



 **ScanVis**<sup>TM</sup>  
by Comba

**PRODUCT CATALOG**  
**2021-2022**



## What

ScanViS team consists of well-experienced specialists from product development (hardware and software), R&D, technical support, and sales and marketing. Designing and implementing end-to-end solutions with facial recognition technology in access control, events and conferencing, customer analytics, and public security are our core strengths.

## Why

ScanViS expedites the use of top-notch, future-proofing facial recognition technology for safe, accurate authentication process to enhance operation efficiency and team performance in both private and public sectors. We aim to make ID verification processes more smart, efficient, reliable, and convenient, and to make internal and external services more personalized.

## How

We have currently reached out to enterprises and public organizations who need enhanced private security for their offices, facilities, commercial centers and events in Asia, Europe and South America. Our global distribution networks will continue to expand through strategic partnerships.



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# 01 ACCESS CONTROL SOLUTION

# GateGuard Series

delivers lightning face detection speed of less than one second. Regardless of partial occlusions, different forms of face expressions, and tilt angles, its powerful hardware speeds up facial feature extraction, compares up to 30K databases, and can work with photos up to 10 years ago.

## Robust and Reliable



Fast Face Recognition  
< 1 second



Liveness Detection  
Differentiate live person  
from photos/videos



Minimal investment  
Integration with existing  
access management  
systems

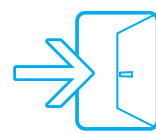


High Accuracy  
False match rate  
< 0.001%

## Applications



Attendance



Access control



# GateGuard Series

Scan for more info



## GateGuard TH+ GateGuard TH

### Performance

Face detection distance	0.3 - 2m
Capacity	50,000 faces + 50,000 cards
Speed	~0.3s typically
Liveness and mask detection	Support

### Thermal Detection Performance

	Resolution:	Response Time:
-	32x32 pixel for thermal imaging	500ms
Detection distance	0.6 - 2m	0.3 - 0.6m
Measurement range	35°C - 42°C with 0.1°C resolution	32°C - 43°C with 0.1°C resolution
Accuracy	≤0.5°C	≤0.3°C
Operation temperature	8°C - 35°C	16°C - 35°C

### Hardware

CPU	Dual-core A72 and Quad-core A53	
GPU	Mali-T860	
RAM / ROM	2GB / 8GB	
Camera resolution	1920 x 1080	
Screen size	7 inches	
Touch screen	Support	
MiFare card standard	EM4100, ISO14443A, MiFare (13.56MHz)	
Door control	Wiegand 26/32/34 or dry contact output	
Authentication factor	Face, QR code, MiFare card, passcode	
Network	Ethernet/ WiFi (optional)	
Input voltage	12V DC (100-240V AC adapter), 802.3at PoE	
Power consumption	< 24W	
Wide dynamic range	100dB	
Operating temperature	16oC ~ 35oC	
Operating humidity	5-90%	
Ingress protection	IP30	
Dimension (device only)	255 x 125 x 25 mm	267 x 125 x 89 mm
Weight	0.8 Kg	0.83 Kg
Installation	Wall mount, speed gate integration	Wall mount, speed gate integration

### Window-based Management

Password protected local management	Yes	Yes
ScanViS Cloud Management	Yes	Yes
RESTful API	Yes	Yes
Public/Private Linux Cloud Platform	-	-

# Feature Highlights



Facial recognition



ID management



Group and schedule setting



Analysis dashboard



Visitor greeting message



## GateGuard PRO with Wrist Temperature Detector (WTD)



## GateGuard Lite

### Performance

Face detection distance	0.3 - 2m	0.5 - 2m
Capacity	50,000 faces + 50,000 cards	1,500 faces
Access log capacity	-	20,000
Speed	~0.3s typically	~2s typically
Liveness detection	Support	Support
Mask detection	Support	-

### Thermal Detection Performance

Detection distance	<5cm	-
Measurement range	33°C - 43°C with 0.1°C resolution	-
Accuracy	0.2°C	-
Operation temperature	0°C- 40°C	-

### Hardware

CPU	Dual-core A72 and Quad-core A53	Quad-core A17
GPU	Mali-T860	Mali-T764
RAM / ROM	2GB / 8GB	2GB / 8GB
Camera resolution	1920 x 1080	1280 x 800
Screen size	7 inches	8 inches
Touch screen	Support	-
MiFare card standard	EM4100, ISO14443A, MiFare (13.56MHz)	-
Door control	Wiegand 26/32/34 or dry contact output	Wiegand or dry contact output
Authentication factor	Face, QR code, MiFare card, passcode	Face
Network	Ethernet/ WiFi (optional)	Ethernet/ WiFi (optional)
Input voltage	12V DC (100-240V AC adapter), 802.3at PoE; (WTD: 5V vis USB)	12V DC (100-240V AC adapter)
Power consumption	< 24W	< 24W
Wide dynamic range	100dB	-
Operating temperature	0°C ~ 40°C	0°C ~ 60°C
Operating humidity	5-90%	5-90%
Ingress protection	IP32	-
Dimension (device only)	235 x 126 x 26 mm; (WTD: 88 x 30 x 25 mm)	240 x 128 x 20.5 mm
Weight	0.72 Kg	0.83 Kg
Installation	Wall mount, speed gate integration	Wall mount, speed gate integration

