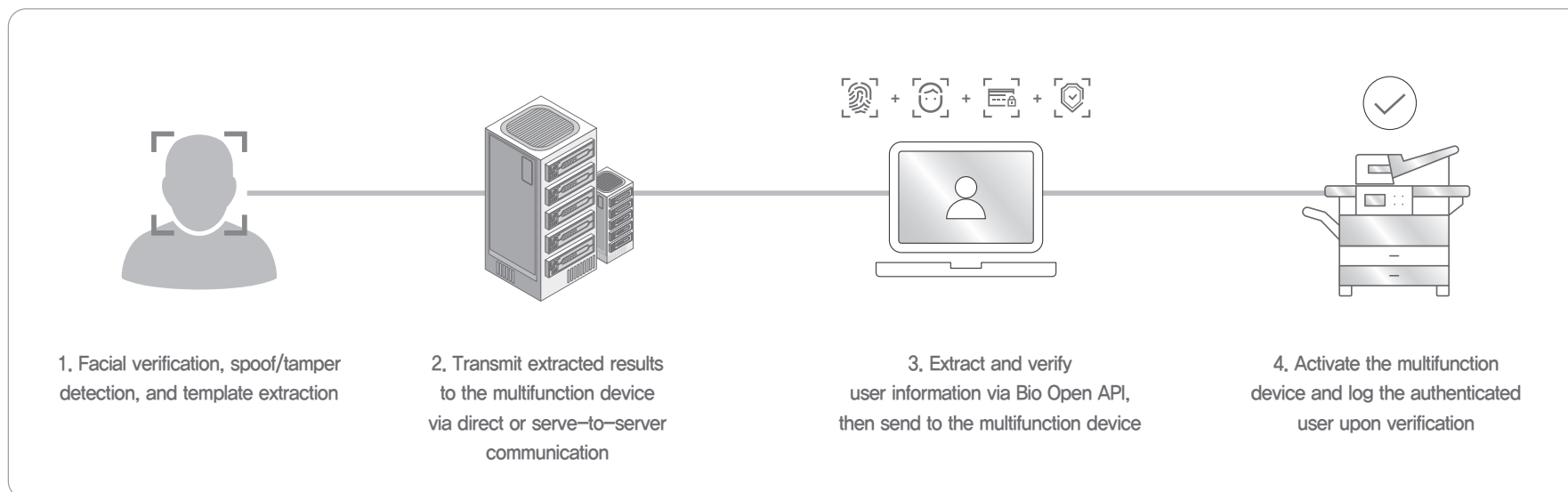


Reduces document leak risk by tracking individual user print



Centralized control of access to specific office areas and equipment

Process



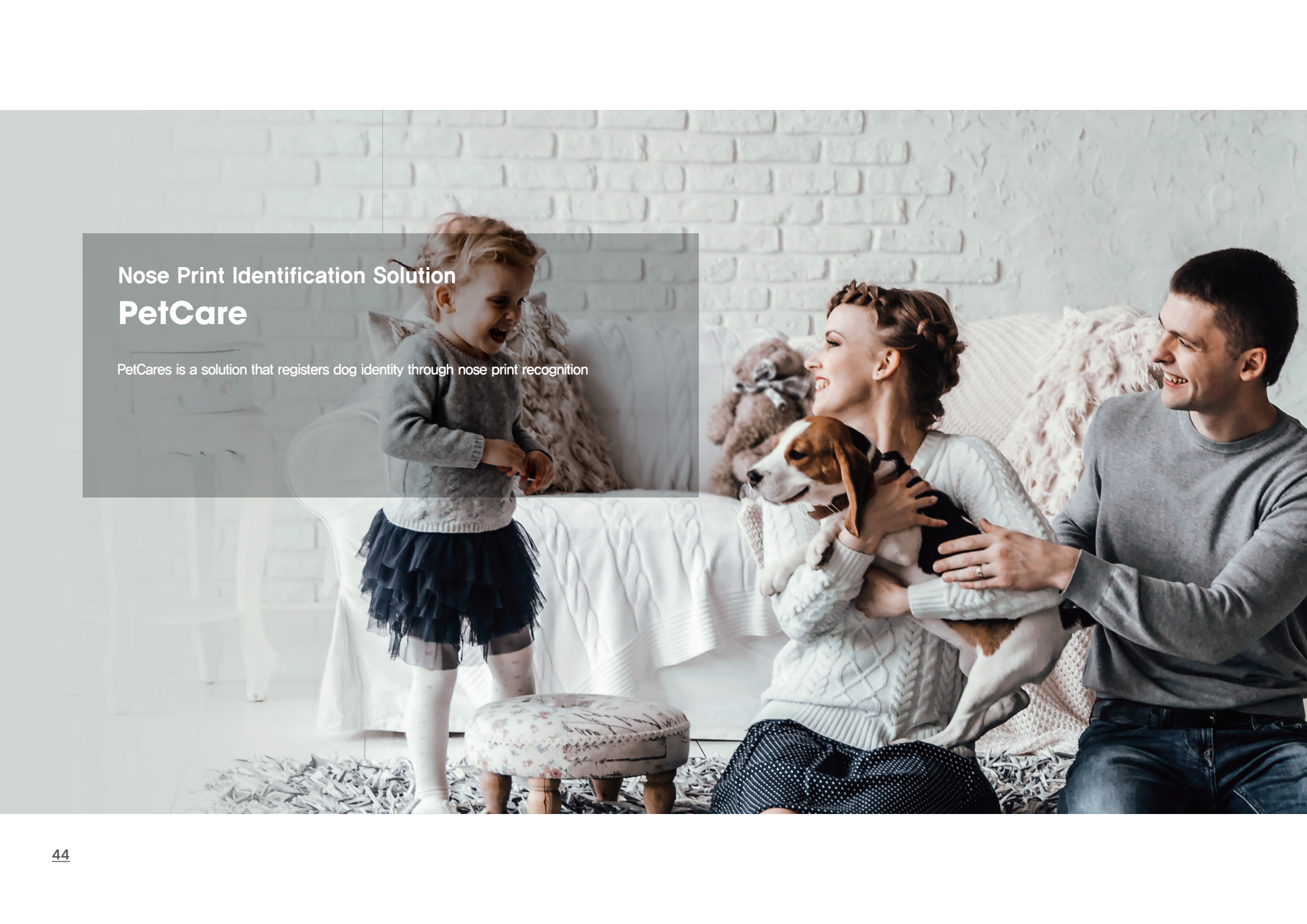
ProjectPet

A project for a better world with pets

Project for a better life with our pets

From secure identification to a better life with your pet – all in one solution
Every moment with your pet unlocks technology for a safer, more connected life

ProjectPet expands biometric innovation beyond humans, delivering smart solutions to beloved pets. It goes beyond registration, connecting pets and owners through biometric technology while addressing social challenges for a better future. A single biometric scan ensures pet identity, information, and safety through integrated facial recognition, registration, and management. Extending beyond pet registration, it fosters a sustainable and responsible culture of pet care. ProjectPet, reflecting advanced technology and commitment from UNION biometrics, a safer and sustainable future with beloved pets.



