Biometric Technology

VIRDI

Access Control & Time Management Solutions

Made In Korea

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Fake Fingerprint Free

Smart Access Technology

AC-F100

Convergence of Biometric Access Control & Smart Phone Technology

Android Wi-Fi IOS

Key features

- IP65 Rating, Die- Cast Aluminum
- Patented Fake Finger Detection
- Camera : 1.3M Pixel
- User Capacity : 1,000 User (1,000 Finger)
- Log Capacity : 1,000,000 Logs

System Configuration

Stand Alone

Network

VIRDI AC-6000

Key features

- Patented Fake Finger Detection
- User Capacity 100,000 (100,000 Finger)
- Log Capacity 500,000
- Image Log Capacity 12,500
- 1.3M Pixel Camera Embedded
- 4.8" Color TFT Touch Screen
- Card Reader Option : 125KHz EM, 13.56MHz Mifare / DESFire, HID Prox 125KHz
- TCP/IP, WiFi(Optional), RS232, RS485, Wiegand
- USB Memory Slot
- 32 Bit RISC 806MHz CPU
- 256MB Flash & 256MB DDR SDRAM
- 1:1 < 0.5 sec
- 1:N < 1 sec (1:7,000)
- Max 1:N up to 30,000 users
- Doorphone Interface for Visitor Management

VIRDI AC-5000

Key features

- Patented Fake Finger Detection
- User Capacity 20,000 (20,000 Finger)
- Log Capacity 61,000
- 2.8" Color TFT LCD
- Card Reader Option : 125KHz EM, 13.56MHz Mifare / DESFire, HID Prox 125KHz
- TCP/IP, RS232, RS485, Wiegand
- POE 13W support
- IP65 Weatherproof Certified
- 32 Bit RISC 400MHz CPU
- Max 1:N up to 15,000 users

VIRDI AC-4000

Key features

- Patented Fake Finger Detection
- 2007 ISC West NPS Product Achievement Award
- Embedded Fake Finger Detection
- User Capacity 22,000 (22,000 Finger)
- Log Capacity 55,000
- Card Reader Option : 125KHz EM, 13.56MHz Mifare / DESFire, HID Prox 125KHz
- TCP/IP, RS232, RS485, Wiegand
- Doorphone Interface for Visitor Management

VIRDI AC-1000

Key features

- Good Design Award
- User Capacity 15,000
- Log Capacity 17,000
- Card Reader Option : 125KHz EM, 13.56MHz Mifare / DESFire
- TCP/IP, RS232, RS485, Wiegand

VIRDI AC-2100 / H

Key features

- Patented Fake Finger Detection
- User Capacity 100 (200 Finger) / 1,500 (1,500 Finger)
- Log Capacity 5,000
- Card Reader Option: 125KHz EM, 13.56MHz Mifare / DESFire
- IPX3 Weatherproof Certified
- TCP/IP, WiFi(Optional), RS232, RS485, Wiegand
- Optional Slave reader (SR 100FP) with local antipassback

VIRDI SR-100FP

Key features

- Patented Fake Finger Detection
- Anti-Pass Back (RS-485)
- 125KHz EM, 13.56MHz Mifare / DESFire
- Compatible with : AC 2100(V3.0) / H

VIRDI **UNIS Software**

- Access Control **Software Features**

- Real-Time Monitoring – Terminals use Push Technology
- Optional Integrated Time & Attendance Module
- Optional Integrated Meal Management Module
- Unlimited Users
- Device Configuration and Management
- Time Zones – Up to 12 transaction bands (start and end times) for each day
- Access Times
- Custom Access Areas
- Define Access Groups
- Access Group Scheduling
- Anti-Pass Back
- Admin Authority Management
- Records Transactions and Events
- Automatic Email System Alarms / Events
- Smart Card Layout Configuration
- Terminal Management
  1) Auto Detect Terminals
  2) Configure Common Terminal Settings
  3) Define Wiegand IN&OUT Interface Protocol
  4) Setup Siren Times
     (used to ring a bell or siren to indicate start or end of work)
- Flexible Template Management and Enrollment
- Flexible Data Selection
- Save to .CSV file
- Blacklist User Management
- Message Broadcast Facility
- Displays Real-Time Alerts on User Defined Site Diagrams