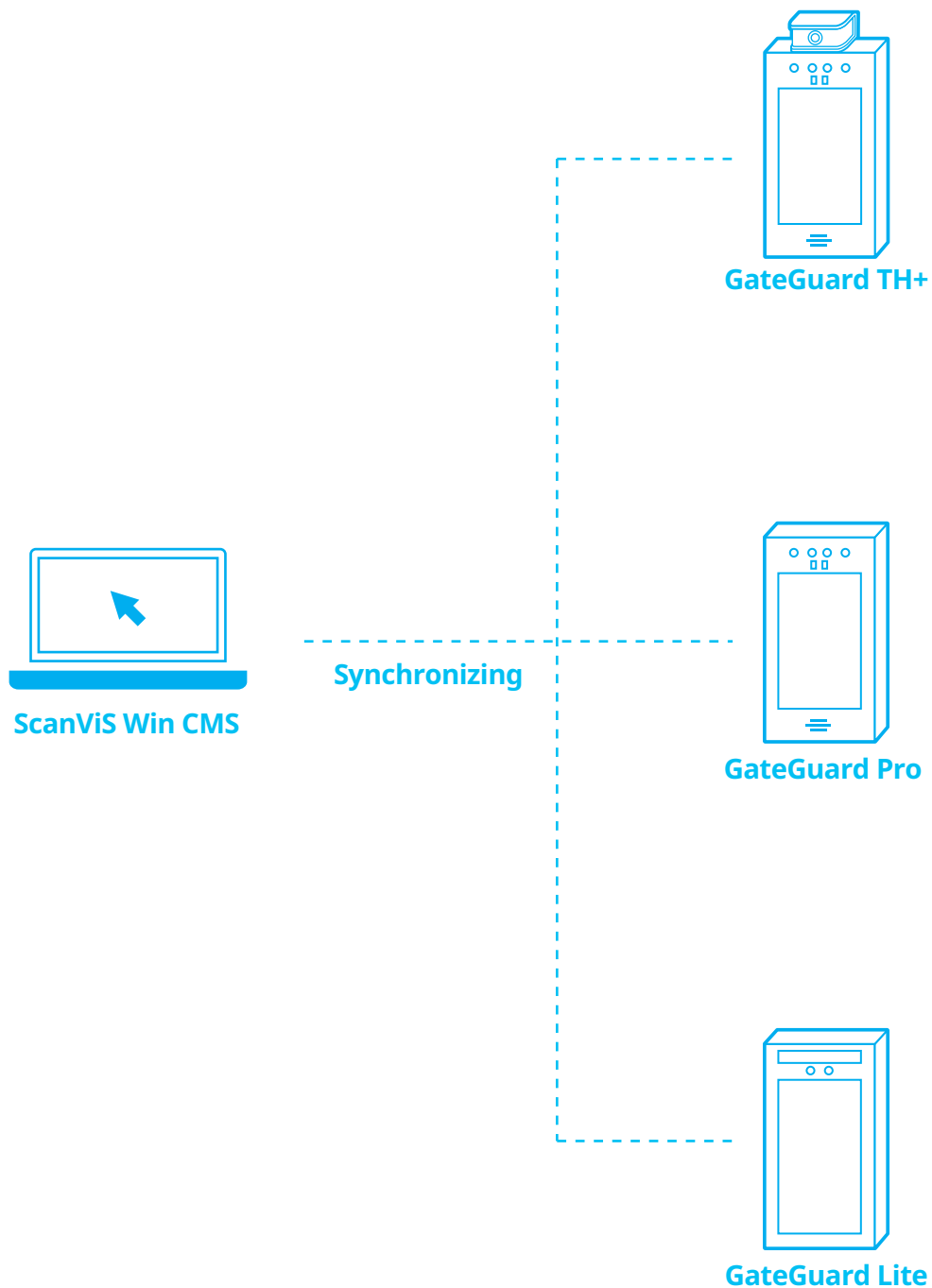
### Window-based Management

Password protected local management	Yes	Yes
ScanVIS Cloud Management	Yes	-
RESTful API	Yes	Yes
Public/Private Linux Cloud Platform	Yes	-

# ScanViS Win CMS

## Centralized platform for efficient device management

ScanViS Win CMS can be installed in any standard PC and notebook computer. It can centralize device management of the whole GateGuard series namely GateGuard, GateGuard PRO, GateGuard TH, and GateGuard Lite. The platform supports user group management to control access right and access time.





# Feature Highlights



Central management up to 50 devices



Self-discovery of devices

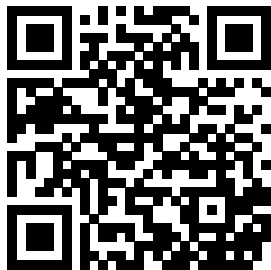


Access log archive



User group batch upload

Scan for more info



## ScanViS Win CMS

### Minimum Installation Requirement

CPU	I3 or above
RAM	4GB
Harddisk free space	10GB
Operating system	Win10

### Software Feature

GateGuard discovery	Auto-discovery or add IP address manually
GateGaurd monitoring	Online / offline status
User addition	Individual via GUI or batch upload
User group	Allowable access GateGuards Allowable access time Holiday setting
Access log	View on GUI or download to files Configurable store duration Auto detele when hard disk is full