Nose Print Identification Solution **PetCare**

PetCares is a solution that registers dog identity through nose print recognition

PetCare - Key Features

ProjectPet applies biometric innovation to animal welfare, facilitating reliable pet identification, registration, and management.

More than registration, it fosters a sustainable, technology-driven pet care culture connecting owners with their beloved companions.



Patented
Technology



World's First
Noseprint
Recognition



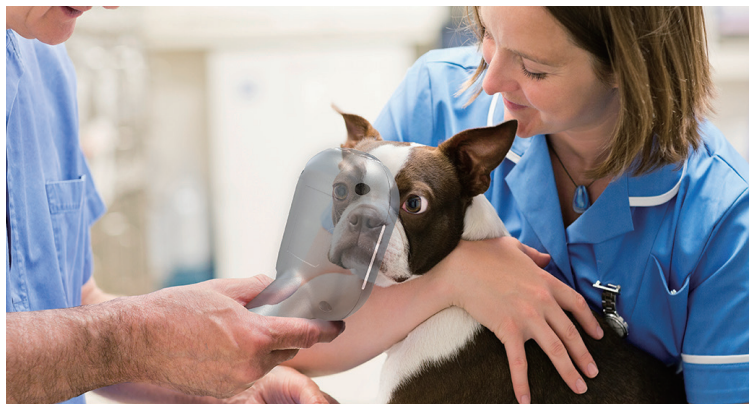
Extraction,
Matching
Algorithm



High Accuracy,
Uniform Capture



Accommodating
Moist Noseprints

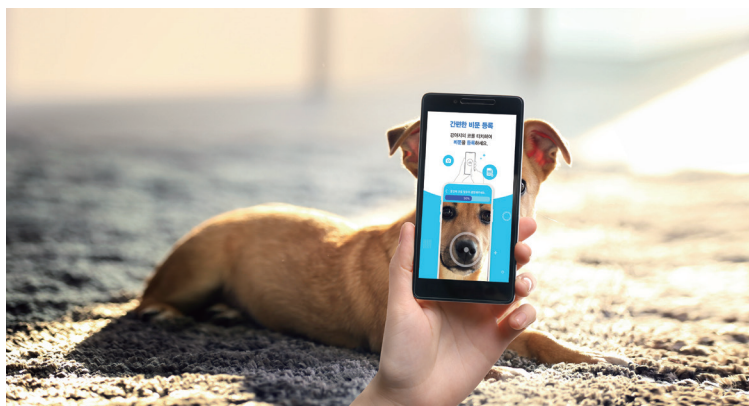


Contact-based noseprint recognition

- Developed by UNION biometrics, it is the world's first contact-based digital noseprint recognition device, which can be implemented in various environments using a software development kit (SDK).