- T&A **Software Features**

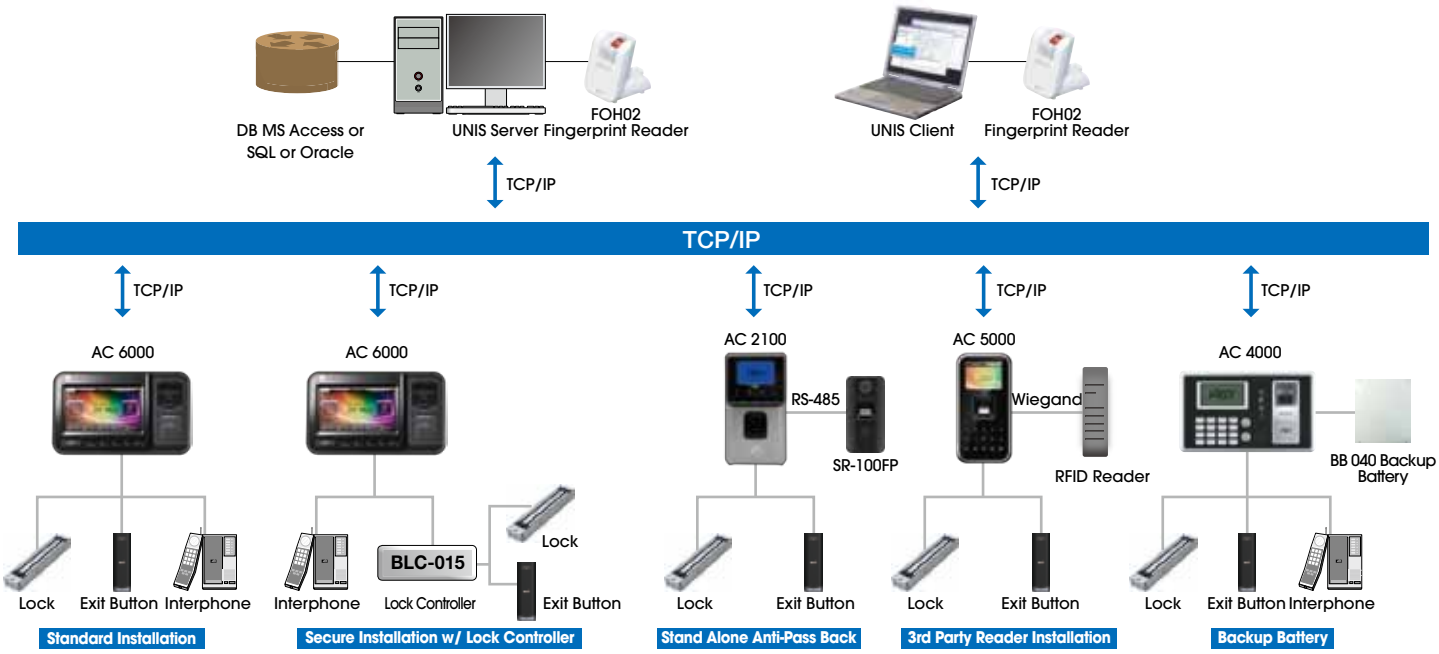
- UNIS T&A is a Module of UNIS and shares a Common Database (USB Dongle Required)
- Shifts Config
  1) Limited to 99 shifts
  2) Each shift has a start and end time
  3) Define when an employee is late or leaves early
  4) Multiple shifts can be worked on 1 day
  5) A shift can have up to 5 breaks per day
  6) A shift can commence on the previous day (paid on day OUT) or end on the following day (paid on day IN)
- Flexible Shift Schedules (9999 Patterns can be Created)
- Monitor Tardiness
- Calculates Hours Worked by Rate
- Auto Process Transactions
- Modify Clockings and Hours
- Custom Report Layouts
- Transaction Reports
- Summary Reports (Late, Early Departure, Absenteeism, Break Time)
- Output to Payroll (requires regional customization)