### Capacity

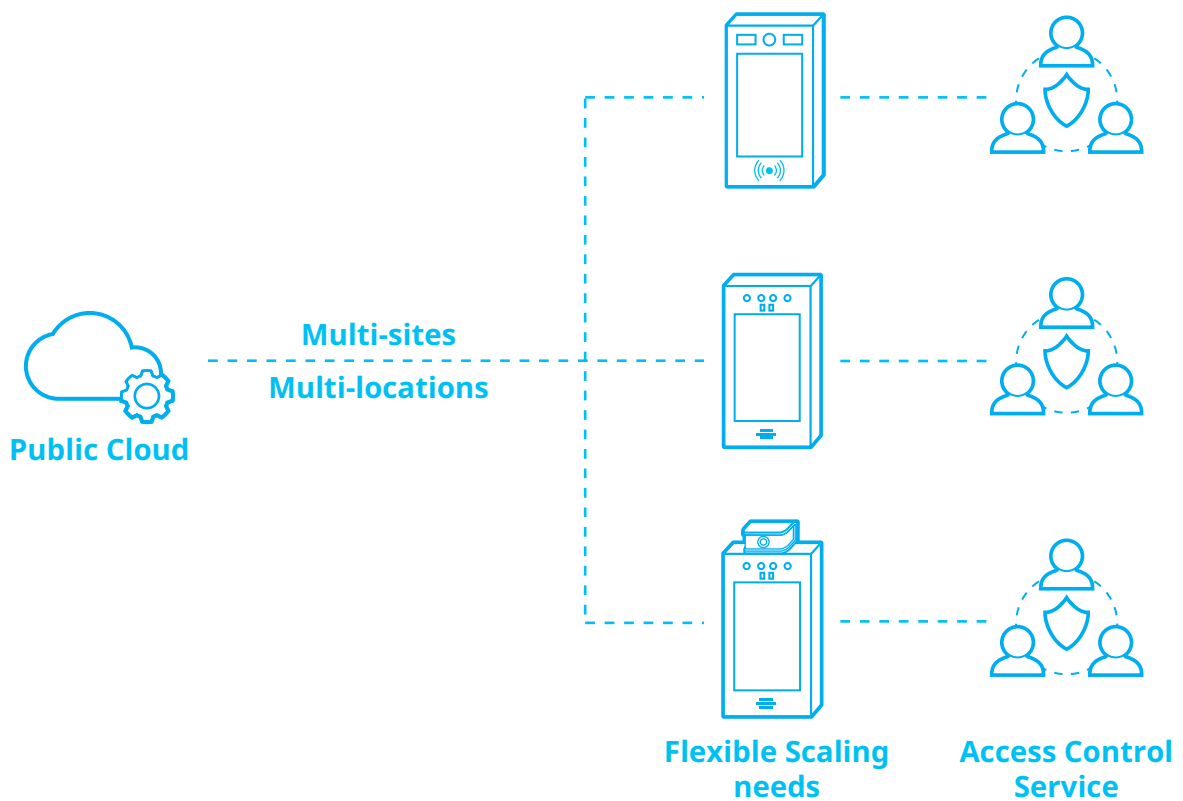
Device	50 GateGuards
User database	30,000

# ScanViS Cloud CMS

## Centralized platform for efficient device management on cloud

ScanViS Cloud CMS offers a low-cost and easy-to-deploy management system to all GateGuard devices. At the same time, it can be scaled up to unlimited devices or scale down anytime, anywhere as needed. There is no extra fixed maintenance cost to run the system, leaving the running cost transparent and easy to manage.

## Access Control as a Service (ACaaS)



# Feature Highlights



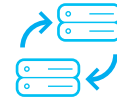
Low Setup Cost



Scalable for multi-locations

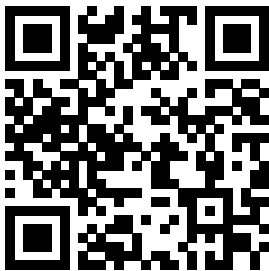


High availability



High redundancy

Scan for more info



## ScanViS Cloud CMS

### Software Feature

<b>Visitor management</b>	Visitor Record, Visitor Settings
<b>Member management</b>	Member create/ edit/ delete
<b>Watchlist</b>	Alert when the person in watchlist shows up
<b>Access Record</b>	Real-time access record and filtering
<b>Access analytics</b>	Statistical dashboard to see the data distribution
<b>Permission management</b>	Flexible to configure the permission time and device
<b>Admin</b>	Company information, device management, account management
<b>Task center</b>	Data batch upload/ download, data backup
<b>System log</b>	Operating time, account type, operator, operation type, object, specific contents
<b>Attendance</b>	View/ export Individual member monthly attendance report

### Capacity

<b>Device</b>	Unlimited
<b>User database</b>	Unlimited faces can be uploaded to the Cloud CMS, but up to 30k faces per single GateGuard device assignment.

### Public Cloud

<b>Cloud host</b>	AWS
<b>GDPR</b>	Complied

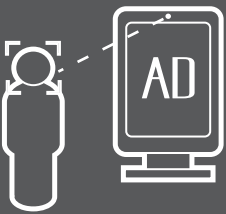
# 02 RETAIL SOLUTION



# Retail Solution

offers an interactive source to collect and deliver information through customer engagement. It helps boost store experience with intelligent signage and retail analytics. With indoor and outdoor displays, video walls, and stretched panels, business owners have a variety of product options that allow for creating custom digital installations to cater to their business needs.

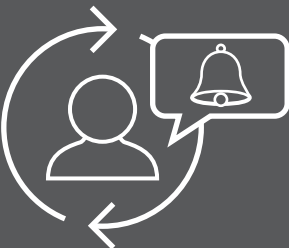
## Easy and manageable



Interactive display with build-in camera



Analyze the age, gender and combination of audience



Recognize re-visiting customer with notification alert



Flexible and easy deployment

## Applications



Retail advertisement

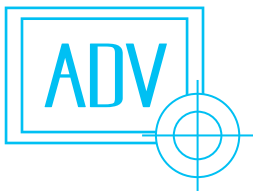


Information kiosk for events

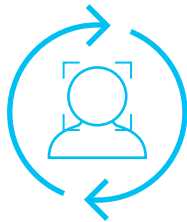
# ScanViS Display

## An interactive retail solution for customer engagement

ScanViS Display is an end-to-end intelligent signage solution for targeted advertising in retail or event environment. It contains a front-end device, either an all-in-one ScanViS intelligent signage is structured with 40" screen display, embedded camera and ScanViS processor, or a ScanViS Processor box with external USB camera and HDMI display. It controls the content and data through a cloud-based content management system (CMS) and a facial recognition (FR) engine respectively.