CPU	DSP / Up to 400MHz	Capture Type	Optical
RAM	DDR2 64MB	Resolution	500 DPI
Serial Flash	4MB	Supply Voltage	DC 5V
CMOS Image Sensor	Sensor 1/2.7 inch / 2M	Interface	USB 2.0 High Speed
Image Size	1168 x 480 pixel	Dimension	80 x 198,58 x 141,46 (mm)



Contactless noseprint recognition

- Through the mobile application offered by UNION biometrics, pet owners and general users can conveniently capture nose prints.
- With registration and lost pet identification features, users can register their pet's nose prints or rapidly identify registered stray pets.

A full-page background image showing two men in a large industrial or construction setting. The man on the left is seen from the back, wearing a yellow hard hat and a high-visibility yellow safety vest over a blue long-sleeved shirt. The man on the right is facing him, wearing a white hard hat and an orange safety vest over a light blue shirt and a yellow tie. They are shaking hands. The background consists of a complex network of blue steel beams and bright overhead lights, creating a sense of a large-scale construction project.

Smart Construction Safety Solution

The Smart Construction Safety Solution is an integrated platform designed for construction sites, providing comprehensive management of access, attendance, and health monitoring

Construction Smart E-Card Terminal

Our smart construction terminals are the industry's first to support mobile card recognition, allowing easy tagging and access without physical cards. Each device features a user-friendly design, multilingual interface, and advanced fingerprint authentication—ideal for global sites with diverse needs.



Leading the industry with mobile card recognition technology



Easy operation with an intuitive check-in/out button



Real-time authentication status



Multi-language support

Product Lineup:

Portable (T500)	Mobile (M400)	Wall-Mounted (W400)
		
• Ultra-compact, lightweight (300g) design for effortless installation • Industry-first dual certification: IP65 (water/-dust) and IK08 (impact) • Multiple authentication modes: fingerprint, card, mobile app	• Modular housing for easy maintenance • Up to 8 hours of battery-powered operation • Ideal for temporary or low-power environments	• Customizable for a range of site-specific needs

Safety and Health Rest Zone

The Safety and Health Rest Zone provide workers with a dedicated space for rest, monitoring, and training.

Using smart bands and portable CCTV along with HealthID, biometric indices such as cardiovascular status, heart rate, stress, fatigue, temperature, and alcohol level are monitored—enabling a complete safety and wellness management solution with digital signage-based support.



Rest Facilities for employees



Real-time worksite monitoring and communication with smart safety devices



Comprehensive health and safety monitoring and management



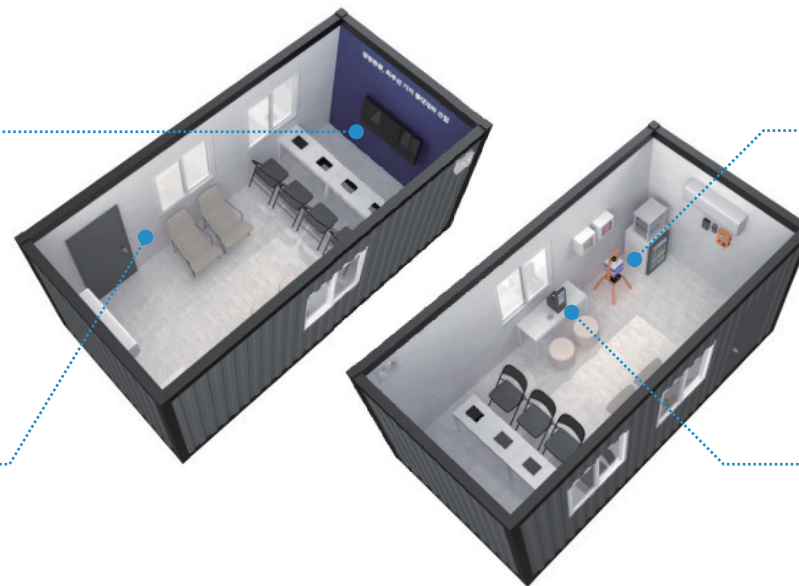
On-site health and safety training

Service coverage



Safety and health

- Digital Signage (on-site data and safety training materials)
- Safety training for new employees (via tablets, large screens, etc.)