VIRDI **FOH02**

Key features

- Patented Fake Finger Detection
- 500dpi Durable Optical Sensor
- 256 Grayscale
- Image Size 304 x 344 pixels
- Sensing Area 15 x 17mm
- Windows Size 16 x 19.6
- O/S MS Windows
- Plug & Play USB2.0
- Card Option: 125KHz EM, 13.56MHz Mifare / DESFire
- FVC Top Ranking Algorithm as of Dec 2011
- NIST Certified Template Format (ANSI-378 / ISO19794-2)
- WSQ Standard Image Compression
- VIRDI UCBio SDK (VB, Visual C++, C#, VB.NET, Java)

System **Configuration**



Terminal **Specifications**

Model		AC-F100	AC-6000	AC-5000	AC-4000	AC-2100 / H	AC-1000	SR-100FP
Type		Biometric	Biometric	Biometric	Biometric	Biometric	RFID	Biometric
Weatherproof		IP 65	No	IP 65	No	IPX 3	No	No
Memory	MAX Users	1,000	100,000	20,000	22,000	100 / 1,500	15,000	N/A
	MAX Fingers	1,000	100,000	20,000	22,000	200 / 1,500	N/A	N/A
	Transaction Log	1,000,000	500,000	61,000	55,000	5,000	17,000	N/A
	Photo Log	10,000	12,500	N/A	N/A	N/A	N/A	N/A
Communication	To Management Software	Wi-Fi (TCP/IP)	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	SLAVE
	Other	No	USB	No	No	No	No	No
	Wifi	Yes	OPTIONAL	No	No	OPTIONAL	No	N/A
To 3rd Party Devices	Wiegand	Yes	Yes	Yes	Yes	Yes	Yes	N/A
	RS 232	No	Yes	Yes	Yes	Yes	No	N/A
	RS 485	Yes	Yes	Yes	Yes	Yes	Yes	Yes
From 3rd Party Devices	Wiegand (26bit, 34bit)	No	Yes	Yes	Yes	Yes	Yes	N/A
Display	LCD	No	Colour TFT Touch LCD	Colour TFT LCD	Mono Graphic LCD	Mono Graphic LCD	Mono Graphic LCD	No
	Size	N/A	4.8" 800 x 480	320 x 240	128 x 64	128 x 64	128 x 64	N/A
	Backlight	N/A	Yes - With Motion Sensor	Yes	Yes - With Motion Sensor	Yes	Yes	N/A
Built-in Camera		Yes	Yes	No	No	No	No	No
Card Reader	RFID, 125KHz - EM 4100	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	HID	No	Yes	Yes	Yes	No	No	No
	Mifare	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DESFire	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Mifare Template Stored on a Card	Yes	Yes	Yes	Yes	Yes	N/A	Yes
Key Pad		No	Touch Screen	Touch Keypad	Yes	No	Yes	No
Function Keys		Yes - 4	Yes - 60	Yes - 4	Yes - 4	Yes - 4	Yes - 4	No
Auto Scan		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Door Phone Interface		No	Yes	No	Yes	No	No	No
Sensor Type		Optical	Optical	Optical	Optical	Optical	RFID	Optical
Sensing Area		15 x 17 mm	15x 17 mm	15 x 17 mm	13 x 15 mm	15 x 17 mm	N/A	15 x 17mm
Resolution		500 dpi	500 dpi	500 dpi	500 dpi	500 dpi	N/A	500dpi
Verification	1:1	< 0.5 sec	<0.5 sec	<0.5 sec	<1 sec	<1 sec	N/A	<1 sec
Identification	1:N (1000)	< 1 sec	<1 sec	<1 sec	<1 sec	<1 sec	N/A	<1 sec
Dimension	(W) x (H) x (D) in mm	68 x 138 x 37	198 x 120 x 40	88 x 175 x 43.5	181 x 109 x 47	93 x 170 x 40	140 x 89 x 28	55.5 x 111 x 40.5
Support Slave Reader (SR-100FP)		No	No	No	No	Yes	No	N/A
FRR / FAR		0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%