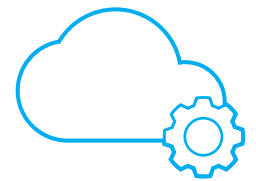
Target advertisement



VIP and revisiting customer recognition

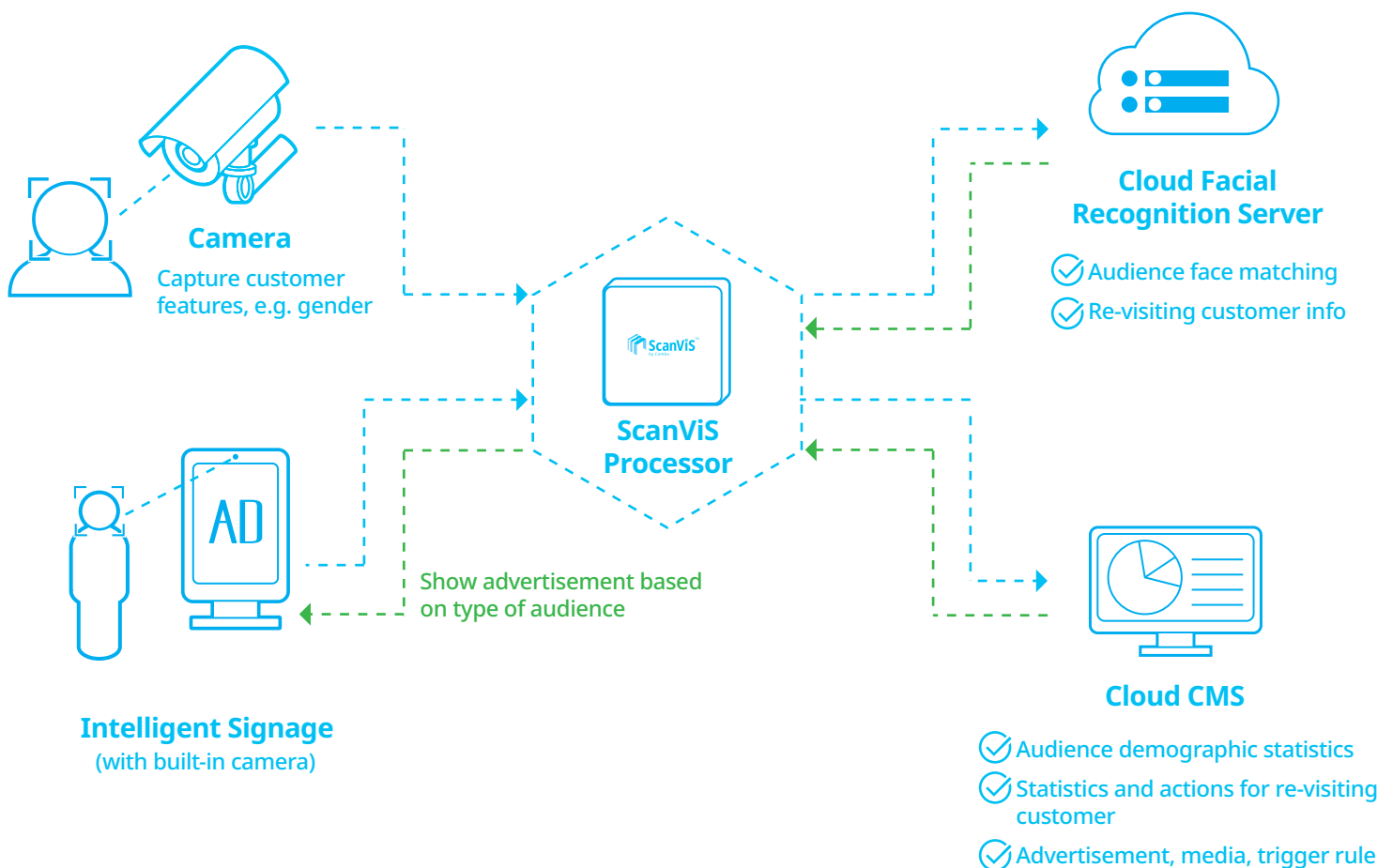


Visitor analysis



Cloud CMS

## How Its Works



# Through Cloud CMS, user can manage:



Targeted advertisement rule setting

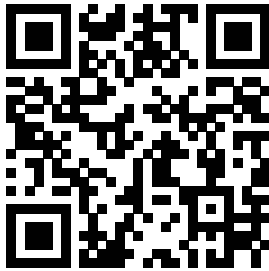


Viewing time of each advertisement



Visitor number and demographic analysis

Scan for more info

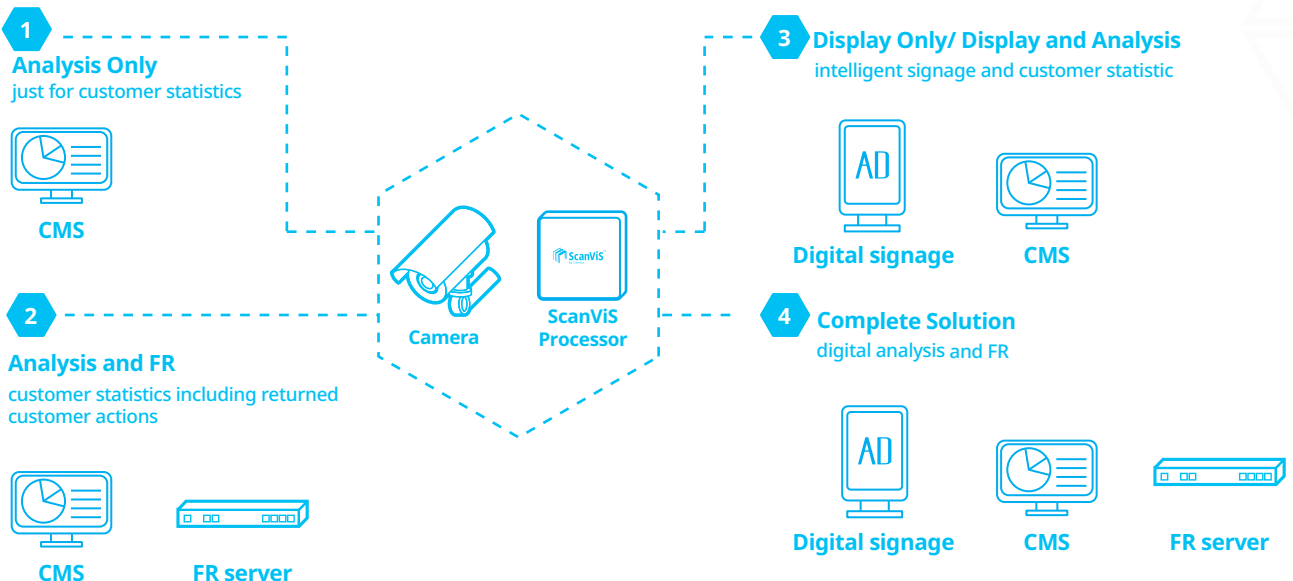


## ScanViS Display

### Minimum Installation Requirement

CPU	Quad-core ARM Cortex-A53
GPU	Penta-core Nall-450
RAM	1GB
ROM	8GB
Interface	HDMI 2.0 USB 2.0 * 2 AV output x 1
Network	RJ45 Ethernet 802.11 b/g/n
Dimension (mm)	115 x 115 x 20
Weight	130 g
Power	12V DC / 1 A With AC power adapter

## Deployment Options



# 03 EVENT SOLUTION





# Event Solution

helps event organizers promote seamless event registration and check-in process through speeding up entry time, enhancing security, and personalizing the experience throughout the event period. It can simplify or integrate into existing check-in systems with minimal hardware investment.

## Accurate and Scalable



Reduce queuing time by >30%



Watchlist compilation  
Blacklist alarm for appropriate action



Minimal investment  
Enable integration with existing building access management system