Smart safety equipment

- Smart wristband (health-monitoring)
- Portable CCTV (real-time monitoring and two-way communication)



Time and attendance management

- Face, fingerprint, card, mobile card support
 - Optimized user convenience
 - Multi-language UI support
- *Electronic card fingerprint recognition terminal



Health and wellness assessment

- Cardiovascular index, health rate, body temperature, stress index, fatigue level, and alcohol detection

*HealthID

Portable Construction Safety Solution

A next-generation solution unifying on-site access control, workforce attendance management, and real-time CCTV monitoring. Leveraging UBio-X Face Pro and M400 terminals, it simultaneously enforces security and accurately tracks attendance while capturing 6 seconds of contextual environment during each log for enhanced safety auditing and incident prevention. Deployed across domestic and international projects, it offers site-specific customization, delivering a sophisticated and globally adaptable construction safety platform.



Portable use with built-in battery



Reliable operations on diverse worksites



All-in-one system for alcohol detection, temperature monitoring, and health management



From access and attendance management to comprehensive workplace enhancement

System Configuration

Terminal



Fingerprint Recognition Package
(M400 + CCTV)



Face Recognition Package
(UBio-X Face Pro + CCTV)

Dashboard



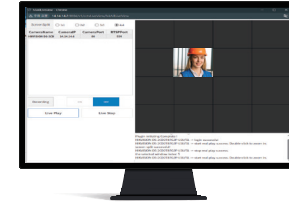
Dashboard



Event View



Recorded file



Monitoring

A group of four business professionals are seated around a wooden conference table in a modern office setting. The room has a dark, textured wall and a whiteboard is visible in the background. The participants include a man on the left in a light blue shirt, a woman in the center wearing glasses and a light-colored blazer, a man on the right wearing glasses and a grey blazer, and another person on the far right seen from the back. They are all focused on their work, with laptops open and documents on the table. The lighting is warm and focused on the group.

Technology Partners & Global Integration

Global Integration Partners

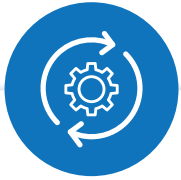
UNION biometrics partners with global leaders, offering a flexible range of integration methods tailored to regional requirements

Technology Partners



UNION biometrics Integration

UNION biometrics establishes integration strategies to promote efficient collaboration with global partners and supports them in selecting the most suitable integration methods that align with their environments and requirements.



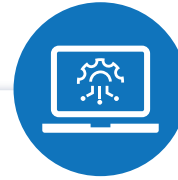
UBio-Sync

UBio-Sync is a middleware for the integration of devices, servers, and services, providing all the necessary protocols for seamless integration with third-party security solutions and our devices



UBio-Device SDK

UBio-Device SDK allows third parties to directly control the device's hardware resources, biometric algorithms, and network interfaces to develop an access control program and offer an OEM product lineup.



UCS-SDK

UCS-SDK supports flexible control and management of devices, users, and access control services, allowing third parties to effectively modify and enhance access control systems



Alpeta Web API

Alpeta Web-API provides user and device management, as well as the latest services offered by UBio-Core based on understanding the diverse needs of the users

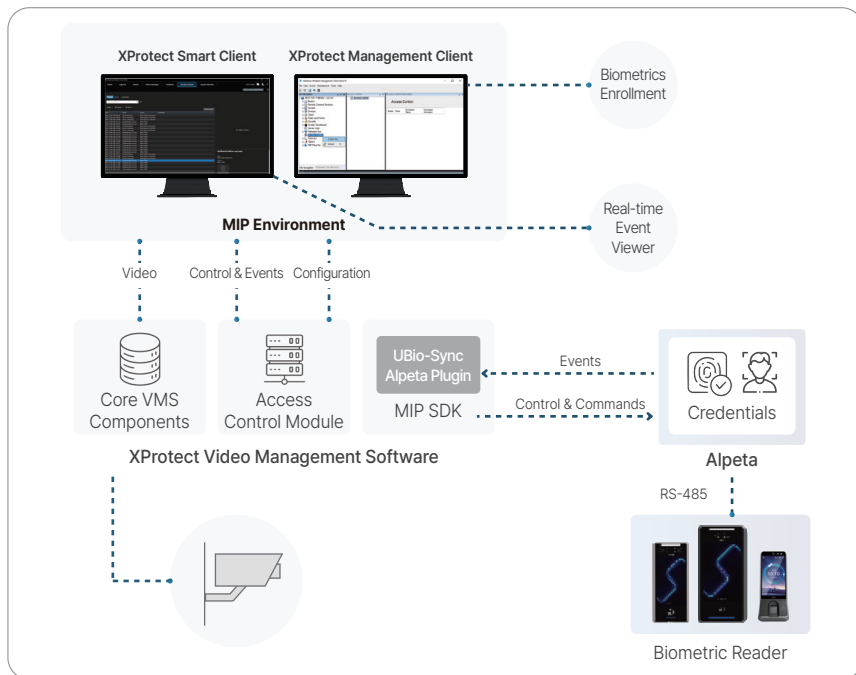
UBio-Sync Advantages:

Our seamless, global partner integrations strengthen security and operational efficiency, delivering unified, reliable solutions to customers worldwide.