Patented Live & Fake Finger **Detection Technology**

Typical Fake Fingerprints

What is a Fake Fingerprint?

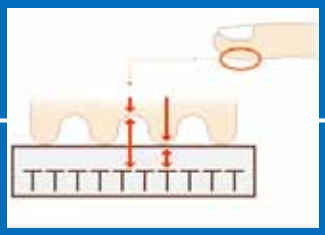
- It is an artificial fingerprint made from silicon, rubber, paper, gel, or film which is used to defeat common biometric readers.

Alternative Finger Print, Terminal Manufacturers Weakness

- Most biometric sensors can be defeated using a variety of commonly known methods. This renders most biometric technology useless as the level of security does not protect businesses from the financial loss through fraudulent clockings, nor does it provide the level of security required by government, airport, military and commercial organizations.

VIRDI Fingerprint Sensors

- UNIONCOMMUNITY's patented optical fingerprint sensor incorporates both LIVE and FAKE finger detection using a combination of the technologies below.



Human Capacitance Sensor

Detects and measures the electrostatic capacitance of the finger placed on the surface of the optical sensor.

+α

Infrared Light

Beams an infrared light into the finger placed on the scanner and measures the frequency of reflection to identify the chemical composition.

Algorithm

Analyzes the distortion of the image and minutia.

Why **VIRDI?**

VIRDI COMPETITIVE ADVANTAGE

Live and Fake Fingerprint Detection Technology :

Four separate technologies and methods are employed to ensure the Terminals do not scan and identify fake fingerprints made of paper, plastic, rubber, silicon, gelatin etc.

Fingerprint Algorithm :

Internationally and independently recognized by FVC On-going as having one of the most reliable algorithms, which ensures system integrity and an exceptionally high enrolment rate.

Automatic Finger Scan :

Detects the presence of a "Live" finger on the scanner and starts the scanning process automatically with the result that the scanning process is quick and less power is consumed.

Patented Search Algorithm :

Incredibly fast and accurate template matching algorithm will complete a 1:1 match in less than .5 of a second, and a 1:N match for up to 10,000 users in less than 1 second. (Device dependent)

Registration & Authentication levels set by User :

Each User can be enrolled and thereafter verified using custom registration and verification levels which can be individually adjusted to compensate for difficult to read fingerprints.

Similar Fingerprint Check & Number of Enrolled Fingers set by User :

Each user can have between 1 and 10 fingerprint templates stored on the biometric terminal. Additionally the application database can accommodate the enrolment of up to 10 fingers and can be set to check for similar fingerprints in the database.

Transaction Methods set by User :

Each User can have their transaction methods individually assigned, i.e. Finger only, Pin + Finger, Card or Finger etc. There are 10 combinations.

Templates Stored in Terminal Memory and/or on the Server :

Improve performance and reduce housekeeping by identifying local users on the terminal and verify visitors and global Users on the Server.

Push Technology :

In order to minimize network traffic and provide a "real-time" update of transactions, the deivces will "Push" their transactions to the Server as they occur. While templates are being sent to the Virdi devices, Users can continue to transact.

On Board Intelligence :

Intelligent Terminals process instructions without the presence of a Server.

Optical Sensor (Patented) :

Patented sensor with very low level of distortion and hardened surface, ideal for harsh environments.

Interfaces :

TCP/IP terminal communications, customizable Wiegand IN & OUT, RS 232 & RS 485 card reader interface, NO/NC relay and managed I/O ports.

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