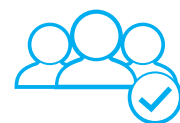


Real-time access log  
Enhances security with instant monitoring

## Applications



Event registration



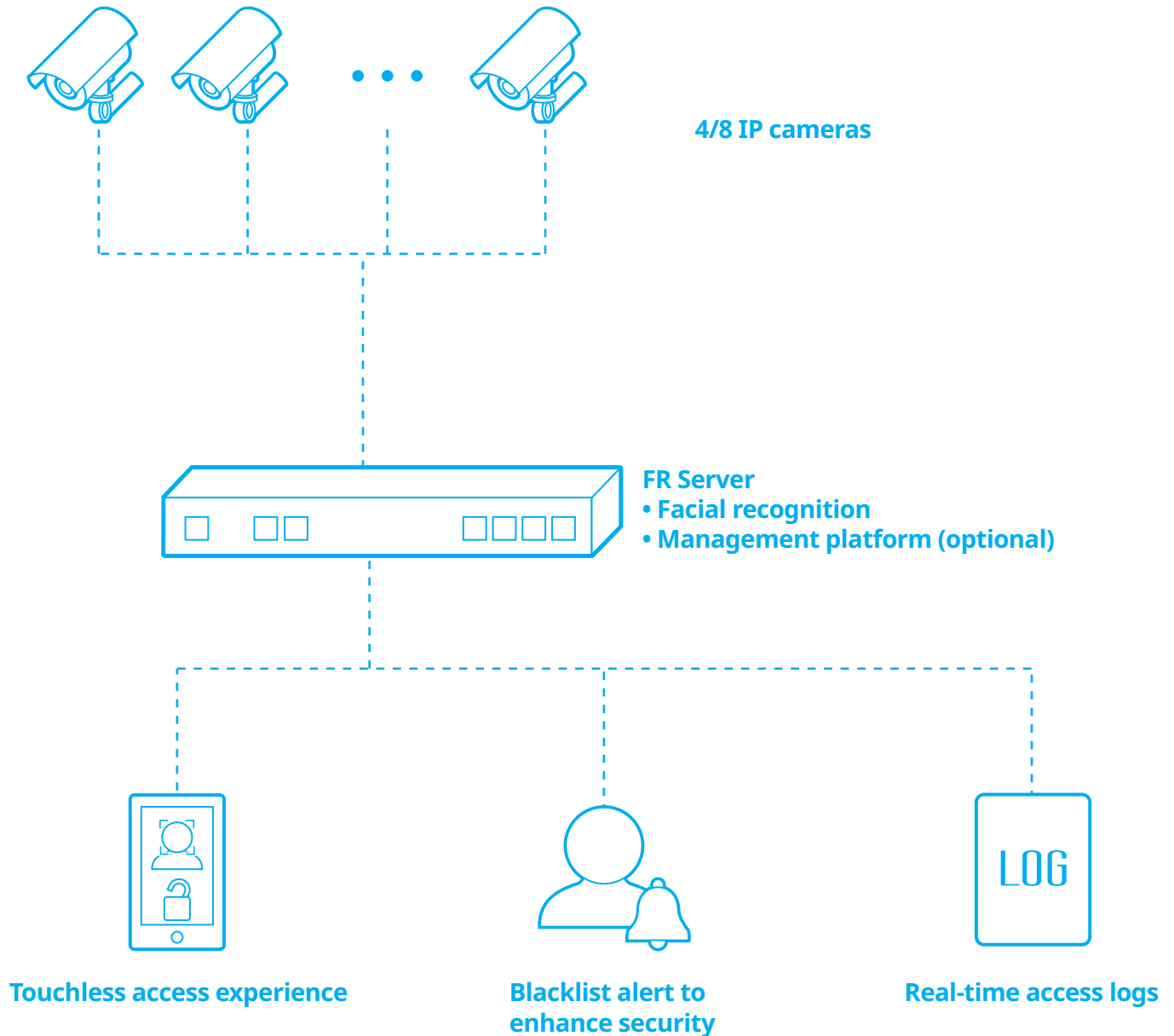
Event check-in



# ScanViS CamGuard

## Fast and scalable registration and check-in solution for events

ScanViS CamGuard delivers event solution embracing facial recognition server that works with IP cameras. Its management platform can operate alone or in a dedicated server for large deployment with multiple CamGuard servers.



# Feature Highlights



Registered users up to 100k faces with recognition time <1s



Real-time access log

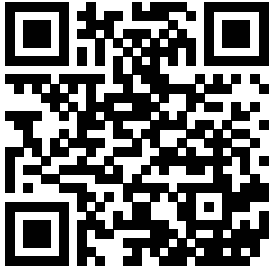


ID group management on web GUI



3<sup>rd</sup> party management system

Scan for more info



IP camera + server

## Performance

Supported cameras	4 IP cameras
Minimum size of detected face	50 x 50 pixel
Capacity	100,000 faces
Speed	~1s typically
Maximum faces recognized per frame	20
Recognizable angle	Yaw/ pitch/ roll= -30° ~ +30°
Captured photo size	Single capture photo is less than 200kb
Liveness detection	Support

## Hardware

CPU	E3-1220v6 (Quad Core 3.0GHz)
RAM / ROM	32GB DDR4
Hard Disk	2TB
Operating system	Ubuntu Linux 18.04
Network	Ethernet
Input voltage	100-240V AC
Power consumption	~290W
Operating temperature	0°C ~ 40°C
Dimension	1U
Weight	1kg
Installation	Rack Server

# 04 PUBLIC SECURITY SOLUTION



# Public Security Solution

is powered by the world-leading facial recognition algorithm that runs with multiple cameras to easily track and locate individuals, like suspected criminals, persons of interest, or members of terrorist groups. Together with automatic alert system, the solution supports cross-platform portrait sharing including face-capturing cameras, smart glasses and bodycams.

## Fast and safe



Static Face Image Search  
Up to 1 Bn face database



Watchlist capacity  
Up to 1 million face images



Minimal investment  
Less hardware requirement



Mobile terminal real-time query  
Support up to 30k mobile terminals

## Applications



Community security