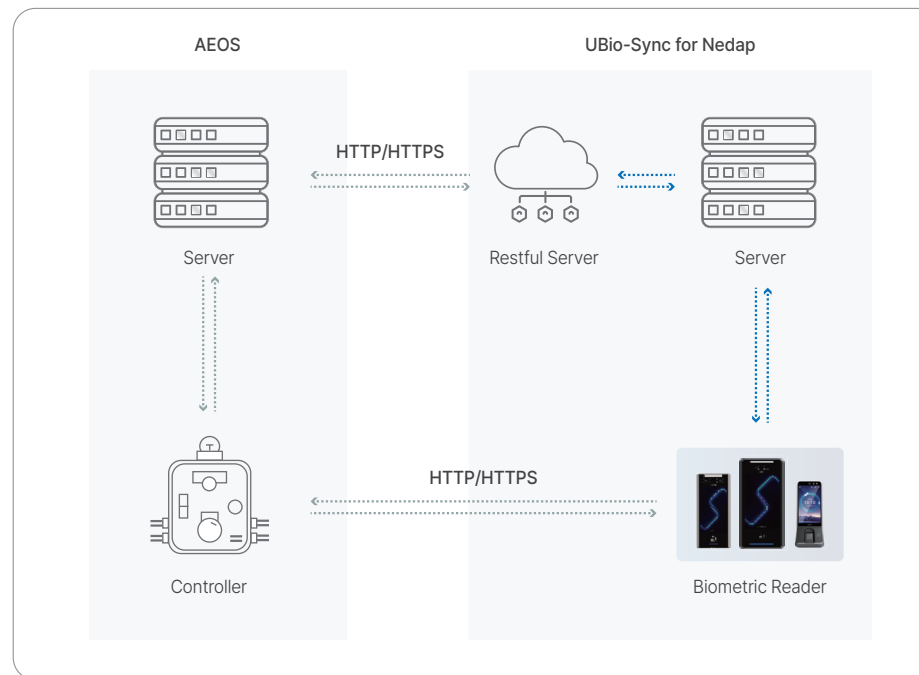


Global Integration Partners

Milestone



Nedap



Access & Time Management

Model				UBio-X Face Pro	UBio-X Face Premium	UBio-X Pro2	UBio-X Pro Lite	UBio-X Iris	
Product Image									
Authentication Method				Biometric	Biometric	Biometric	Biometric	Biometric	
Dust/Water Resistance				IP55/IP65	IP55/IP65	-	-	-	
Memory	Max Users	Card	(1:1)/(1:N)	500,000	500,000	500,000	500,000	200,000	
		Fingerprint (Base on one finger enrollment per user)	1:1	500,000	500,000	500,000	500,000	200,000	
			1:N	50,000	50,000	100,000	100,000	50,000	
			Face (Base on five face enrollment per user)	1:1	30,000(optional 50,000)	30,000(optional 50,000)	20,000	100,000	-
		1:N	30,000(optional 50,000)	30,000(optional 50,000)	20,000	7,000	-		
	Templates	Iris (Base on 2 eyes (L/R) enrollment per user)	1:1	-	-	-	-	200,000	
			1:N	-	-	-	-	20,000	
		Fingerprint	1:1	1,000,000	1,000,000	1,000,000	1,000,000	400,000	
			1:N	100,000	100,000	200,000	200,000	100,000	
			MAX Templates per Finger	2	2	2	2	2	
			MAX Finger per User	10	10	10	10	10	
		Face	1:1	30,000(optional 50,000)	30,000(optional 50,000)	20,000	500,000	-	
			1:N	30,000(optional 50,000)	30,000(optional 50,000)	20,000	35,000	-	
			MAX Templates per User	1	1	1	10	-	
		Iris	1:1	-	-	-	-	400,000	
			1:N	-	-	-	-	40,000	
			MAX Templates per Eyes	-	-	-	-	2	
			MAX Templates per User	-	-	-	-	4	
		Logs			10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
		Images			20,000	20,000	20,000	20,000	20,000
Communication	with server			TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	
	other			USB	USB	SD CARD	SD CARD	USB	
	Wireless LAN(Wi-Fi)			0	Optional	Optional	Optional	Optional	
	Wiegand OUT			0	0	0	0	0	
	RS232			0	0	0	0	0	
	RS485			0	0	0	0	0	
	Wiegand IN			0	0	0	0	0	
Display	LCD			5"Color Touch	8"Color Touch	5"Color Touch	5"Color Touch	5"Color Touch	
	Backlight			0	0	0	0	0	
Embedded Camera				Dual	Dual	Dual	Dual	Dual	
Card	125khz-EM(KHz-EM)			0	0	0	0	0	
	HID Prox			0	0	0	0	0	
	HID iclass(IC)			0	0	0	0	0	
	13.56MHz Smart Card			0	0	0	0	0	
keypad				Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	
Function keys				SOFT	SOFT	SOFT	SOFT	SOFT	
Door Phone				0	0	-	-	-	
FP Sensor (Platen Area) mm				Optional	Optional	15.5 x 19	15.5 x 19	Nscan-FM : 16.6 x 21.6	
Resolution				500dpi	500dpi	500dpi	500dpi	500dpi	
Dimension (W) x (H) x (D) mm				92 x 200 x 22.1	143.3 x 289.5 x 23.8	150 x 209.6 x 56.4	149.7 x 208 x 89.7	160.6 x 214 x 45.4	
FRR / FAR				0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	
Operating Illuminance (lux)				30,000	30,000	25,000	30,000	-	
Operating Temperature				-20 ~ 60℃	-20 ~ 60℃	-20 ~ 55℃	-20 ~ 60℃	-20 ~ 50℃	

