airaFace Facial Recognition Solution

Capture Identify Manage

Suitable for integration into various fields

- Supports recognition with existing cameras at angles up to 3.5 meters
- Compatible with airaTablet facial recognition tablets
- Real-time recognition on the go, no need to wait or pause
- Works seamlessly with central management software for multi-point management

Comprehensive and user-friendly features

- Meets corporate needs for access control, attendance tracking, reporting, dashboards, and notifications
- No additional software installation required; operations can be completed through a web browser
- Provides interfaces for both personnel and visitor registration

Lightweight and flexible system for cost-effective implementation

- Optimizing the performance of AI algorithms to be compatible with various hardware configurations
- Complete API support for easier third-party integration

Certified for information security

- Developed and trained by a Taiwanese team
- Supports HSM hardware encryption modules
- Successfully undergoes vulnerability scanning verification
- Offers anti-spoofing liveness detection technology

Product Features

Access Control
- Supports facial, card, or dual authentication access
- Relay or Wiegand signal output
- Multiple personnel access timeframes and permission control

Attendance
- Daily and monthly attendance reports
- Automated calculation of work hours and attendance status for clocking in/ out, breaks, and overtime
- Export in XLS and TXT formats

Reports
- Personnel and visitor reports
- Stranger investigation reports
- Export of investigation reports

Dashboards
- Welcome dashboard
- Attendance dashboard
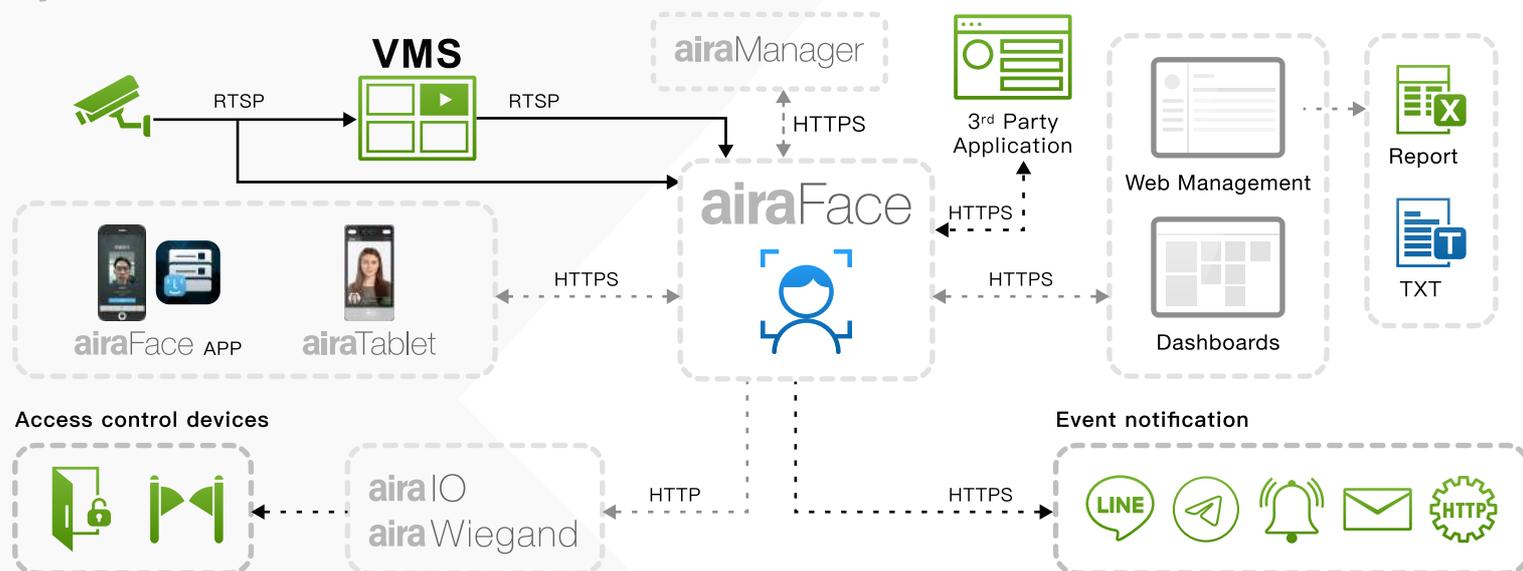- Occupancy dashboard

Notifications
- LINE notifications
- Email notifications
- HTTP command notifications

Expansions
- Support for IP cameras, NVRs, and DVRs using RTSP protocol
- Compatibility with airaTablet facial recognition tablets
- Synchronized management with airaManager