Search for missing people

# Security Surveillance Series

Scan for more info



## Performance

Supported cameras	4 IP cameras
Input video stream	1080P 25fps
Minimum size of detected face	60 x 60 pixels
Capacity	3,000,000 faces
Face comparison	1:1 Identity Verification 1:N comparison (support database of 300,000 faces) n:N Database Comparison
Accuracy / matching ratio	97% @ 0.00001% False Match Ratio 94% @ 0.0000001% False Match Ratio
Maximum faces recognized per frame	20
Real time surveillance and alarm delay	<3s (max 300k face database)
Storage and retrieval of passers-by	15 days
Face structural data support	Age, gender, glasses, mask

## FacePack

## Hardware

CPU	Intel Xeon E5-2696V4 x 1
RAM / ROM	128GB DDR4
Hard disk	2TB SSD HDD
Operating system	Embedded real time Linux
Display	17.3" LCD, 1920x1080 resolution
Network	4 x PoE
WiFi	2.4GHz/5GHz 2x2 MIMO, WiFi Hotspot 30 mobile terminal connections
USB	USB3.0 FAT/ exFAT/ NTFS
Input voltage	100-240V
Power consumption	600W
Operating temperature	-10°C ~ 50°C
Operating humidity	10% ~ 90%
Dimension (mm) (H x W x D)	352 x 418 x 186
Weight (including suitcase)	9 kg

# Feature Highlights



Face search speed-millions/sec



Push alerts for person of interest

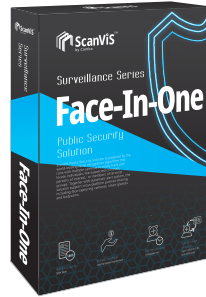


Rapid deployment with one click



Offline Video Analysis

Scan for more info



## Performance

	Face-In-One (4 GPU cards)	Face-In-One (8 GPU cards)
Supported IP cameras (video streams)	50	100
Query per second (image stream QPS)	80	160
No. of face capture	150	300
Input video stream	1080p (1920 x 1080) 25fps	
Minimum size of detected face	60 x 60 pixels	
Capacity	1,000,000,000 faces	
Face comparison	1:1 Identity Verification 1:N comparison (support repository size of 1,000,000 faces) n:N face comparison of 2 databases	
Face capture ratio	99%	
Accuracy / matching ratio	97% @ 0.00001% False Match Ratio 94% @ 0.0000001% False Match Ratio	
Maximum faces recognized per frame	20	
Real time surveillance and alarm delay	<2s	
Storage and retrieval of passers-by	15 days or more	
Search passers-by with images	Yes	