Access & Time Management

Model				UBio-X Slim	AC-5100 / 5000 1K	AC-2200	AC-2100 PLUS	AC-2000	UBio-X Tag
Product Image									
Authentication Method				Biometric	Biometric	Biometric	Biometric	Biometric	Card (Password)
Dust/Water Resistance				IP55	IP55	IP65	IP65	IP65	IP55/IP65
Memory	Max Users	Card	(1:1)/(1:N)	500,000	20,000	10,000	10,000	10,000	400,000
		Fingerprint (Base on one finger enrollment per user)	1:1	100,000	20,000	10,000	10,000	10,000	-
			1:N	100,000	15,000	5,000	1,500	1,500	-
			1:N	-	-	-	-	-	-
		Face (Base on five face enrollment per user)	1:1	-	-	-	-	-	-
	1:N		-	-	-	-	-	-	
	1:N		-	-	-	-	-	-	
	Templates	Iris (Base on 2 eyes (L/R) enrollment per user)	1:1	-	-	-	-	-	-
			1:N	-	-	-	-	-	-
			1:1	200,000	40,000	20,000	20,000	20,000	-
		Fingerprint	1:N	200,000	30,000	10,000	3,000	3,000	-
			MAX Templates per Finger	2	2	2	2	2	-
			MAX Finger per User	10	10	10	10	10	-
			1:1	-	-	X	-	-	-
		Face	1:N	-	-	X	-	-	-
			MAX Templates per User	-	-	X	-	-	-
			1:1	-	-	X	-	-	-
		Iris	1:N	-	-	X	-	-	-
			MAX Templates per Eyes	-	-	X	-	-	-
			MAX Templates per User	-	-	X	-	-	-
	Logs			10,000,000	64,000	100,000	100,000	51,000	1,000,000
	Images			50,000	17,000 / -	10,000	-	-	-
Communi- cation	with server			TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP
	other			USB	Bluetooth / -	Bluetooth / USB	USB	Bluetooth	USB (Only FW)
	Wireless LAN(Wi-Fi)			Optional	-	-	-	-	-
	Wiegand OUT			0	0	0	0	0	0
	RS232			0	0	-	-	X	-
	RS485			0	OSDP	OSDP	OSDP	OSDP	0
	Wiegand IN			0	0	0	0	0	0
Display	LCD			5"Color Touch	2.8"Color	1.77"Color LCD	1.77"Color LCD	-	-
	Backlight			0	0	0	0	-	-
Embedded Camera				0	0	0	-	-	-
Card	125khz-EM(KHz-EM)			0	0	0	0	0	0
	HID Prox			0	0	X	-	0	0
	HID iclass(IC)			0	0	-	-	0	0
	13.56MHz Smart Card			0	0	0	0	0	0
keypad				Touch Screen	0	-	-	-	0
Function keys				SOFT	10	4	4	-	-
Door Phone				-	0	-	-	-	-
FP Sensor (Platen Area)				16.4 x 19.4	16 x 20	14.8 x 17.9	14.8 x 17.9	14.8 x 17.9	-
Resolution				500dpi	500dpi	500dpi	500dpi	500dpi	-
Dimension (W) x (H) x (D) mm				80 x 195.6 x 23.5(Upper) / 54.67(Lower)	88 x 175 x 43.5	58 X 187.9 X 51.6	58 X 187.9 X 51.6	58 X 187.9 X 51.6	45 X 157 X 27
FRR / FAR				0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	-
Operating Illuminance (lux)				-	-	-	-	-	-
Operating Temperature				-20 ~ 60℃	-20 ~ 60℃	-20 ~ 60℃	-20 ~ 60℃	-20 ~ 60℃	-20 ~ 60℃