System Architecture

VMS
airaManager
RTSP — RTSP
HTTPS
3rd Party Application
airaFace
HTTPS
HTTPS
Web Management
Report
TXT
airaFace APP   airaTablet
HTTPS
Dashboards
Access control devices
airaIO
airaWiegand
HTTP
Event notification
HTTPS

intel ai

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Software Specification

Image sources	• Supports IP cameras, NVRs, and DVRs using the RTSP protocol, and allows for user-defined ROI (Region of Interest). • Compatible with airaTablet. • Supports recognition with cameras installed at a high angle of 3.5 meters; also supports recognition in low-light environments with 35 LUX.
Facial recognition engine	• Optimizing AI algorithm performance for compatibility with various hardware configurations. • Can recognize 20 faces per second; if exceeded, the queue can handle up to 200 face images. • Offers anti-spoofing liveness detection technology.
Facial database	• Base capacity of 10,000 individuals (expandable).
Access control devices	• Supports network I/O devices (airaIO, Advantech ADAM-6060 8 Port). • Supports airaWiegand, a network Wiegand converter
SDK / API	• The system provides Restful API and Websocket protocols.
Information security certification	• Runs on a robust and secure Embedded Linux system, verified through Tenable Nessus vulnerability scanning software.
Hardware encryption	• Supports Utimaco HSM hardware encryption modules.

Software Specification

Attendance management	• Calculate working hours based on passage or time clock modes. • Provide web-based daily and monthly attendance records, displaying information on missed punches, tardiness, early departure, etc. • Export attendance reports in Excel and TXT formats. TXT format allows customization of delimiters and fields. • Provide a process for making up missed punches and allow for the inquiry of makeup punch records.
Personnel management	• Support webcam photo capture and upload of profile pictures, including personnel expiration dates. • Bulk import personnel using an Excel file. • Export personnel data along with photos (Excel + photos).
Visitor management	• Pre-register visitor information, and visitors can self-register and check-in using a presented QR Code. Provide a visitor log. • Offer a self-service check-in system interface.
Event notifications	• Set various event notification conditions such as successful or failed recognition. • Notifications can be sent via LINE, EMAIL, HTTP, Relay IO, and Wiegand output. • Independent event notification switch and time slot control.
Dashboard display	• Provide welcome board, attendance board, and occupancy board. • Welcome board can display welcoming information for up to four guests simultaneously, with customizable backgrounds, photos, text, and optional ad slideshow during idle times. • Attendance board displays personnel status (present, departed, absent) with statistical chart display, supporting group display and automatic page switching. • Occupancy board monitors present or departed employees or strangers. • Boards can be displayed on remote computers and tablets in full screen or embedded into other web display software.
System settings	• Provide NTP automatic time synchronization, software updates, database backup, license activation, and system logs.
airaFace APP	• Offer facial registration and verification features, supporting iOS and Android systems.
Central management	• airaManager centrally manages personnel information, including the addition, modification, or deletion of personnel data, and consolidates the management of entry and exit records. • airaManager displays the connection status of all managed airaFace devices. Actively syncs with airaManager, eliminating the need for a fixed IP address for airaFace. • Data transmission between airaFace and airaManager is encrypted via HTTPS. • Upon network restoration, recognition data from the disconnected period is transmitted to airaManager to ensure data accuracy.
VMS integration	• Event notifications can be sent to NVR/VMS event lists via custom HTTP. • Integration with Network Optix VMS to transmit personnel identification information and generate bookmarks.

Purchase Information

		Hardware Appliance		Software License		
Product Model		ZTR–4220	ZTR–4250	ZTR–4200		
Number of IP Cameras		20	50	50		
Number of airaTablets		12	50	12	50	100
Hardware Specifications	**CPU**	13th Gen Core i7–1360P	13th Gen Core i9–13900K	Planning based on hardware specifications		
	Memory	16 GB	32 GB			
	Storage	1 TB	1 TB			
	Remarks	Hardware with Licensing				

Software Expansion

ZMG-2200	Centralized management system software for multi-point management
ZMG-8000	airaManager software license for each camera and tablet
ZFR-8000	Software license for expanding the number of IP cameras or airaTablet devices, per 1 device
ZFR-9000	Expansion of facial database for airaFace Server (std) software, per 10,000 faces

Peripherals

TBT-4400	airaTablet 8-inch Facial Recognition Tablet
TBT-1400	airaTablet mini 4-inch Facial Recognition Tablet
AIO-2200	airaIO 2-Port Network I/O Module
AWD-2200	airaWiegand Network Wiegand Converter