## Hardware

CPU	Intel E5 2680 V4*2 / Xeon6126*2 / Xeon6130*2	
GPU	4 * P4	8*P4
RAM / ROM	128/ 256/ 512 GB	
Hard disk	480GB SSD System Disk plus 1T*12 SSD (raid6) / 1.9T*9 SSD (raid6)/ 2T*8 HDD (raid5)/ other	
Operating system	Linux	
Network	2* 10GB Ethernet	
Input voltage	100-240V AC	
Power consumption	1600W redundancy power module	

Ethernet



IP Camera or face capture camera deployed in different city area



City-wide private network



3<sup>rd</sup> party system for alarm and database management



Face-In-One facial recognition platform

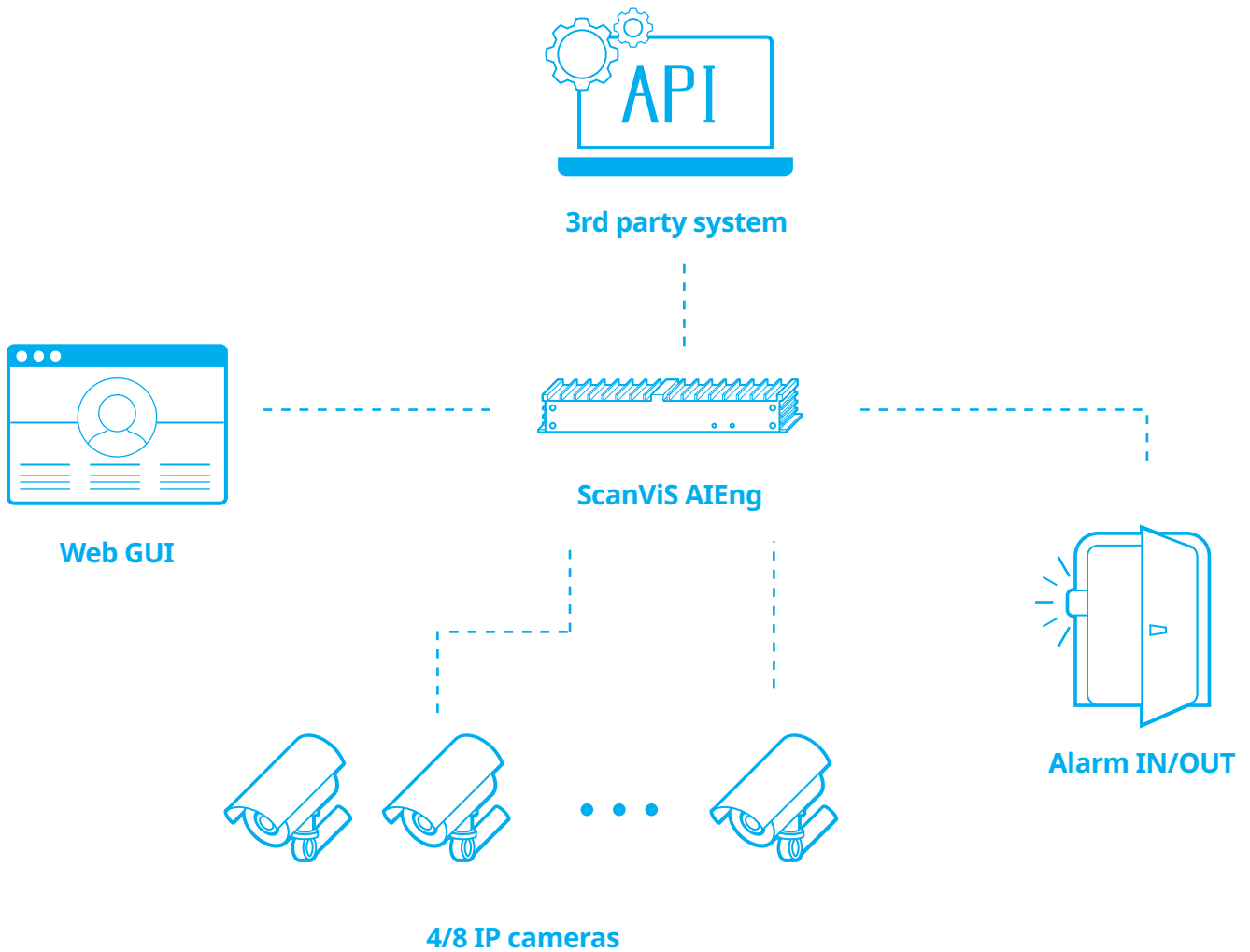
Public Security Solution



# ScanViS AIEng

**Enterprise-grade facial recognition server for corporate security in premises**

ScanViS AIEng is a facial recognition lite server that detects individual faces, extracts attributes, and matches the captured face with a database of 1 million faces. It offers ID management, blacklist alerts, multi-channel facial image analysis, and camera management. With the built-in security and facial recognition system, this lite server enables data management at anywhere, and allows customization to fit applications and scenarios in an optimal way.