THERMAL & MODULES

Model	TE-Q2 (UBio-X Face / UBio-X Pro2)	Thermal-i	Thermal-i2	THM-910F
Product Image				
Type	Micro-Bolometer (uncooled)	Fever Detection Sensor	Fever Detection Sensor	Fever Detection Sensor
Thermal Sensitivity	$\leq 50\text{mK}@f/1.0$	$\leq 140\text{mk}$	$\leq 140\text{mk}$	$\leq 140\text{mk}$
Frame Rate	9fps	4fps	4fps	4fps
Array Format	384 x 288	32 x 32	32 x 32	32 x 32
Temperature Accuracy	$\pm 0.5^{\circ}\text{C}$	$\pm 0.3^{\circ}\text{C}$	$\pm 0.3^{\circ}\text{C}$	$\pm 0.3^{\circ}\text{C}$
Temperature Distance	Adjustable, 0.3 ~ 2M	Adjustable, 0.3 ~ 2M	Adjustable, 0.3 ~ 2M	Adjustable, 0.3 ~ 2M
Dimension (mm)	85 x 68.7 x 31.4 mm	83.8 x 39.6 x 35.6mm	96 x 42.7 x 35mm	96 x 42.7 x 35mm
Control	USB 2.0	USB	USB	USB
FOV(H x V)	45.1 x 34.2 - 54.7	33 x 33	33 x 33	33 x 33
Operating Temperature	$0^{\circ}\text{C} \sim 40^{\circ}\text{C}$	$10^{\circ}\text{C} \sim 40^{\circ}\text{C}$	$10^{\circ}\text{C} \sim 40^{\circ}\text{C}$	$10^{\circ}\text{C} \sim 40^{\circ}\text{C}$
Scene Range Temperature	$25^{\circ}\text{C} \sim 40^{\circ}\text{C}$	$25^{\circ}\text{C} \sim 45^{\circ}\text{C}$	$25^{\circ}\text{C} \sim 45^{\circ}\text{C}$	$34^{\circ}\text{C} \sim 42^{\circ}\text{C}$
Focal Length	5.7mm	5mm	5mm	5mm
Power supply	DC5V	DC5V	DC5V	DC5V
Power Consumption	$\leq 1\text{W}$	$< 50\text{mA}$	$< 50\text{mA}$	$< 50\text{mA}$

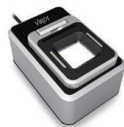
PORTABLE DEVICE

Model	T500
Product Image	
CPU	Cortex-A55 (Octa-core 1.8Ghz 64bit)
LCD	4.3 Inch Touch LCD(480*800)
Memory	eMMC 16GBBytes Flash 3GBYTE LPDDR4X
USB	FW Upgrade
Camera	5M Pixel AF Camera
Operating Temperature	-5℃ ~ 55℃
Battery	Li-Polymer 3.85V 3350mAh Type-C USB-PD Wireless Charging Support (MagSafe Magnetic Type)
Wireless LAN(Wi-Fi)	LTE Cat.4 B3, B5 Wifi 2.4GHZ 802.b/g/n 10/100Mbps Ethernet
Card Leader	13.56MHz Smart Card or Smart Card Mobile Card(NFC, BLE)
Dimension (W x H x D)	77.3*190.3*21(mm)
Operating System	Android
Dust/Water Resistance	IP55/IPK06

LIVE SCANNERS

Model	NScan-T
Product Image	
Fingerprint Type	Single Finger/Roll Dual-Finger Four-Finger, Two Thumbs
Resolution	500dpi
Platen Size (W X L)	96 x 85.8 mm
Image Size (W X L)	81.28 x 76.2 mm
Rolling mood Speed	24 frames/s
Image Quality Standards	FBI IQS Appendix-F
Operating Temperature	0℃ ~ +50℃
Ingress Protection	IP54
Operating Humidity	10 ~ 90%, non-condensing
Dimension (W x H x D)	162 x 156.8 x 200 mm
Weight (Kg)	2.3 (without heater)
Certifications	WHQL, EAC, CE, FCC, KC
Interface	USB 2.0(High Speed)
Heater	Optional
Operating System	Windows, Android, Linux, java

STAMP SCNNER

Model	VScan-S30MA	VScan-S40S
Product Image		
MCU(CPU)	CY7C68013A (Infineon 社) + MAX10 FPGA (Intel 社)	X1000E (Ingenic 社)
Fingerprint Type	Oval Stamp / Seal	Oval Stamp / Seal
Resolution	500dpi	500dpi
Platen Size ((W X L))	31 x 31 mm	32 x 32 mm
Image Size (W X L)	30 x 30 mm	30 x 30 mm
Rolling mood Speed	15 frames/s(Merging)	7.5 frames/s(Merging)
Image Quality Standards	-	-
Operating Temperature	0℃ ~ +50℃	0℃ ~ +50℃
Ingress Protection	-	-
Operating Humidity	10 ~ 90%, non-condensing	20 ~ 90%, non-condensing
Dimension (W x H x D)	72 x 58.3 x 120.4 mm	150 x 82.5 x 22 mm
Weight (Kg)	0.7	0.32
Certifications	WHQL, KC	WHQL, KC
Interface	USB 2.0(High Speed)	USB 2.0(High Speed)
Heater	N/A	N/A
Operating System	Windows, Android	Windows 10(32/64bit) / Android

ENROLLMENT SCANNERS

Model	NScan-FMH	FOH02	Hamster X
Product Image			
Fingerprint Type	Optical	Optical	Optical
Resolution	500dpi	500dpi	500dpi
Gray Scale	256 gray	256 gray	256 gray
Platen Size(W X L)	16.6 X 21.6 mm	16 X 18 mm	14.8 X 17.9mm
Sensing Area(W X L)	15.24 x 20.32 mm	15 x 17 mm	12.6 X14.8 mm
Auto Sensing	○	○	○
Speed	10 frames Per second(fps)	10 frames Per second(fps)	3 frames per second (fps)
Interface	USB 2.0(High Speed)	USB 2.0(High Speed)	USB 2.0(High Speed)
Operating Temperature	-20℃ ~ +60℃	-20℃ ~ +60℃	-20℃ ~ +60℃
Operating Humidity	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing
Dimension(W x H x D)	75 x 39.4 x 17.2 mm	74 x 92 x 84 mm	54 X 74 X 82.6 mm (with Stand) 27.4 X 40.5 X 73.7 mm (without Stand)
Certifications	KC,CE,FCC,ROHS, FBI PIV+FAP20	KC, CE, FCC, ROHS, WHQL	KC,CE,FCC,UL,RoHS,WHQL
Image Format	ISO 19794-4, WSQ, RAW, BMP	WSQ, RAW, BMP	ISO 19794-4, WSQ, RAW, BMP
Template Type	VIRDI, ISO 19794-2, ANSI 378	VIRDI, ISO 19794-2, ANSI 378	VIRDI, ISO 19794-2, ANSI 378
LFD	○	○	○
Operating System	Windows, Android	Windows, Linux	Windows, Android , Linux
Card Type	-	RF: 125KHz proximity card SC: 13.56 MHz smart card	-
Operating Software (Server solution)	-	UNIS, ACServer	AccessManager Pro

OEM MODULES

Model	NScan-FM	NScan-SM	NSCAN-SDL
Product Image			
Fingerprint Type	Optical	Optical	Optical
Resolution	500dpi	500dpi	500dpi
Gray Scale	256 gray	256 gray	256 gray
Template Capacity	1,000 Templates	-	X1,000 Templates
Log Capacity	-	-	-
Enrollment Time	< 1 sec	-	< 1 sec
Verification Time	< 1 sec	-	< 1 sec
Host Communication	USB 2.0(High Speed)	USB 2.0(High Speed)	UART(TTL)
Power Consumption (mA)	MAX 270 mA	MAX 90 mA	Standby: Max 110mA Operation: Max 130mA
Supply Voltage	DC 5 ± 5% [V] (USB Power)	DC 5 ± 5% [V] (USB Power)	DC 3.3V ± 0.2V
Encryption	Seed 128	Seed 128	Seed 128
Operating Temperature	-20℃ ~ +60℃	0℃ ~ +60℃	-20℃ ~ 60℃
Operating Humidity	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing
Dimension(W x H x D)	62.4 x 32.6 x 13.4 mm	53.6 x 32.6 x 13.4 mm	53.6 x 32.6 x 13.4 mm
FRR (False Rejection Rate)	<0.1%	<0.1%	<0.1%
FRA (False Acceptance Rate)	<0.0001%	<0.0001%	<0.0001%
LFD	○	○	○