# Feature Highlights



False match rate is less than 0.00001%



Support > 1,000 people flow per minutes

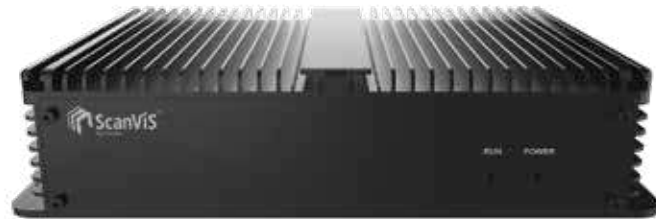


Real-time traffic logs with captured photos



Capture up to 20 faces in one scene

Scan for more info



## Performance

Supported cameras	4/8 IP cameras
Input video stream	1080P (1920x1080) 25fps
Minimum size of detected face	60 x 60 pixels
Database capacity	1,000,000 faces
Facial recognition repository size	300,000 faces
Accuracy / matching ratio	97% @ 0.00001% False Match Ratio 94% @ 0.0000001% False Match Ratio
Maximum faces recognized per frame	20
End to end facial recognition speed*	<3s
Face capture ratio	99%
Captured photo size	~50KB
Face attributes support	Age, gender, glasses, hat, sunglasses, mask, mustache, hair style, shirt color and style

## AIEng

## Hardware

CPU	AI Chipset for facial recognition
Memory	16GB
Hard disk	64GB
Network	Ethernet RJ45
Interface	RS485/ HDMI/ USB/ Audio/ Alarm In-Out
Input voltage	DC12V/2A
Power consumption	<10W
Operating temperature	-20-°C ~ +65°C
Operating humidity	10% ~ 90% (RH)
Dimension (mm)	233 x 146 x 52
Weight	1.8 kg



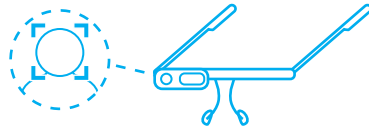
# ScanViS Smart Glasses

## Highly adaptable device to complete security services

ScanViS Smart Glasses is an intelligent wearable gadget with three significant functions including face search, giving command and data distribution. It is structured with screen display, camera, anti-noise microphone and speaker, ensuring compatibility and efficient communication with other devices to serve high performance surveillance purposes.



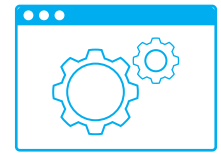
**Zooming function**  
for on-site face search



**Built-in screen display**  
to show face data



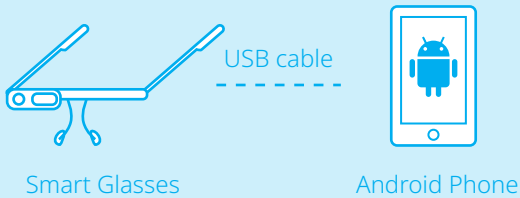
**Offline operation**  
with mobile phone



**Support online operation**  
with 3rd party face platform

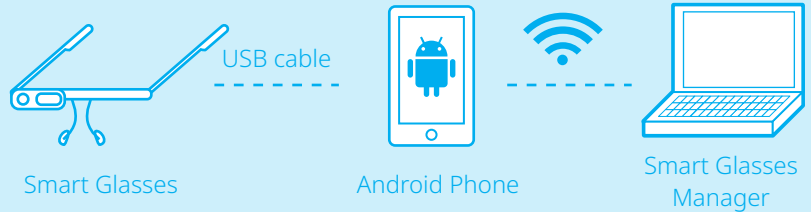
### Standalone Mode

for face search with **10,000** databases



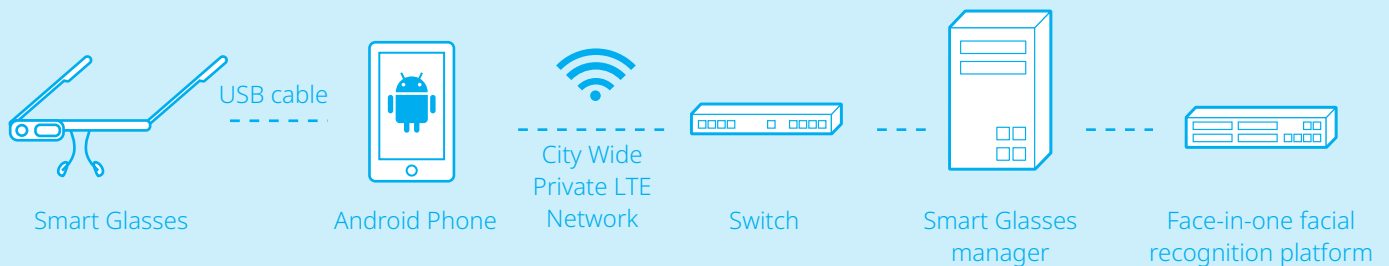
### Connected Mode

for face search with **50,000** databases



### Total Security Solution

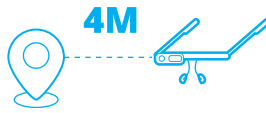
for face search with **1 billion** databases



# Feature Highlights



Capture up to 5 faces in 1 scene (connected mode)



Long capture distance up to 4 meters

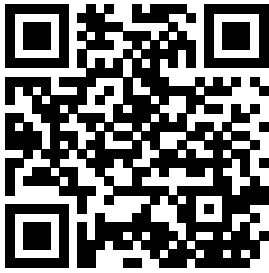


Real-time alert updates



Low power consumption

Scan for more info



## Smart Glasses

### Performance

Maximum faces recognized in one scene	5 faces (mobility) 20 faces (static)
Database capacity	1 Billion faces (with Smart Phone + Face-in-one) 50,000 faces (Smart Phone + Smart Glasses Manager) 10,000 faces (standalone with Smart Phone)
Watchlist capacity	100,000 faces (with Smart Phone + FacePack Lite) 10,000 faces (standalone with Smart Phone)
Face comparison	1:N comparison
Accuracy / matching ratio	97% @ 0.00001% False Match Ratio 94% @ 0.0000001% False Match Ratio

### Hardware

CPU	Intel Movidius Myria
Display	Resolution: 640 x400 Field of view (FOV): 20°(diagonal)
Camera	1080P HD video
Interface	USB Type-C 2.0
Control	Customized button Mobile client
Audio	Input: anti-noise dual mic Output: single speaker
Size (mm)	159 x 180 x 34
Weight	45g (contains glasses frame)



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